



Target Capabilities List

A companion to the National Preparedness Guidelines

U.S. Department of Homeland Security

September 2007



Homeland
Security

TABLE OF CONTENTS

PREFACE	iii
EXECUTIVE SUMMARY	v
INTRODUCTION	1
Overview.....	1
Key Components of the Target Capabilities List.....	6
Risk Factors Considered in Preparedness Planning.....	10
The TCL as a Tool for Expanded Regional Collaboration.....	11
Using the Target Capabilities List	12
Going Forward – Refinements to the TCL	16
COMMON TARGET CAPABILITIES	
Planning	21
Communications	29
Risk Management	43
Community Preparedness And Participation	55
Intelligence and Information Sharing and Dissemination	69
PREVENT MISSION AREA	
Information Gathering and Recognition of Indicators and Warnings	81
Intelligence Analysis and Production	91
Counter-Terror Investigation and Law Enforcement.....	103
CBRNE Detection.....	115
PROTECT MISSION AREA	
Critical Infrastructure Protection	129
Food and Agriculture Safety and Defense	141
Epidemiological Surveillance and Investigation	161
Laboratory Testing.....	175

RESPONSE MISSION AREA

On-Site Incident Management197

Emergency Operations Center Management209

Critical Resource Logistics and Distribution.....223

Volunteer Management and Donations237

Responder Safety and Health.....249

Emergency Public Safety and Security Response263

Animal Disease Emergency Support277

Environmental Health.....309

Explosive Device Response Operations337

Fire Incident Response Support.....349

WMD and Hazardous Materials Response and Decontamination.....361

Citizen Evacuation and Shelter-In-Place377

Isolation and Quarantine.....395

Search and Rescue (Land-Based)407

Emergency Public Information and Warning421

Emergency Triage and Pre-Hospital Treatment437

Medical Surge449

Medical Supplies Management and Distribution.....465

Mass Prophylaxis.....479

Mass Care (Sheltering, Feeding, and Related Services).....493

Fatality Management519

RECOVER MISSION AREA

Structural Damage Assessment.....545

Restoration of Lifelines.....557

Economic and Community Recovery567

PREFACE

The attacks on 9/11, the anthrax attacks, the devastation from Hurricane Katrina, and preparations for a possible pandemic illustrate the 21st century challenges the Nation faces. To meet these challenges, we must understand performance requirements for a major event at the task level and build and maintain the capabilities to perform those tasks. Preparedness for major events involves all levels of government, the private sector, non-government organizations, and citizens.

In December, 2003, the President issued Homeland Security Presidential Directive (HSPD)-8 to establish national policy to strengthen the preparedness of the United States to prevent, protect against, respond to, and recover from terrorist attacks, major disasters, and other emergencies. HSPD-8 required the development of the National Preparedness Guidelines (the Guidelines). The Guidelines define *what* it means for the Nation to be prepared by providing a vision for preparedness, establishing national priorities, and identifying target capabilities. The Guidelines adopt a Capabilities-Based Planning process supported by three planning tools: the National Planning Scenarios, Target Capabilities List (TCL), and Universal Task List (UTL). They can be viewed online at <https://odp.esportals.com> or <https://www.llis.dhs.gov>.

The Target Capabilities List describes the capabilities related to the four homeland security mission areas: Prevent, Protect, Respond, and Recover. It defines and provides the basis for assessing preparedness. It also establishes national guidance for preparing the Nation for major all-hazards events, such as those defined by the National Planning Scenarios. The current version of the TCL contains 37 core capabilities.

A “Consensus of the Community” approach was used to develop the Target Capabilities List. Stakeholders from Federal, State, local, territorial, and tribal governments, the private sector, and non-governmental organizations came together in four national workshops and capability working groups to define the capabilities.

The Guidelines will serve as a framework to guide operational readiness planning, priority-setting, and program implementation at all levels of government. The Guidelines provide a call to action by all Americans as they consider their personal and shared responsibility to be part of *A Nation Prepared*. The Target Capabilities List provides guidance on building and maintaining capabilities that support the Guidelines.

Michael Chertoff
Secretary
Department of Homeland Security

This page intentionally left blank

EXECUTIVE SUMMARY

The President and Congress directed creation of a fully integrated, adaptable, all-hazards national preparedness system. The National Preparedness Guidelines (The Guidelines) and Target Capabilities List (TCL) establish the system's all-hazards framework. The Guidelines provide the vision and establishes national priorities. The TCL is a national-level, generic model of operationally ready capabilities defining all-hazards preparedness. Users should refer to the TCL to assess capabilities, identify needs, and inform plans and strategies taking into account their risk. It is important to understand that the TCL serves as a reference document and planning guide to preparedness and in no way serves as a prescription for program or resource requirements.

The vision for the National Preparedness Guidelines is:

A NATION PREPARED with coordinated capabilities to prevent, protect against, respond to, and recover from all hazards in a way that balances risk with resources and need.

The Guidelines establish the following priorities to meet the Nation's most urgent needs and adopt a Capabilities-Based Planning process to define and build the capabilities to achieve the Guidelines:

- Expand regional collaboration
- Implement the National Incident Management System and the National Response Plan
- Implement the National Infrastructure Protection Plan
- Strengthen information sharing and collaboration capabilities
- Strengthen communications capabilities
- Strengthen CBRNE detection, response, and decontamination capabilities
- Strengthen medical surge and mass prophylaxis capabilities
- Strengthen planning and citizen preparedness capabilities

The Target Capabilities List provides a guide to addressing the priorities and achieving the National Preparedness Guidelines. Capabilities provide the means to accomplish a mission and achieve desired outcomes by performing critical tasks, under specified conditions, to target levels of performance. Capabilities are delivered by appropriate combinations of planning, organization, equipment, training, and exercises. The TCL supports an all-hazards approach to building capabilities that may be needed in the event of terrorist attacks, natural disasters, health emergencies, and other major events. It identifies 37 capabilities that were developed with the active participation of stakeholders representing all levels of government, non-governmental organizations, and the private sector.

Consensus of the Community Approach: Stakeholder Involvement

The Guidelines and TCL were developed with an unprecedented level of stakeholder involvement. The Department of Homeland Security adopted a "consensus of the community" approach, eliciting the active involvement of local, State, and Federal agencies, over 120 national associations, non-governmental organizations, and the private sector. Stakeholders participated through national stakeholder workshops, working groups, and broad national reviews.

The Approach to Defining Capabilities

The capabilities are derived from a threat and mission analysis. The first step in defining capabilities is to answer the question “*How prepared do we need to be?*” The analysis, using the 15 National Planning Scenarios, illustrates the range, scope, magnitude, and complexity of representative major events, including terrorism, natural disasters, and other emergencies for which the Nation should prepare. Mission analysis provides an overview of all the major functions related to achievement of the four missions. It ensures that preparedness activities are focused on mission achievement.

The National Planning Scenarios serve as the basis for defining tasks that may be required to successfully prevent, protect against, respond to, and recover from a wide range of threats and hazards, as well as the capabilities needed to perform the tasks. The Universal Task List (UTL) is the catalogue of tasks that may need to be performed by governmental, non-governmental, and private-sector organizations, and the general public. **No single jurisdiction or agency is expected to perform every task identified and no two jurisdictions require the same level of capabilities.** In addition, Federal priorities and supporting program referenced herein are subject to change in response to an evolving threat environment and competition for scarce resources. In practice, subsets of tasks will be selected based on specific roles, missions, and functions, and the appropriate level of capabilities will depend upon risk and need.

The TCL provides a guide for development of a national network of capabilities that will be available when and where they are needed to prevent, protect against, respond to, and recover from major events. These capabilities define all-hazards preparedness and provide the basis for assessing preparedness and improving decisions related to preparedness investments and strategies.

Target Capabilities

The TCL comprises 37 capabilities which are listed in the chart on the next page. They address response capabilities, immediate recovery, selected prevention and protection mission capabilities, as well as common capabilities such as planning and communications that support all missions. For these capabilities, local jurisdictions and States are the lead in conjunction with Federal and private sector support.

A Capability Summary has been developed for each capability to describe and provide guidance on the major capability components. Each Capability Summary contains the following elements: a definition and outcome, preparedness and performance tasks and measure, resource elements, target preparedness levels, and identified responsibility for building and maintaining the capability.

Phase I Capabilities (Included in this version of the TCL)

Common Capabilities

Planning
Communications
Community Preparedness and Participation
Risk Management
Intelligence and Information Sharing and Dissemination

Prevent Mission Capabilities

Information Gathering and Recognition of Indicators and Warning
Intelligence Analysis and Production
Counter-Terror Investigation and Law Enforcement
CBRNE Detection

Protect Mission Capabilities

Critical Infrastructure Protection
Food and Agriculture Safety and Defense
Epidemiological Surveillance and Investigation
Laboratory Testing

Respond Mission Capabilities

On-Site Incident Management
Emergency Operations Center Management
Critical Resource Logistics and Distribution

Volunteer Management and Donations
Responder Safety and Health
Emergency Public Safety and Security
Animal Disease Emergency Support
Environmental Health
Explosive Device Response Operations
Fire Incident Response Support
WMD and Hazardous Materials Response and Decontamination
Citizen Evacuation and Shelter-in-Place
Isolation and Quarantine
Search and Rescue (Land-Based)
Emergency Public Information and Warning
Emergency Triage and Pre-Hospital Treatment
Medical Surge
Medical Supplies Management and Distribution
Mass Prophylaxis
Mass Care (Sheltering, Feeding and Related Services)
Fatality Management

Recover Mission Capabilities

Structural Damage Assessment
Restoration of Lifelines
Economic and Community Recovery

Using the Target Capabilities List

The Target Capabilities List is a reference document that describes the capabilities for achieving national preparedness. It also serves as a planning, assessment, and training tool. Various implementation tools are being developed from the TCL to help decision-makers and managers at all levels to define their preparedness requirements and assess levels of preparedness. Some uses are briefly described below:

- **Risk Assessment:** The determination of risk includes identification and characterization of threats, their consequences, and our vulnerabilities. While each is important for capabilities-based planning and national preparedness, determinations of vulnerability are important since they include not only exposure and sensitivity, but resilience. Resilience is key since it refers to our coping capacity to absorb events, adapt, respond to, and recover from its effects.

- **Planning:** The TCL includes a Planning Capability designed to establish and maintain the ability to develop, update, and test plans. In addition, each capability contains both preparedness and performance tasks and measures that support the capability outcome and serve as a guide for preparedness planning. The preparedness tasks and measures describe major elements or issues that should be addressed in plans, procedures, and systems, as well as authorities, relationships, and agreements that need to be in place to prepare to use the capability. The performance tasks and measures also inform the planning process.
- **Strategy Development and Investment Justifications:** The common framework provided by the Guidelines, priorities, and capabilities serve as a guide to enhance homeland security strategies and investment justifications at all levels.
- **Assessment of Preparedness:** The TCL provides a basis for assessing preparedness to help jurisdictions and agencies to plan strategically, design appropriate programs that meet proven needs, and evaluate the effectiveness of investments over time.
- **Focus Training on Task Performance:** Training programs should be modified as appropriate to ensure that they provide participants with the knowledge, skills, and abilities to perform the critical tasks defined by the TCL to a proficiency level sufficient to achieve the capability outcomes.
- **Test Capabilities through Exercises:** Exercises provide a means to test and validate preparedness. The Homeland Security Exercise and Evaluation Program (HSEEP) is designed to encourage a common exercise design, conduct, and evaluation methodology across all levels of government and the private sector. HSEEP exercises are designed and evaluated to demonstrate capability levels through the assessment of performance of critical tasks and achievement of outcomes, as defined by the TCL.

The TCL Going Forward

The TCL is a living document. It was designed to be enhanced and refined over time as we gain lessons from its application or real world experience. Recommendations for changes to the TCL are welcome and will be reviewed and integrated into future versions of the TCL, as appropriate. A change request form is posted on www.LLIS.gov.

INTRODUCTION

Overview

The President and Congress directed creation of a fully integrated, adaptable, all-hazards national preparedness system. The National Preparedness Guidelines (The Guidelines) and Target Capabilities List (TCL) establish the system's all-hazards framework. The Guidelines provide the vision and establishes national priorities. The TCL is a national-level, generic model of operationally ready capabilities defining all-hazards preparedness. Users should refer to the TCL to assess capabilities, identify needs, and inform plans and strategies taking into account their risk.

The vision for the National Preparedness Guidelines is:

A NATION PREPARED with coordinated capabilities to prevent, protect against, respond to, and recover from all hazards in a way that balances risk with resources.

The Guidelines establish the following priorities to meet the Nation's most urgent needs and adopt a capabilities-based planning approach to define and build the capabilities critical to achieve the Guidelines:

- Expand regional collaboration
- Implement the National Incident Management System and the National Response Plan
- Implement the National Infrastructure Protection Plan
- Strengthen information sharing and collaboration capabilities
- Strengthen communications capabilities
- Strengthen CBRNE detection, response, and decontamination capabilities
- Strengthen medical surge and mass prophylaxis capabilities
- Strengthen planning and citizen preparedness capabilities

The Target Capabilities List provides a guide to addressing the priorities and achieving the National Preparedness Guidelines. Capabilities provide the means to accomplish a mission and achieve desired outcomes by performing critical tasks, under specified conditions, to target levels of performance. The conditions under which the tasks must be performed are defined by a set of National Planning Scenarios. Capabilities are delivered by appropriate combinations of planning, organization, equipment, training, and exercises.

The TCL supports an all-hazards approach to building interchangeable, flexible capabilities needed to address a broad range of incidents to include: terrorist attacks, natural disasters, health emergencies, and other major incidents. It currently identifies 37 capabilities that were developed with the active participation of stakeholders representing all levels of government, non-governmental organizations, and the private sector.

Each capability includes a definition; outcome; preparedness and performance activities, tasks, and measures. The TCL also identifies the role of governmental and non-governmental organizations, the private sector, and citizens in building and maintaining capabilities. By doing so, it provides a basis for assessing preparedness and for setting priorities for the effective use of limited resources. The TCL serves as a valuable tool for guiding preparedness activities to include: planning, establishment of training requirements, and evaluation of performance through exercises and operations. Although the TCL should inform resource priorities at all levels, it does not imply a commitment of Federal funding.

The Underlying Assumption: Major Events Require Partnerships

The planning assumptions for major events which were used to develop the TCL are found in the National Response Plan (NRP), which recognizes that such events will typically be managed at the lowest possible geographic, organizational, and jurisdictional level using the principles in the National Incident Management System (NIMS). The Catastrophic Incident Supplement to the NRP establishes a strategy for accelerating the delivery and application of Federal and Federally accessible resources and capabilities in support of a jurisdictional response to a no-notice or short-notice catastrophic mass victim/mass evacuation incident. Nonetheless, the scope of major events demands that the combined expertise and capabilities of government, private sector, and nongovernmental organizations be brought to bear as the Nation addresses the homeland security missions.

Assumptions for Major Events

- May occur at any time with little or no warning
- Require significant information-sharing at the unclassified and classified levels across multiple jurisdictions and between the public and private sectors
- Involve single or multiple geographic areas
- May have significant international impact and/or require significant international information sharing, resource coordination, and/or assistance
- Can span the spectrum of incident management to include prevention, protection, response, and recovery
- Involve multiple, highly varied hazards or threats
- May result in numerous casualties; fatalities; displaced people; property loss; disruption of normal life support systems, essential public services, and basic infrastructure; and significant damage to the environment
- Impact critical infrastructure across sectors
- Overwhelm capabilities of State, local, and Tribal governments, and private-sector infrastructure owners and operators
- Attract an influx of spontaneous volunteers and supplies
- May require short-notice asset coordination and response
- May require prolonged, sustained incident management activities

Note: The assumptions for major events mirror those for Catastrophic events found in the National Response Plan

Consensus of the Community Approach: Stakeholder Involvement

The Target Capabilities List was developed with an unprecedented level of stakeholder involvement. The Department of Homeland Security adopted a “consensus of the community” approach, eliciting the active involvement of local, State, and Federal agencies, over 120 national associations, non-governmental organizations, and the private sector. Stakeholders participated through national stakeholder workshops, working groups, and broad national reviews.

The Approach to Defining Capabilities

The National Preparedness Guidelines identify three fundamental questions that must be addressed to achieve a Nation prepared.

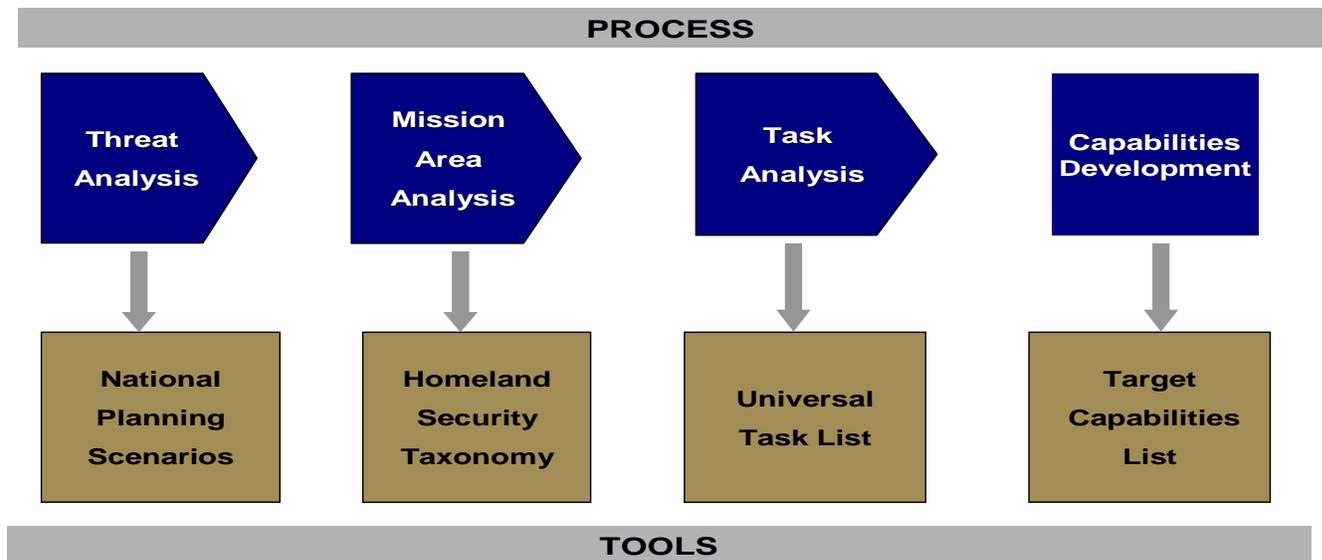
How prepared do we need to be?

How prepared are we?

How do we prioritize efforts to close the difference?

To answer these questions, we must first determine what threats we face and what we need to do to achieve the homeland security missions to prevent, protect against, respond to, and recover from those threats. We then need to determine what tasks need to be performed, how well they need to be performed, and the capabilities needed to perform the tasks to the appropriate level of performance. The graphic below illustrates the process used to develop the Target Capabilities List which helps us answer these three questions.

Capabilities Development Process and Tools



Starting Point: Threat Analysis

The capabilities are derived from a threat and mission analysis. The first step in defining capabilities is to answer the question “*How prepared do we need to be?*” The analysis, using the 15 National Planning Scenarios, illustrates the range, scope, magnitude, and complexity of representative major incidents, including terrorism, natural disasters, and other emergencies for which the Nation should prepare. Mission analysis provides an overview of all the major functions related to achievement of the four missions. It ensures that preparedness activities are focused on mission achievement.

Terrorism scenarios dominate because the U.S. has had less experience with terrorist events than with natural disasters. A preponderance of terrorist scenarios compensates for less operational experience with these types of events.

Focus on Achievement of Mission

A mission area analysis was also conducted to identify the major functions related to achievement of the four missions. It helps to ensure that all preparedness activities are focused on mission success.

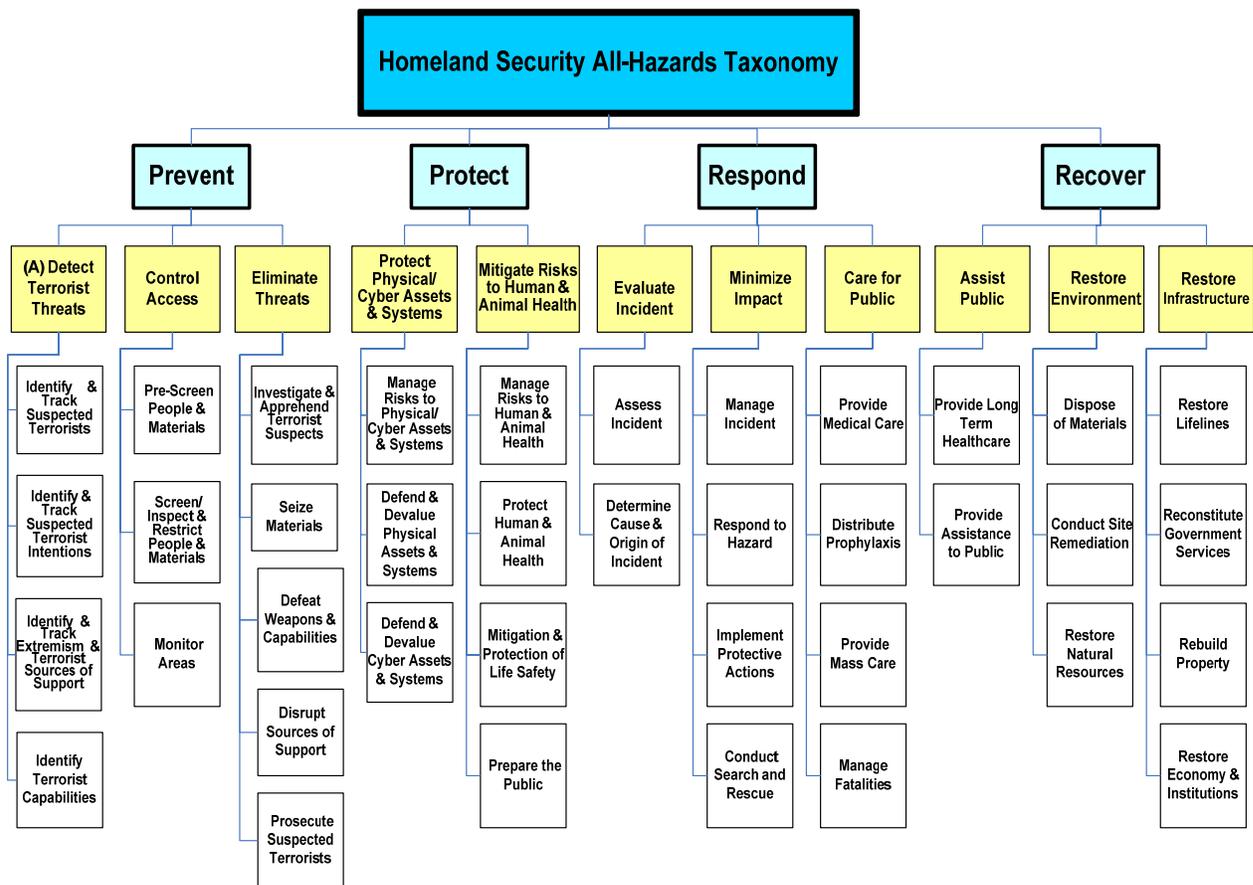
A mission area analysis was conducted through a review of official documents and doctrine to identify the objectives and functional areas for each of the Homeland Security Missions. This included a review of the Homeland Security Strategy, legislation, the Presidential Directives, and related doctrine. The result is the all-hazards taxonomy, which shows the alignment of all homeland security activities toward mission achievement. The taxonomy is shown on the next page.

15 National Planning Scenarios

1. Improvised Nuclear Device
2. Aerosol Anthrax
3. Pandemic Influenza
4. Plague
5. Blister Agent
6. Toxic Industrial Chemical
7. Nerve Agent
8. Chlorine Tank Explosion
9. Major Earthquake
10. Major Hurricane
11. Radiological Dispersal Device
12. Improvised Explosive Device
13. Food Contamination
14. Foreign Animal Disease
15. Major Cyber Attack

Task Analysis

The National Planning Scenarios serve as the basis for defining the tasks that may be required to prevent, protect against, respond to, and recover from a wide range of threats and hazards, as well as the capabilities necessary to perform the tasks. The Universal Task List (UTL) is the catalogue of tasks that may need to be performed by governmental, non-governmental, and private-sector organizations, and the general public. During a major event the number of people performing a task may need to increase and may be performed by a combination of local agencies as well as teams from other jurisdictions, levels of government, or the private sector. The UTL does not identify who will perform the task or how it should be performed. That is left to the State, local, tribal, and territorial implementing agencies. **No single jurisdiction or agency is expected to perform every task.** Rather, subsets of tasks will be selected based on specific roles, missions, and functions. The current version of the UTL is a catalogue of nearly 4,800 tasks across the four mission areas.



Target Capabilities

The TCL provides a guide for developing a national network of capabilities that will be available when and where they are needed to prevent, protect against, respond to, and recover from major events. These capabilities define all-hazards preparedness and provide the basis for assessing preparedness and improving decisions related to preparedness investments and strategies. They establish planning tools for preparing the Nation for major all-hazards events such as those represented by the National Planning Scenarios.

The capabilities assume that local jurisdictions have an operational level of capabilities to address most routine emergencies and disasters. For example, the TCL does not address capabilities for routine firefighting or law enforcement services, or seasonal flooding. Instead, the TCL addresses capabilities-based preparedness to prevent, protect against, respond to, and recover from terrorism, very large-scale disasters, pandemic health emergencies, or other major incidents. Establishing plans, procedures, systems, interagency relationships, training and exercise programs, and mutual aid agreements required for major events will enhance performance for all hazard response.

Key Components of the Target Capabilities List

The TCL currently comprises 37 capabilities which are listed in the chart on the next page. They address preparedness for response capabilities, immediate recovery, selected prevention and protection mission capabilities, as well as common capabilities such as planning and communications that support all missions. For these capabilities, local jurisdictions and States are the lead in conjunction with appropriate Federal and private sector support.

A Capability Summary has been developed for each capability to describe and provide guidance on the major capability components.

Definition, Outcome, NRP Relationship

Each capability summary begins with a definition of the capability, and follows with an outcome statement that describes the expected results or effect to be achieved. The next section identifies the relationship of the capability to the emergency support function(s) described in the National Response Plan.

Preparedness Activities, Critical Tasks, Measures, and Metrics

Each capability includes a description of the major activities performed with the capability and the critical tasks and measures associated with the activity. They include both preparedness and performance activities, tasks, and measures.

Preparedness activities and tasks are those things that should be done prior to the demand for the capability. Development of plans, procedures, protocols, and systems; establishment of mutual aid agreements and authorities; provision of training; and the conduct of exercises are all examples of preparedness tasks. Critical tasks are tasks that are essential to achieving the desired outcome and to the success of a homeland security mission. The critical tasks are derived from the tasks found in the Universal Task List.

Capability Summaries Include

- Definition
- Outcome
- Relationship to NRP Emergency Support Function (ESF)/Annex
- Preparedness Activities, Tasks, Measures, and Metrics
- Performance Activities, Tasks, Measures, and Metrics
- Activity Process Flow
- Capability Elements
- Linked Capabilities
- Planning Assumptions
- Planning Factors
- National Preparedness Levels
- References

Phase I Capabilities (Included in this version of the TCL)

Common Capabilities

Planning
Communications
Community Preparedness and Participation
Risk Management
Intelligence and Information Sharing and
Dissemination

Prevent Mission Capabilities

Information Gathering and Recognition of
Indicators and Warning
Intelligence Analysis and Production
Counter-Terror Investigation and Law
Enforcement
CBRNE Detection

Protect Mission Capabilities

Critical Infrastructure Protection
Food and Agriculture Safety and Defense
Epidemiological Surveillance and
Investigation
Laboratory Testing

Respond Mission Capabilities

On-Site Incident Management
Emergency Operations Center
Management
Critical Resource Logistics and Distribution
Volunteer Management and Donations

Respond Mission Capabilities (Continued)

Responder Safety and Health
Emergency Public Safety and Security
Animal Disease Emergency Support
Environmental Health
Explosive Device Response Operations
Fire Incident Response Support
WMD and Hazardous Materials Response
and Decontamination
Citizen Evacuation and Shelter-in-Place
Isolation and Quarantine
Search and Rescue (Land-Based)
Emergency Public Information and Warning
Emergency Triage and Pre-Hospital
Treatment
Medical Surge
Medical Supplies Management and
Distribution
Mass Prophylaxis
Mass Care (Sheltering, Feeding and
Related Services)
Fatality Management

Recover Mission Capabilities

Structural Damage Assessment
Restoration of Lifelines
Economic and Community Recovery

Performance Activities, Critical Tasks, Measures, and Metrics

Performance activities and tasks are the actions taken to prevent, protect against, respond to, or recover from an actual event or are demonstrated during an exercise. An Activity Process Flow Map shows the major activities that are performed with the capability and how the capability links to other capabilities. Performance measures are quantitative or qualitative levels against which achievement of a task or capability outcome can be assessed. They describe how much, how well, or how quickly an action should be performed and are typically expressed in ways that can be observed during an exercise or real event.

The measures and metrics are not standards. They serve as guides and evaluation tools for planning, training, and exercise activities. However, nationally accepted standards of performance, benchmarks, and guidelines are reflected, if applicable.

Sample Preparedness and Performance Measures and Metrics	
<i>Example from Citizen Evacuation and Shelter-In-Place Capability</i>	
Preparedness Measure	Metric
Plans addressing authority and decision-making processes for shelter-in-place and/or evacuation are in place	Yes/No
Populations that may need assistance with evacuation/shelter-in-place have been identified	Yes/No
Plans to provide adequate services (e.g., gas, food, water, tow trucks, emergency medical services, etc.) along evacuation routes are in place	Yes/No
Performance Measure	Metric
Time in which affected population is notified of shelter-in-place order	Within 15 minutes from order to shelter-in-place
Time in which the evacuation of the affected general population for an event with advanced warning is completed	Within 72 hours from the order to evacuate
Evacuation staging/reception areas in the affected area are coordinated with necessary sites and assisting agencies	Yes/No

Capability Elements

A capability is provided with proper planning, organization, training, equipment, and exercises. The capability elements define the resources needed to perform the critical tasks to the specified levels of performance, with the recognition that there is rarely a single combination of capability elements that must be used to achieve a capability.

Where applicable, NIMS *Resource Typing Definitions* were used to define resource organizations or packages. Resource typing is the categorization and description of response resources that are commonly exchanged in disasters through mutual aid agreements. Use of these standard definitions enables emergency management personnel to identify, locate, request, order, and track outside resources quickly and effectively and facilitate the response of these resources to the requesting jurisdiction. Additional resources are being typed and personnel positions are being credentialed by the NIMS Integration Center. Consistent with NIMS, the capability elements include personnel; planning; organization and leadership;

equipment and systems; training; and exercises, evaluations, and corrective actions, as shown in the chart below.

The Capability Elements serve as a guide for identifying and prioritizing investments when working to establish a capability. Further, existing programs and activities represented as Capability Elements have been included for reference purposes only, and are subject to change in response to an evolving threat environment and competition for scarce resources.

Capability Elements	
Planning	Collection and analysis of intelligence and information, and development of policies, plans, procedures, mutual aid agreements, strategies, and other publications that comply with relevant laws, regulations, and guidance necessary to perform assigned missions and tasks.
Organization and Leadership	Individual teams, an overall organizational structure, and leadership at each level in the structure that comply with relevant laws, regulations, and guidance necessary to perform assigned missions and tasks.
Personnel	Paid and volunteer staff who meet relevant qualification and certification standards necessary to perform assigned missions and tasks.
Equipment and Systems	Major items of equipment, supplies, facilities, and systems that comply with relevant standards necessary to perform assigned missions and tasks.
Training	Content and methods of delivery that comply with relevant training standards necessary to perform assigned missions and tasks.
Exercises, Evaluations, and Corrective Actions	Exercises, self-assessments, peer-assessments, outside review, compliance monitoring, and actual major events that provide opportunities to demonstrate, evaluate, and improve the combined capability and interoperability of the other elements to perform assigned missions and tasks to standards necessary to achieve successful outcomes.

Planning Assumptions and Planning Factors

The Capability Working Groups developed planning assumptions to fill in data or details not provided by the National Planning Scenarios. Some apply to any scenario; others are scenario-specific. They also developed specific planning factors, which indicate estimates of the quantity of the capability elements that address the demand for the capability defined by the scenario(s).

Target Capability Preparedness Levels

Because major events can exceed the normal operating capacity of any single jurisdiction, a collaborative, national approach should be used to plan and prepare for major events. Target preparedness levels represent suggested levels of capability that may be needed to prevent, protect against, respond to, and recover from major events that demand a multi-level, multi-jurisdictional, multi-disciplinary response.

Stakeholder working groups suggested Target Capability preparedness levels based on an analysis of the circumstances and consequences described in the National Planning Scenarios and the planning factors. They were instructed not to let their knowledge of current resources limit their thinking about requirements needed for major events and therefore these levels should be considered in the context of broader resource constraints and regional priorities. The Target Capability levels take into account

adjustments to normal operating procedures that may need to be made during major events based on the circumstances. Such adjustments may include altering performance standards, drawing resources from many sources, making creative use of existing resources or relying on non-traditional resources (e.g., volunteers).

National Preparedness Levels for Capabilities

- The Target Capability preparedness levels estimate what may be needed should major events exceed the capacity of any single jurisdiction.
- Responsibility for meeting Target Capability preparedness levels can be shared across government and non-government entities.
- Many of the resource estimates are not standing requirements – they would be assembled when and where they are needed.
- Assessments of current capabilities against target levels can provide an indication of relative preparedness.

Assignment of Roles in Achieving Target Capability Preparedness Levels

The TCL identifies the role of governments, nongovernmental organizations, the private sector, and citizens in achieving the target levels. The assignment is based on the assumption that no single jurisdiction is likely to have all capabilities at sufficient levels to fully address its needs if faced with a major event. Some jurisdictions will possess the capability while others will access it through mutual aid, if needed. During a major event, all jurisdictions regardless of size may call on support from other available public and private sources appropriate to the scale of the event.

Stakeholder working groups analyzed the elements of each capability by criticality, risk, and demand to make recommendations regarding the assignment of roles and responsibilities and the distribution of the capability across the country.

The Target Capability Preparedness Levels represent ideal states of preparedness by capability for the purposes of a common planning and measurement framework. However, actual preparedness investment planning will combine this framework with both risk analysis as well as appropriate resource prioritization on a regional basis. Further, the assignments of roles and responsibilities are neither mandates nor statements of Federal policy. These portions of the TCL serve as a guide for planning and measuring appropriate levels of preparedness and regional coordination.

Risk Factors Considered in Preparedness Planning

Risk is a combination of credible threat, vulnerability, and consequence. Risk factors that affect capability need and placement include: population and population density, the presence of critical infrastructure and key resources, location in high terrorist threat or high risk natural disaster areas, and capabilities to prevent, protect against, or mitigate a threat. The relative importance of these risk factors in determining where or how much of a capability is needed varies by capability, as described below.

Population and Population Density

Population and/or population density are determining factors for the assignment of many of the capabilities. For example, the target levels and distribution of capabilities such as WMD Response and Decontamination, Medical Surge, Mass Prophylaxis, and Citizen Evacuation and Shelter-In-Place capabilities are directly related to population. Population density is a key factor in determining the location of some capability resources, such as those for the Fire Incident Response Support and Explosive Device Response Operations capabilities.

The type and amount of resources needed are generally different in high population, high-density areas than in less densely populated areas. For example, Type I Urban Search and Rescue (US&R) Task Forces, which can extricate victims from heavy construction, are assigned to urban areas with high-rise buildings. Collapse Search and Rescue Teams and Heavy Rescue Strike Teams and Squads may be more appropriate in less urban areas. However, the Type I USAR Task Forces, if located in large metropolitan areas, could be made available for deployment to jurisdictions in other geographic areas.

Critical Infrastructure

Many jurisdictions or geographic areas across the country have critical infrastructure or key resources (CI/KR) that need to be considered in the determination of risk and distribution of capabilities. Because the capabilities in the current TCL are more focused on response activities and the presence of critical infrastructure and key resources are so widely distributed, this was less of a discriminating factor than population.

Credible Threat

Capability-Based Planning allows the flexibility to adjust capabilities or target levels to account for elevations or reductions in credible threat. In addition, a jurisdiction may have capability requirements disproportionate to its population and critical infrastructure based on its terrorist threat level or its location.

The TCL as a Tool for Expanded Regional Collaboration

Expanded Regional Collaboration is identified as the first priority in the National Preparedness Guidelines in recognition that large scale events may require a shared response across jurisdictions, levels of government, and the public/private sectors depending on the scale of the event. States are encouraged to define geographic areas or regions, in consultation with local and tribal governments that share risk and responsibility for a major event. The expanded region facilitates the strengthening of relationships among participants, regional preparedness planning and operations support, and joint implementation of a capabilities-based approach. Regions may be intra- or inter-State geographic areas, as appropriate, based on shared risk and the need for joint planning and operations. Standardization of geographic regions will enable the States, working with local and tribal government and other partners, to coordinate preparedness activities more effectively, spread costs, pool resources, share risk, and thereby increase the overall return on investment.

The Guidelines also encourage the establishment of multi-jurisdictional and multi-disciplinary working groups consisting of representatives from the entities located within the region. Through joint planning, the region will determine how best to achieve the capabilities, decide where the capabilities should be built and maintained, and establish priorities for the use of limited resources. The working groups will use the TCL as the basis to identify needed capabilities; assess current capability levels and gaps; identify, analyze, and choose options; update strategies and plans; and assess preparedness.

The capability needs for a region may be informed by utilizing the Target Capabilities Preparedness Levels as a guide for the jurisdictions within the region. For example, based on its jurisdictions, a region may require access to one Type I Urban Search and Rescue Task Force, three Type II Collapse Search and Rescue Teams, and so forth. Through a collaborative, regional planning approach, the jurisdictions within the region will determine the most effective distribution and sharing of capability resources to ensure that they are available when and where they are needed and that all of the jurisdictions within the region have or have access to them as needed.

Capability elements to perform critical tasks are associated with performance measures and metrics. Some capabilities are universal, such as Planning or Communications. For other capabilities, the resource target levels are directly related to size of the population. Teams with different levels of capability (e.g., Level I, II, and III Bomb Squads) are assigned to appropriate levels of government or local jurisdictions based on demand for the capability. Specialized teams or resources are generally assigned to larger jurisdictions where there is a greater demand for the resource and where a team with sufficient trained personnel has the opportunity to maintain proficiency through calls-for-service. Teams with more limited capabilities that require less personnel and equipment are assigned to smaller jurisdictions where they provide an immediate response and can request assistance from specialized teams, if needed.

The performance measures and metrics for each capability define how quickly and how effectively critical tasks should be performed. Criticality (i.e., how quickly a specific capability is needed to prevent an incident, save lives, prevent suffering, or reduce major damage) is an important consideration in determining where a capability is needed. For example, decontamination of victims of a chemical attack must typically take place within a certain period of time in order to save lives. Therefore, the Target Capability preparedness level for this capability does not vary by location, but would still vary by the likelihood of the event. For example, the likelihood of an event requiring decontamination is often significantly lower in a rural setting. Since the time to act is very short, the likelihood that a jurisdiction could have an attack or an accidental release of toxic chemicals should impact its decision to either develop a decontamination capability or secure timely access to it. For some other capabilities, performance requirements may vary across jurisdictions. For example, the ideal time for a bomb squad to arrive on-scene may be much shorter in a densely populated urban area than in a less populated area, where evacuation of an area may be the initial response.

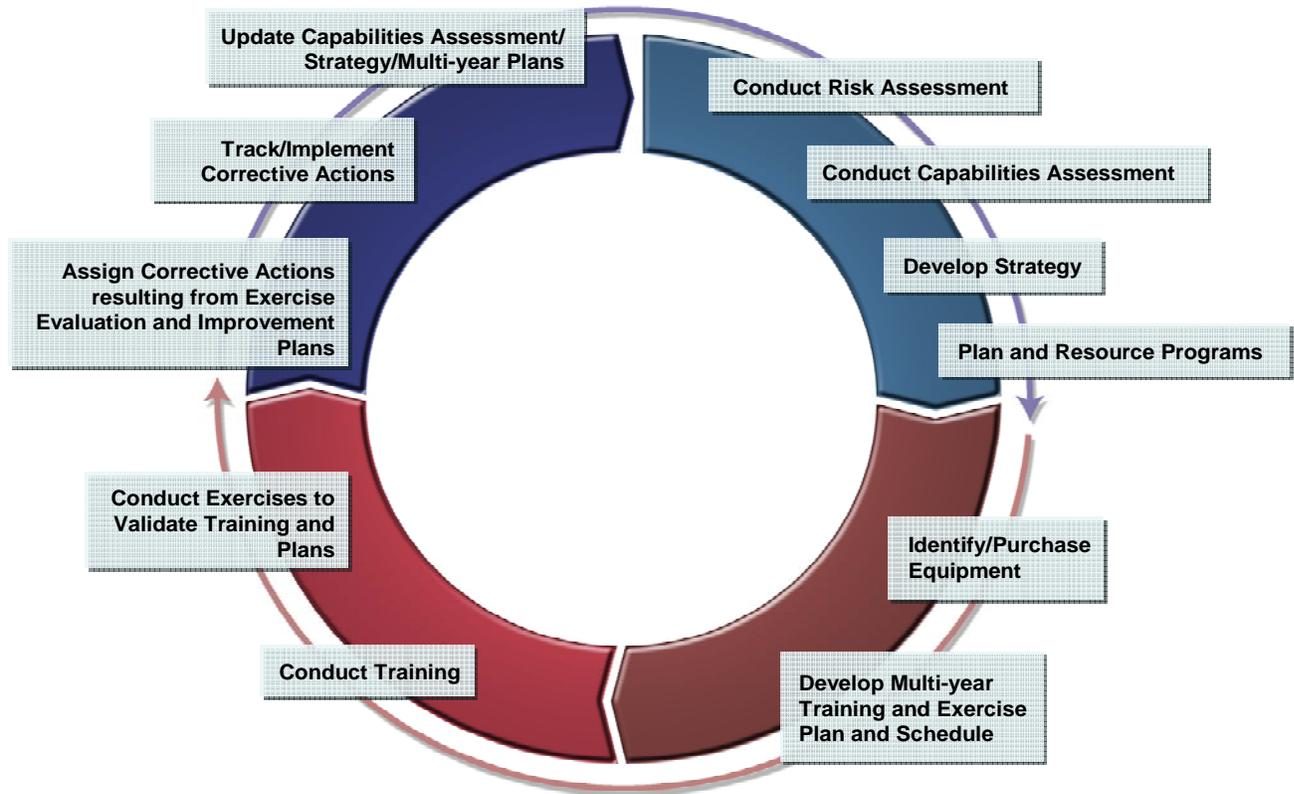
Using the Target Capabilities List

The Target Capabilities List should be viewed as a reference document or guide to preparedness. It should not serve as a prescription for program requirements or resource commitments. Most users will not use the TCL document directly and/or may only use one or a subset of capabilities that are relevant to them. They will use those portions of the TCL that are relevant to them or to their specific application through the TCL implementation tools. For example, the Homeland Security Exercise and Evaluation Program (HSEEP) uses the TCL as the basis for designing, conducting, and evaluating exercises. HSEEP pulls from the performance tasks and measures section of the capabilities. Through the exercise design process, the planners determine which of the capabilities to test during the exercise. A single exercise would not attempt to address all the capabilities.

The National Preparedness Guidelines and the Target Capabilities List provide the framework for preparedness and support the implementation of the Preparedness Cycle. As illustrated below, the cycle takes the user through a series of preparedness activities from conducting risk and capabilities assessments, strategy development, planning, identification and filling of resources gaps, training, exercises, and implementation of corrective actions.

Various implementation tools are being developed from the TCL to help decision-makers and managers at all levels to define their preparedness needs, build needed capabilities, and assess levels of preparedness. In addition, DHS is developing a *Guide to Using the Target Capabilities List: A Framework for Preparedness* that will provide additional guidance on how to use the TCL throughout the steps in the preparedness cycle.

Preparedness Cycle



Risk Assessment

The determination of risk includes identification and characterization of threats and hazards, their consequences, and our vulnerabilities. While each is important for capabilities-based planning and national preparedness, determinations of vulnerability are important since they include not only exposure and sensitivity, but resilience. Resilience is key since it refers to our coping capacity to absorb events, adapt, and respond to and recover from its effects.

The completion of a risk assessment, the first step in the preparedness cycle, helps us understand the *types of threats and hazards we face*. The National Planning Scenarios help us define the range and scope of incidents for which we must prepare. They were used in the development of the capabilities to define the critical tasks, the measures and metrics, and the resources to perform the tasks to the desired level of performance. The TCL is designed to provide the nation with the network of flexible and adaptive capabilities across the country to prevent, protect against, respond to, and recover from incidents similar to those described in the National Planning Scenarios or other scenarios. Planners and officials at all levels will assess and determine their greatest risks within this framework to inform planning efforts and to establish priorities for addressing resource gaps, training, and exercises.

Preparedness Planning

The President called for a Nationwide Plan Review that assessed the status of catastrophic planning for States and 75 of the Nation's largest urban areas. It showed that the current status of plans and planning

is not adequate for the 21st century homeland security challenges. The report identified the need for a significant increase in collaboration, plan specificity, and resource management.

The Nationwide Plan Review Report concluded that:

- Planning products, processes, tools, and technologies should be developed to facilitate a common nationwide approach to catastrophic planning.
- Critical tasks, target capabilities, and associated performance measures, such as those identified in the National Preparedness Guidelines should serve as the common reference system
- Regional planning capabilities, processes, and resources should be strengthened in accordance with the National Preparedness Guidelines' national priorities to expand regional collaboration and strengthen Planning and Citizen Preparedness Capabilities.

The TCL includes a Planning Capability designed to establish and maintain a capacity at all levels to develop, update, and test preparedness plans. In addition, each capability contains both preparedness and performance tasks and measures that support the capability outcome and serve as a guide for preparedness planning. Further, Capabilities-Based Planning accounts for uncertainties, by developing capabilities suitable for a wide range of threats and hazards, when limited resources necessitate prioritization and choice among preparedness efforts.

As entities at all levels of government, nongovernmental organizations, and the private sector review and enhance their plans, procedures, and protocols, the TCL provides a valuable reference to ensure that they have identified the tasks and resources and built the capabilities necessary to assure preparedness. The TCL can be used as a guide to identify roles and responsibilities and the need for mutual aid agreements to facilitate the sharing of capabilities across the region to provide all jurisdictions with access to needed capabilities.

Strategy Development and Investment Justifications

States and urban areas have developed Homeland Security Strategies that provide a blueprint for comprehensive, enterprise-wide planning for homeland security efforts. They also provide a strategic plan for the use of Federal, State, local, and private resources to prevent, protect against, respond to, and recover from terrorist threats or attacks, major disasters, and other emergencies. In the summer of 2005, States and urban areas updated their strategies to align their preparedness efforts to the National Preparedness Guidelines, the National Priorities established in the Guidelines, and the Target Capabilities.

Beginning with FY2006 applications for the State and local Homeland Security Grant Program (HSGP), investment justifications must demonstrate a linkage to Target Capabilities as well as outline the anticipated impact, including how State and local capabilities will be enhanced.

Guidance

Grant guidance and application kits from DHS and other Federal agencies inform strategy development and investment justifications.

Assessment of Preparedness

The TCL provides a basis for assessing preparedness. The vision for the National Preparedness Guidelines is for a "Nation Prepared". The National Planning Scenarios and the TCL provide a common perspective to conduct assessments to determine levels of readiness to perform the critical tasks and to identify and address any gaps or deficiencies.

Assessment information should inform decisions at all levels. Policymakers need regular reports on the status of the capabilities for which they have responsibility to help them make better resource and

investment decisions and to establish priorities. Emergency managers and planners require assessment information to help them address deficiencies, to identify alternative sources of capabilities (e.g., from mutual aid or contracts with the private sector), and to identify which capabilities should be tested through exercises.

Assessment information is also needed by agencies or organizations that are expected to supplement or provide capabilities during an incident. Assessments also provide the provider agencies/organization with information required to set priorities, make investment decisions, and position capabilities or resources, if needed.

Tools

A Capabilities Assessment Pilot is being implemented by DHS to test and validate the effectiveness of the preparedness and performance measures and metrics in the TCL as a means of measuring preparedness. The pilot assessment consists of three stages: self assessment, on-site validation, and post assessment report and improvement. It looks at preparedness from a regional perspective, with a focus on regional planning, coordination, and sharing of capabilities.

The National Preparedness System, described under planning, is being designed as a comprehensive planning and assessment tool that can be used assess capabilities across all levels of government. It will enable users to conduct a self assessment based on the TCL that takes into account validation information from exercises, on-site assessment validations, peer reviews, and monitoring.

Focus Training on Ability to Perform Critical Tasks

Training programs should be reviewed and modified as appropriate to ensure that they prepare participants to perform the critical tasks defined by the TCL to the proficiency level required to achieve the capability outcomes.

States should develop Multi-year Training and Exercise Plans to build and assess capabilities. Each State should use a combination of information from capabilities assessments that identify gaps, the State Strategy that provides a plan to increase preparedness, and form improvement plans from completed exercises to develop the Multi-year Training and Exercise Plan. The plans should map out the training courses and exercises that will be conducted over the next 2-3 years. Subsequent training should focus on building the knowledge, skills, and abilities to perform the critical tasks and should be completed prior to being tested through exercises.

Test Capabilities through Exercises

Exercises provide a means to test and validate preparedness. The Homeland Security Exercise and Evaluation Program (HSEEP) is designed to encourage a common exercise design, performance, and evaluation methodology across all levels of government and the private sector. HSEEP exercises are designed and evaluated to demonstrate capability levels through the assessment of performance of critical tasks and achievement of outcomes, as defined by the TCL.

The exercise design process includes the following steps:

- Identify priority capabilities for improvement through exercises
- Select corresponding tasks for assessment
- Define exercise objectives based on capabilities, tasks, and jurisdiction needs
- Create a jurisdiction-specific scenario formulated specifically to meet exercise objectives

HSEEP includes common evaluation tools based on the critical tasks and measures from the TCL. The purpose of the evaluation approach is to encourage consistency and quality of data collection and information, support qualitative and quantitative exercise analysis and assessment, and increase usability. HSEEP also defines a standardized after action report (AAR) and improvement plan format. The AAR provides the assessment of performance of the tasks related to priority capabilities. The improvement plan is developed by the exercising entities and outlines specific actions and a timeline to enhance the capabilities.

Tools and Guidance

The HSEEP policy and doctrine is organized into several volumes:

- ***HSEEP Volume I: HSEEP Overview and Exercise Program Management*** provides guidance for building and maintaining an effective exercise program and summarizes the planning and evaluation process described in further detail in Volumes II through V.
- ***HSEEP Volume II: Exercise Planning and Conduct*** helps planners outline a standardized foundation, design, development, and conduct process adaptable to any type of exercise.
- ***HSEEP Volume III: Exercise Evaluation and Improvement Planning*** offers proven methodology for evaluating and documenting exercises and implementing an improvement plan.
- ***HSEEP Volume IV: Sample Exercise Documents and Formats*** provides sample exercise materials referenced in HSEEP Volumes I, II, III, and V.
- ***HSEEP Volume V: Prevention Exercises*** contains guidance consistent with the HSEEP model to assist jurisdictions in designing and evaluating exercises that test pre-incident capabilities such as intelligence analysis and information sharing.

Going Forward – Refinements to the TCL

The TCL represents a major step forward in defining preparedness and capabilities. It was developed through the hard work of many hundreds of stakeholders from all disciplines, levels of government, nongovernmental organizations, and the private sector. They were asked to set aside their jurisdictional or agency perspective and define capabilities for the Nation and the role that every jurisdiction, State, Federal agency, organization, and citizen will play in a shared response. Where standards and guidelines exist, they were used, but standards and guidelines do not exist for many of the capabilities. Therefore, much of the information in the TCL is based on the best judgment and expertise of those who were involved in the working groups and those who reviewed and commented on it.

The TCL is a living document. It was designed to be enhanced and refined over time as we gain lessons from its application or real world experience. The best way to do that is to start using it and to identify and document where it needs to be changed. For example, are there critical tasks that need to be added or refined? Are the measures and metrics the best measures of performance? Do they need to be modified for different sized jurisdictions or for different scenarios? Are the capability resources adequate to perform the critical tasks to the appropriate level of performance? Will the targets and assignment of responsibility for building and maintaining the capabilities provide the network of capabilities that will be available when and where they are needed?

If you see something in the TCL that does not work for your jurisdiction or agency, help to change it. Get involved. Submit information on what does not work with a recommendation on how the TCL should be changed or enhanced. Recommendations for changes to the TCL are welcome and will be reviewed and integrated into future versions of the TCL, as appropriate. A change request form is posted on

www.LLIS.gov. *A Nation Prepared* is a goal that can only be achieved over time and with the involvement of those who work every day to secure the homeland from all threats, natural and man-made.

This page intentionally left blank

Common Target Capabilities

This page intentionally left blank

PLANNING

Capability Definition

Planning is the mechanism through which Federal, State, local and tribal governments, non-governmental organizations (NGOs), and the private sector develop, validate, and maintain plans, policies, and procedures describing how they will prioritize, coordinate, manage, and support personnel, information, equipment, and resources to prevent, protect and mitigate against, respond to, and recover from Catastrophic events. Preparedness plans are drafted by a litany of organizations, agencies, and/or departments at all levels of government and within the private sector. Preparedness plans are not limited to those plans drafted by emergency management planners. The planning capability sets forth many of the activities and tasks undertaken by an Emergency Management planner when drafting (or updating) emergency management (preparedness) plans.

Unlike the other target capabilities, the attributes of planning are difficult to quantify, as individual planners may have considerably varied education and experience and still produce plans that lead to the successful implementation of a target capability. The focus of the Planning Capability is on successful achievement of a plan's concept of operations using target capabilities and not the ability to plan as an end unto itself. Plans should be updated following major incidents and exercises to include lessons learned. The plans should form the basis of training and should be exercised periodically to ensure that responders are familiar with the plan and able to execute their assigned role. Thus, it is essential that plans reflect the preparedness cycle of plan, train, exercise, and incorporation of after action reviews and lessons learned.

Outcome

Plans incorporate an accurate threat analysis and risk assessment and ensure that capabilities required to prevent, protect against, respond to, and recover from all-hazards events are available when and where they are needed. Plans are vertically and horizontally integrated with appropriate departments, agencies, and jurisdictions. Where appropriate, emergency plans incorporate a mechanism for requesting State and Federal assistance and include a clearly delineated process for seeking and requesting assistance from appropriate agency(ies).

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

Planning supports all Emergency Support Functions (ESFs) and Annexes (support and incident) at the Federal, State, local, territorial, and tribal levels.

Preparedness Tasks and Measures/Metrics

Activity: Conduct Strategic Planning

Definition: The art and science of developing and employing instruments of national and State/territorial power (information, technology, economic, intelligence, and military) in a synchronized and integrated fashion to achieve the objectives of the National Strategy for Homeland Security, the National Preparedness Guidelines, the NRP, and supporting State/territorial and local strategic direction and guidance. Strategic planning uses gap analysis to develop programmatic priorities that address the mission requirements, goals, objectives, milestones, and resources to ensure interoperable and integrated synchronization throughout all

levels of government and nongovernmental organizations for all hazards, incident-related prevent, protect, respond, and recover activities.

Critical Tasks

ComA 1.1.3	Develop regional and State/local Strategic Plans
ComA 2.9.2	Identify, develop, and convene local preparedness planning organization(s)
ComA 2.2	Define and implement the responsibilities for standardized emergency management system planning
ComA 2.2.2	Coordinate and integrate all response and recovery agencies/organizations in the planning process
ComA 2.2.3	Coordinate and integrate nongovernmental organizations and the private sector entities into the emergency management planning and decision-making processes
ComA 1.3.4	Conduct gap analysis to identify training, and exercise needs and to facilitate investment and personnel decisions
ComA 1	Develop scalable strategic plans, based on normal response plans, to prevent, protect against, respond to, and recover from natural and man-made disasters, as well as acts of terrorism
ComA 1.2	Establish the National Incident Management System
ComA 1.3	Establish and maintain a national preparedness assessment and reporting system
ComA 1.3.2	Develop a preparedness planning and review cycle that encompasses planning, training, exercising, evaluation, and the incorporation of after action reviews (AAR) and lessons learned (LL)
ComA 1.3.2.1	Track implementation of after action reviews and lessons learned for improvement and corrective actions that enhance exercises and inform subsequent corrective training efforts

Preparedness Measures

Metrics

Regional and State/local strategic plans include, but are not limited to, the national mission areas of prevent, protect against, respond to, and recover from man-made and natural disasters and acts of terrorism	Yes/No
The strategic plan defines the vision, mission, goals, and objectives of the jurisdiction	Yes/No
Strategic plan addresses protection against, response to, and recovery from natural and man-made disasters as well as acts of terrorism	Yes/No
Planners are trained and equipped	Yes/No
Frequency with which plans are reviewed and updated in accordance with Federal, State, and local regulations and policies	Every 12 months
Improvement actions from after action reports (AARs) and lessons learned are implemented according to the scale of disaster(s) and/or through defined Federal mandate for schedule for completion	Yes/No

Activity: *Develop/Revise Operational Plans*

Definition: Use priorities identified in the Strategic Planning process, as well as any recommendations/lessons learned, to guide the development of appropriate operational plans, such as emergency operations plans (EOPs), comprehensive emergency management plans

(CEMPs), recovery plans, hazard identification risk analysis (HIRA) plans, mitigation plans, and continuity of operations (COOP) plans. Operational plans identify the organizations and resources required to execute the four functional mission areas of prevent, prepare, respond, and recover.	
Critical Tasks	
ComA 2.1	Conduct a hazard analysis to identify threats, vulnerabilities, and consequences to be addressed by emergency management and/or preparedness plans
ComA 2.1.3	Develop and maintain Comprehensive Emergency Management Plans (CEMPs) or similar emergency management/preparedness plans
ComA 2.4	Develop emergency operations/response plans that describe how personnel, equipment, and other governmental, nongovernmental, and private resources will support and sustain incident management requirements
ComA 2.5	Develop and maintain Emergency Operations Plan (EOP) annexes for hazard specific response to include natural and man-made disasters as well as acts of terrorism, and other hazards
ComA 2.3	Develop and execute mutual aid assistance agreements and compacts
ComA 2.7	Develop National, State/Local, and Non-Governmental Continuity Plans. All-level Continuity Plans will describe how personnel, equipment, and other governmental, non-governmental, and private resources will support the sustainment and/or reestablishment of essential functions. Plans shall identify the critical and time sensitive applications, processes, and functions, to be recovered and continued, following an emergency or disaster, as well as the personnel and procedures necessary to do so, such as business impact analysis, business continuity management, vital records preservation and alternate operating facilities
ComA 2.3.3	Develop regional coordination plans or activities that involve all Federal, State, local, territorial, tribal, NGO, and private stakeholders
Preparedness Measures	
	Metric
Continuity of Operation (COOP) plans describe how personnel, equipment, and other resources support sustained response/survivability and recovery for all sectors	Yes/No
Continuity of Government (COG) plans describe the continued functioning of constitutional government under all circumstances	Yes/No
Emergency response plans are consistent with the National Response Plan (NRP) and National Incident Management System (NIMS)	Yes/No
Mutual aid assistance agreements are in place with contiguous jurisdictions	Yes/No
Preparedness plans are consistent with NRP and NIMS	Yes/No
Aid assistance agreements or contracts with private organizations are in place	Yes/No
Pre-identified mechanisms to request assistance from counties, the State, or the Federal Government are in place	Yes/No
Emergency response plans address substantial loss of public safety response capabilities during catastrophic events (to include special needs populations and people with disabilities)	Yes/No
Frequency with which plans are reviewed and updated to ensure compliance with governmental regulations and policies (<i>Review requirements are intended to apply only when no pre-existing review cycle has been established in Federal, State, or local requirements</i>)	Every 12 months

Activity: Validate Plans

Definition: Evaluate operational plans through exercising, training, and real world events, and use after-action reports (AARs) to support validation and revision of operational and strategic plans

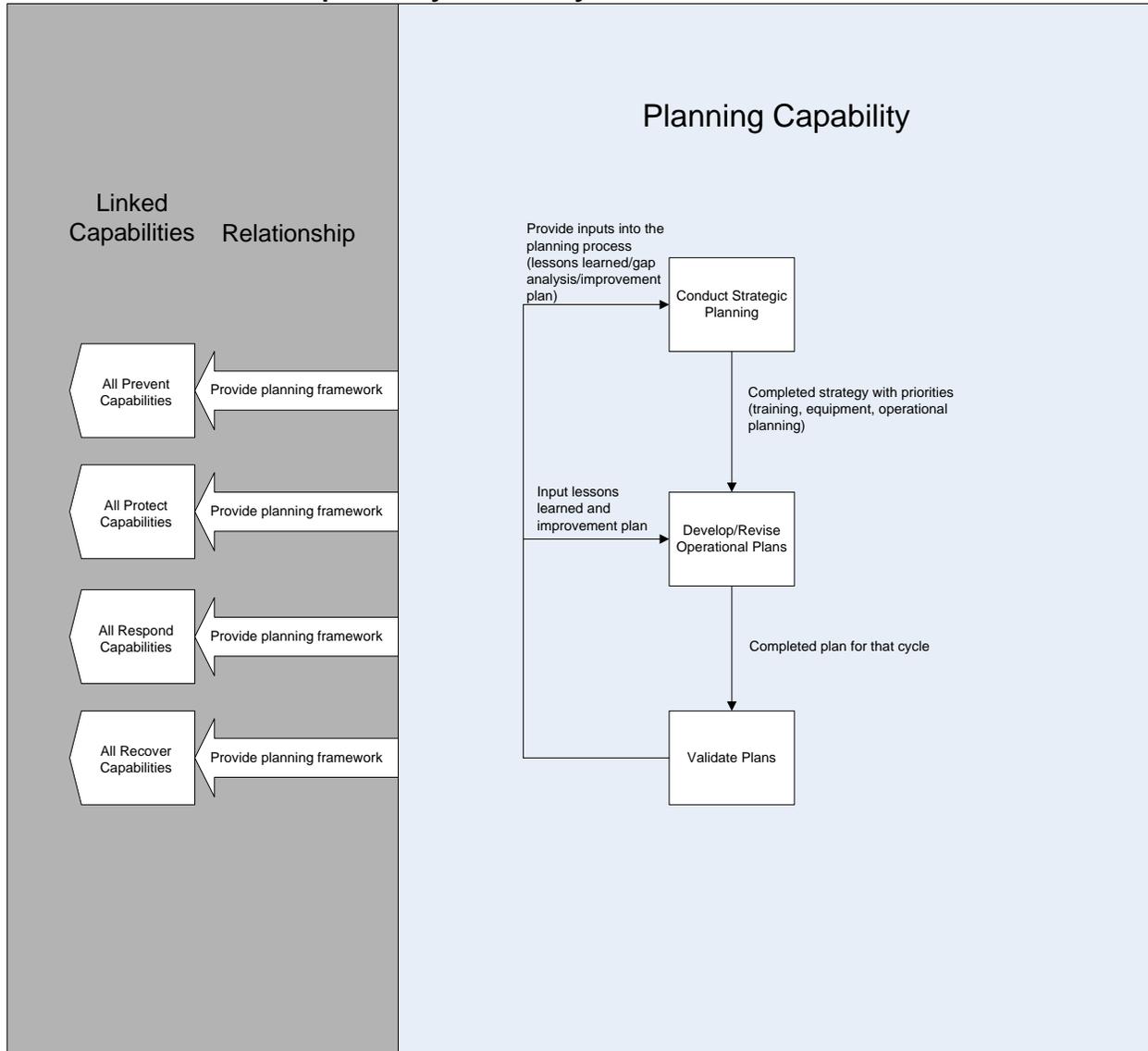
Critical Tasks

ComA 3.6	Ensure that trained, exercised, and equipped personnel are available to execute all planning requirements as determined by applicable standards of proficiency	
ComA 3.1	Develop exercises/drills of sufficient intensity to challenge management and operations and to test the knowledge, skills, and abilities of individuals and organizations	
ComA 3.2	Develop integrated national, regional, and State/local level exercises/drills	
ComA 3.3	Develop regional and State/local level exercises of sufficient intensity to challenge management and operations and test knowledge, skill and abilities of individuals and organizations	
ComA 3.4	Develop lessons learned reports and procedures based on real world events and exercises	
ComA 3.5	Develop, review, evaluate and update emergency management and/or preparedness plans based on lessons learned and/or AARs to address problems/gaps and needed corrective actions	
Preparedness Measures		Metric
Plans are exercised and/or evaluated according to Homeland Security Exercise and Evaluation Program (HSEEP) requirements		Yes/No
Record of deficiencies is generated from plan review process within consensual or mandated predetermined days for review		Yes/No
Time in which improvement plans to address deficiencies are generated		Within 30 days from development of record of deficiencies
Frequency with which improvement plan actions are monitored for implementation		Every 3 months

Linked Capabilities

Linked Capability	Relationship
All Prevent Capabilities	Planning provides all Prevent capabilities with a consistent foundation upon which the other capability-specific plans, procedures, training, and exercise programs will be developed
All Protect Capabilities	Planning provides all Protect capabilities with a consistent foundation upon which the other capability-specific plans, procedures, training, and exercise programs will be developed
All Respond Capabilities	Planning provides all Respond capabilities with a consistent foundation upon which the other capability-specific plans, procedures, training, and exercise programs will be developed
All Recover Capabilities	Planning provides all Recover capabilities with a consistent foundation upon which the other capability-specific plans, procedures, training, and exercise programs will be developed

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Planners	Planners dedicated to developing and maintaining homeland security, emergency management, and/or all-hazards plans. Setting qualifications for planner should be established by the jurisdiction.
Computer and planning software tools	Includes computers with sufficient software tools to accomplish the specified tasks, such as geographic information system tools, decision modeling programs, relational databases, hazard modeling programs (i.e., computer-aided management of emergency operations [CAMEO], multihazard loss estimation methodology [HAZUS]) and consequence modeling tools.
Required training program	Training may include but is not limited to courses offered through Federal, State, local and private organizations, such as Federal Emergency Management Agency (FEMA), Emergency Management Institute (EMI), Office for Domestic Preparedness (ODP) Training Consortium, State training academies, and colleges and universities. Completion of one or more of the above may meet minimum requirements.

Planning Assumptions

- This capability applies to a wide range of incidents and emergencies including terrorist attacks, other manmade disasters, and natural disasters. It is intended to address deliberate planning coordination.
- A catastrophic incident will present a dynamic response and recovery environment requiring that response plans and strategies be flexible enough to effectively address emerging or transforming needs and requirements.
- A “dedicated planner” is one full-time equivalent (FTE) person whose work is focused exclusively (“dedicated”) on the development and maintenance of homeland security, emergency management, and/or all-hazards plans.
- The human or physical resources identified in the response strategy may not be available for 24-48 hours of a catastrophic event due to jurisdiction-specific considerations of resource management in times of crisis(es) (e.g., resource needs at their home institutions, family requirements, over-extension, limits established in MOAs, etc.).
- A catastrophic incident may have significant international dimensions. These include potential impacts on the health and welfare of border community populations, cross-border trade, transit, law enforcement coordination, and other areas.
- Planning occurs with respect to the incident (strategic, operational, and tactical/incident) and according to the appropriate jurisdictional level (Federal, State, local, tribal).
- All operational personnel are trained on all appropriate plans and their role within those plans.
- Plans are validated through review, testing and exercises.
- Plans are written in accordance with NIMS.
- Planners have knowledge, experience, and/or training in subject areas.
- The planning process includes hazard analysis and risk assessment.
- The UTL is a menu of tasks that can be used in developing plans-to-task development.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Planner	Personnel	1	Per every 250k population in each State	State	All Activities
Planner	Personnel	2	Per territory	State	All Activities
Planner	Personnel	2	Per UASI city and Washington, DC	Local	All Activities
Required training program	Training	1	Per planner	Federal/State/Local	All Activities
Computer and planning software tools	Equipment	1	Per planner	Federal/State/Local	All Activities

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
3. Biological Incident Annex. In the *National Response Plan*. U.S. Department of Homeland Security. December 2004.
4. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/xlibrary/assets/NIMS-90-web.pdf>.
5. *State and Local Guide 101: Guide for All-Hazard Operations Planning*. Federal Emergency Management Agency. April 2001. <http://www.fema.gov/plan/gaheop.shtm>
6. *NFPA 1600—Standard on Disaster/Emergency Management and Business Continuity Programs*. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>.
7. *Resource Definitions: 120 Resources*. National Mutual Aid and Resource Management Initiative, U.S. Department of Homeland Security, Federal Emergency Management Agency. September 2004. http://www.nimsonline.com/docs/Resource_Typing_Definitions_II.pdf.
8. Emergency Management Accreditation Program (EMAP) Standards. September 2003. <http://www.emaponline.org/index.cfm>
9. *Hazardous Material Emergency Planning Guide*. National Response Team. NRT-1. Updated 2001. [http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/SA-27NRT1Update/\\$File/NRT-1update.pdf?OpenElement](http://www.nrt.org/Production/NRT/NRTWeb.nsf/AllAttachmentsByTitle/SA-27NRT1Update/$File/NRT-1update.pdf?OpenElement).
10. Federal Executive Branch Continuity of Operations (FPC-65). June 2004. http://www.fema.gov/txt/government/coop/fpc65_0604.txt.
11. Enduring Constitutional Government and Continuity of Government Operations (PDD-67). October 1998. http://www.emergency-management.net/laws_pdd67.htm

This page intentionally left blank

COMMUNICATIONS

Capability Definition

Communications is the fundamental capability within disciplines and jurisdictions that practitioners need to perform the most routine and basic elements of their job functions. Agencies must be operable, meaning they must have sufficient wireless communications to meet their everyday internal and emergency communication requirements before they place value on being interoperable, i.e., able to work with other agencies.

Communications interoperability is the ability of public safety agencies (police, fire, EMS) and service agencies (public works, transportation, hospitals, etc.) to talk within and across agencies and jurisdictions via radio and associated communications systems, exchanging voice, data and/or video with one another on demand, in real time, when needed, and when authorized. It is essential that public safety has the intra-agency operability it needs, and that it builds its systems toward interoperability.

Outcome

A continuous flow of critical information is maintained as needed among multi-jurisdictional and multi-disciplinary emergency responders, command posts, agencies, and the governmental officials for the duration of the emergency response operation in compliance with National Incident Management System (NIMS). In order to accomplish that, the jurisdiction has a continuity of operations plan for public safety communications including the consideration of critical components, networks, support systems, personnel, and an appropriate level of redundant communications systems in the event of an emergency.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

- Primary: ESF#2: Communications
- Communications supports all ESFs at the Federal, State, local, and tribal levels.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
ComC 1	Develop communication plans, policies, procedures, and systems that support required communications with all Federal, regional, State, local, and tribal governments and agencies as well as voluntary agencies
ComC 1.2.1	Develop procedures for the exchange of voice and data with Federal, regional, State, local, and tribal agencies, as well as voluntary agencies
ComC 1.6	Develop supplemental and back-up communications and information technology plans, procedures, and systems
ComC 1.6.2	Identify emergency communications and data requirements for each stakeholder
ComC 1.1.1	Develop a continuous improvement plan that enriches interoperable communications to provide advanced customer service, reliability, and operational effectiveness

ComC 1.6.5	Complete an assessment of standard communication capabilities for the Public Safety Answering Points (PSAPs) and Public Safety Communication Centers to ensure an appropriate Continuity of Operations Plan (COOP) is in place for public safety and service agencies' communications	
ComC 1.7.3	Develop plans to provide telecommunication and information technology support to Federal, regional, State, tribal and local officials and the private sector	
ComC 1.4	Design reliable, redundant, and robust communications systems for daily operations capable of quickly reconstituting normal operations in the event of disruption or destruction	
ComC 1.7.2	Coordinate procurement and placement of technology communication systems based on a gap analysis of requirements versus existing capabilities	
ComC 1.5	Develop information systems protection procedures	
ComC 1.5.1	Develop and maintain automated credential verification systems to ensure proper credentialing for controlled access areas	
ComC 1.3	Establish and maintain information systems across response entities	
ComC 1.3.1	Develop interoperable telecommunication and Information Technology systems across governmental departments and agencies	
Preparedness Measures		Metrics
Operable communications systems that are supported by redundancy and diversity, that provide service across jurisdictions, and that meet everyday internal agency requirements, are in place		Yes/No
Communication systems support on-demand, real-time interoperable voice and data communication		Yes/No
Plans and procedures are in place to ensure appropriate levels of planning and building public safety communication systems prior to an incident		Yes/No
Plans and procedures are in place to ensure appropriate levels of upgrading/enhancing public safety communication systems and equipment prior to an incident		Yes/No
Plans and procedures are in place to ensure appropriate levels of replacing public safety communication systems and equipment prior to an incident		Yes/No
Plans and procedures are in place to ensure appropriate levels of maintaining public safety communication systems and equipment prior to an incident		Yes/No
Plans and procedures are in place to ensure appropriate levels of managing public safety communication projects prior to an incident		Yes/No
Assessment of standard communication capabilities for Public Safety Answering Points (PSAP)/Public Safety Communication Centers and Emergency Operations Centers (EOC) to ensure appropriate Continuity of Operations Plan (COOP) for public safety and service agencies' communications has been completed		Yes/No
Communications Continuity of Operations Plan (COOP) that outlines back-up systems available at State and local levels, including protocols for use of systems, is in place		Yes/No
Communications standard operating procedures (SOPs) that conform to NIMS are in place and are used in routine multiple jurisdictional responses		Yes/No
A multi-agency and multi-jurisdictional governance structure to improve communications interoperability planning and coordination has been established		Yes/No
Formal interoperable communications agreements have been established through the governance structure		Yes/No

Interoperability communications plans have been developed through governance structure and include all relevant agencies for data and voice communications.	Yes/No
Interoperability policies and procedures to allow information sharing between levels of government and Federal installations involved in incident, as necessary and as possible, are in place	Yes/No
Redundant and diverse interoperable communication systems are available	Yes/No
Plans to coordinate the procurement of communications assets to ensure interoperability are in place	Yes/No
Plans to acquire and influence sustained interoperability and systems maintenance funding have been developed	Yes/No
Plans include a procedure to return communications back to normal operations after each significant incident	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
ComC 2.1.1	Develop and implement awareness training programs for response communications
ComC 2.1.2	Develop exercises/drills of sufficient intensity to challenge management and operations and to test the knowledge, skills, and abilities of individuals and organizations for response communications
ComC 2.2.1	Develop and conduct training to improve all-hazard incident management capability for response communications
ComC 2.2.2	Conduct an after action review to determine strengths and shortfalls and develop a corrective plan accordingly for response communications
Preparedness Measures	Metric
Communications-specific tabletop exercises are conducted with multi-jurisdictional and multi-agency operations, technical, and dispatch participants	Yes/No
Communications-specific operational exercises with multi-jurisdictional and multi-agency participants are conducted	Yes/No
Operational exercises include an observer specifically to monitor the communications piece to ensure there is adequate information to provide in the After Action Report (AAR) to correct any communication problems that occurred for the future	Yes/No
Frequency with which plans, procedures, and use of all operable communications systems are tested and/or exercised in large and complex exercises	Every 12 months
All personnel including non traditional stakeholders have been trained to operate communications systems according to their incident role	Yes/No
Frequency with plans, procedures, and use of all interoperable communications equipment are reviewed tested and/or exercised	Every 12 months
Interoperability systems are used in pertinent everyday activities and emergency incidents to ensure familiarity with system and cooperation	Yes/No

Performance Tasks and Measures/Metrics

Activity: Alert and Dispatch

Definition: In response to an alert, make notification and provide communications management until the Incident Command (IC), Emergency Operations Center (EOC), and Emergency Management Agency (EMA) are stood-up

Critical Tasks

ComC 4.2	Implement incident communications interoperability plans and protocols
ComC 4.2.1	Communicate incident response information
ComC 4.2.1.1	Use established common response communications language (i.e., plain English) to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers
ComC 3.4	Request external resources using EMAC and other mutual aid/assistance processes (inter- and intra-State)
ComC 3.5	Initiate documentation process of required forms and follow-up notations
ComC 4.2.3	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notations on immediate response communications
ComC 4.1.1	Ensure that all critical communications networks are functioning
ComC 4.3	Implement procedures to protect information facility and communication network systems

Performance Measures

Metric

Time in which immediate dispatch information is provided to primary first responders during regular operations	Within 60 seconds from call classification by dispatch
Time in which Emergency Operations Centers (EOCs), first responders, and special resources acknowledge receipt and understanding of radio communications	Within 30 seconds from the end of transmission
Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver	90%
Frequency with which communications back-up is provided (per COOP and/or incident plan process) during emergencies when the conventional mode of communications fail or become overloaded to assure continued service amidst incident	Continuous
Time in which alternate communications and/or dispatch center are staffed in the event of a catastrophic loss of the primary site	Within 1 hour from the loss of primary site
COOP is activated based upon nature and disruption of new failure	Yes/No
Recovery time per classification of failure is realistic and alternative recovery processes are in place for incident support	Yes/No
Percent (above normal peak traffic) of technical surge and back-up capabilities within communications and/or dispatch centers to process incoming calls effectively with the loss of any one communication or dispatch centers (assumes surge staffing will be available in 30 minutes)	200%
COOP allows for maximum response per incident type and duration	Yes/No

Activity: Provide Incident Command/First Responder/First Receiver/Interoperable Communications	
Definition: In response to notification of an incident, go to the scene to provide and receive interoperable voice data and video communications	
Critical Tasks	
ComC 4.2	Implement incident communications interoperability plans and protocols
ComC 4.2.1	Communicate incident response information
ComC 4.2.2	Coordinate incident site communications to be consistent with the National Incident Management System (NIMS) framework
ComC 4.2.1.1	Use established common response communications language (i.e., plain English) to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers
ComC 4.2.3	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notations on immediate response communications
ComC 4.1.1	Ensure that all critical communications networks are functioning
ComC 4.1	Establish and maintain response communications systems on-site
ComC 4.3	Implement procedures to protect information facility and communication network systems
Performance Measures	Metric
Frequency with which local first responders are provided with tactical communications with approved local delivery process specified to incident	Continuous
Frequency with which tactical communications are provided between local disciplines (i.e., law enforcement, fire, and EMS) and among local fire units operating in the disaster site with approved delivery process specific to incident	Continuous
Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver	90%
Frequency with which communications back-up is provided during emergencies when the conventional mode of communications fail or become overloaded	Continuous
COOP and/or Incident Action Plan process assures continued service amidst incident	Yes/No
Time in which tactical communications are provided for regional first responders responding to the disaster site is within parameters of interoperability plans, as approved by governance structure/body	Yes/No
Percent of mobile communications coverage provided in rural areas affected by disaster	95%
Percent of street-level hand-held communications coverage provided in urban/suburban areas affected by disaster	95%
Percent of in-building hand-held communications coverage provided in central areas affected by disaster	95%
Tactical communications are provided for large regional “task forces” providing recovery assistance to disasters and other emergencies within parameters of interoperability plan, as approved by the governance structure/body	Yes/No

Activity: Provide Emergency Operations Center Communications Support

Definition: Upon notification, initiate interoperable system operations, in addition to maintaining, managing, and assuring protection of the interoperable communications systems until the EOC is ordered deactivated

Critical Tasks

ComC 4.2	Implement incident communications interoperability plans and protocols
ComC 4.2.1	Communicate incident response information
ComC 5.4.7	Inform staff and management of interoperable communications requirements
ComC 5.4.5	Provide direction, information and/or support as appropriate to incident command (IC) or unified command (UC) and/or joint field office(s)
ComC 5.3.1.2	Coordinate and provide telecommunications and information technology support to Federal, regional, State, tribal, and local officials and the private sector(s)
ComC 5.2	Establish and ensure connectivity with EOC/MACC
ComC 5.4	Coordinate communications policy and procedure across response entities
ComC 4.1	Establish and maintain response communications systems on-site
ComC 5.3	Establish and maintain interoperable information systems network within the EOC
ComC 5.3.1.1	Coordinate placement of latest technology that is available to agencies participating in response
ComC 5.3.3	Assure redundant communications circuits/channels are available for use
ComC 4.1.1	Ensure that all critical communications networks are functioning
ComC 4.2.1.1	Use established common response communications language (i.e., plain English) to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers
ComC 5.5	Maintain a common operating picture (COP) for real time sharing of information with all the participating entities to ensure all responder agencies are working from the same information
ComC 4.2.3	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notations on immediate response communications
ComC 4.3	Implement procedures to protect information facility and communication network systems
ComC 5.3.1.3	Coordinate and open State communications support/channels to local and tribal government and the private-sector to assist in awareness, prevention, response, and recovery communications activities

Performance Measures**Metric**

Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver	90%
Frequency with which communications back-up is provided during emergencies when the conventional mode of communications fail or become overloaded	Continuous
COOP and/or Incident Action Plan process to assure continued service amidst incident is in place	Yes/No
Key officials are notified in the event of an incident using relevant tools and technologies (e.g., call down lists, SMS messages, etc.)	Yes/No

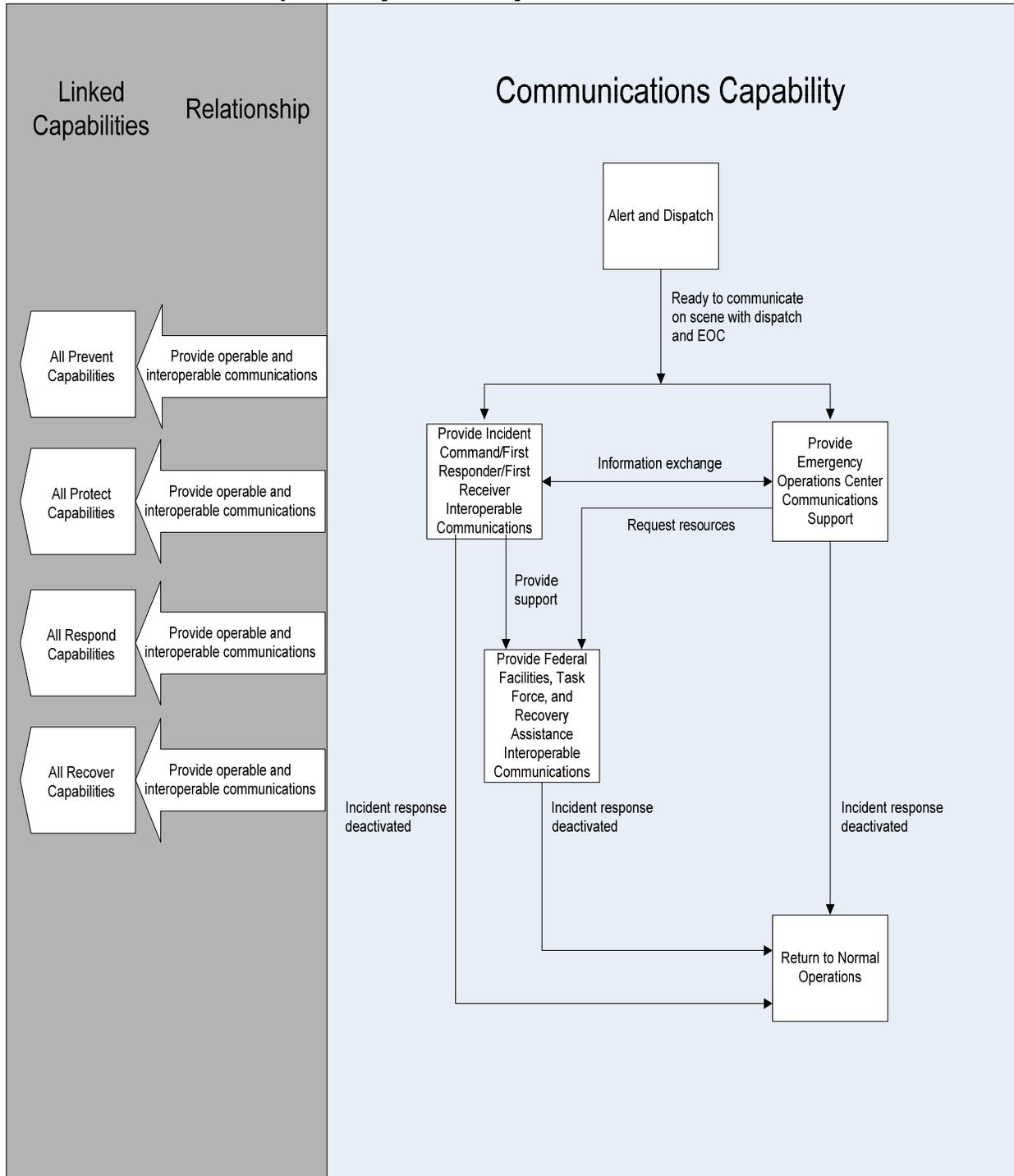
Activity: Provide Federal Facilities, Task Force, and Recovery Assistance Interoperable Communications	
Definition: In response to an alert, make notification and provide communications management until the Incident Command and EOC are stood-up	
Critical Tasks	
ComC 4.2	Implement incident communications interoperability plans and protocols
ComC 4.2.1.1	Use established common response communications language (i.e., plain English) to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers
ComC 4.2.3	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notations on immediate response communications
Performance Measures	Metric
Tactical communications are provided for large regional “task forces” providing recovery assistance to disasters and other emergencies within the parameters of interoperability plans, as approved by governance structure/body	Yes/No
Frequency with which communications back-up is provided during emergencies when the conventional modes of communication fail or become overloaded	Continuous
COOP and/or Incident Action Plan process assures continued service amidst incident	Yes/No
Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver	90%
Communications policies and procedures are followed	Yes/No

Activity: Return to Normal Operations	
Definition: Initiate deactivation procedures for the interoperable communications system and return the system to a ready state	
Critical Tasks	
ComC 4.2.1.1	Use established common response communications language (i.e., plain English) to ensure information dissemination is timely, clear, acknowledged, and understood by all receivers
ComC 4.2.3	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notations on immediate response communications
ComC 7.1.1	Develop communications section of the demobilization plan
ComC 7.1	Initiate interoperable deactivation procedures
ComC 7.1.2	Monitor communications demobilization
Performance Measures	Metric
Percent of communications sent and received that are completely understood without ambiguity by the sender or the intended receiver	90%

Linked Capabilities

Linked Capability	Relationship
All Prevent Capabilities	Communications provides all Prevent capabilities with operable and interoperable communications
All Protect Capabilities	Communications provides all Protect capabilities with operable and interoperable communications
All Respond Capabilities	Communications provides all Respond capabilities with operable and interoperable communication
All Recover Capabilities	Communications provides all Recover capabilities with operable and interoperable communications.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Interoperability Communications Plan	A plan for a designated area that includes governance, standard operating procedures, technology, training and exercises, and usage. An Interoperability Communications Plan is created for each designated participant area prior to an incident
Governance Group	Organization of agencies and jurisdictions who have entered governance agreements (i.e., memorandum of understanding/memorandum of agreement [MOU/MOA]) to coordinate decision making across agencies and jurisdictions.
Technology—System of Systems	Operable communication systems for the disciplines and jurisdiction as defined by the local requirements that allows for mutual aid components to connect in when authorized and as necessary. System-of-systems consists of local, State, and Federal components that can be connected through common interface standards. Element includes the following processes: Needs assessment; Evaluate current capability; Develop requirements; Perform gap analysis; System alternatives (with costs and types); Phase-in implementation; Define spectrum needs; Define security/encryption needs; Develop future upgrade plan and budget process.
Interoperable Communications Technical Assistance Program (ICTAP) Teams	Technical assistance team that implements the ICTAP, a program designed to enhance interoperable communications among local, State, and Federal emergency responders and public safety officials, and is associated with the Department of Homeland Security Office of Grants and Training's (G&T) Urban Area Security Initiative (UASI) grant program. Each team provides technical assistance in four phases: Phase 1: Define Technical Assistance Requirements; Phase 2: Define Enhancements Needed; Phase 3: Implementation; Phase 4: Continued services as needed until local support is in place
Public Safety Answering Point (PSAP) and Public Safety Communications Center Continuity of Operations Plan	Plan that provides ability to have redundant and back-up systems in place during an emergency

Planning Assumptions

- This capability reaches across all 15 National Planning Scenarios and within each capability. All major incidents require communication and interoperability to facilitate management of an incident. Therefore, the target level of interoperability is independent of a specific scenario. Interoperability is a support function for all other responder capabilities, so this mission-critical capability must be in place to ensure the personnel who are providing the other capabilities have access to the information they need to respond appropriately.
- Interoperability is the communication between disciplines and jurisdictions that permits real time exchanges of information on demand, with whoever needs it, when properly authorized, in conformance with the Incident Command System.
- Communications is the transmission of thoughts, messages, or information. The ability to communicate is critical to effective emergency response and is one of the most difficult tasks that must be performed during an incident or event. Effective communication during an emergency

requires a system that is both interoperable and redundant. The ability to transmit thoughts, messages, and information can be accomplished through a multitude of ways. In emergency response, the mechanisms that assist personnel in communications can vary, but are largely made up of wireless voice (radio), voice and data telephone (wireless and landline), wireless data, and internet voice/data.

- Communications interoperability is the ability of multiple entities to intermingle meaningful transmission of thoughts, messages, or information while using similar or dissimilar communications systems. A redundant communications system is a duplication of communications systems that can be accessed by personnel for the purpose of responding to, and/or mitigating and recovering from an incident or event.
- One of the major issues facing public safety and service agencies is the inability to communicate with one another when the need arises. Effective and efficient emergency response requires coordination, communication, and sharing of vital information among numerous public safety agencies. As the *National Strategy for the Physical Protection of Critical Infrastructures and Key Assets* observes, “most systems supporting emergency response personnel have been specifically developed and implemented with respect to the unique needs of each agency.”
- Public Safety Answering Point (PSAP), Public Safety Communication Centers, and Emergency Operation Centers (EOCs) must be in place and competently operational with the resources, and operational integrity to perform during an incident.
- Agencies must be “operable,” meaning they must have sufficient public safety and service agency communications capabilities to meet their everyday internal requirements before they place value on being “interoperable,” meaning being able to work with other disciplines and agencies. They need to improve those systems first but this improvement planning needs to include a vision for improved interoperability with other disciplines and agencies. At a time when more attention is being paid to interoperability among different disciplines and jurisdictions within the community, there still exists fundamental communication deficiencies within disciplines and jurisdictions as practitioners strive to perform the most routine and basic elements of their job functions.
- These deficiencies result in daily communication challenges for those working on the front lines in public safety and service agencies. The Interoperability Continuum (see reference link below) outlines critical elements for the planning and implementation of successful public safety and service agencies’ communications and interoperability solutions. These elements include governance, standard operating procedures, technology, training and exercises, and usage of interoperable communications. To drive progress along the five elements of the continuum and improve interoperability, public safety and service agency practitioners should observe the following principles:
 - Gain leadership commitment from all public safety and services agencies.
 - Foster collaboration across all public safety and services agencies for planning and implementation.
 - Work with policy makers to gain leadership commitment and resource support for interoperability.
 - Plan and budget for ongoing updates to systems, procedures, and documentation.
 - Use interoperability solutions on a regular basis.
- Interoperability is a support function for all other responder capabilities, so this mission critical capability must be in place to ensure the other capabilities have access to the information they need to respond.
- Existing Continuity of Operations Plans (COOPs) for public safety and service agency communications systems are in place.

- Individual agencies and jurisdictional systems must be operable and functioning before mutual aid can come in and connect to interoperate.
- Spectrum management should be coordinated to allow adequate allocation across all disciplines and jurisdictions.
- Critical infrastructure protective actions have been implemented to ensure communications systems remain operable.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Interoperability Communications Plan	One plan supports each designated participating area	All appropriate planning has been done prior to an incident	One per designated participant area
Governance Group	One governance group supports each participating area	All appropriate interactions, decisions and agreements have been made prior to incident to ensure effective response at the incident	One governance group per participating area as designated by local responder requirements
Technology- System of Systems	System that is appropriately connected to achieve interoperability when authorized and as necessary		One operable communication system for each individual agency
Interoperable Communications Technical Assistance Program (ICTAP) Teams		Needed prior to incident to ensure appropriate planning and engineering support is in place during an incident	20 ICTAP teams for technical engineering and planning as requested by the participating area

Approaches for Large-Scale Events

Because interoperability refers to the coordination and communication of command level or other authorized staff at the operational level, all large-scale events and the 15 National Planning Scenarios require plans that provide for established interoperability infrastructure before the incident occurs. Planning should include the ability to reconstitute normal communications systems that have been saturated, disrupted, or destroyed during an event.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Interoperability Communications Plan	Plan	1	Per State/Territory	State	All Activities
Interoperability Communications Plan	Plan	1	Per intrastate Region	Local (Intrastate region)	All Activities
Interoperability Communications Plan	Plan	1	Per UASI city	Local (City)	All Activities
Governance Group	Organization and Leadership	1	Per State	State	All Activities
Governance group	Organization and Leadership	1	Per intrastate Region	Local (Intrastate region)	All Activities
Technology—System of Systems	Resource Organization	1	Nationally	Federal/State/Local	All Activities

References

1. Homeland Security Presidential Directive/HSPD–8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
3. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/xlibrary/assets/NIMS-90-web.pdf>.
4. Emergency Management Accreditation Program (EMAP) Standards. September 2004. <http://www.emaponline.org/index.cfm>.
5. *Federal Leadership Needed to Facilitate Interoperable Communications Between First Responders*. U.S. Government Accountability Office. September 2004. <http://www.mipt.org/pdf/gao041057t.pdf>.
6. The State and Local Role in Domestic Defense. Policy Briefing. Cohen, John D., and Hurson, John A. Progressive Policy Institute. January 2002. http://www.ppionline.org/documents/local_home_d.pdf.
7. *Resource Definitions: 120 Resources*. National Mutual Aid and Resource Management Initiative, U.S. Department of Homeland Security, Federal Emergency Management Agency. September 2004. http://www.nimsonline.com/docs/Resource_Typing_Definitions_II.pdf.
8. National Association for Amateur Radio. <http://www.arrl.org/>
9. *NFPA 1221—Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*. National Fire Protection Association. 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1221>.
10. *NFPA 1561—Standard on Emergency Services Incident Management Systems*. National Fire Protection Association. 2005 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.

11. *Plan for Accelerating the Development of National Voluntary Consensus Standards for Public Safety Interoperable Communications*. Report to Congress in Response to House Report 108-796 to the Fiscal Year 2005 Department of Homeland Security Intelligence Reform Bill. March 2005.
12. *Tactical Interoperable Communications Planning Guide*. U.S. Department of Homeland Security, Office for Domestic Preparedness, Interoperable Communications Technical Assistance Program. April 2004.
13. Statement of Requirements for Public Safety Wireless Communications and Interoperability Version 1.0. U.S. Department of Homeland Security, Office for Interoperability and Compatibility, SAFECOM Program. March 10, 2004 http://www.safecomprogram.gov/NR/rdonlyres/3FFFBFBA-DC53-440E-B2EF-ABD391F13075/0/SAFECOM_Statement_of_Requirements_v1.pdf.
14. Interoperability Continuum. U.S. Department of Homeland Security, Office for Interoperability and Compatibility, SAFECOM Program. April 2005. <http://www.safecomprogram.gov/NR/rdonlyres/54F0C2DE-FA70-48DD-A56E-3A72A8F35066/0/ContinuumBrochure.pdf>.
15. *Operational Guide for the Interoperability Continuum: Lessons Learned from RapidCom*. U.S. Department of Homeland Security, Office for Interoperability and Compatibility, SAFECOM Program. Summer 2005.
16. Recommended Federal Grants Guidance: Public Safety Communications & Interoperability Grants. U.S. Department of Homeland Security, Office for Interoperability and Compatibility, SAFECOM Program. November 2004. http://www.safecomprogram.gov/SAFECOM/library/grant/1017_recommendedfederal.htm.
17. Statewide Communications Interoperability Planning (SCIP) Methodology. U.S. Department of Homeland Security, Office for Interoperability and Compatibility, SAFECOM Program. http://www.safecomprogram.gov/SAFECOM/library/interoperabilitycasestudies/1223_statewidecommunications.htm
18. *Why Can't We Talk? Working Together To Bridge the Communications Gap to Save Lives*. National Task Force for Interoperability guide. National Institute of Justice. February 2003. <http://www.ojp.usdoj.gov/nij/pubs-sum/204348.htm>
19. Technical Assistance Catalog. See assistance related to the Interoperable Communications Technical Assistance Program (ICTAP): CBRNE Terrorism Prevention #103 (PREV-103), CBRNE Terrorism Response # 214 (RESP-214), and CBRNE Terrorism Recovery #304 (RECV-304). U.S. Department of Homeland Security, Homeland Security Preparedness Technical Assistance Program. http://www.ojp.usdoj.gov/odp/docs/ODP_TA_Catalog.pdf

RISK MANAGEMENT

Capability Definition

Risk Management is defined by the Government Accountability Office (GAO) as “A continuous process of managing—through a series of mitigating actions that permeate an entity’s activities—the likelihood of an adverse event and its negative impact.” Risk Management is founded in the capacity for all levels of government to identify and measure risk prior to an event, based on credible threats/hazards, vulnerabilities, and consequences, and to manage the exposure to that risk through the prioritization and implementation of risk-reduction strategies. The actions to perform Risk Management may well vary among government entities; however, the foundation of Risk Management is constant.

Currently there are a variety of tools, processes, and offerings in practice and under development to serve the capability of Risk Management. As with the distribution of the National Infrastructure Protection Plan, the Department of Homeland Security has outlined core requirements for the management of risk, and will continue to serve this capability through additional technical assistance. As communities mature their Risk Management capability they are encouraged to look to DHS for continued guidance and updates to Threat information from the aforementioned Homeland Infrastructure Threat and Risk Analysis Center (HITRAC) office as well as guidance on the further development of a risk analysis methodology for critical asset protection.

Outcome

Federal, State, local, tribal and private sector entities identify and assess risks, prioritize and select appropriate protection, prevention, and mitigation solutions based on reduction of risk, monitor the outcomes of allocation decisions, and undertake corrective actions. Additionally, Risk Management is integrated as a planning construct for effective prioritization and oversight of all homeland security investments.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

- ESF #1: Transportation
- ESF #3: Public Works and Engineering
- ESF #4: Firefighting
- ESF #5: Emergency Management
- ESF #6: Mass Care, Housing, and Human Services
- ESF #8: Public Health and Medical Services
- ESF #9: Search and Rescue (Land-Based)
- ESF #10: Oil and Hazardous Materials Response
- ESF #12: Energy
- ESF #13: Public Safety and Security
- ESF # 14: Long-Term Community Recovery and Mitigation

Preparedness Tasks and Measures/Metrics

Activity: *Develop Risk Framework*

Definition: Develop a framework for how risk assessments and risk analysis will serve the business process of managing “risks” and a process for stakeholder buy-in. Establish a comprehensive stakeholder governing process to oversee an all-encompassing ongoing perspective of the risks posed onto the respective community. This body should include public administrators, the owners and operators of critical infrastructure and key assets within the given community, as well as key stakeholders and decision makers. Furthermore, the “framework” must consider the functional as well as spatial relationships of assets as they are often interrelated.

Critical Tasks

ComE 1.1	Ensure senior leadership communicates in writing the risk framework and intent to use risk analysis to all stakeholders
ComE 1.2	Develop actionable risk management strategy with short, medium, and long-term objectives
ComE 1.3	Develop risk analysis and risk management plans and procedures
ComE 1.3.1	Develop standards and guidelines to guide risk assessment activities
ComE 1.4	Develop and implement risk analysis training programs for state, local, and private entities
ComE 1.4.1	Conduct training in modeling and the use of analytical tools
ComE 1.4.2	Conduct risk management training for security, response, and recovery managers
ComE 1.5	Develop and implement programs to assess changes in risk and effectiveness of risk management
ComE 1.5.1	Develop system for collecting and sharing lessons learned regarding risk management

Preparedness Measures

Metric

An actionable risk management strategy that includes short, medium, and long term objectives is in place	Yes/No
Risk analysis and risk management plans are in place	Yes/No
A strategy to mitigate current risk profile has been implemented	Yes/No
Schedule and capability for updating risk analysis and risk management plans is in place	Yes/No
State, local, and private entities have been trained to conduct risk analysis	Yes/No
Monitoring program to detect changes in risk is in place	Yes/No
Program to assess program/security measures implementation is in place	Yes/No

Activity: *Assess Risks*

Definition: Assess potential targets within given system of governance as well as in relation to other systems. Identify functional as well as spatial relationships of assets and systems infrastructure and assets. This activity may be applied to assets (power generation), systems

(power supply grids), Sectors (power industry) and geographic areas (metropolitan areas). Risk management includes risks from both man made events and acts of nature.

Critical Tasks

ComE 2.1	Conduct criticality analysis (also known as screening) to identify potential targets
ComE 2.2	Conduct vulnerability assessments to assess vulnerability of potential targets to identified threats
ComE 2.3	Conduct consequence analysis of critical assets
ComE 2.4	Conduct threat assessment of potential targets
ComE 2.4.1	Conduct or obtain intelligence community threat/hazard analysis through State or local Interagency Working Groups (Joint Terrorism Task Force) to identify threats to potential targets
ComE 2.4.2	Obtain intelligence reporting and the receipt of the threat data through the Department of Homeland Security's Homeland Infrastructure Threat and Risk Analysis Center (HITRAC)
ComE 2.5	Calculate risk to potential targets based on threat, vulnerability, and consequence
ComE 2.6	Establish relative order of priorities for risk mitigation among risk portfolio
ComE 2.7	Conduct response and recovery capabilities analysis to determine capability to respond to and recover from the occurrence of identified risks

Performance Measures

Metrics

Criticality results were used to identify potential targets	Yes/No
Threat, vulnerability, and consequence results were used to assess risk for potential targets	Yes/No
A comprehensive risk assessment has been completed for potential targets identified	Yes/No
Risk assessment plans and procedures were implemented	Yes/No

Activity: *Prioritize Risks*

Definition: Rate and/or rank criticality of potential targets to mitigate or transfer associated risk (if possible) as related to given target within a system of targets

Critical Tasks

ComE 3.1	Identify potential protection, prevention, and mitigation strategies for high-risk targets
ComE 3.2	Prioritize identified strategies by risk reduction expected outcomes appreciating the various threat, vulnerabilities, and consequences that affect that community, system or asset

Performance Measures

Metrics

Risk and risk reduction results were used to prioritize risk-reduction strategies	Yes/No
Integration of a schedule and strategy to implement risk reduction strategies, including milestones, funding strategies, and opportunity costs where possible has been completed	Yes/No
Integration of a schedule and strategy for reducing the greatest risk posed to the respective stakeholder has been completed	Yes/No

Activity: *Develop Business Case*

Definition: Develop cost-benefit/cost-effectiveness analysis for consideration of applicable prescribed measures required to mitigate associated risks to an asset or system of assets; consider opportunity costs associated to one measure versus another

Critical Tasks

ComE 4.1	Develop or select methodology for cost-benefit/cost-effectiveness analysis of risk reduction solutions	
ComE 4.2	Select risk reduction solutions for implementation based on risk reduction strategies	
ComE 4.3	Allocate resources to support risk reduction solutions	
Performance Measures		Metrics
Funding priorities reflect risk assessment and prioritization of risk-reduction strategies		Yes/No
Solutions were selected and resources allocated		Yes/No
Resources were allocated and measures established to shift to a new risk reduction target		Yes/No

Activity: *Manage Risk*

Definition: Manage and monitor risk through continued assessment and analysis. Continuous consideration should be given to refresh the given threat, emerging vulnerabilities, and changing consequences to the system or assets under consideration.

Critical Tasks

ComE 5.1	Monitor the progress of solution implementation	
ComE 5.1.1	Undertake corrective actions	
Performance Measures		Metrics
Selected solutions have been verified as successfully implemented		Yes/No
Selected solutions were effective in reducing risk		Yes/No

Activity: *Conduct Risk Communication*

Definition: Develop understanding and appreciation of risk assessment, risk analysis, and risk management principles, and develop avenues for receiving information on threat, vulnerability, and consequence

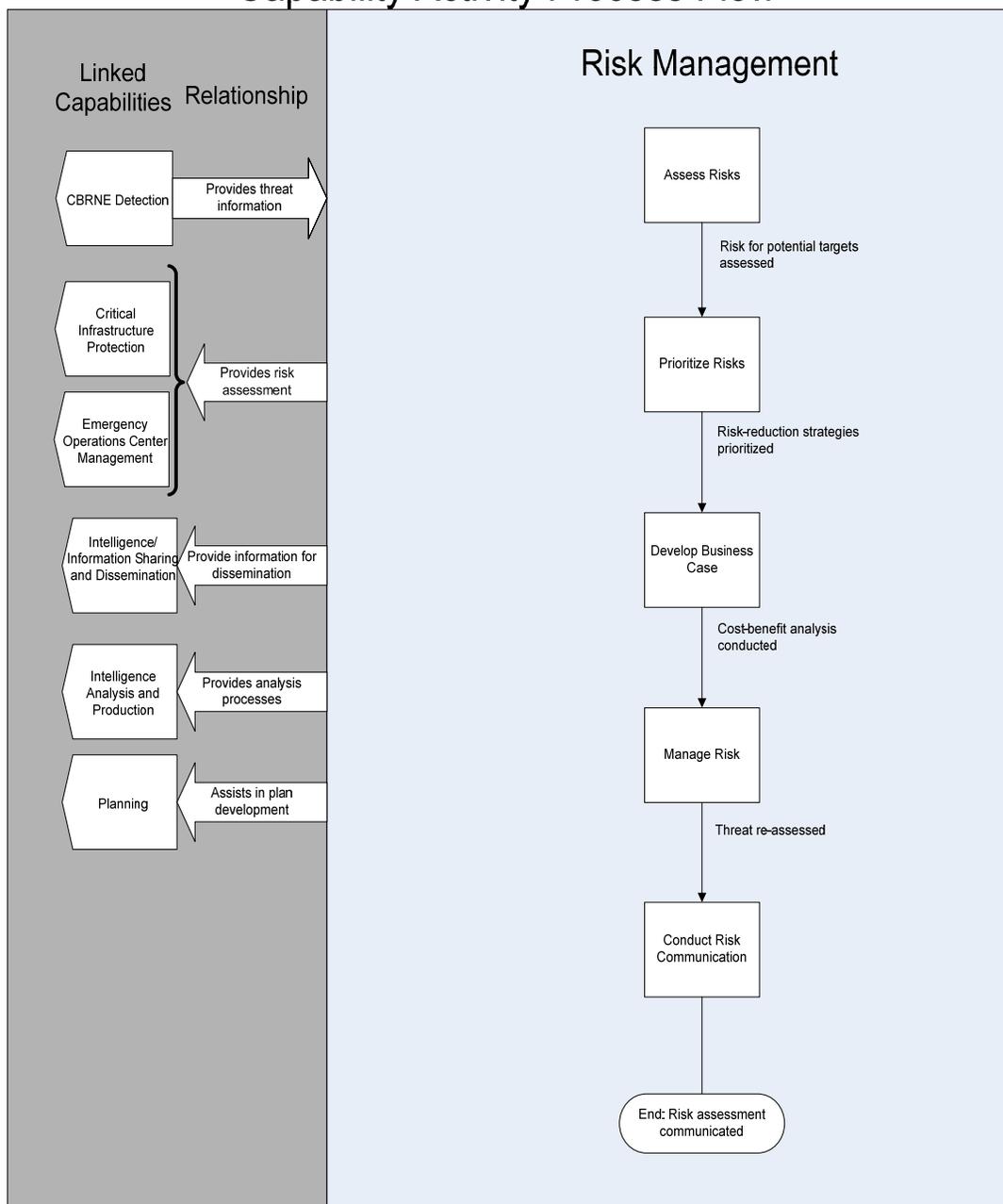
Critical Tasks

ComE 6.1	Share the assessment of sector-specific infrastructure risk with interdependent entities within appropriate sectors	
Performance Measures		Metrics
Risk management strategy is communicated regularly with stakeholders (monthly or quarterly reporting)		Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
CBRNE Detection	CBRNE Detection provides potential threat information used in the risk assessment process of Risk Management
Critical Infrastructure Protection	Critical Infrastructure Protection uses the risk assessment process to prioritize protection decisions
Emergency Operations Center Management	Risk Management provides risk assessments to Emergency Operations Center Management
Intelligence and Information Sharing and Dissemination	Risk Management provides information for Intelligence and Information Sharing and Dissemination
Intelligence Analysis and Production	Risk Management provides analysis processes to Intelligence Analysis and Production
Planning	Risk Management is a key step in the all-hazards planning process.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Local law enforcement	Personnel with skills, ability, and training to promulgate local risk assessment and risk management strategies, with a focus on risk management, and to participate in risk communication activities
Urban Area Working Groups	Personnel with skills, ability, and training to promulgate local risk assessment and risk management strategies, with a focus on risk management, and to participate in risk communication activities
Regional Transit Security Working Groups	Personnel with skills, ability, and training to promulgate local risk assessment and risk management strategies, with a focus on risk management, and to participate in risk communication activities
Area Maritime Security Committees	Personnel with skills, ability, and training to promulgate local risk assessment and risk management strategies, with a focus on risk management, and to participate in risk communication activities
Owners and Operators of Critical Infrastructure/Key Resources (CI/KR)	Personnel with skills, ability, and training to promulgate emergency operations plans (EOPs) as part of local and regional risk management strategies, and to participate in risk communication activities
State Administrative Agencies (SAAs)	Personnel with skills, ability, and training to promulgate State-wide risk assessment and risk management strategies; to participate in risk communications activities; and to use risk reduction tools to evaluate alternate risk management strategies
Federal law enforcement and homeland security community	Personnel with skills, ability, and training to promulgate national risk assessment and risk management strategies; to participate in risk communications activities; and to create, disseminate, and use risk reduction tools to evaluate alternate risk management strategies
Joint Terrorism Task Forces (JTTFs)	Task forces formed at the local level and composed of persons from various government and private entities (e.g., law enforcement, public health, local businesses, key infrastructure representatives, emergency management, and other first responders).
National intelligence community	Personnel with skills, ability, and training to support national risk assessment and Risk Management strategies and to participate in risk communications activities. Training and formal education are keys to having a sound Risk Management background. Various levels of government will require varying levels of experience or capabilities
Risk analysis/risk management tools	Tools to facilitate risk analysis/risk management
Cost estimating tools	Tools to estimate costs of risk management decisions
Geographical Information System (GIS) data collection tools	Tools to facilitate the collection of geographically-specific data

Planning Assumptions and Definitions

- Risk assessments can be conducted in a relative manner. Calculated threat and risk ratings will not represent absolute probabilities, unless accurate probability data is readily available, but rather will be measured relative to other threats.

Target Capabilities List

- Scenario-based risk assessment will be used to evaluate threat, vulnerability, and consequence. For purposes of consistency the National Planning Scenarios should be used.
- Input will be sought from the national intelligence community, including JTTFs, to establish viable threats and the relative likelihood of those threats. To seek alignment with the National Infrastructure Protection Plan would be to use the threat analysis generated by DHS/ Homeland Infrastructure Threat and Risk Analysis Center (HITRAC) in coordination with the intelligence community. This would provide a more authoritative and more consistent threat input.
- Scenario-specific threat assessments will include evaluation of target value, weapon availability, attack simplicity, as well as past history and specific intelligence information. Target values will require expert opinion and should be coordinated with the intelligence community and/or Federal stakeholders. Furthermore, the "intent" and "capability" of the adversary must be applied to assess terrorist threat. This approach is consistent with the DHS/NIPP threat analysis approach.
- Vulnerability analysis will measure the likelihood that specific scenarios could be executed successfully based on an evaluation of physical features, security capabilities, and response capabilities that serve to prevent an attack from being successful.
- Consequence analysis will measure the expected outcome of specific scenarios based on analysis of the susceptibility to attack of the asset given the functional characteristics of the targets, likely cascading impacts to interdependent assets, and the availability of response and recovery capabilities.
- Prevention, response, and recovery assessments will also be based on the same set of scenarios.
- Total systemic risk will be calculated as an integration of risk across all targets and scenarios within a jurisdiction.
- Appropriate protection, prevention, and mitigation solutions will be evaluated using risk-reduction tools. Threat, vulnerability, and consequence will be re-evaluated based upon implementation of solutions. Initial risk calculations serve as a benchmark against which risk reduction is measured.
- Criticality assessments will be based on critical target factors that represent the mission of targets to the Federal, State, local, and tribal entities. Considerations should be provided to the factors of human health impact, economic impact, national strategic mission impact, and psychological impact as aligned to Homeland Security Presidential Directive-7.
- Life cycle costs for identified solutions will be evaluated, including implementation costs such as training and recurring costs such as personnel and maintenance, and discounted to produce a net present cost. Where available and known, costs to upgrade will be included.
- Resources will be allocated through cost-benefit analysis, comparing total risk reduction and costs.
- From an actionable perspective, all communities of interest are responsible for risk communication. Risk communication may include but should not be limited to intelligence data, potential terrorism target selection or infrastructure selection, and anomalies which may result in prevention and or deterrence. Furthermore, there are tactical, strategic, and operational responsibilities for each respective community of interest.
- Federal, State, and local governments and the private sector all have a role in managing risk. Each should develop an understanding and appreciation of the principles of risk assessment, analysis and management. Each should develop a framework that integrates risk management in their business, and include a process for stakeholder buy-in and governance.
- There are current departmental activities aligned to develop a national baseline for risk management architecture. The Department of Homeland Security has defined the framework as the appreciation for consequence, threat, and vulnerability. Given this foundation and the work of the Department, a target architecture should be forthcoming. The National Infrastructure Protection Plan (to be released) provides a framework for the foundations of risk management. Specifically, Chapter 3 and Appendix 3 of the National Infrastructure Protection Plan.

- The work within this target capability is focused on “terrorism risk,” as it is that adversarial relationship that this target capability is designed for under the disciplines of homeland security. It is intended to establish the fundamental equations that define terrorism risk and to standardize terminology for conduct of a terrorism risk assessment. However, the ability to plan for catastrophic events such as natural disasters should be considered equally within the greater scheme of risk management.
- Although estimates can be made as to the potential goals of terrorist groups, the targets that they might select, and the types of weapons that they might use, the actions of terrorists do not absolutely conform to any set of rules or statistics. Because relatively few attacks have occurred in the United States, historical data using trend analysis cannot predict future events and may be of only limited use in predicting even the *type, time, or location* of attacks that might be launched.
- Because of the human element, there is a linkage between terrorism risks at different potential targets. Unlike most forms of risk, where the likelihood of the event occurring at any given location is independent, with terrorism the likelihood of the event occurring is very much dependent on actions that occur at other potential targets. If security measures are increased at one target (target hardening), the relative likelihood of attack can increase at other potential targets (soft targets). This happens because additional security measures could direct resources away from one target and towards others with lower levels of deterrence.
- Similarly, the relative value of a potential target can also have a major effect on the likelihood of attack. Terrorist target sites will meet certain goals for an attack, including casualties, economic disruption, or symbolic importance. A larger relative value for one potential target over another makes it more likely that the site might be attacked. Changes in the relative value of other sites could have the effect of changing the risk of terrorism at a particular site, even if no change occurred at the site itself.
- Standard algorithms and terminology for evaluating risk must be modified to deal with the effects of the human-element and of the linkages between targets.
- Target attractiveness measures the features of a particular asset that may make it more or less likely to be targeted by terrorists for a particular form of attack. Evaluation of target attractiveness should include an evaluation of two sets of features: *target value* and *deterrence*. *Target value* evaluates those features of an asset that make it more likely that an asset will be attacked; features that make the asset attractive as a target. These may include: potential for casualties, potential for economic disruption, and symbolic importance. *Deterrence* evaluates those features that make a target less likely to be attacked. These features primarily include visible security and known response capabilities.
- In instances where frequency of attack can be reasonably evaluated using statistical analysis or some other direct form of estimate, that metric can be directly used for target attractiveness.
- The Consequence of a terrorist attack is a product of the *criticality* of the target and the *impact* that an attack would have on that *criticality*.
 - $\text{Consequence} = (\text{Criticality}) \times (\text{Impact})$
- *Criticality* is broadly defined as the particular aspects or features of an asset that would make someone want to protect the asset against an attack. Generally, *criticality* is defined using a set of ‘Critical Asset Factors’. These factors define the specific features of an asset that could make it important to protect that asset from attack. Examples of typical critical asset factors include:
 - Loss of Life
 - Economic losses
 - Disruption of Government Services
 - Degradation of Critical Infrastructures and Key assets

- Symbolic and Psychological Impact
- Cascading impacts on interdependent assets
- Once the risk has been determined, the likelihood of an attack being successful can be assessed. In determining the susceptibility of an attack or “vulnerability to attack” it is assumed that the asset has been targeted, that the terrorists have the required weapon(s) and equipment, and that the attack will take place. The susceptibility then measures the probability that the attack would achieve its desired result given the constraints that are in place at the target, including physical constraints, operational constraints, and security measures.
- There are a number of methods that can be used to calculate or estimate *susceptibility*. These range from simple ratings of security capabilities to complex, simulation-based evaluations of detailed attack scenarios. The most appropriate method will depend on the type of asset and the goals of the risk assessment. In general, however, an appropriate assessment of susceptibility would include an evaluation of physical features, security capabilities, and response capabilities that serve to prevent an attack from being successful. These activities can also be categorized as those that serve to deny, detect, delay, or defend against the attack, and are addressed by other capabilities in the TCL.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Risk assessment does not focus on single incidents but rather assesses risk across a number of viable threats and critical assets.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Local law enforcement	Personnel	As Needed		Local	Develop Risk Framework Assess Critical Infrastructure Risks Manage Risk Conduct Risk Communication
Urban Area Working Groups	Personnel	As Needed		Local	Develop Risk Framework Assess Critical Infrastructure Risks Manage Risk Conduct Risk Communication
Regional Transit Security Working Groups	Personnel	As Needed		Local (Intrastate region)	Develop Risk Framework Assess Critical Infrastructure Risks Manage Risk

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Conduct Risk Communication
Area Maritime Security Committees	Personnel	As Needed		Local (Intrastate region)	Develop Risk Framework Assess Critical Infrastructure Risks Manage Risk Conduct Risk Communication
Owners and operators of critical infrastructure/ key resources (CI/KR)	Personnel	As Needed		State/Local/Private Sector	Develop Risk Framework Conduct Risk Communication Assess Critical Infrastructure Risks and Manage Risk Analyze Interdependencies of Assets (Functional, Spatial)
State Administrative Agencies	Personnel	As Needed		State	Assess Critical Infrastructure Risks Prioritize Risks Develop Business Case Manage Risk Conduct Risk Communication
Federal law enforcement and homeland security community	Personnel	As Needed		Federal (DHS)	Develop Business Case Manage Risk Conduct Risk Communication
Joint Terrorism Task Forces (JTTFs)	Personnel	As Needed		Federal (DOJ, DHS)	Develop Business Case Manage Risk Conduct Risk Communication
National intelligence community	Personnel	As Needed		Federal	Develop Business Case Manage Risk Conduct Risk Communication

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Risk analysis/risk management tools	Equipment	As Needed		Federal/State/ Local	Assess Risk
Cost estimating tools	Equipment	As Needed		Federal/State/ Local	Develop Business Case Manage Risk
Geographical Information System (GIS) data collection tools	Equipment	As Needed		Federal/State/ Local	Assess Risk

References

1. National Infrastructure Protection Plan. Department of Homeland Security.
2. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/releases/2003/12/20031217-6.html>
3. National Response Plan (NRP). Department of Homeland Security, December 2004.
4. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
5. Walker, David M. "Strategic Budgeting: Risk Management Principles Can Help DHS Allocate Resources to Highest Priorities," United States Government Accountability Office, Testimony Before the Subcommittee on Management, Integration, and Oversight, Committee on Homeland Security, House of Representatives, GAO-05-824T, June 29, 2005: <http://www/gao.gov/new.items/d05824t.p>

COMMUNITY PREPAREDNESS AND PARTICIPATION

Capability Definition

The Community Preparedness and Participation capability provides that everyone in America is fully aware, trained, and practiced on how to prevent, protect/mitigate, prepare for, and respond to all threats and hazards. This requires a role for citizens in personal preparedness, exercises, ongoing volunteer programs, and surge capacity response. Specific capabilities for UNIVERSAL preparedness, including knowledge of all-hazards (technological, natural, and terrorist incidents) and related protective measures, skills, and supplies, will be determined through a collaborative process with emergency responders.

Outcome

There is a structure and a process for ongoing collaboration between government and nongovernmental resources at all levels; volunteers and nongovernmental resources are incorporated in plans and exercises; the public is educated and trained in the four mission areas of preparedness; citizens participate in volunteer programs and provide surge capacity support; nongovernmental resources are managed effectively in disasters; and there is a process to evaluate progress.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability should play a role in ESFs and Annexes at the Federal, State, tribal, and local levels.

Preparedness Tasks and Measures/Metrics

Activity: Establish Collaborative Structure and Process for Government and Non-Governmental Entities at All Levels

Definition: Develop an organizational entity with member representation from emergency responder disciplines, elected officials, voluntary organizations, civic organizations, faith-based organizations, special needs advocacy groups, private sector, neighborhood associations, educational institutions, and critical infrastructure.

Critical Tasks

ComF 1.1.1	Establish leadership support at the national, State, tribal, and local levels for Citizen Corps Councils
ComF 1.2	Establish and maintain Citizen Corps Councils at all levels of government: Federal, State, tribal, local
ComF 1.2.2	Establish a strategic plan for the Citizen Corps Council's jurisdiction to engage all residents in preparedness, training, drills/exercises, and volunteer support taking into account the jurisdiction's potential threats, critical infrastructure, population density, and population composition
ComF 1.3	Develop all-hazards preparedness requirements and a process to sustain citizen capabilities
ComF 1.2.3	Implement a process to count and assess membership of Citizen Corps Councils

Preparedness Measures	Metrics
Number of local Citizen Corps Councils nationwide	2500
Percent of total U.S. population served by a Citizen Corps Council	99%
Membership of Citizen Corps Council includes representatives from government, emergency management officials, civic organizations, faith-based organizations, special needs advocacy groups, private sector, critical infrastructure, education, and neighborhood associations	Yes/No
Strategic plan to engage all residents in preparedness, training, drills/exercises, and volunteer support is in place	Yes/No
Local Citizen Corps Councils coordinate with State level Citizen Corps Councils	Yes/No

Activity: *Integrate Public Outreach and Non-Governmental Resources into Emergency Operations Plans and Exercises*

Definition: Include sufficient planning for alerts and public warnings, emergency public education and information, evacuation, mass care, health and medical services, non-governmental volunteer and donations resource management, and establish clear roles and protocols for volunteers for all ESFs and Annexes. Evaluate plans through exercises that include non-governmental entities, volunteer operations, and the general public.

Critical Tasks

ComF 2.1	Integrate citizen participation in the planning process at all levels
ComF 2.1.1	Incorporate, in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals with disabilities and their care givers
ComF 2.1.2	Incorporate, in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals who do not speak English
ComF 2.1.3	Incorporate in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals with low income and limited resources
ComF 2.1.4	Incorporate in all plans, procedures and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for age-related issues and concerns
ComF 2.1.5	Incorporate in all plans, procedures and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for companion and service animals
ComF 2.3.1	Integrate non-governmental entities, volunteers, and the general public in exercise planning, implementation, and review of all levels (national/international, regional, State, tribal, urban, local) and types of exercises (all hazards, terrorism, bioterrorism, natural disasters)
ComF 2.2.2	Establish and maintain a database of the jurisdiction's non-governmental assets to include entities that manage trained and skilled volunteers, unaffiliated volunteers, and donated goods
ComF 2.2.3	Establish necessary stand-by contracts and MOAs and MOUs with appropriate private sector and non-governmental organizations to augment government resources with NIMS-credentialed volunteers and NIMS-typed materials.
ComF 2.4	Establish and maintain a process to evaluate citizen preparedness and participation and to recognize exemplary citizens in preparedness programs
ComF 2.4.1	Implement processes to evaluate and periodically reassess citizen related component of

	Emergency Operations Plans, to include alerts and warnings, public education and emergency public information, evacuations, mass care, and non-governmental resource management	
ComF 2.4.2	Implement a process to evaluate non-governmental participation in exercises at all levels	
ComF 2.5	Support community infrastructure to achieve appropriate levels of preparedness, to include developing community-wide automated alerts and warning systems and training citizens working in critical infrastructure locations	
Preparedness Measures		Metrics
Percent of State and UASI jurisdictions' EOPs that address citizen preparedness and participation, establish volunteer support for ESFs, and plan for use of non-governmental resources		100%
Percent of exercises that engage non-governmental entities, volunteers and the general public		100%
Frequency with which non-governmental entities and citizens (i.e., non-emergency responders) participate in planning, implementing, and reviewing community emergency exercises		Every 24 months
Plans include MOUs specific to non-governmental entities (e.g., personnel and resources)		Yes/No

Performance Tasks and Measures/Metrics

Activity: Provide Education and Training for the Public in All Mission Areas	
Definition: Ensure the public is educated and trained in prevention, protection, response, and recovery for all hazards, with specific consideration for high-threat hazards for the area in which they live, work, or attend school and for special needs	
Critical Tasks	
ComF 3.1	Plan, conduct, and evaluate public education programs for citizen prevention, protection/mitigation, response and recovery capabilities
ComF 3.1.2	Provide continuing education and training for the public on: prevention, protection and mitigation measures, community emergency response plans, alerts and warnings (including threat levels), evacuation/in-place protection plans and exercises, participating in government-sponsored emergency exercises, volunteer opportunities and training for year round volunteer role or surge capacity role in response and recovery
ComF 2.1.1	Incorporate, in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals with disabilities and their care givers
ComF 2.1.2	Incorporate, in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals who do not speak English
ComF 2.1.3	Incorporate in all plans, procedures, and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for individuals with low income and limited resources
ComF 2.1.4	Incorporate in all plans, procedures and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for age-related issues and concerns
ComF 2.1.5	Incorporate in all plans, procedures and protocols (including outreach, training and exercises, and volunteer opportunities), consideration for companion and service animals
ComF 3.2.1	Train the public to be aware and to report suspicious items and behavior

ComF 3.2.2	Provide crime prevention, counter-terrorism and public education program materials in multiple languages	
ComF 3.2.3	Assist owners of critical infrastructure in increasing security measures and strengthening connection to local law enforcement through Citizen Corps Councils	
ComF 3.2.4	Strengthen Community Oriented Policing philosophy by providing volunteer opportunities to support local law enforcement	
ComF 3.3.1	Establish jurisdictional citizen educational programs on personal protective measures, disaster kits and communications plans	
ComF 3.3.2	Develop and provide community preparedness public education program and materials for at risk populations	
ComF 3.3.3	Develop and provide community preparedness public education program and materials for non-English speaking communities and special needs populations	
ComF 3.3.4	Support education and training on automated alerts and warnings and related responses	
ComF 3.1.3	Implement a process to assess citizen preparedness and implement longitudinal tracking	
Performance Measures		Metrics
Percent of annual increase in number of citizens educated and trained in UNIVERSAL all-hazards capabilities until 80% of population is educated and trained		5%
Percent of annual increase in number of citizens who are aware of heightened jurisdictional threat levels and aware of jurisdiction alerts and warnings, until 80% of citizens maintain awareness		5%
Percent of annual increase in number of citizens within the jurisdiction who are alert to unusual behavior in others that might indicate potential terrorist activity and understand appropriate reporting procedures, until 80% of citizens maintain knowledge		5%
Percent of annual increase in number of privately held critical infrastructure computer owners who implement appropriate virus protections and act on virus alerts, until 80% of owners achieve implementation		5%
Percent of annual increase in number of households that conduct pre-incident preparation – to include maintaining a communication plan, disasters supplies, and a practicing evacuation/shelter-in-place, and maintaining skills until 80% of households maintain pre-incident preparation		5%
Percent of annual increase in number of citizens prepared to evacuate or relocate to designated shelter (to include citizens with special needs), until 80% of population is prepared		5%
Percent of annual increase in jurisdiction’s population that is knowledgeable of workplace, school, and community emergency plans, until 80% of population maintains knowledge		5%
Percent of annual increase in number of citizens prepared to shelter-in-place and have emergency supplies on hand as advised by local authorities, until 80% of population prepared to shelter in place		5%
Percent of annual increase in number of citizens trained in basic first aid, until 80% of population maintains skills		5%
Percent of annual increase in number of citizens educated and trained in RISK-BASED capabilities for high-threat incidents in their area, to include natural hazards, technological hazards, and terrorism, until 72% of population (80% of those living in high-threat area) are educated and trained per appropriate hazard		5%
Percent of annual increase in number of citizens who know the appropriate detailed response		5%

for specific high-threat incidents in their area, to include multiple incidents where appropriate, until 72% of population (80% of those living in high-threat area) have specialized awareness	
Percent of annual increase in number of population trained in CBRNE and decontamination procedures, until 46% of population (80% of those living in urban areas) maintain skills	5%
Percent of annual increase in number of population with risk-based life-saving skills, until 72% of population (80% of those living in high-threat area) maintain specialized skills.	5%
Percent of annual increase in number of households, businesses, and schools that have implemented mitigation measures to protect property from specific high-threat, until 72% households, businesses, and schools (80% of those in high-risk areas) have implemented mitigation measures	5%

Activity: *Provide Volunteer Opportunities: year round and in surge operations*

Definition: Develop and implement education, training, and exercises for ongoing volunteer programs and volunteer surge response and recovery activities

Critical Tasks

ComF 4.1	Develop and sustain volunteer opportunities for citizens to support local emergency responders and community safety efforts year round, to include necessary training and equipment
ComF 4.2	Develop NIMS credentialing for volunteer surge capacity job functions to support all ESFs and annexes
ComF 4.3	Develop and implement training and exercise programs to enable citizens to support emergency response and recovery operations
ComF 4.4	Implement a process to track numbers of volunteers who participate in ongoing volunteer programs
ComF 4.5	Implement a process to track numbers of volunteers who participate in surge capacity roles
ComF 4.6	Implement liability coverage for volunteer activity for appropriate jurisdiction

Performance Measures

Metrics

Percent of annual increase in number of trained citizens providing volunteer support to local emergency responder disciplines (law enforcement, fire, emergency medical and public health services), until 10% population volunteers an average of 20 hours per year = 560 million hours/year	2%
Percent of surge capacity of pre-trained and credentialed citizens prepared to augment and supplement official government emergency response with manpower and private sector in-kind resources for ESFs and annexes for any given emergency response function	20%

Activity: *Incident Response*

Definition: Non-governmental entities, volunteers, and the general public respond according to plan and training

Critical Tasks

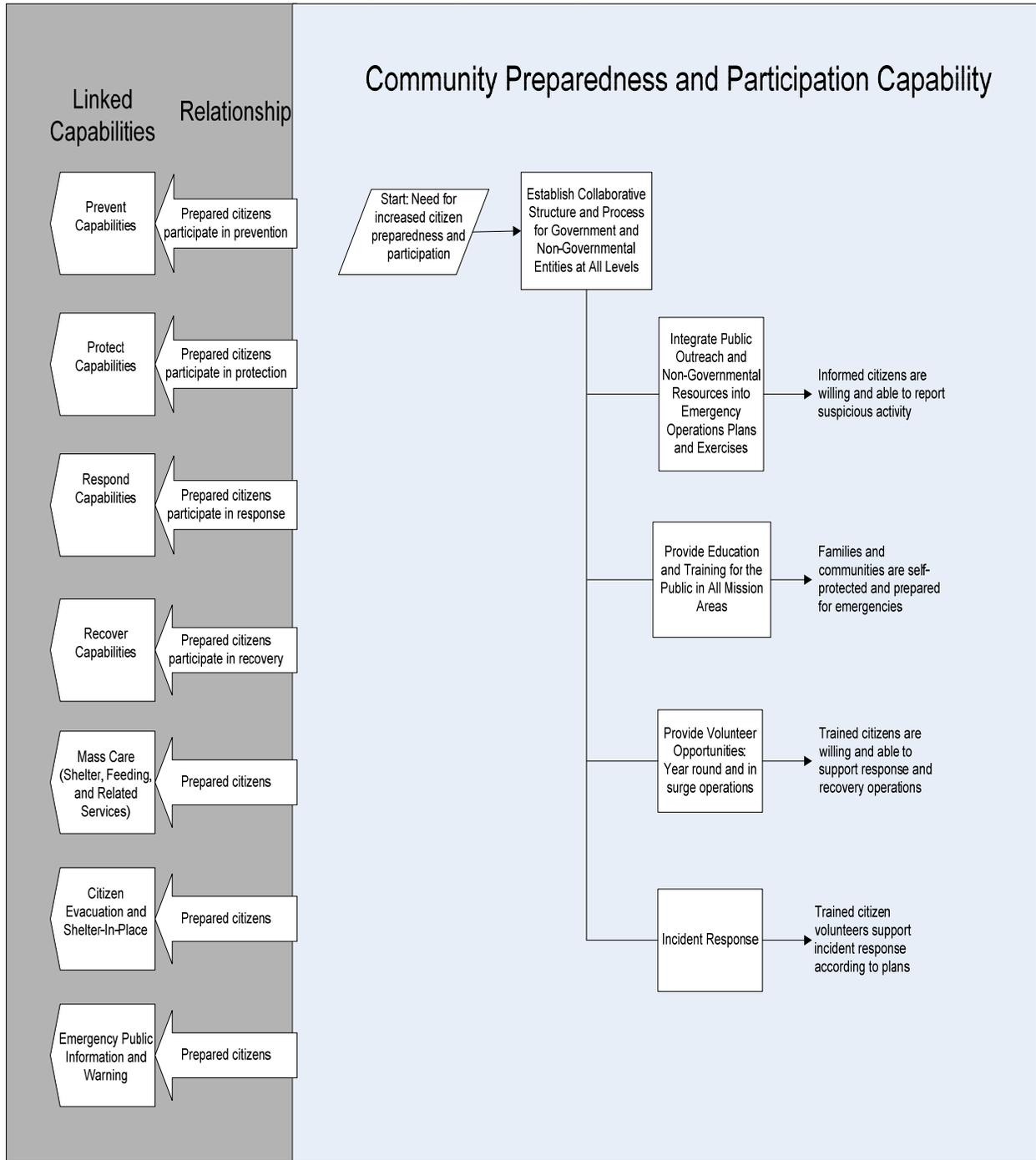
ComF 5.1	Implement public, volunteers, and non-governmental entity roles in emergency operations plans
----------	---

Performance Measures	Metrics
Percent of population responding to official instructions and providing self care and bystander care	100%
Percent of citizens with disabilities or special needs (requiring 24-hour care and/or equipment) who had access to life-sustaining resources during emergency situations	100%
Public communications were provided without electrical dependence and were accessible to all citizens in the jurisdiction, including people with disabilities and non-English speaking populations	Yes/No
Evacuation assistance was provided for those who cannot evacuate on their own	Yes/No
Percent of pre-identified shelters that accommodated companion and service animals and people with disabilities	100%
Volunteers provided surge capacity for ESFs and annexes, including Transportation, Communications, Mass Care, Resources Management, Public Health and Medical Services, Search and Rescue, Public Safety and Security, Long-Term Community Recovery and Mitigation, External Affairs, Volunteers and Donations Management	Yes/No
Non-governmental resources were quickly deployed using stand-by contracts, MOUs and MOAs	Yes/No
Jurisdictions outside of the incident impact area provided volunteer and donations support through pre-established mechanisms.	Yes/No
Jurisdictions outside of the incident impact area provided mass care to evacuees, as needed	Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
All Prevent Capabilities	Community Preparedness and Participation prepares citizens to participate in prevention
All Protect Capabilities	Community Preparedness and Participation prepares citizens to participate in protection
All Respond Capabilities	Community Preparedness and Participation prepares citizens to participate in response
All Recover Capabilities	Community Preparedness and Participation prepares citizens to participate in recovery
Volunteer Management and Donations	Community Preparedness and Participation prepares citizens to volunteer and to donate
Mass Care (Sheltering, Feeding, and Related Services)	Community Preparedness and Participation prepares citizens to volunteer for mass care services
Citizen Evacuation and Shelter-In-Place	Community Preparedness and Participation educates citizens in how to evacuate or how to shelter-in-place or volunteer to support such efforts
Emergency Public Information and Warning	Community Preparedness and Participation informs citizens how to acquire information from Emergency Public Information and Warning

Capability Activity Process Flow



COMMON MISSION: COMMUNITY PREPAREDNESS AND PARTICIPATION

Resource Element Description

Resource Elements	Components and Description
National Leadership for Community Preparedness and Participation	National leaders from White House, Secretaries of key Federal agencies, State governors, military leadership, and congressional representation—organized to provide a national voice to promote the integration of citizens into the DHS mission.
National Citizen Corps Council	Approximately 70 national emergency responder discipline associations, NGOs, disability advocacy groups, faith-based organizations, private sector associations, and government agencies that promote strategies, plans, and exercise guidance to foster governmental/non-governmental collaboration at the State and local levels for citizen preparedness and participation.
Citizen Corps Councils	Each Citizen Corps Council is composed of representatives of the emergency responder disciplines, civic organizations, NGOs, private sector, faith-based, schools, elected leadership, and other community stakeholders. Local Councils (tribal, county, or city level) oversee local citizen opportunities for education, training/exercises, and volunteer support. Local Councils require adequate supplies and equipment and a minimum of one dedicated staff.
Public Education Specialists	Specialists to educate the public in the four mission areas of preparedness and to promote volunteer opportunities. State level specialists educate and support the public in developing knowledge, skills, and abilities (both universal and risk-based) to support the four mission areas and to promote volunteer opportunities. Local level specialists focus on education and also ensure alerts/warning and crisis communications are adequate. All include resources to develop and reproduce adequate numbers of outreach materials.
National Training Clearing House	Clearing house of citizen training courses, to provide training materials for all States. Includes classroom and online courses/resources.
State Training Team	Train-the-trainer instructors for pre-incident training and post incident just-in-time training.
Citizen Preparedness Team	Teams of individuals based in neighborhoods, workplaces, schools, faith based organizations, military, who prepare themselves with basic necessities—food, water, medicine, power, communications equipment, shelter, and emergency plans; adequate number of members also receive training in first aid and emergency response skills. Identified leader reports status up the organizational/community chain. Includes team equipment, as applicable, and supplies, such as emergency disaster kit for home, work and vehicle—sufficient food, water, medicine, etc.
Volunteer Support: Year Round	Volunteer services coordinated through Citizen Corps Councils to support emergency responders, providing emergency responders with more time for primary professional duties (i.e. provide administrative support, patrolling, public education or as needed by discipline). Example programs include: Volunteers in Police Service, Medical Reserve Corps, Fire Corps, Community Emergency Response Teams, and Citizens Watch programs.
Volunteer Support: Surge	“NIMS -credentialed” volunteers to support ESFs, emergency response and recovery, as needed. Volunteers are identified in advance of incidents and agree to perform pre-defined roles in accord with the certifications they receive. Ad hoc training for surge support is also anticipated. Volunteer roles include transportation, communications, mass care, resources management,

Resource Elements	Components and Description
	public health and medical services, search and rescue, public safety and security, long-term community recovery and mitigation, external affairs, and affiliated volunteers and unsolicited donations management.

Planning Assumptions

(Unless otherwise noted, all population data is from 2000 census)

- People with disabilities, the very young and the very old, people with language barriers, and low income populations are adversely affected in all incidents. All resource organizations and activities include consideration and opportunities for participation for people with disabilities, non-English speaking populations, and those with low income
- The medical community is functioning close to peak capacity at time of incident and will need surge capacity from trained volunteers.
- Emergency services will be overwhelmed and will need surge capacity from non-governmental resources.
- With the exception of hurricanes and early signs of biological infection, there will be no warning before incidents occur.
- Steps taken before an incident occurs (such as planning, training, exercises, and equipment) have a significant impact on reducing loss of life and property.
- Professional responders and volunteers may get ill or fail to participate as expected due to fear of getting sick, or perceived greater need to care for their own families.
- Alerts/warnings and emergency public information will need to be provided in multiple languages, multiple formats, and through multiple venues.
- The 2000 census estimated 280 million people and 109 million households in the U.S. (actual population now estimated at over 298 million.)
- 85% of the U.S. population is over 9 years of age and under 85 years of age.
- 90% of the total U.S. population lives in an area with high-risk for at least one major hazard/threat. Assuming that 80% of this should be trained, the target population is 72% of the total population (80% of the 90% at-risk base).
- 58% of the total U.S. population lives in metropolitan areas with 1 million or more residents.
- Civic organizations, places of worship, youth organizations, business associations, NGOs and other groups are willing to embrace hometown security and provide information and opportunities to get involved to their members.
- 25% of U.S. population aged 3 and older attended school in spring of 2002 (nursery school through grad school).
- 64% of the U.S. population aged 16 and over is in the labor force.
- 84% of the U.S. population self-identifies with a religious belief and 43% of this group report attending worship services “weekly or more,” representing over 100 million people attending worship services weekly or more (35% of the total U.S. population).
- 20% of the U.S. population self reports some type of long lasting condition or disability.
- 4.5% of the U.S. population is 75 years of age or older, over 12 million people.
- 12% of U.S. population reported 1999 family incomes below poverty threshold.
- 42% of households have at least one personal computer in the home.

Target Capabilities List

- There are 800,000 sworn law enforcement officers in the U.S. or 1 officer for every 350 people.
- There are 1.1 million firefighters in the U.S. (73% are volunteer) or 1 firefighter for every 255 people.
- There are 860,000 personnel at all levels of pre-hospital service: basic EMT, intermediate EMT, and paramedics or 1 for every 325 people.
- There are approximately 2.76 million “emergency responders (law, fire, EMT/paramedic” in the U.S., less than one percent of the total U.S. population. Thus 20% surge capacity represents 560,000 trained volunteers.
- Liability concerns do not preclude volunteers from participating.
- Emergency Management Assistance Compact (EMAC) agreements encompass NIMS-credentialed volunteers and NIMS-typed resources from non-governmental organizations and entities.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
National Leadership for Community Preparedness and Participation	Level of leadership necessary to achieve awareness of and content for universal/risk-based capabilities disseminated to entire nation		As required to achieve national target capabilities
National Citizen Corps Council	One council can address all hazards and scenarios		One National Council
Citizen Corps Councils	Tribal, county, and local Councils serve 99% of the U.S. population;		56 State Councils; estimated ~2500 Councils nationwide
Public Education Specialists	At a minimum, each State needs 3 education specialists to educate 80% of the population		20 specialists at the national level 300 specialists at the State level across the nation. Number of specialists by State is weighted by State population. These numbers would surge to address crisis communications during an incident
National Training Clearinghouse	One clearinghouse serves all States		One National Clearinghouse
State Training Team	Each state needs 5 to 20 instructors		Approximately 850 trained instructors; number of instructors per State is based on State

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
			population Online courses will also be available (see National Clearinghouse)
Citizen Preparedness Team	Each person in the high-threat areas participates on 2 teams (i.e. neighborhood and work/school/faith-based)		80% of 98 million households organized into citizen preparedness teams 80% of labor force and student populations organized into teams
Support — Year Round		Year round volunteers are not scenario-driven, but can take care of responder duties (i.e. the non-emergency portion—administrative activities, office duties, research, etc.)	10% of U.S. population (28 million people) volunteer an average of 20 hours per 12 months; ~5600 million hours per 12 months
Support — Surge Volunteers (to be “NIMS-credentialed”)		Up to 20% surge of current capacity Actual surge requirement to be identified by other capabilities	20% of uniformed emergency responders (2.8 million) represent 560,000 trained volunteers

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
National Leadership for Community Preparedness and Participation	Federal Resource Organization	1	Nationally	Federal	Establish Collaborative Structure and Process for Government and Nongovernmental Entities at All Levels Integrate Public Outreach and Nongovernmental Resources into Emergency

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					<p>Operations Plans and Exercises</p> <p>Provide Education and Training for the Public in All Mission Areas</p> <p>Provide Volunteer Opportunities: year round and in surge operations</p> <p>Incident Response</p>
National Citizen Corps Council	Federal Resource Organization	1	Nationally	Federal	All Activities
Citizen Corps Councils	Non-NIMS Resource Organization	1	Per State	State	<p>Integrate Public Outreach and Nongovernmental Resources into Emergency Operations Plans and Exercises</p> <p>Provide Education and Training for the Public in All Mission Areas</p> <p>Provide Volunteer Opportunities: year round and in surge operations</p> <p>Incident Response</p>
Citizen Corps Councils	Non-NIMS Resource Organization	1	Per local jurisdiction	Local	<p>Integrate Public Outreach and Nongovernmental Resources into Emergency Operations Plans and Exercises</p> <p>Provide Education and Training for the Public in All Mission Areas</p> <p>Provide Volunteer Opportunities: year round and in surge</p>

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					operations Incident Response
Public Education Specialists	Personnel	20	Nationally	Federal/State/Local	Integrate Public Outreach and Nongovernmental Resources into Emergency Operations Plans and Exercises Provide Education and Training for the Public in All Mission Areas Incident Response
Public Education Specialists	Personnel	3 – 20	per State; numbers based on State population, up to 20	State	Integrate Public Outreach and Nongovernmental Resources into Emergency Operations Plans and Exercises Provide Education and Training for the Public in All Mission Areas Incident Response
Public Education Specialists	Personnel	1 – 10	per local jurisdiction; numbers based on population, up to 10	Local	Integrate Public Outreach and Nongovernmental Resources into Emergency Operations Plans and Exercises Provide Education and Training for the Public in All Mission Areas Incident Response
National Training Clearinghouse	Resource Organization	1	Nationally	Federal	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
State Training Team	Personnel	5 – 20	Per State; numbers based on State population	State	Provide Education and Training for the Public in All Mission Areas Provide Volunteer Opportunities: year round and in surge operations
Citizen Preparedness Team	Non-NIMS Resource Organization	1	Per neighborhood, school, workplace, etc.	Local	Provide Education and Training for the Public in All Mission Areas
Volunteer Support: Year Round	Non-NIMS Resource	70 million	Nationally (1 person volunteering an average of 12 hours per year ~840 million volunteer hours per year)	Local	Provide Volunteer Opportunities: year round
Volunteer Surge Support: Surge	Non-NIMS Resource	560,000	Nationally	Local	Provide Volunteer Opportunities: surge Incident Response

References

1. Homeland Security Presidential Directive/HSPD–8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Emergency Management Accreditation Program (EMAP) Standards. September 2003. <http://www.emaponline.org/index.cfm>.
5. Emergency Management Assistance Compact (EMAC).
6. Homeland Security Exercise and Evaluation Program (HSEEP).
7. Citizen Corps mission, resources and materials: citizen preparedness, training and volunteer program resources: Ready, Red Cross, FEMA public education materials; Citizen Corps Guide for Local Officials, CERT, Volunteers in Police Service, Medical Reserve Corps, Fire Corps, Neighborhood Watch program materials; and citizen preparedness research. <http://www.citizen corps.gov>

INTELLIGENCE AND INFORMATION SHARING AND DISSEMINATION

Capability Description

The Intelligence and Information Sharing and Dissemination capability provides necessary tools to enable efficient prevention, protection, response, and recovery activities. Intelligence/ Information Sharing and Dissemination is the multi-jurisdictional, multidisciplinary exchange and dissemination of information and intelligence among the Federal, State, local, and tribal layers of government, the private sector, and citizens. The goal of sharing and dissemination is to facilitate the distribution of relevant, actionable, timely, and preferably declassified or unclassified information and/or intelligence that is updated frequently to the consumers who need it. More simply, the goal is to get the right information to the right people at the right time.

An effective intelligence/information sharing and dissemination system will provide durable, reliable, and effective information exchanges (both horizontally and vertically) between those responsible for gathering information and the analysts and consumers of threat-related information. It will also allow for feedback and other necessary communications in addition to the regular flow of information and intelligence.

Outcome

Effective and timely sharing of information and intelligence occurs across Federal, State, local, tribal, territorial, regional, and private sector entities to achieve coordinated awareness of, prevention of, protection against, and response to a threatened or actual domestic terrorist attack, major disaster, or other emergency.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs)/Annexes:

- ESF #1: Transportation
- ESF #2: Communications
- ESF #3: Public Works and Engineering
- ESF #4: Firefighting
- ESF #5: Emergency Management
- ESF #6: Mass Care, Housing, and Human Services
- ESF #7: Resource Support
- ESF #8: Public Health and Medical Services
- ESF #9: Urban Search and Rescue
- ESF #10: Oil and Hazardous Materials Response
- ESF #11: Agriculture and Natural Resources
- ESF #12: Energy
- ESF #13: Public Safety and Security
- ESF #14: Long-Term Recovery and Mitigation
- Biological Incident Annex

Target Capabilities List

Cyber Incident Annex

Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
ComG 1.1.1	Identify all Federal, State, regional, tribal, and local stakeholders for inclusion in the information sharing framework
ComG 1.1.2	Identify non-law enforcement governmental entities and officials for inclusion in the information sharing framework
ComG 1.1.3	Identify appropriate law enforcement and other enforcement governmental personnel for receipt of security clearances at an appropriate level to ensure effective dissemination of critical information
ComG 1.2.1	Develop information sharing network standards: survivable, interoperable, compatible, secure, accessible
ComG 1.2.2	Develop alternate, supplemental, and back-up routing procedures
ComG 1.3	Develop and maintain operationally sound policies to comply with regulatory, statutory, privacy, and other issues that may govern the gathering of information
ComG 1.4	Develop regulatory, statutory, and/or privacy policies
ComG 1.4.1	Develop a clearly defined process for preventing, reporting, and addressing the inappropriate disclosure of information and/or intelligence
ComG 1.4.2	Develop a clearly defined mechanism/process (reduced to a single pipeline wherever possible or prudent) for sharing information/intelligence between Federal and State sources
ComG 1.4.3	Establish alternative, supplemental, and back-up mechanisms for routing information and/or intelligence to the necessary agencies
Preparedness Measures	Metrics
Frequency with which informational distribution lists with points of contact are updated	Every month
Relevant Federal, State, regional, local, and tribal authorities have been identified as necessary participants in the information sharing process	Yes/No
Relevant Federal, State, regional, local, and tribal authorities have access to the necessary information sharing systems	Yes/No
Memoranda of understanding (MOU) or similar agreements between appropriate entities are in place	Yes/No
Federal agencies have a process in place to declassify or provide tear lines for relevant information and/or intelligence	Yes/No
The number of law enforcement and other governmental personnel identified to receive security clearances meets jurisdictional requirements/needs	Yes/No
Appropriate Federal, State, regional, local, and tribal law enforcement and other	Yes/No

governmental personnel receive security clearances at an appropriate level of classification	
Regulatory, statutory, and/or privacy policies are in place	Yes/No
Federal, State, regional, local, and tribal law enforcement entities have a clearly defined, implemented, and audited process for preventing, reporting, and addressing the inappropriate disclosure of information and/or intelligence	Yes/No
Clearly defined and documented mechanisms/processes (reduced to a single pipeline wherever possible and prudent) for sharing information/intelligence among Federal, State, regional, local, and tribal sources are in place	Yes/No
Mechanisms/processes for sharing information/intelligence among Federal, State, regional, local, and tribal sources are technologically proficient for the entities involved	Yes/No
Alternative, supplemental, and back-up mechanisms for routing information and/or intelligence to the necessary agencies are available and routinely evaluated	Yes/No
Mechanisms within the information sharing network to provide feedback and/or follow-up information as needed are in place	Yes/No
Local agencies have an established procedure/protocol for providing intelligence products or relevant information to street-level law enforcement personnel	Yes/No
Fusion Centers/processes ensure the participation of appropriate private-sector entities	Yes/No
The Department of Homeland Security (DHS) Information Sharing and Analysis Center (ISAC) program ensures the participation of appropriate private-sector entities	Yes/No
Joint Terrorism Task Forces have a process for sharing relevant information with the private sector in a timely manner	Yes/No
Access to early detection/alert programs and networks and all-source information is available (e.g., Public Health Information Network, BioSense, Homeland Security Information Network, Information Sharing and Analysis Centers, etc.) as appropriate	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
ComG 2.2.1	Design and conduct exercises to test Intelligence and Information Sharing and Dissemination tasks within a single unit and jointly with other jurisdictions and levels of government
ComG 2.1.1	Train appropriate personnel on intelligence/information sharing and disseminate processes and procedures
Preparedness Measures	Metrics
There are adequate numbers of trained personnel at all levels (especially at dispatch or communications centers) to process and disseminate information	Yes/No
Personnel are aware of and trained to adhere to pre-defined security clearances and need-to-know parameters	Yes/No
Appropriate personnel are trained in processing and disseminating information and intelligence	Yes/No
Personnel are trained in the process for preventing, reporting, and addressing the inappropriate disclosure of information and/or intelligence	Yes/No

Exercises test the process for preventing, reporting, and addressing the inappropriate disclosure of information and/or intelligence	Yes/No
All appropriate law enforcement personnel have received the Criminal Intelligence Coordinating Council (CICC) Outreach Package	Yes/No
All appropriate law enforcement personnel promote the concept of intelligence-led policing as outlined in the CICC Outreach Package	Yes/No
Training and exercise programs include interaction with the private sector operators of critical infrastructure	Yes/No
Exercises test alternative, supplemental, and back-up mechanisms for routing information and/or intelligence to the necessary agencies	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Incorporate All Stakeholders in Information Flow</i>	
Definition: Identify and share information with all pertinent stakeholders across all disciplines through a clearly defined information sharing system	
Critical Tasks	
ComG 3.1	Share information and/or intelligence between Federal, State, local, and tribal levels by using clearly defined mechanisms/processes
ComG 3.1.1	Adhere to predefined security clearances and need-to-know parameters when disseminating information and intelligence
ComG 3.1.2	Comply with regulatory, statutory, privacy-related, and other issues that may govern the sharing of information
ComG 3.1.3	Prevent, report, and/or address inappropriate disclosures of information and/or intelligence
Performance Measures	Metrics
Compliance with regulatory, statutory, privacy-related, and other issues that govern the sharing of information is audited on a regular basis	Yes/No
Percent of inappropriate disclosures of information and/or intelligence for which records are maintained	100%
Percent of inappropriate disclosures of information and/or intelligence that are reported and resolved according to established processes	100%

Activity: <i>Vertically Flow Information</i>	
Definition: Share information vertically (up and down from the Federal level) within law enforcement and other appropriate agencies in a timely and effective manner	
Critical Tasks	
ComG 4.1	Share intelligence and information systematically between Federal, State, local, and regional entities in a timely manner

ComG 4.1.1	Disseminate relevant intelligence and/or information from Federal or State entities to local authorities in a usable format and in a timely manner	
ComG 4.1.3	Disseminate relevant information and/or intelligence products to street-level law enforcement personnel	
ComG 4.1.2	Provide relevant intelligence and/or information from local authorities to Federal or State entities in a usable format and in a timely manner	
ComG 4.2.2	Declassify or provide tear lines for relevant information and/or intelligence	
Performance Measures		Metrics
Time in which relevant information received from the fusion center is disseminated to street-level personnel		Within 12 hours from receipt at the fusion center
Percent of law enforcement intelligence/information passed to local authorities that is deemed useful or actionable		100%

Activity: *Horizontally Flow Information*

Definition: Share information across disciplines (among fire departments, EMS units, public works, the private sector, and so forth) at all levels and across jurisdictions in a timely and efficient manner

Critical Tasks

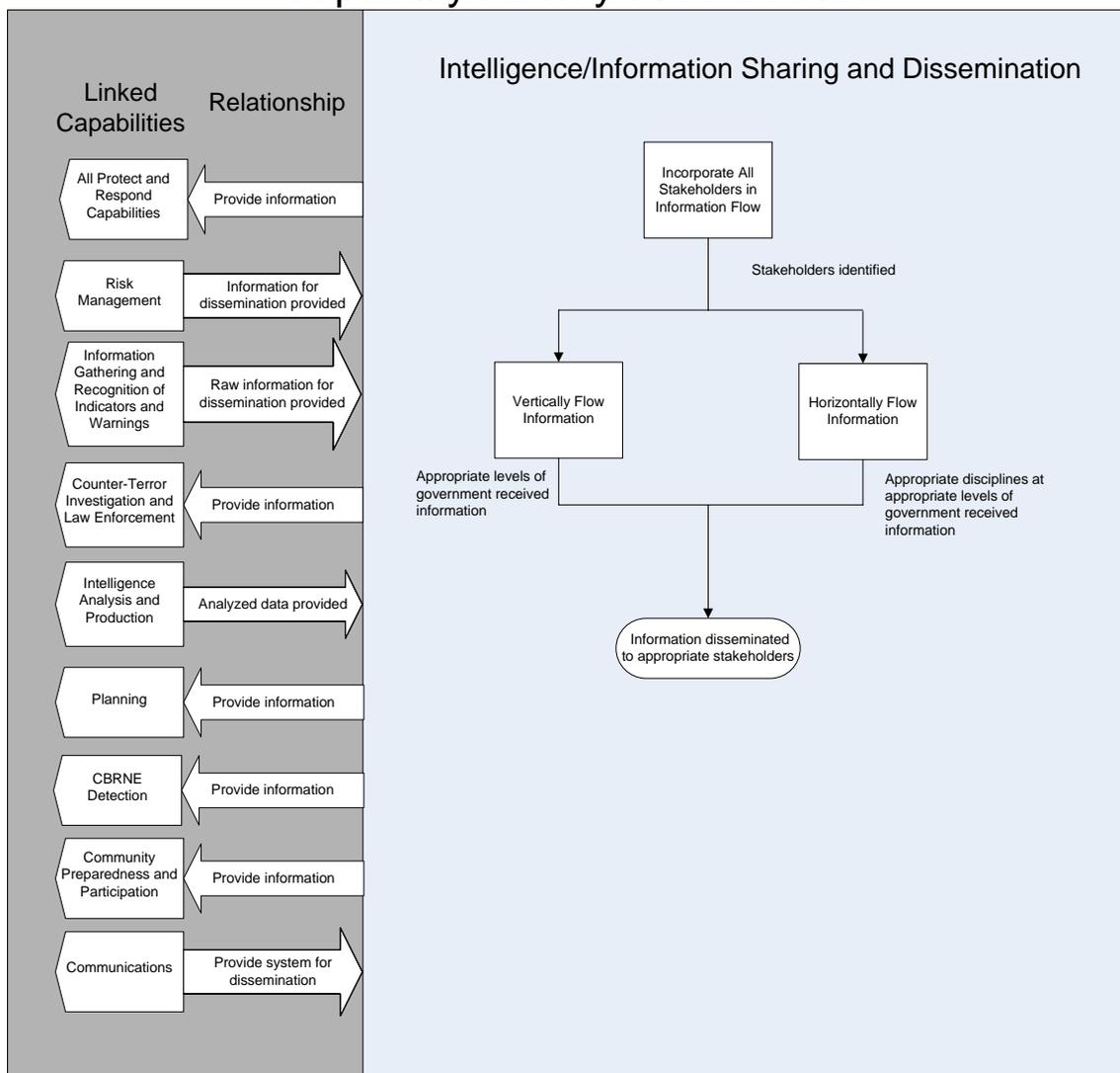
ComG 5.1	Adhere to horizontal coordination across jurisdictions among law enforcement and other appropriate agencies at all levels through effective and timely information sharing	
ComG 5.1.1	Share intelligence and/or information across disciplines in a timely and effective manner	
ComG 5.2	Structure dissemination and information sharing mechanisms so that private-sector entities receive accurate, timely, and unclassified information that is updated frequently and is consistent with their formal intelligence requirements	
Performance Measures		Metrics
A clearly defined process or procedure is used to disseminate information and products		Yes/No
Intelligence and/or information is shared across disciplines in a timely manner		Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
All Protect Capabilities	Intelligence and Information Sharing and Dissemination provides the means for sharing data on suspected and actual threats, which prompts additional monitoring and the implementation of specific protection activities. Monitoring results from the Protect Capabilities is further shared as needed through this Capability.
All Respond Capabilities	Intelligence and Information Sharing and Dissemination provides the means for sharing data needed to carry out response activities effectively. Results of response actions are then further shared as needed through this Capability.

Linked Capability	Relationship to Capability
Risk Management	Intelligence and Information Sharing and Dissemination provides the means for sharing threat, vulnerability, and consequence data used in risk management.
Information Gathering and Recognition of Indicators and Warnings	The data gathered through Information Gathering & Recognition is communicated through Intelligence and Information Sharing and Dissemination
Counter-Terror Investigation and Law Enforcement	Information needed by Counter-Terror Investigation and Law Enforcement to conduct investigations is provided through Intelligence and Information Sharing and Dissemination
Intelligence Analysis and Production	Intelligence and Information Sharing and Dissemination provides the means for communicating data that is gathered to those that analyze it in Intelligence Analysis and Production
Planning	Information provided via Intelligence and Information Sharing and Dissemination is used to ensure that plans adequately address terrorist threats
CBRNE Detection	Information from CBRNE Detection is transferred to the appropriate parties through Intelligence and Information Sharing and Dissemination
Community Preparedness and Participation	Community participation in awareness is one means by which information to be shared is generated.
Communications	Communications provides the necessary structure and systems for implementing Intelligence and Information Sharing and Dissemination.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Personnel for sharing operational information	Personnel involved in the operational aspects of information sharing (e.g., information technology (IT) personnel, law enforcement, public health, fire, emergency medical service (EMS), transportation, and other non-law enforcement personnel)
Personnel for sharing information on collaborative initiatives	Federal, State, local, tribal, private sector personnel, and other key stakeholders involved in information sharing and collaboration initiatives
Joint Terrorism Task Forces (JTTFs)	Task forces composed of persons from various government and private elements (e.g., law enforcement, public health, local businesses, key infrastructure representatives, emergency management, and other first responders)
Fusion center/process personnel	Supervisors and other management personnel within fusions centers involved in the oversight and execution of defined processes and procedures
Equipment and systems for information sharing and collaboration	Information sharing network architecture (e.g., Regional Information Sharing System (RISS)/Law Enforcement Online (LEO), Joint Regional Information Exchange System (JRIES), National Law Enforcement Telecommunication System (NLETS), FBI Criminal Justice Information System/National Crime Information Center (CJIS/NCIC) networks), including hardware and software physical and network security
Information sharing software	Data synthesis software (hazard prediction, assessment, and threat modeling software); data collection/information gathering software.

Planning Assumptions

- Prevention consists of those activities that serve to detect, deter, and disrupt terrorist threats or actions against the United States and its interests. These activities decrease the perpetrators' chance of success, mitigate attack impact, minimize attack visibility, increase the chance of apprehension or detection, and obstruct perpetrators' access to resources. Tasks in this area are important regardless of a single type of threat, adversary capability, time or location of incident. Similarly, these capabilities reflect many tasks routinely undertaken by law enforcement and related organizations as they conduct traditional all-hazards, all-crimes activities.
- This capability applies to all potential terrorist incidents and is applicable to all 12 terrorism-related National Planning Scenarios. Initial planning, however, has been focused on bombing using improvised explosives device, chlorine tank explosion, aerosol anthrax, improvised nuclear device, and a radiological dispersal.
- Effective prevention depends on timely, accurate, and actionable information about the adversary, their operations, their support, potential targets, and methods of attack. Homeland security intelligence/information fusion is the overarching process of managing the development and flow of information and intelligence across all levels and sectors of government and the private sector on a continual basis. Although the primary emphasis of fusion is to identify, deter, and respond to emerging terrorism-related threats and risks, a collateral benefit to Federal, State, local, and tribal entities is that it will support ongoing efforts to address non-terrorism-related, all-hazards, all-crimes issues.

- Intelligence/information fusion is an ongoing, cyclical process that incorporates three primary capabilities: Information Gathering and Recognition of Indicators and Warnings; Intelligence Analysis and Production; and Intelligence and Information Sharing and Dissemination.
- All appropriate objectives and critical tasks will be exercised regularly at all levels in order to measure performance and demonstrate capability.
- Both the Planning Factors for a Single Incident section and the Approaches for Large-Scale Events section have been omitted because there is no incident or large-scale event that necessarily occurs before these capabilities come in to play.

Planning Factors for a Single Incident

Not Applicable

Approaches for Large-Scale Events

Not Applicable

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Personnel for sharing operational information	Personnel	As Needed		Federal/State/Local	Incorporate All Stakeholders in Information Flow Vertically Flow Information Horizontally Flow Information
Personnel for sharing information on collaborative initiatives	Personnel	As Needed		Federal/State/Local	All Activities
Joint Terrorism Task Forces (JTTFs)	Personnel	As Needed		Federal/State/Local	All Activities
Fusion center/process personnel	Personnel	As Needed		Federal/State/Local	All Activities
Equipment and systems for information sharing and collaboration	Equipment	As Needed		Federal/State/Local	All Activities
Information Sharing Software	Equipment	As Needed		Federal/State/Local	All Activities

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
3. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. *The Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence*. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
5. *Information/Intelligence Sharing System Survey*. Global Intelligence Working Group. 2001. http://it.ojp.gov/documents/intell_sharing_system_survey.pdf.
6. *Fusion Center Guidelines*. Global Justice Information Sharing Initiative. July 2005.
7. *The National Criminal Intelligence Sharing Plan*. U.S. Department of Justice, Global Justice Information Sharing Initiative. 2004. http://it.ojp.gov/documents/National_Criminal_Intelligence_Sharing_Plan.pdf.
8. *Applying Security Practices to Justice Information Sharing*. U.S. Department of Justice, Global Justice Information Sharing Initiative, Security Working Group. March 2004. http://it.ojp.gov/documents/200404_ApplyingSecurityPractices_v_2.0.pdf.
9. *Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues*. GAO-03-1165T. U.S. General Accounting Office. September 2003. <http://www.gao.gov/new.items/d03715t.pdf>.
10. *Doctrine for Intelligence Support to Joint Operations*. Joint Publication 2-0. Joint Chiefs of Staff, Director of Intelligence. March 2000. http://www.fas.org/irp/doddir/dod/jp2_0.pdf.
11. *The 9/11 Commission Report*. National Commission on Terrorist Attacks upon the United States. July 2004. <http://www.9-11commission.gov/>.
12. The Homeland Security Advisory Council Prevention and Information Sharing Working Group. 2004.
13. Fusion Center Initiative. Homeland Security Advisory Council. April 2005.
14. State, Tribal and Local Intelligence and Information Sharing Initiative. Homeland Security Advisory Council. December 2004.
15. Homeland Security Advisory Council. June 2005.
16. *National Strategy for Homeland Security*. Office of Homeland Security. July 2002. http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.
17. Sector-Specific Intelligence Sharing Analysis Center information. Department of Homeland Security.
18. Homeland Security Information Network. <http://www.dhs.gov/dhspublic/display?theme=43&content=3747&print=true>.
19. Information Sharing and Analysis Center program. <http://www.isaccouncil.org/about/>.
20. *NFPA 1061: Standard for Professional Qualifications for Public Safety Telecommunicator*. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1061>
21. *NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems*. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1221>
22. *NFPA 1561: Standard on Emergency Services Incident Management System*. National Fire Protection Association. 2005. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=15>

Prevent Mission Area Target Capabilities

This page intentionally left blank

INFORMATION GATHERING AND RECOGNITION OF INDICATORS AND WARNINGS

Capability Definition

The Information Gathering and Recognition of Indicators and Warning Capability entails the gathering, consolidation, and retention of raw data and information from sources to include human sources, observation, technical sources and open (unclassified) materials. Unlike intelligence collection, information gathering is the continual gathering of only pure, unexamined data, not the targeted collection traditionally conducted by the intelligence community or targeted investigations. Recognition of indicators and warnings is the ability to see in this gathered data the potential trends, indications, and/or warnings of criminal and/or terrorist activities (including planning and surveillance) against U.S. citizens, government entities, critical infrastructure, and/or our allies.

Outcome

Locally generated threat and other criminal and/or terrorism-related information is identified, gathered, entered into an appropriate data/retrieval system, and provided to appropriate analysis centers.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports:

Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Pre.A1b 1.1	Develop and maintain operationally sound policies to comply with regulatory, statutory, privacy, and other issues that may govern the gathering of information
Pre.A1b 1.2	Develop and maintain procedures, systems, and/or technology to process the inflow of gathered information from all sources in a timely fashion
Pre.A1b 1.3	Develop and provide States and tribal authorities with information needs clearly defined by the Federal community based on the threat environment in a timely manner
Pre.A1b 1.4	Provide the Federal community with feedback on specificity and relevance of Federal information needs products defined by the State
Pre.A1b 1.5	Communicate information needs from Federal community and States to local law enforcement, Tribal, private-sector, and other appropriate personnel as needed and in a timely manner
Pre.A1b 1.6	Provide feedback from information-gathering entities to the State on specificity and relevance of State information needs products

Pre.A1b 1.7	Develop and communicate baseline indicators and warnings sets from Federal community to State and Tribal authorities	
Pre.A1b 1.8	Determine within the Federal community Essential Elements of Information (EEI) that can be used to identify terrorist operations	
Preparedness Measures		Metrics
State, tribal, and local areas have a clearly defined, implemented, and audited process in their jurisdiction for requesting information from the Federal community, generally through their State’s designated senior official	Yes/No	
Key stakeholders in the Federal community have developed clear and concise information needs based on the threat environment	Yes/No	
The Federal community has delivered its information needs to each State’s designated senior officials using a clearly defined process	Yes/No	
Each State’s designated senior officials can verify receipt of information needs from the Federal community (or demonstrate an understanding of information needs)	Yes/No	
Frequency with which Federal community updates its information needs	Every 12 months	
Information needs products contain a feedback mechanism	Yes/No	
Processes by which State, tribal, and/or local authorities request information from the Federal community is in place	Yes/No	
Process by which the State uniformly and consistently communicates information needs to the local level is in place	Yes/No	
Regulatory, statutory, and/or privacy policies that govern the gathering of information are in place	Yes/No	
A clearly defined process for passing information gathered by law enforcement and other agencies during routine day-to-day activities into the information-sharing network is in place	Yes/No	
Feedback is provided to those responsible for gathering information during routine day-to-day activities	Yes/No	
The process for passing information gathered by law enforcement and other agencies has been audited	Yes/No	
Law enforcement and appropriate agencies are have audited plans, processes, and technology in place that enable them to do the following: <ul style="list-style-type: none"> ▪ Identify items and materials used by criminal and/or terrorist organizations and report suspicious activities related to them ▪ Gather information on critical infrastructure and other potentially high-risk locations and assets ▪ Increase information gathering activities regarding critical infrastructure and other potentially high-risk locations and assets, during an elevated threat level ▪ Coordinate information gathering operations across jurisdictions ▪ Process gathered information ▪ Provide all operational personnel with the most recent indicators and warnings to report 	Yes/No Yes/No Yes/No Yes/No Yes/No Yes/No	
Percent of jurisdictions that have an established system for public reporting of suspicious activity (e.g., 911, tip lines)	100%	

Appropriate governmental entities operate or participate in public education programs to raise public awareness of suspicious activities and how to report them	Yes/No
Content and template standards for reported information are in place	Yes/No
Processes, protocols, and technical capabilities to allow extraction of information from public, private, and law enforcement databases are in place	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pre.A1b 2.1.1	Develop and initiate terrorism indicator sets and relationships training programs
Pre.A1b 2.1.2	Develop and distribute information gathering and reporting programs
Pre.A1b 2.1.6	Develop and initiate critical infrastructure surveillance technique and criteria
Pre.A1b 2.1.4	Provide training feedback to Federal trainers
Preparedness Measures	Metrics
Law enforcement and public safety personnel who shall be trained in information gathering and recognition of indicators and warnings have been identified.	Yes/No
The following training has been provided to identified personnel: <ul style="list-style-type: none"> ▪ Training in recognizing criminal and/or terrorism indicators and warnings ▪ Refresher training in indicators and warnings ▪ Training in critical infrastructure (CI) surveillance ▪ Advanced training programs 	Yes/No Yes/No Yes/No Yes/No
Federally developed training in recognizing and reporting indicators and warnings at identified businesses (via a train-the-trainer program) is conducted	Yes/No
Businesses in each jurisdiction that should be targeted for training in indications and warnings have been identified	Yes/No
Frequency with which government training entities review and update training materials	Every 12 months
Government training entities conduct Federally developed training in recognizing indicators and warnings to appropriate State, tribal, and local entities	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Gather Information</i>	
Definition: Gather information that could be used to identify terrorist operations from all sources (e.g., law enforcement, public health, public works, transportation, firefighting and emergency medical entities) through routine activities	
Critical Tasks	
Pre.A1b 3.1	Gather homeland security information during routine day-to-day activities and pass to appropriate authorities
Pre.A1b 3.1.1	Identify items and materials used by criminal and/or terrorist organizations to carry out attacks

Pre.A1b 3.1.2	Catalog information provided by all sources and retain in a database to enable timely retrieval	
Pre.A1b 3.2	Conduct information gathering operations on critical infrastructure and other potentially high-risk locations or assets	
Pre.A1b 3.3	Coordinate information gathering activities with relevant local, tribal, State, and Federal entities on an ongoing basis, in particular with the Joint Terrorism Task Force (JTTF) in terrorism-related cases	
Pre.A1b 3.3.1	Establish short, medium, and long term coordinated information gathering policies, procedures and systems	
Performance Measures		Metrics
Information was organized, linked, searchable, and easily retrievable		Yes/No
Information provided by all sources met predefined standards for accuracy, completeness and consistency		Yes/No
The process for passing information gathered during routing activities was implemented		Yes/No
Information was passed to appropriate authorities using a clearly defined process, utilizing predefined network channels		Yes/No
The effectiveness of this process was assessed by appropriate agencies		Yes/No
Feedback was provided to those responsible for gathering information		Yes/No

Activity: <i>Identify Suspicious Circumstances</i>		
Definition: Recognize and identify suspicious circumstances or indicators and warnings associated with planning, support, and operations related to potential criminal and/or terrorist-related activities		
Critical Tasks		
Pre.A1b 4.1	Recognize suspicious activities involving items and materials used by criminal and/or terrorist organizations	
Pre.A1b 4.2	Recognize and identify suspicious circumstances or indicators and warnings that may be associated with planning, support, and operations related to potential criminal and/or terrorist-related activities	
Pre.A1b 4.3	Utilize a predefined notification process to advise law enforcement of suspicious activity	
Pre.A1b 4.4	Notify law enforcement of potential terrorist activities in/around or related to private sector businesses/operations	
Performance Measures		Metrics
Law enforcement personnel followed-up with a reporting organization if more information was necessary		Yes/No
Law enforcement personnel acted on authenticated information		Yes/No
Law enforcement personnel used approved response protocols to dispatch the appropriate public or private sector personnel to the potential threat		Yes/No
Upon examination at the incident scene, law enforcement or related personnel were able to differentiate suspicious behaviors and activities from illegal or potentially threatening actions		Yes/No

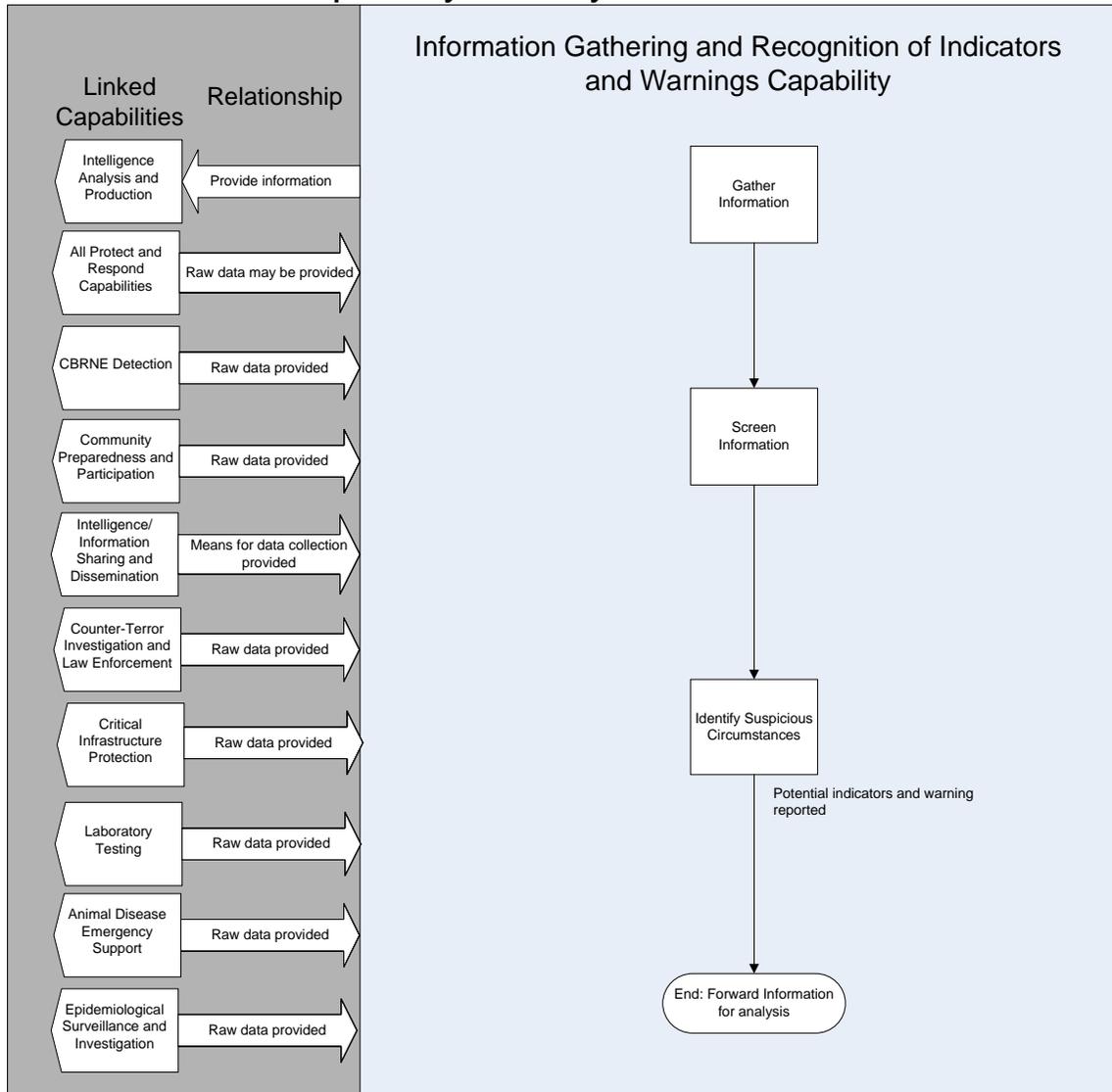
Key private-sector businesses used an established communication avenue to report suspicious activities to appropriate Federal, State, local, or tribal law enforcement entities	Yes/No
The general public has been advised how to recognize suspicious activity (e.g., 911 tip lines, etc.)	Yes/No
The general public was familiar with and used a predefined notification process to advise law enforcement of suspicious activity	Yes/No

Activity: Screen Information	
Definition: Receive, authenticate, and screen information for relevance, with the appropriate level of oversight/supervision and in a timely manner	
Critical Tasks	
Pre.A1b 5.1	Provide guidance to create linked, compatible national database architecture
Pre.A1b 5.2	Query databases or records to check for significance of information
Pre.A1b 5.3	Maintain and update procedures and/or systems to process the inflow of gathered information from all sources in a timely fashion
Performance Measures	
	Metrics
Relevant personnel had access to systems or technology in order to enter gathered information	Yes/No
Database systems were linked and compatible allowing for rapid transmission and processing of pertinent information	Yes/No
Gathered information was processed using clearly defined procedures	Yes/No
Information was traceable, allowing for easy communication between disseminator and analyst	Yes/No
Procedures for tracking information were audited	Yes/No
All pertinent information was cataloged and databased to enable timely retrieval	Yes/No
Intelligence related to high risk infrastructure or an acute threat was prioritized and reported as soon as it was observed	Yes/No
Information provided by all sources was corroborated	Yes/No
Information was catalogued and files are maintained in accordance with standards in the <i>Fusion Center Guidelines</i>	Yes/No
Information was extracted in accordance with approved processes, protocols, and technical capabilities	Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
Animal Disease Emergency Support	Animal Disease Emergency Support monitoring activities may provide a source of data for Information Gathering
CBRNE Detection	Data from detection devices/processes may be a source of data for Information Gathering
Community Preparedness and Participation	Information provided by citizens via hot lines and other collection centers may be a source of data for Information Gathering
Food and Agricultural Safety and Defense	Food and Agricultural monitoring activities may provide a source of data for Information Gathering
Intelligence Analysis and Production	Information Gathering provides the data used by Intelligence Analysis and Production
Intelligence and Information Sharing and Dissemination	Intelligence and Information Sharing provides the means for collecting the data from various sources
Counter-Terror Investigation and Law Enforcement	Data gathered through Counter-Terror Investigation and Law Enforcement may provide a source of data for Information Gathering
Laboratory Testing	Laboratory analysis may provide a source of data for Information Gathering
Epidemiological Surveillance and Investigation	Epidemiological surveillance may provide a source of data for Information Gathering
Critical Infrastructure Protection	Critical Infrastructure Protection is a source of data for Information Gathering

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Information gathering personnel	Multi-agency/discipline personnel at all levels to support information identification, gathering, and recognition (e.g., medical personnel, law enforcement, etc.)
Information processing personnel	Personnel at all levels to process (receive, authenticate, and screen) information
Joint Terrorism Task Force (JTTF)	Task forces formed at the local level and composed of persons from various government and private entities (e.g., law enforcement, public health, local businesses, key infrastructure representatives, emergency management and other first responders)
Public reporting system	System for public reporting of suspicious activity (911, tip lines, etc.)
Information gathering systems and equipment	Surveillance and detection systems/equipment, data gathering and analyzing systems (dedicated software), access to early detection/alert programs and networks, and all-source information

Planning Assumptions

- Prevention consists of those activities that serve to detect, deter, and disrupt terrorist threats or actions against the United States and its interests. These activities decrease the perpetrators’ chance of success, mitigate attack impact, minimize attack visibility, increase the chance of apprehension or detection, and obstruct perpetrators’ access to resources. Tasks in this area are important regardless of a single type of threat, adversary capability, time or location of incident. Similarly, these capabilities reflect many tasks routinely undertaken by law enforcement and related organizations as they conduct traditional all-hazards, all-crimes activities.
- This capability applies to all potential terrorist incidents and is applicable to all 12 terrorism-related National Planning Scenarios. Initial planning, however, has been focused on bombings using improvised explosives device, chlorine tank explosion, aerosol anthrax, improvised nuclear device, and a radiological dispersal.
- Effective prevention depends on timely, accurate, and actionable information about the adversary, their operations, their support, potential targets, and methods of attack. Homeland security intelligence/information fusion is the overarching process of managing the development and flow of information and intelligence across all levels and sectors of government and the private sector on a continual basis. Although the primary emphasis of fusion is to identify, deter, and respond to emerging terrorism-related threats and risks, a collateral benefit to Federal, State, local, and tribal entities is that it will support ongoing efforts to address non-terrorism-related, all-hazards, all-crimes issues.
- Intelligence/information fusion is an ongoing, cyclical process that incorporates three primary capabilities: Information Gathering and Recognition of Indicators and Warnings; Intelligence Analysis and Production; and Intelligence and Information Sharing and Dissemination.
- All appropriate objectives and critical tasks will be exercised regularly at all levels in order to measure performance and demonstrate capability.
- Both the Planning Factors for a Single Incident section and the Approaches for Large-Scale Events section have been omitted because there is no incident or large-scale event that necessarily occurs before these capabilities come in to play.

Planning Factors for a Single Incident

Not Applicable

Approaches for Large-Scale Events

Not Applicable

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Information gathering personnel	Personnel	As Needed		Federal/State/Local/Private Sector	Gather Information Screen Information Identify Suspicious Circumstances
Information processing personnel	Personnel	As Needed		Federal/State/Local	Gather Information Screen Information Identify Suspicious Circumstances
Joint Terrorism Task Force (JTTF)	Federal Resource Organization	As Needed		Federal	Gather Information Screen Information Identify Suspicious Circumstances
Public reporting system	Equipment	As Needed		Federal/State/Local	Gather Information Screen Information Identify Suspicious Circumstances
Information Gathering Systems and Equipment	Equipment	As Needed		Federal/State/Local/Private Sector	Gather Information Screen Information Identify Suspicious Circumstances

References

1. Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
2. Homeland Security Presidential Directive/HSPD-8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
3. National Response Plan. U.S. Department of Homeland Security. December 2004.
4. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
5. U.S. Department of Homeland Security Priority Information Requirements. July 2004–January 2005.

6. Applying Security Practices to Justice Information Sharing, Version 2. U.S. Department of Justice, Global Justice Information Sharing Initiative, Security Working Group. March 2004. http://it.ojp.gov/documents/200404_ApplyingSecurityPractices_v_2.0.pdf.
7. Fusion Center Guidelines. Global Justice Information Sharing Initiative. July 2005.
8. The National Criminal Intelligence Sharing Plan. Global Justice Information Sharing Initiative, U.S. Department of Justice. Revised June 2005. http://it.ojp.gov/documents/National_Criminal_Intelligence_Sharing_Plan.pdf.
9. Fusion Center Initiative. Homeland Security Advisory Council. April 2005.
10. State, Tribal, and Local Intelligence and Information Sharing Initiative. Homeland Security Advisory Council. December 2004.
11. Private Sector Information Sharing Initiative. Homeland Security Advisory Council. June 2005.
12. Homeland Security Information Network. <http://www.dhs.gov/dhspublic/display?theme=43&content=3747&print=true>.
13. Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues. GAO-03-1165T. U.S. General Accounting Office. September 2003. <http://www.gao.gov/new.items/d03715t.pdf>.
14. Information/Intelligence Sharing System Survey. Global Intelligence Working Group. 2001. http://it.ojp.gov/documents/intell_sharing_system_survey.pdf.
15. Doctrine for Intelligence Support to Joint Operations. Joint Publication 2-0. Joint Chiefs of Staff, Director of Intelligence. March 2000. http://www.fas.org/irp/doddir/dod/jp2_0.pdf.
16. National Strategy for Homeland Security. Office of Homeland Security. July 2002. http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.
17. Report on the U.S. Intelligence Community's Prewar Intelligence Assessments on Iraq. Select Committee on Intelligence, U.S. Senate, 108th Congress. July 2004. <http://intelligence.senate.gov/iraqreport2.pdf>.
18. The 9/11 Commission Report. National Commission on Terrorist Attacks upon the United States. July 2004. <http://www.9-11commission.gov/>.

INTELLIGENCE ANALYSIS AND PRODUCTION

Capability Definition

Intelligence Analysis and Production is the merging of data and information for the purpose of analyzing, linking, and disseminating timely and actionable intelligence with an emphasis on the larger public safety and homeland security threat picture. This process focuses on the consolidation of analytical products among the intelligence analysis units at the Federal, State, local, and tribal levels for tactical, operational, and strategic use. This capability also includes the examination of raw data to identify threat pictures, recognize potentially harmful patterns, or connect suspicious links to discern potential indications or warnings.

Outcome

Timely, accurate, and actionable intelligence/information products are produced in support of prevention, awareness, deterrence, response, and continuity planning operations.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports:

Terrorism Incident Law Enforcement and Investigation Incident Annex

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Pre.A1c 1.1.1	Provide terminology/lexicon glossary from Federal Government to all relevant fusion center/process entities to eliminate agency-to-agency terminology confusion
Pre.A1c 1.1.2	Use tear-line formats to ensure that State, local and/or tribal officials with varying levels of clearance have access to useful information
Pre.A1c 1.1.3	Develop a broad, national, uniform template for analytic products
PreA1c 1.2	Provide guidance for planners to develop their own current intelligence products, indications and warnings at all levels
PreA1c 1.2.1	Develop guidance for establishing threat at the management level
PreA1c 1.3	Develop means to share regional and State indications and warnings
PreA1c 1.3.1	Develop memoranda of understanding for information sharing with other fusion centers
PreA1c 1.3.2	Develop guidelines for tailoring information according to audience
PreA1c 1.4	Develop plans and procedures for establishing and staffing fusion center
PreA1c 1.4.1	Develop job descriptions and training requirements for personnel

Preparedness Measures	Metrics
A State fusion center strategy is in place that: <ul style="list-style-type: none"> ▪ Conforms to <i>Fusion Center Guidelines</i> ▪ Provides for a coordinated interface to the Federal Government 	Yes/No Yes/No
Fusion center/process participants ensure that analysts understand the tailoring for the different audiences to which they provide information/intelligence	Yes/No
Memorandums of understanding define processes and responsibilities for information sharing and ensure de-confliction with other fusion centers/processes	Yes/No
Appropriate State and local entities provide personnel to the fusion center/process as required	Yes/No
Analysts are granted appropriate clearances by the Department of Homeland Security (DHS)	Yes/No
Job descriptions reflect the region’s applicable risks, threats, and critical infrastructure	Yes/No
Federal standards to pre-qualify the fusion center/process in physical and clearance requirements to receive, store, and control secret/secure information are in place	Yes/No
State and local entities adhere to Federal standards for the fusion center/process in physical and clearance requirements to receive, store, and control secret/secure information	Yes/No
All State, local, and tribal law enforcement information/intelligence databases comply with national standards and are completely compatible for data transmission between pertinent agencies	Yes/No
A clearly defined process to establish threat at the management level, consistent with established intelligence community standards, is in place	Yes/No
A clearly defined process for developing an unclassified briefing is in place	Yes/No
Frequency with which a standardized classified-to-unclassified information review process (including ratio) is conducted	Every 12 months
Unclassified briefings, reports, and alerts are used whenever possible to provide credible information that allows public safety, private-sector, and non-law enforcement agencies to develop intelligence- and information-driven prevention plans without compromising sources or collection methods	Yes/No
Analysts are able to understand and identify links between terrorism-related intelligence and information related to traditional criminal activity so they can identify activities that are indicative of an imminent or potential threat	Yes/No
All personnel demonstrate necessary knowledge of the operating systems and intelligence processes required to perform intelligence functions	Yes/No
Participating agencies have been provided a glossary of terms, updated every 12 months, to the center/process	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Pre.A1c 2.1.1	Train permanent and assigned analytical staff on the intelligence cycle and developing analytic products
---------------	--

Pre.A1c 2.1.2	Develop national standard for training fusion center/process staff	
Preparedness Measures		Metric
Each analyst has met a minimum standard for hours of training		Yes/No
Training has met International Association Law Enforcement Analytic Standards from Global Intelligence Working Group and International Association of Law Enforcement Intelligence Analysts (GIWG/IALEIA) based standards (basic, intermediate, advanced)		Yes/No
Percent of personnel trained in the intelligence cycle		100%
Basic and advanced intelligence analysis training is provided for intelligence operations personnel (e.g., commanders/supervisors, officers, analysts)		Yes/No
Percent of fusion center/process staff who receive annual awareness training on relevant privacy and security rules, and regulations (28 CFR and any other relevant State statutes and regulations)		100%
Analysts at relevant agencies and centers/processes are trained to identify precursors and links between crime and terrorism		Yes/No
Analytic staff are properly trained and/or experienced in relevant analytical methods and practices		Yes/No
Percent of analysts at relevant agencies and centers/processes who are trained in the use of analytic methods and tools		100%
Participants have established procedures per the International Association of Law Enforcement Analytic Standards (GIWG/IALEIA) to benchmark analysts' capabilities		Yes/No
Percent of personnel who demonstrate necessary knowledge of the operating systems and intelligence processes required to perform intelligence functions		100%
Analytic staff are knowledgeable in the region's applicable risks, threats, and critical infrastructure		Yes/No
Permanent and assigned analytical staff are trained to meet their responsibilities		Yes/No

Performance Tasks and Measures/Metrics

Activity: Establish Fusion Center	
Definition: Establish and operate a multidisciplinary, all-source information/intelligence fusion center/process that undertakes an "all-hazards" and "all-crimes" approach	
Critical Tasks	
Pre.A1c 3.1	Establish and maintain a fusion center/process using the national guidelines and standards; co-locate with an existing entity if practicable/desirable
Pre.A1c 3.2	Sustain technical and procedural connectivity with critical intelligence and information streams
Pre.A1c 3.2.1	Access intelligence and information repositories at all levels of classification as necessary
Pre.A1c 3.2.2	Ensure appropriate technological redundancy
Pre.A1c 3.5	Incorporate the fusion center/process principles of the Criminal Intelligence Model Policy (International Association of Chiefs of Police [IACP])
Pre.A1c 3.3	Establish and maintain communications, including electronic connectivity with other region fusion center/processes

Pre.A1c 3.4	Relay/pass terrorist-related information to the FBI Joint Terrorism Task Force (JTTF) and FBI Field Intelligence Group (FIG)	
Pre.A1c 3.6	Adhere to privacy and security rules in operating fusion center/process	
Performance Measures		Metrics
Key leaders have established and maintained a fusion center/process using the national guidelines and standards per the Global Justice Information Sharing Initiative—Fusion Center Guidelines and Homeland Security Advisory Council (HSAC) recommendations, (Fusion Center Resource CD)		Yes/No
Percent of fusion center staff who have the requisite training and expertise to handle the receipt, analysis, and dissemination of intelligence		100%
The fusion center is appropriately staffed during all operational hours		Yes/No
Information is effectively shared and received using the fusion center technology		Yes/No
The center makes use of the relevant networks, classified and unclassified (e.g., Regional Information Sharing Systems/Law Enforcement Online (RISS/LEO), Homeland Security Information Network (HSIN), and various public health networks)		Yes/No
Access to and from the fusion center/process by those responsible for gathering information is done in accordance with established procedures		Yes/No
Efficient connectivity exists with the Joint Terrorism Task Force (JTTF) and Field Intelligence Guide (FIG))		Yes/No
Staffing of analysts is conducted in accordance with national standards outlined in the Law Enforcement Analytic Standards produced by the Global Intelligence Working Group and International Association of Law Enforcement Intelligence Analysts (GIWG/IALEIA)		Yes/No
The fusion center/process is assigned personnel with diverse subject matter expertise from key departments, organizations, agencies or offices on a permanent, or liaison basis		Yes/No
The fusion center/process received, stored, and controlled secret/secure information		Yes/No
The center/process uses an accessible repository for analytic methods/tools/techniques		Yes/No
A clearly defined process or procedure is used to disseminate information and products		Yes/No

Activity: Access Information	
Definition: Obtain access to and receive collected information associated with the respective territory of the fusion center	
Critical Tasks	
Pre.A1c 4.1	Receive, extract, or collect information from all available sources, including all relevant databases and systems available to the State fusion center, on a continuous basis and with appropriate technological redundancy
Pre.A1c 4.2	Ensure that unclassified briefings, reports and alerts are used whenever possible to provide credible information that allows public safety, private sector and non-law enforcement agencies to develop intelligence- and information-driven prevention plans without compromising source or collection methods

Performance Measures	Metrics
Secret/secure information is received, stored, and controlled in accordance with Federal standards established to prequalify the fusion center/process in physical and clearance requirements	Yes/No
Percent of State, tribal, and local law enforcement databases that are Global Justice XML Data Model (JDXM)-compliant	100%
Unclassified briefings are established using the established process	Yes/No
The standardized classified to unclassified information review process (including ratio) is used	Yes/No
Feedback procedures are followed	Yes/No

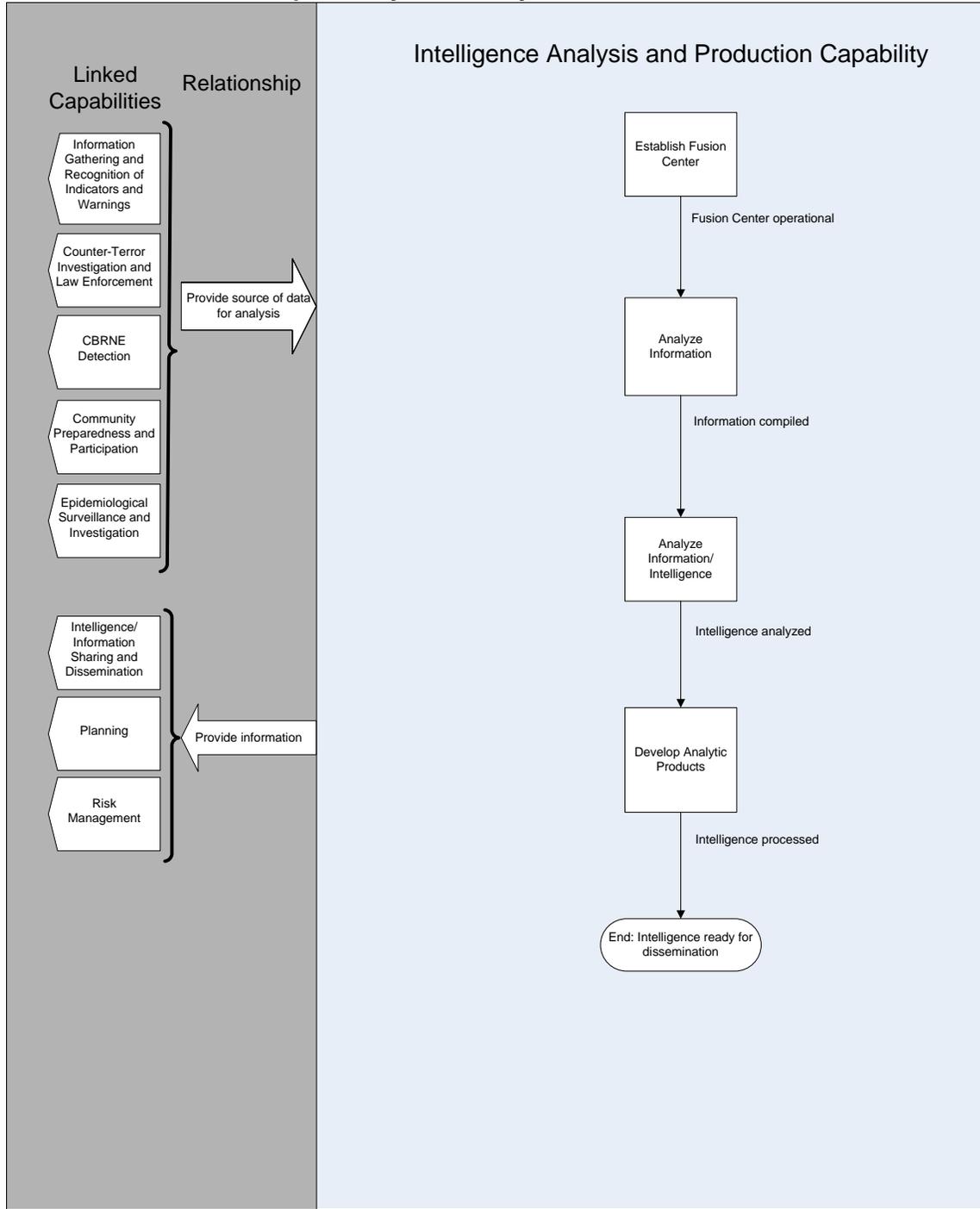
Activity: <i>Analyze Information/Intelligence</i>	
Definition: Integrate and analyze relevant information/intelligence	
Critical Tasks	
Pre.A1c 5.1	Prioritize intelligence based on relevance of the information and the finished intelligence products to potential threat elements
Pre.A1c 5.2.1	Blend, reconcile, and de-conflict data, information, and intelligence received from multiple sources
Pre.A1c 5.2.2	Identify patterns and trends that may indicate emerging, immediate or long-term threat condition
Pre.A1c 5.2.3	Identify links between terrorism related intelligence and information related to traditional criminal activity so as to identify activities indicative of an imminent or potential threat
Pre.A1c 5.2.4	Utilize any and all relevant and useful analytic methodologies, tools, and technology to provide a more comprehensive and useful product
Performance Measures	Metrics
Audit standards are used to review work products	Yes/No
Analysts' capabilities are assessed using procedures per the International Association of Law Enforcement Analytic Standards (GIWG/IALEIA)	Yes/No
Percent of participants who have and use a national template for analytic products provided by Federal authorities	100%
The volume of transactions using information networks are recorded	Yes/No
Actions taken in light of transactions using information networks are tracked	Yes/No

Activity: <i>Develop Analytic Products</i>	
Definition: Develop analytic products that are consumer-tailored, clear, and objective and support the development of performance-driven, risk-based prevention, protection, and response programs at all levels	
Critical Tasks	
Pre.A1c 6.1	Provide briefings, reports and/or alerts tailored to recipients with detailed, specific information on actions or activities that may be indicative of an emerging threat
Pre.A1c 6.2	Analyze information needs on a continuous basis for short- and long-term intelligence requirements
Pre.A1c 6.3	Archive information and intelligence in a searchable repository to support future efforts by all fusion analysts
Pre.A1c 6.4	Vet and review products prior to distribution
Performance Measures	
Metrics	
Consumer satisfaction with the analytic product is monitored using an established producer-to-consumer feedback cycle	Yes/No
Analysts tailor requirements for the different audiences to which they provide information/intelligence	Yes/No
The fusion center/process consults the National Criminal Intelligence Sharing Plan and other relevant Federal guidelines for guidance on use of tear-line reports	Yes/No
Percent of products vetted prior to distribution using center/process procedures/mechanisms	100%
Intelligence files are maintained using the standards in the <i>Fusion Center Guidelines</i>	Yes/No
The center/process has an information and intelligence archive	Yes/No
The process used follows the national analytic template in the International Association of Law Enforcement Analytic Standards (GIWG/IALEIA)	Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
Information Gathering and Recognition of Indicators and Warnings	The data collected from Information Gathering and Recognition is further analyzed and processed by Intelligence Analysis and Production
Counter-Terror Investigation and Law Enforcement	Counter-Terror Investigation and Law Enforcement is one source of data analyzed by the Intelligence Analysis and Production capability. The products of the Intelligence Analysis and Production capability may further inform Counter-Terror Investigation and Law Enforcement investigations.
CBRNE Detection	CBRNE Detection is one source of data analyzed by Intelligence Analysis and Production
Community Preparedness and Participation	Citizen reports of suspicious activities is one source of data analyzed by Intelligence Analysis and Production
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation contributes data for analysis and is provided reports, as appropriate
Intelligence and Information Sharing and Dissemination	The results of the analyses in Intelligence Analysis and Production are disseminated using Intelligence and Information Sharing
Planning	Products that result from Intelligence Analysis and Production are used to ensure that plans adequately address terrorist threats
Risk Management	Products from Intelligence Analysis and Production provide the threat, vulnerability, and consequence data used in risk management

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Fusion Center/process	A multidisciplinary, all-source information/intelligence fusion center/process that undertakes an “all hazards” and “all crises” approach
Multi-discipline Analysts	Analyst personnel for multiple disciplines (e.g., public health, HazMat, etc.) to support intelligence analysis
Intelligence personnel	Personnel involved in intelligence analysis at various levels within the organization (e.g. analysts, supervisors, officers, etc.)
Administrative and support personnel	Personnel who perform administrative and support functions (e.g., information technology/communications, fusion center staff, security, etc.)
Public Health Analysts	Federal, regional, State, local, tribal, and other appropriate agency public health personnel involved in intelligence analysis
Cleared personnel	Personnel possessing valid and current security clearances
Joint Terrorism Task Forces (JTTFs)	Task forces formed at the local level and composed of persons from various government and private elements (e.g., law enforcement, public health, local businesses, key infrastructure representatives, emergency management and other first responders)
Hardware, software, and internet-based systems	Hardware, software, and internet-based systems that allow for information exchange and dissemination
Terminals with access to information sharing networks and early detection/alert programs and networks	Information sharing network architecture (e.g., Regional Information Sharing System (RISS)/Law Enforcement Online (LEO), Joint Regional Exchange System (JRIS), National Law Enforcement Telecommunication System (NLETS), FBI Criminal Justice Information Services/National Crime Information Center (CJIS/NCIC) networks). Access to early detection/alert programs and networks and all-source information (i.e., Public Health Information Network, Biosense, Homeland Security Information Network, Information Sharing and Analysis Centers, etc.). Relevant systems include: RSS/LEO, HSIN, etc.
Intelligence analysis and maintenance tools	Software and equipment to include surveillance systems/equipment, recording systems/equipment analyzing software/systems, data synthesis software, data storage
Data synthesis software	Hazard prediction, assessment, and threat modeling software

Planning Assumptions

- Prevention consists of those activities that serve to detect, deter, and disrupt terrorist threats or actions against the United States and its interests. These activities decrease the perpetrators’ chance of success, mitigate attack impact, minimize attack visibility, increase the chance of apprehension or detection, and obstruct perpetrators’ access to resources. Tasks in this area are important regardless of a single type of threat, adversary capability, time or location of incident. Similarly, these capabilities reflect many tasks routinely undertaken by law enforcement and related organizations as they conduct traditional all-hazards, all-crimes activities.
- This capability applies to all potential terrorist incidents and is applicable to all 12 terrorism-related National Planning Scenarios. The analysis of national targets focused on bombing using improvised explosives device, chlorine tank explosion, aerosol anthrax, improvised nuclear device, and a radiological dispersal.

- Effective prevention depends on timely, accurate, and actionable information about the adversary, their operations, their support, potential targets, and methods of attack. Homeland security intelligence/information fusion is the overarching process of managing the development and flow of information and intelligence across all levels and sectors of government and the private sector on a continual basis. Although the primary emphasis of fusion is to identify, deter, and respond to emerging terrorism-related threats and risks, a collateral benefit to Federal, State, local, and tribal entities is that it will support ongoing efforts to address non-terrorism-related, all-hazards, all-crimes issues.
- The Planning Factors for A Single Incident section and the Approaches for Large-Scale Events section do not apply because there is no incident or large-scale event that necessarily occurs before these capabilities come in to play.
- Intelligence/information fusion is an ongoing, cyclical process that incorporates three primary capabilities: Information Gathering and Recognition of Indicators and Warnings; Intelligence Analysis and Production; and Intelligence and Information Sharing and Dissemination.
- All appropriate objectives and critical tasks will be exercised regularly at all levels in order to measure performance and demonstrate capability.

Planning Factors for a Single Incident

Not Applicable

Approaches for Large-Scale Events

Not Applicable

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Fusion Centers/process	Personnel	1	Per jurisdiction/region	Federal, State, Local (Intrastate region, City)	Establish Fusion Center Analyze Information Analyze Information/Intelligence Develop Analytic Products
Multi-discipline Analysts	Personnel	As Needed	Provided from appropriate agencies on a permanent or liaison basis	Federal/State/Local	All Activities
Intelligence personnel	Personnel	As Needed	Provided from law enforcement agencies on a permanent or liaison basis	Federal/State/Local	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Administrative and support personnel	Personnel	As Needed	Provided from appropriate agencies on a permanent or liaison basis	Federal/State/Local	All Activities
Public Health Analysts	Personnel	As Needed	Provided from public health agencies on a permanent or liaison basis	Federal/State/Local	All Activities
Cleared personnel	Personnel	As Needed		Federal/State/Local	All Activities
Joint Terrorism Task Forces (JTTFs)	Personnel	As Needed		Federal/State/Local	All Activities
Hardware, software, and internet-based systems that allow for information exchange and dissemination	Systems	As Needed		Federal/State/Local	All Activities
Terminals with access to information sharing networks and early detection/alert programs and networks	Equipment	As Needed	Per fusion center site	Federal/State/Local	All Activities
Intelligence analysis and maintenance tools	Systems	As Needed	Per fusion center site	Federal/State/Local	All Activities
Data synthesis software	Equipment	As Needed		Federal/State/Local	All Activities

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.

4. The Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
5. Information/Intelligence Sharing System Survey. Global Intelligence Working Group. 2001. http://it.ojp.gov/documents/intell_sharing_system_survey.pdf.
6. Fusion Center Guidelines. Global Justice Information Sharing Initiative. July 2005.
7. The National Criminal Intelligence Sharing Plan. U.S. Department of Justice, Global Justice Information Sharing Initiative. 2004. http://it.ojp.gov/documents/National_Criminal_Intelligence_Sharing_Plan.pdf.
8. Law Enforcement Analytic Standards. Global Justice Information Sharing Initiative and International Association of Law Enforcement Intelligence Analysts, Inc. November 2004.
9. Applying Security Practices to Justice Information Sharing, Version 2. U.S. Department of Justice, Global Justice Information Sharing Initiative, Security Working Group. March 2004. http://it.ojp.gov/documents/200404_ApplyingSecurityPractices_v_2.0.pdf.
10. Central Intelligence Agency (CIA) Fact Book on Intelligence.
11. Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues. GAO-03-1165T. U.S. General Accounting Office. September 2003. <http://www.gao.gov/new.items/d03715t.pdf>.
12. Doctrine for Intelligence Support to Joint Operations. Joint Publication 2-0. Joint Chiefs of Staff, Director of Intelligence. March 2000. http://www.fas.org/irp/doddir/dod/jp2_0.pdf.
13. The 9/11 Commission Report. National Commission on Terrorist Attacks upon the United States. July 2004. <http://www.9-11commission.gov/>
14. Report on the U.S. Intelligence Community's Prewar Intelligence Assessments on Iraq. Select Committee on Intelligence, U.S. Senate, 108th Congress. July 2004. <http://intelligence.senate.gov/iraqreport2.pdf>.
15. The Homeland Security Advisory Council Prevention and Information Sharing Working Group. 2004.
16. Fusion Center Initiative. Homeland Security Advisory Council. April 2005.
17. State, Tribal and Local Intelligence and Information Sharing Initiative. Homeland Security Advisory Council. December 2004.
18. Private Sector Information Sharing Initiative. Homeland Security Advisory Council. June 2005.
19. National Strategy for Homeland Security. Office of Homeland Security. July 2002. http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.
20. Presidential Directive-39: U.S. Policy on Counterterrorism. June 21, 1995. <http://www.ojp.usdoj.gov/odp/docs/pdd39.htm>.
21. Presidential Directive-62/63: Protection Against Unconventional Threats to the Homeland and Americans Overseas. Critical Infrastructure Protection, National Plan for Information Systems Protection. May 22, 1998. <http://www.fas.org/irp/offdocs/pdd-63.htm>

COUNTER-TERROR INVESTIGATION AND LAW ENFORCEMENT

Capability Description

Counter-Terror Investigation and Law Enforcement is the capability that includes the broad range of activities undertaken by law enforcement and related entities to detect, examine, probe, investigate, and conduct operations related to potential terrorist activities. Current and emerging investigative techniques are used with an emphasis on training, legal frameworks, recognition of indications and warnings, source development, interdiction, and related issues specific to antiterrorism activities.

Outcome

Suspects involved in criminal activities related to homeland security are successfully deterred, detected, disrupted, investigated, and apprehended. All counterterrorism-related cases are aggressively prosecuted.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports:

Terrorism Incident Law Enforcement and Investigation Annex

ESF #8: Public Health and Medical Services

ESF #9: Urban Search and Rescue

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
PreC1a 1.1	Establish an infrastructure by which States and local governments can exchange terrorism and crime information
Pre.C1a 1.3	Develop, implement, and maintain an interagency or multi-jurisdictional training plan that ensures commonality in terrorism investigation subject matter being presented to law enforcement (State, local, tribal) and non-law enforcement (e.g., Department of Motor Vehicles, public health and safety) personnel
Pre.C1a 1.6	Develop, implement, and maintain a plan for using Federal specialized units or personnel in conjunction with an active investigation of a critical event
Pre.C1a 1.5	Develop a government-wide program to ensure that the armed services (e.g., maritime forces) and appropriate law enforcement agencies have the capability to operate together in a mutually supportive and complementary role
Pre.C1a 1.7	Develop procedures for conducting appropriate background investigations on personnel applying for sensitive positions in government, law enforcement, and the private sector

Preparedness Measures	Metrics
All Federal, State, local, and tribal law enforcement entities have established connections with appropriate Joint Terrorism Task Force (JTTF) field offices to establish routine and appropriate communications for all personnel	Yes/No
Larger jurisdictions or entities have identified a designated liaison with the JTTF	Yes/No
Smaller jurisdictions have a procedure in place to communicate with the JTTF, as needed	Yes/No
All Federal and tribal entities have established appropriate relationships (e.g., designated liaison, part-time liaison) with all JTTF offices	Yes/No
State and local law enforcement know how to contact the JTTF for any potential terrorism threat or activity	Yes/No
Processes and procedures for law enforcement at all levels to identify and respond to suspicious activities and persons through the appropriate channels are in place	Yes/No
Processes and procedures for law enforcement at all levels to identify individuals planning and coordinating terrorist-related activities are in place	Yes/No
Processes and procedures for law enforcement at all levels to apprehend and interdict terrorist suspects are in place	Yes/No
Processes and procedures for law enforcement at all levels to gather, catalogue, and preserve evidence for prosecutorial purposes and attribution are in place	Yes/No
Federal entities have established standard procedures and processes for conducting terrorism-related investigations	Yes/No
Law enforcement at all levels use memoranda of understanding (MOU) to facilitate the conduct of an ongoing investigation	Yes/No
Investigative policies, procedures, and processes are reviewed on a periodic basis	Yes/No
The U.S. Department of Homeland Security (DHS) and Department of Justice/Federal Bureau of Investigation (DOJ/FBI) provide a comprehensive list of Federal, State, local, and tribal resources available to all law enforcement entities and provide updates as appropriate	Yes/No
An investigative liaison or mechanism to communicate targeted information needs/requirements to information collectors is in place	Yes/No
Notification processes and procedures to share information to/from Federal, State, local, and tribal officials regarding an on-going investigation are in place	Yes/No
A mechanism for tracking leads from Federal, State, local, and tribal officials has been developed and is maintained so that all entities can view where the information is being taken for action	Yes/No
State, local, and tribal plans have been revised to include all required changes from the National Incident Management System (NIMS) and National Response Plan (NRP)	Yes/No
Investigative personnel are familiar with the Terrorist Incident Annex to the NRP	Yes/No
Plans and protocols for sharing incident-specific information from Federal partners with State, local, and tribal authorities, Emergency Operations Centers (EOCs), and other pertinent entities are in place	Yes/No
A mechanism for conveying among entities the prevention efforts taken by Federal, State, local, and tribal officials is in place	Yes/No

State, local, and tribal law enforcement either possess or have access to special operations teams (e.g., SWAT teams)	Yes/No
Standard policies and procedures for deploying special operations teams are in place	Yes/No
Sufficient specialized units or personnel exist within the State, local, and/or tribal jurisdictions to ensure coverage of at least two simultaneous contingencies	Yes/No
State, local, and/or tribal jurisdictions develop and maintain formal MOUs, policies, or procedures for accessing specialized units or personnel in an emergency	Yes/No
Formal MOUs, policies, or procedures that clearly define the duties and responsibilities of Federal specialized units/personnel are in place	Yes/No
Appropriate agencies conduct background investigations on individuals applying for sensitive positions in government, law enforcement, and the private sector	Yes/No
A mechanism for State, local, and tribal law enforcement entities to request/authorize that specific Federal specialized units or personnel be assigned to conduct joint operations is in place	Yes/No
DHS/DOJ/DOD develop and maintain a U.S. Government (USG) plan to attain and maintain USG counterterrorism capabilities in a maritime environment	Yes/No
DHS/DOJ/DOD identify and implement common doctrine and equipment for the maritime environment	Yes/No
Designated personnel have an identified source for and access to basic personal protection equipment (e.g., Chem/Bio protective mask, protective over-garments)	Yes/No
Appropriate processes, procedures, and plans for notifying proper authorities in the event of chemical, biological, radiological, nuclear, and explosive (CBRNE) hazards/threats are in place	Yes/No
Procedures/protocols are in place for relaying CBRNE-related lab analysis (e.g., type, quantity, lethality) to FBI laboratory entities are in place	Yes/No
Information flow plans/process for onsite personnel and detection capabilities are developed for rapidly relaying investigative information	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pre.C1a 2.1.1	Train appropriate investigative personnel in the proper use of personal protective equipment (PPE)
Pre.C1a 2.1.2	Provide training in general safety procedures for a variety of potentially hazardous environments
Pre.C1a 2.1.3	Develop and implement interagency terrorism-investigation training plan that ensures commonality in terrorism investigation
Pre.C1a 2.2.2	Design and conduct exercises to test Counter-Terror Investigation and Law Enforcement tasks within a single unit and jointly with other jurisdictions and levels of government
Preparedness Measures	Metric
Federal entities identify and/or develop training and education courses that they will make available for all State, local, and tribal entities in the areas of interviewing techniques and	Yes/No

cultural awareness training	
Appropriate law enforcement personnel are trained in the FBI 12-step process of evidence collection/preservation	Yes/No
State, local, and tribal personnel are trained and educated regarding the Federal assets that are available to them	Yes/No
State, local, and tribal personnel are trained in appropriate Federal responsibilities in prevention and investigation matters	Yes/No
Training is tailored to address regional trends/issues by State, local, and tribal officials	Yes/No
Training is repeated/updated at least on a periodic basis	Yes/No
Appropriate personnel are trained in cultural awareness as it relates to terrorism	Yes/No
Appropriate personnel were trained to recognize criminal activity (e.g., money laundering) that could be exploited by terrorists and/or related to terrorism investigations	Yes/No
Appropriate personnel are trained in source recruitment and development	Yes/No
All law enforcement personnel are educated and trained to recognize terrorist techniques and procedures, including suspicious criminal and non-criminal activity and indicators	Yes/No
Designated personnel are trained to recognize indicators of a hazardous or contaminated environment	Yes/No
Designated personnel are trained in the proper use of personal protective equipment (PPE)	Yes/No
All relevant personnel receive safety awareness training from appropriate agencies or units (e.g., HazMat, bomb squad, military EOD unit)	Yes/No
Appropriate personnel are trained and educated on the NIMS	Yes/No
Communication mechanisms are routinely tested via discussion-based and operations-based exercises, tabletop exercises (TTX), and functional exercises (FX) to ensure they are operating effectively	Yes/No
DHS/DOJ/DOD develop and test interoperability capabilities through joint training and exercises	Yes/No
Training plans are developed independently or in cooperation with other jurisdictions, per Federally defined guidelines	Yes/No
All jurisdictional training plans designate a centralized training facility and/or lead agency responsible for joint training programs	Yes/No
All jurisdictional training plans establish a mechanism for notifying/updating participating agencies of training opportunities and scheduling	Yes/No
Federally sponsored training programs utilize train-the-trainer methods as appropriate to enable the broadest possible reach to all levels of government	Yes/No
Federally developed awareness training programs relating to legal responsibilities and limitations, preservation of potential or suspected crime scenes, and control/custody of evidence (videotapes, documents, etc.) are offered to non-law enforcement (public safety, code enforcement, public health, and private sector security)	Yes/No
Agencies adhere to established policies regarding training intervals and requirements	Yes/No
All State, local, and tribal jurisdictions provide DHS with a list of their cultural awareness training needs, in order of priority	Yes/No

Performance Tasks and Measures/Metrics

Activity: Conduct Investigations	
Definition: Carry out effective investigations of criminal/suspicious activities potentially related to terrorism	
Critical Tasks	
Pre.C1a 3.5	Recognize terrorism indications and warnings that arise during the course of investigations
Pre.C1a 3.6	Conduct targeted outreach with private businesses related to an investigation
Pre.C1a 3.7	Engage in effective source development activities, including maintaining source confidentiality
Pre.C1a 3.9	Implement proper procedures and processes when conducting terrorism-related investigations
Pre.C1a 3.9.1	Follow standard crime-scene procedures
Pre.C1a 3.5.2	Maintain ability to address CBRNE hazards that may be encountered during the course of an investigation
Pre.C1a 3.9.2	Gather, catalogue, and preserve evidence for prosecutorial purposes and attribution
Pre.C1a 3.2.1.2	Coordinate with officials from critical infrastructure, key resources, and the private-sector to facilitate an investigation
Pre.C1a 3.5.1	Recognize indicators and warnings of potential terrorist-related activity during criminal investigations
Performance Measures	Metrics
Intelligence related to high-risk infrastructure or an acute threat is prioritized and reported as soon as it is observed during the course of an investigation	Yes/No
Percent of law enforcement investigators who are able to recognize and address onsite CBRNE hazards encountered during the course of an investigation	100%
FBI Hazardous Materials Response Unit (HMRU) collects evidence, processes material/evidence, and identifies the source or precursors of CBRNE	Yes/No
Law enforcement notifies industry/facilities of the process to identify and report suspicious material, activity, or personnel related to the ongoing investigation	Yes/No
Law enforcement personnel coordinate with critical resource infrastructure, key resource, and private-sector officials to facilitate an investigation	Yes/No
Law enforcement personnel follow-up with a reporting organization if more information is necessary	Yes/No
Law enforcement investigators receive timely threat and intelligence information	Yes/No
Law enforcement contacts the local Joint Terrorism Task Force (JTTF) when a connection to terrorism is discovered during a criminal investigation	Yes/No
Law enforcement uses investigative information to identify potential vulnerabilities/target lists	Yes/No
Law enforcement notifies Federal, State, local, and tribal governments how to identify and report suspicious material, activity, or personnel related to the ongoing investigation	Yes/No
All appropriate entities ensure that sources and methods remain confidential throughout the investigative process	Yes/No

Activity: <i>Share Information Related to Investigations</i>	
Definition: Receive, develop, and share information to aid in an investigation	
Critical Tasks	
Pre.C1a 4.1	Identify and maintain liaisons with appropriate lead Federal terrorism investigation entities. (i.e., JTTF)
Pre.C1a 4.2	Conduct targeted outreach with private businesses, industries, and facilities to assist an investigation
Pre.C1a 4.2.1	Conduct targeted outreach with Federal, State, local, and tribal governments to assist an investigation
Pre.C1a 4.3	Establish, use, and maintain clear lines of reporting for information related to ongoing investigations
Pre.C1a 4.1.1	Contact JTTF in a timely fashion when any nexus to terrorism is discovered
Pre.C1a 4.3.1	Share investigation-related information across jurisdictions and among law enforcement and other agencies as appropriate
Pre.C1a 4.3.2	Deliver investigation-related information through pre-established channels appropriate for the originating source
Pre.C1a 4.3.3	Follow-up with reporting entity if more information is necessary
Pre.C1a 4.4	Provide investigators with timely threat and intelligence information
Pre.C1a 4.5	Follow legal protocols on handling and disseminating information related to an ongoing investigation
Performance Measures	
	Metrics
Information provided by all sources is delivered through pre-established channels appropriate for the originating source	Yes/No
Information provided by all sources meets predefined standards for accuracy, completeness, and consistency	Yes/No
All appropriate entities follow legal protocols on handling and disseminating information related to an ongoing investigation	Yes/No

Activity: <i>Deploy Specially Trained Personnel</i>	
Definition: Deploy and use specialized units/duly authorized and specially trained personnel for search, seizure, and/or intervention/interdiction operations	
Critical Tasks	
Pre.C1a 5.1	Maintain access to special operations teams (e.g., SWAT teams)
Pre.C1a 5.1.2	Maintain access to personnel with specialized skills (e.g., foreign language fluency)
Pre.C1a 5.1.1	Dispatch special operations teams according to standard policies and procedures
Pre.C1a 5.2	Conduct tactical deployment

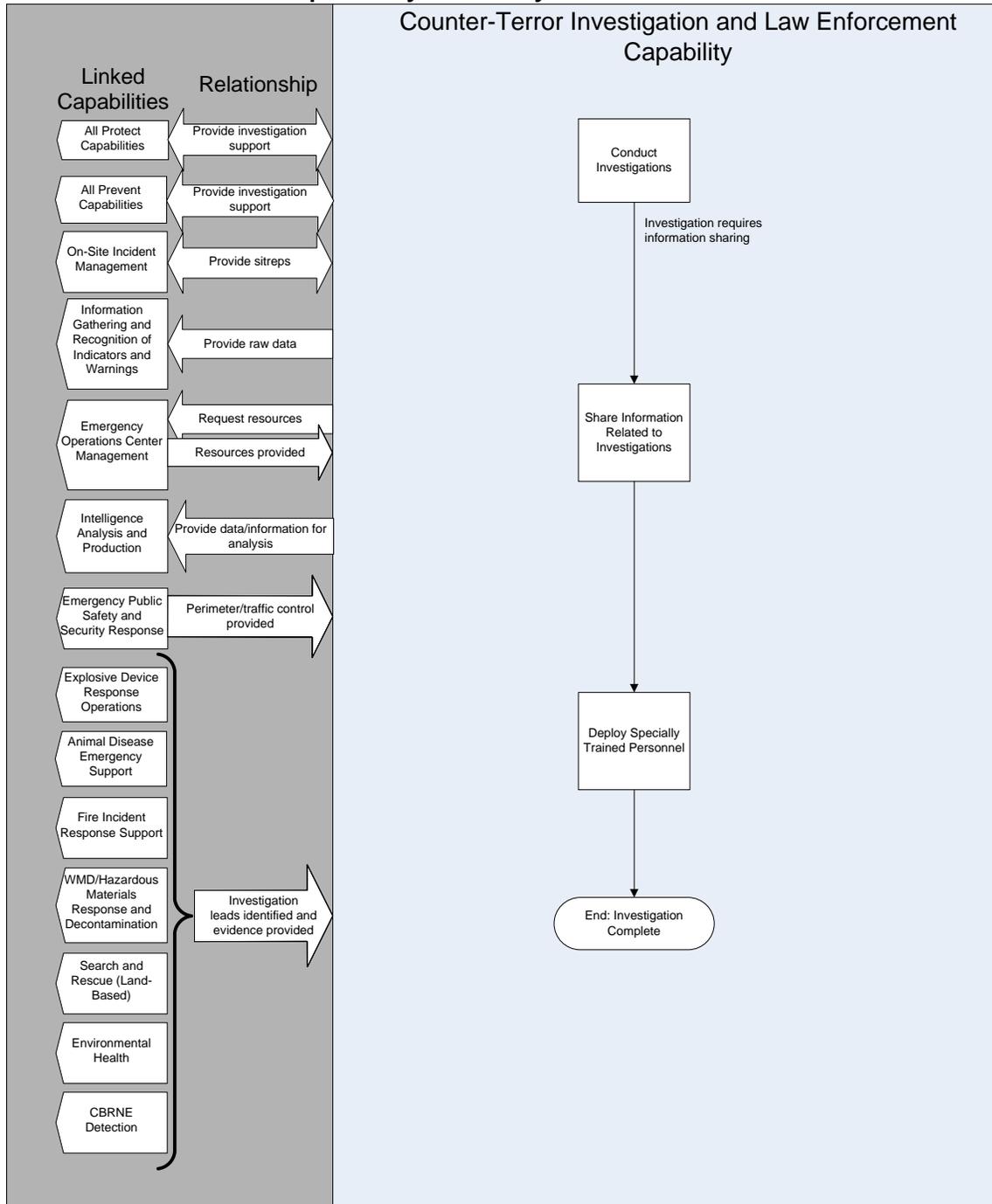
Pre.C1a 5.3	Conduct surveillance of suspects	
Pre.C1a 5.4	Secure incident scene	
Pre.C1a 5.5	Assess incident and develop action plan	
Pre.C1a 5.6	Conduct hostage negotiations	
Pre.C1a 5.7	Determine and don appropriate PPE	
Pre.C1a 5.8	Conduct tactical entry to disarm, detain, or otherwise render harmless the suspects in accordance with the use of force policy/rules of engagement	
Pre.C1a 5.9	Execute search and seizure procedures	
Pre.C1a 5.9.1	Apprehend suspects	
Pre.C1a 5.11	Conduct mission debrief	
Pre.C1a 5.9.2.1	Translate documents and discourse and conduct interviews in languages other than English when appropriate	
Pre.C1a 5.10	Immediately share intelligence information from an operation and archive all data in appropriate formats to allow for quick retrieval for subsequent analysis and investigation	
Performance Measures		Metrics
Percent of personnel who demonstrate basic knowledge of minimum safe distances and how to establish adequate perimeter, containment and decontamination procedures		100%
State, local, and tribal law enforcement deploy special operations teams		Yes/No
Law enforcement agencies access personnel with advanced foreign language capabilities		Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
All Protect Capabilities	Counter-Terror Investigation and Law Enforcement and the Protect Capabilities provide each other with investigative support dependent on the nature of the investigation
All Prevent Capabilities	Counter-Terror Investigation and Law Enforcement and the remaining Prevent Capabilities provide each other with investigative support dependent on the nature of the investigation
On-Site Incident Management	Counter-Terror Investigation and Law Enforcement and On-Site Incident Management provide each other with situation reports
Information Gathering and Recognition of Indicators and Warnings	Counter-Terror Investigation and Law Enforcement provides raw data to Information Gathering and Recognition
Emergency Operations Center Management	Counter-Terror Investigation and Law Enforcement requests resources from Emergency Operations Center Management. Emergency Operations Center Management provides Counter-Terror Investigation and Law Enforcement with resources.
Intelligence Analysis and Production	Counter-Terror Investigation and Law Enforcement provides information for analysis

Linked Capability	Relationship to Capability
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides Counter-Terror Investigation and Law Enforcement s with crowd and traffic control
Explosive Device Response Operations	Explosive Device Response Operations provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
Animal Disease Emergency Support	Animal Disease Emergency Support provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
Fire Incident Response Support	Fire Incident Response Support provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
WMD and Hazardous Materials Response and Decontamination	WMD and Hazardous Materials Response and Decontamination provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
Search and Rescue (Land-Based)	Search and Rescue (Land-Based) provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
Environmental Health	Environmental Health provides Counter-Terror Investigation and Law Enforcement with investigation leads and evidence
CBRNE Detection	CBNRE Detection provides raw data for Counter-Terror Investigation and Law Enforcement

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Investigative personnel	Law enforcement personnel involved in the conduct of investigations of criminal/suspicious activities
JTTFs	Task forces formed at the local level and composed of persons from various government and private elements (e.g., law enforcement, public health, local businesses, key infrastructure representatives, emergency management and other first responders)
Liaisons to JTTFs	A government person, designated by larger jurisdictions, to liaise with the community's JTTF
Evidence collection personnel and equipment	Law enforcement personnel trained in the FBI 12-step process of evidence collection/preservation.
Forensic analysis personnel and equipment	Personnel and equipment at all levels of government involved in the analysis of evidence collected from a crime scene or elsewhere
“Train the trainer” programs	Programs to train on Federal assets and roles and responsibilities, terrorism indications and warning in criminal investigations, and recognition of hazardous materials/threats

Planning Assumptions

- Prevention consists of those activities that serve to detect, deter, and disrupt terrorist threats or actions against the United States and its interests. These activities decrease the perpetrators’ chance of success, mitigate attack impact, minimize attack visibility, increase the chance of apprehension or detection, and obstruct perpetrators’ access to resources. Tasks in this area are important regardless of a single type of threat, adversary capability, time, or location of incident. Similarly, these capabilities reflect many tasks routinely undertaken by law enforcement and related organizations as they conduct traditional all-hazards, all-crimes activities.
- This capability applies to all potential terrorist incidents and is applicable to all 12 terrorism-related National Planning Scenarios. Initial planning, however, has been focused on bombing using improvised explosives device, chlorine tank explosion, aerosol anthrax, improvised nuclear device, and a radiological dispersal.
- Effective prevention depends on timely, accurate, and actionable information about the adversary, their operations, their support, potential targets, and methods of attack. Homeland security intelligence/information fusion is the overarching process of managing the development and flow of information and intelligence across all levels and sectors of government and the private sector on a continual basis. Although the primary emphasis of fusion is to identify, deter, and respond to emerging terrorism-related threats and risks, a collateral benefit to Federal, State, local, and tribal entities is that it will support ongoing efforts to address non-terrorism-related, all-hazards, all-crimes issues.
- Both the Planning Factors for a Single Incident section and the Approaches for Large-Scale Events section have been omitted because there is no incident or large-scale event that necessarily occurs before these capabilities come in to play.

Planning Factor Assumptions

- Intelligence/information fusion is an ongoing, cyclical process that incorporates three primary capabilities: Information Gathering and Recognition of Indicators and Warnings; Intelligence Analysis and Production; and Intelligence and Information Sharing and Dissemination.
- All appropriate objectives and critical tasks will be exercised regularly at all levels in order to measure performance and demonstrate capability.

Planning Factors for a Single Incident

Not Applicable

Approaches for Large-Scale Events

Not Applicable

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Investigative personnel	Personnel	As Needed (to be determined by Agency)		Federal/State/Local	Conduct investigation Share Information Related to Investigations
JTTFs	Personnel	As Needed (to be determined by Agency)		Federal (DOJ/FBI)	Conduct investigation Share Information Related to Investigations Deploy Specially Trained Personnel
Liaisons to JTTFs	Personnel	As Needed (to be determined by Agency)		Federal/State/Local	Conduct investigation Share Information Related to Investigations Deploy Specially Trained Personnel
Evidence collection personnel	Personnel	As Needed (to be determined by Agency)		Federal/State/Local	Conduct Investigation
Forensic analysis personnel	Personnel	As Needed (to be determined by Agency)		Federal/State/Local	Conduct investigation

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
“Train the trainer” programs	Training	As Needed		Federal	Conduct investigation Share Information Related to Investigations Deploy Specially Trained Personnel

References

1. *The Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence*. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
2. Homeland Security Presidential Directive/HSPD–8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
3. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
4. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
5. *Crime Scene Investigation: A Guide for Law Enforcement*. U.S. Department of Justice, Office of Justice Programs. 1999. <http://www.ncjrs.org/pdffiles1/nij/178280.pdf>.
6. *Handbook of Forensic Services*. U.S. Department of Justice, Federal Bureau of Investigations Laboratory Division. 2003. <http://www.fbi.gov/hq/lab/handbook/forensics.pdf>.
7. *ODP WMD Training Program: Enhancing State and Local Capabilities to Respond to Incidents of Terrorism*. U.S. Department of Homeland Security, Office for Domestic Preparedness. 2001. <http://www.ojp.usdoj.gov/odp/docs/coursecatalog.pdf>.
8. *NFPA 921: Guide for Fire and Explosion Investigations*. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=921>
9. *NFPA 1033: Standard for Professional Qualifications for Fire Investigator*. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1033>

CBRNE DETECTION

Capability Definition

The preventative Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Detection capability provides the ability to detect CBRNE materials at points of manufacture, transportation, and use. It is important to note that the activities and tasks described in this capability will be carried out individually for each specific agent, rather than for all agents at the same time. Therefore, when considering critical tasks and preparedness measures, each task and measure should be applied separately to each CBRNE agent. For example, in considering whether technical support (or “reachback”) is available, rad/nuc “reachback” is considerably different from chemical, biological, or explosive “reachback”. Preparedness in one or more of the CBRNE areas does not equate to preparedness across the entire CBRNE detection spectrum.

This capability includes the detection of CBRNE material through area monitoring, but does not include detection by their effects (i.e., signs or symptoms) on humans and animals. Such population level monitoring is addressed, respectively, in the Epidemiological Surveillance and Investigation and Animal Disease Emergency Support capabilities. The CBRNE Detection capability includes the identification and communication of CBRNE threats, but does not include actions taken to prevent an incident or respond to the consequences of a CBRNE incident, which are also addressed in other capabilities.

The CBRNE Detection capability includes technology, as well as the capacity to recognize potential CBRNE threats through equipment, education, and effective protocols. Training, communication, close coordination with key partners, including intelligence, law enforcement, public safety, public health, and international partners, and public and private sector awareness of CBRNE threats are all recognized as critical enablers for this capability. However, only CBRNE detection-specific tasks within these cross-cutting elements have been identified in the discussion of this capability.

Definitions are as follows:

- **Manufacture:** The illegal production of CBRNE material within the borders of the U.S. and its territories.
- **Transport:** The movement of CBRNE material outside, across, and within the borders of the U.S. and its territories.
- **Use:** The deployment, emplacement, or employment of CBRNE material within the U.S. and its territories.

Outcome

Chemical, biological, radiological, nuclear, and/or explosive (CBRNE) materials are rapidly detected and characterized at borders and ports of entry, critical locations, events, and incidents

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs) and Annex:

ESF #8: Public Health and Medical Services

ESF #13: Public Safety and Security

Terrorism Incident Law Enforcement and Investigation Annex

Target Capabilities List

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Pre.A1a 1.1	Develop and maintain plans and processes for CBRNE detection and communication operations
Pre.A1a 1.1.1	Develop regional CBRNE coordination plans or activities involving all Federal, State, local, tribal, and private stakeholders
Pre.A1a 1.1.2	Develop policies and protocols for determining appropriate locations for detection operations (“interdiction points”) for each CBRNE agent
Pre.A1a 1.1.3	Develop processes to identify, acquire, and integrate appropriate detection technology in operational environments for each CBRNE agent
Pre.A1a 1.1.4	Develop protocols for resolving CBRNE alarms
Pre.A1a 1.1.5	Develop procedures on how to receive threat information from law enforcement/ intelligence agencies regarding CBRNE agents
Pre.A1a 1.1.6	Develop procedures on how to notify appropriate officials of CBRNE detection results
Pre.A1a 1.2	Develop standards for detection technologies for each CBRNE agent, including sensitivity and selectivity standards
Pre.A1a 1.2.1	Develop and implement global standards for cargo screening) for each CBRNE agent in coordination with Transportation Screening
Pre.A1a 1.2.2	Develop and implement equipment acquisition and certification standards for each CBRNE agent
Pre.A1a 1.2.3	Develop technology standards for existing detection technologies used by the government and private sector for each CBRNE agent
Pre.A1a 1.2.3.1	Develop technology standards for emerging detection technologies for each CBRNE agent
Pre.A1a 1.2.4	Validate analytical methods to detect chemical, biological, radiological, nuclear, and explosive material
Pre.A1a 1.3	Establish policies and agreements to enhance and maintain adequate resources and technologies for detection operations for each CBRNE agent
Pre.A1a 1.3.1	Establish coordination and/or mutual aid agreements with external CBRNE detection and alarm resolution capabilities
Pre.A1a 1.3.2	Establish protocols to ensure that technical support (either on-site or “reach back”) is available during detection operations for each CBRNE agent
Pre.A1a 1.3.3	Identify financial and technological gaps in detection resources for each CBRNE agent
Pre.A1a 1.3.4	Acquire and allocate resources to address identified financial gaps in detection for each CBRNE agent
Pre.A1a 1.3.5	Establish a research and development program to address shortfalls in technologies for detecting chemical, biological, radiological, nuclear and explosive material
Pre.A1a 1.4	Establish policies and agreements to facilitate the sharing and dissemination of information on CBRNE detection across stakeholders
Pre.A1a 1.4.1	Develop processes for obtaining data regarding evolving CBRNE threats in coordination with the Information Sharing and Dissemination Capability

Pre.A1a 1.4.2	Develop procedures to facilitate the exchange of CBRNE detection-related information and data among Federal, State, local and tribal agencies	
Pre.A1a 1.4.3	Establish policies and procedures for detection of each CBRNE agent and the communication of CBRNE detection results and warnings	
Pre.A1a 1.4.4	Establish and maintain an interoperable information network for detection of each CBRNE agent	
Pre.A1a 1.5	Develop and implement a program to conduct detection of each CBRNE agent at critical infrastructure/key resources (CI/KR) in coordination with the Critical Infrastructure Protection Capability	
Pre.A1a 1.5.1	Conduct a CBRNE threat assessment to CI/KR	
Pre.A1a 1.5.2	Conduct detection requirements analysis for each CBRNE agent for CI/KR	
Pre.A1a 1.5.3	Identify locations to place detection devices at CI/KR for each CBRNE agent	
Pre.A1a 1.5.4	Prioritize and allocate CBRNE detection resources to CI/KR in coordination with Critical Infrastructure Protection capability	
Pre.A1a 1.5.5	Deploy fixed and mobile detection resources to CI/KR for each CBRNE agent	
Preparedness Measures		Metrics
Technological shortfalls in detection for each CBRNE agent have been identified		Yes/No
A research and development program to address the detection technological shortfalls for each CBRNE agent is in place		Yes/No
A program for the timely development of standards for emerging technology is in place		Yes/No
A process to identify, acquire, and integrate appropriate technology in operational environments is in place		Yes/No
Technical support for each CBRNE agent is available (on-site or through “reach back”)		Yes/No
A standard list of threats of concern for each CBRNE agent is in place		Yes/No
Appropriate levels of detection sensitivity for each CBRNE agent have been selected for the identified threats of concern		Yes/No
Detection sensitivity thresholds for each CBRNE agent comply with appropriate international, national, State, and local standards		Yes/No
A regional detection plan for each CBRNE agent has been developed and coordinated		Yes/No
Protocols have been developed and incorporated in plans to communicate CBRNE detection activities, locations, anomalies and their resolution to appropriate personnel (e.g., intelligence, law enforcement, hazardous materials (HazMat), and public health personnel)		Yes/No
Protocols for notifying officials include agency specific call-down lists		Yes/No
Frequency with which CBRNE detection plans are updated to reflect current critical infrastructure/key resources (CI/KR) assessments		Every 12 months
Appropriate procedures exist for CBRNE detection at critical infrastructure/key resources (CI/KR) for specific threat conditions		Yes/No
Integrated detection architectures for each of the CBRNE agents exist for all levels of government (Federal, State, local, tribal)		Yes/No
Gaps in detection capability for each of the CBRNE agents are identified		Yes/No

A process to acquire and allocate resources and fill CBRNE detection gaps is in place	Yes/No
---	--------

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pre.A1a 2.1	Develop and maintain training programs to support CBRNE detection and communication operations
Pre.A1a 2.1.1	Identify personnel for CBNRE detection training
Pre.A1a 2.1.2	Develop and implement training to enable personnel (e.g., first responders, law enforcement, intelligence, and medical community) to recognize the presence of CBRNE material
Pre.A1a 2.1.3	Establish key personnel training standards for CBRNE detection
Pre.A1a 2.1.4	Provide CBRNE support equipment and threat device handling training to operations and investigation personnel
Pre.A1a 2.1.5	Develop and implement public education campaigns/ trainings for CBRNE awareness
Pre.A1a 2.1.5.1	Publish and distribute CBRNE detection awareness material
Pre.A1a 2.2	Test and exercise CBRNE detection and communication protocols regularly
Pre.A1a 2.2.1	Conduct after action reports (AARs) and update CBRNE detection and communication protocols, as necessary, based on lessons learned during exercises
Preparedness Measures	Metric
First responders and CI/KR personnel have received awareness level training for each of the CBRNE agents	Yes/No
Appropriate personnel have been identified for CBRNE detection training (e.g., law enforcement, transit police and security, fire department, hazardous materials (HazMat), public health, private sector security, and critical infrastructure personnel)	Yes/No
Frequency with which detection protocols for each of the CBRNE agents are exercised and evaluated	Every 12 months
Training for detection operators, laboratory staff, and critical infrastructure personnel has been conducted	Yes/No
A program to test and evaluate new CBRNE technology in the appropriate operational environment is in place	Yes/No
Detection training materials have been developed and validated for each CBRNE agent	Yes/No
Percent of required personnel trained to meet jurisdictional CBRNE detection requirements	100%
Public education campaigns exist for CBRNE detection	Yes/No
The CBRNE detection exercise program is in compliance with Homeland Security Exercise and Evaluation Program (HSEEP) guidance	Yes/No
Frequency with which CBRNE detection notification plan is exercised	Every 3 months
A process for analyzing exercise results and incorporating lessons learned is in place	Yes/ No

Performance Tasks and Measures/Metrics

Activity: Detect CBRNE	
Definition: Operate primary and secondary CBRNE detection technologies at points of illegal manufacture, transportation, or use within and across the borders of the U.S. and its Territories	
Critical Tasks	
Pre.A1a 3.1	Conduct CBRNE detection operations in communities for illegal manufacture and/or use
Pre.A1a 3.1.1	Investigate a venue for the possible placement of a CBRNE device
Pre.A1a 3.1.2	Detect the use of CBRNE material in a community and/or venue
Pre.A1a 3.1.3	Conduct continuous and ad hoc CBRNE material detection in a community and/or venue
Pre.A1a 3.1.4	Detect illegal manufacturing of CBRNE material at potential manufacturing sites
Pre.A1a 3.2	Conduct CBRNE detection operations at key transportation points
Pre.A1a 3.2.1	Detect CBRNE material on people or items entering/boarding events, aircraft, mass transit, or other high impact targets
Pre.A1a 3.2.2	Inspect and monitor cargo at key interdiction points for potential CBRNE material
Pre.A1a 3.2.3	Identify potential CBRNE material at key interdiction points requiring further inspection
Pre.A1a 3.2.4	Detect the ground, air, and sea transport and/or deployment of CBRNE material into and within the U.S. and its Territories
Pre.A1a 3.2.5	Screen people to detect CBRNE material at all ports of entry
Pre.A1a 3.2.5.1	Screen material (e.g., baggage, mail, etc.) to detect CBRNE material at all ports of entry (e.g., sea and airports, border crossing points, etc.)
Pre.A1a 3.2.6	Provide point and stand-off detection resources
Pre.A1a 3.3	Conduct CBRNE detection operations at CI/KR locations
Pre.A1a 3.3.1	Screen people to detect CBRNE material at all CI/KR locations
Pre.A1a 3.3.2	Screen material (e.g., baggage, mail, etc.) to detect CBRNE material at all CI/KR
Pre.A1a 3.4	Use intelligence information to focus CBRNE material searches and surveillance activities
Pre.A1a 3.4.1	Use intelligence information to target suspect containers or shipments
Pre.A1a 3.4.2	Detect the theft or diversion of CBRNE materials
Pre.A1a 3.4.3	Coordinate with Animal Health and Epidemiological Surveillance to focus CBRNE detection on public health and medical information (e.g., syndromic surveillance and medical diagnostic tests)
Pre.A1a 3.5	Implement protocols for resolving CBRNE alarms and the detection of suspect material
Pre.A1a 3.5.1	Document and maintain results from detection alarms and responses
Performance Measures	
Metrics	
Illicit chemical, biological, radiological, or explosive material are detected at borders, inspection points, or during routine law enforcement investigations	Yes/No
Surveillance systems provide early detection of a chemical, biological, or radiological release that would facilitate limiting the spread and effect of that release	Yes/No

Checked baggage and cargo entering/boarding events, aircraft, mass transit, or other potential targets are screened for CBRNE materials	Yes/No
Passengers and event attendees entering/boarding events, aircraft, mass transit, or other potential targets are screened for CBRNE materials	Yes/No
CBRNE detection efforts are informed by intelligence, public safety, and public health information	Yes/No
Venues are inspected for potential CBRNE threats prior to major events	Yes/No
Ad hoc CBRNE surveillance capabilities are deployed in response to potential threats	Yes/No
Accurate records are kept of all suspect issues or alarms and their resolution	Yes/No

Activity: <i>Identify and/or Characterize CBRNE material</i>	
Definition: Describe or portray the qualities of detected CBRNE material	
Critical Tasks	
Pre.A1a 4.1	Conduct additional screenings to confirm the presence of CBRNE materials
Pre.A1a 4.1.1	Provide samples to relevant entities (e.g., public health or animal health laboratories, law enforcement, forensic laboratories, etc.) for additional assessments, as necessary
Pre.A1a 4.1.2	Conduct appropriate tests and assessments to characterize and identify detected CBRNE material
Pre.A1a 4.2	Determine whether detected CBRNE material is a threat
Pre.A1a 4.3	Gather CBRNE material detection information that can be used in attribution efforts to appropriate personnel, including law enforcement and intelligence community personnel
Performance Measures	
Metrics	
Suspicious material is analyzed (either on-site or via laboratory support)	Yes/No
Percent of CBRNE alarms, or suspect material discoveries, at interdiction points that are resolved	100%
Percent of CBRNE materials that are correctly identified as either a threat or not a threat	100%
Percent of detected CBRNE materials that are properly identified	100%

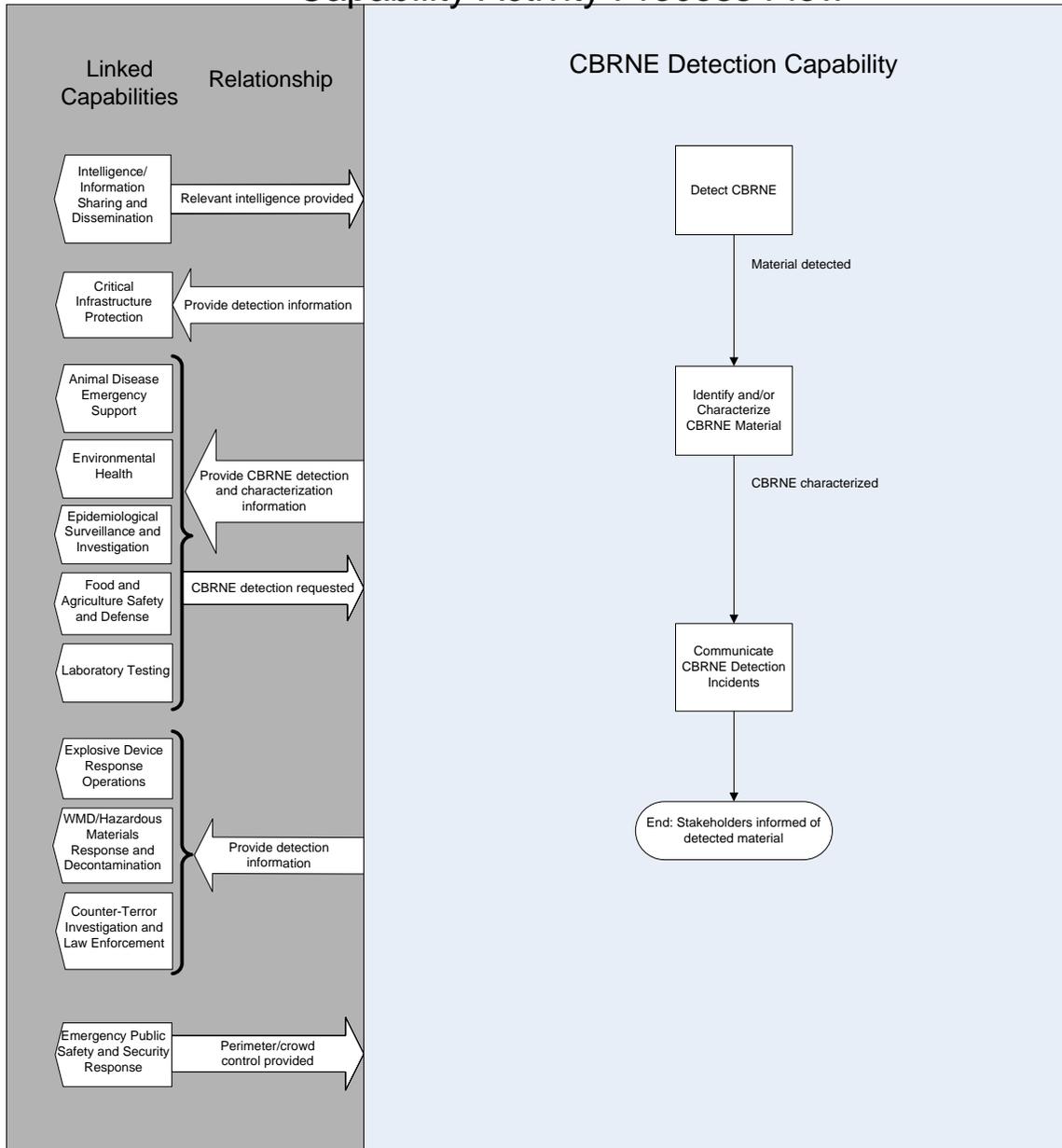
Activity: <i>Communicate CBRNE Detection Incidents</i>	
Definition: Provide CBRNE detection and warning information to appropriate entities and authorities	
Critical Tasks	
Pre.A1a 5.1	Coordinate CBRNE material threat and discovery information with intelligence, public safety, public health and other appropriate agencies
Pre.A1a 5.2	Notify appropriate personnel (e.g., intelligence community, law enforcement personnel, first responders, and the general public) of CBRNE detection data and results
Pre.A1a 5.3	Communicate data and observations using appropriate formats and standards

Performance Measures	Metrics
Disseminated information in event of CBRNE detection follows established protocol	Yes/No
CBRNE detection notification is completed in accordance with relevant plans and protocols	Yes/No

Linked Capabilities

Linked Capability	Relationship to Capability
Critical Infrastructure Protection	CBRNE Detection provides Critical Infrastructure Protection with detection and characterization information.
Environmental Health	CBRNE Detection provides material characterization to Environmental Health. Environmental Health data may signal the need for CBRNE detection.
Explosive Device Response Operations	CBRNE Detection provides material characterization to Explosive Device Response Operations.
Intelligence and Information Sharing and Dissemination	Intelligence/ Information Sharing and Dissemination provides CBRNE Detection with all relevant intelligence.
Counter-Terror Investigation and Law Enforcement	Detection of CBRNE materials may trigger the need for a law enforcement investigation, and may affect how law enforcement operations are conducted
Laboratory Testing	Laboratory Testing results may indicate potential CBRNE threats. CBRNE Detection may receive assistance in characterizing the detected material from Laboratory Testing.
Emergency Public Safety and Security Response	CBRNE Detection may require Emergency Public Safety and Security Response for perimeter and crowd control.
WMD and Hazardous Materials Response and Decontamination	CBRNE Detection informs WMD and Hazardous Materials Response and Decontamination of CBRNE materials.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
CBRNE Detection operator/ personnel	Specially trained and equipped personnel with the ability to recognize potential Chemical, Biological, Radiological/Nuclear, or explosive threats through equipment, education, and effective protocols. Personnel must be trained and capable of operating primary and secondary detection systems.
Explosive Detection Dog (EDD) Teams	A canine and handler, working as a team to perform explosive detection searches of building and office areas, vehicles, packages, materials and persons
Laboratory staff and equipment for agent identification	Personnel specially trained and equipped to analyze suspicious materials in support of characterization and confirmation. This may involve laboratory networks (e.g., Laboratory Response Network (LRN), FERN, Animal and Plant Health Inspection Service (APHIS), and National Animal Health Laboratory Network (NAHLN))
Border control and other targeted 'defense layers' personnel	Personnel involved in screening materials (e.g., baggage, mail, etc.) to detect CBRNE material at all ports of entry (e.g., sea and airports, border crossing points, etc.)
Appropriate critical infrastructure personnel	Critical infrastructure personnel who are trained in CBRNE screening and detection of CBRNE materials
Automated Information System	Resources that provide the infrastructure for the dissemination of information amongst the various command/control and support nodes
CBRNE detection Research and Design	Programs for the development of technologies to improve CBRNE detection
CBRNE monitoring and detection equipment	Appropriate fixed or mobile equipment for detection of CBRNE threats based on risk assessments for priority communities or venues.
CBRNE equipment support systems	Systems to ensure that equipment remains operational and accurate. Systems to provide expert analytical assessments of detector data

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, capability planning factors were developed from an in-depth analysis of the scenarios featuring an improvised explosives device, a chlorine tank explosion, aerosol anthrax, an improvised nuclear device, and a radiological dispersal. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- CBRNE detection activities apply to the U.S. and its territories.
- The CBRNE Detection capability addresses biological agents outside of the body (human and animal), and does not include medical or plant samples (i.e., blood and medical tests). Medical and syndromic surveillance detection of biological agents is addressed in Epidemiological Surveillance and Investigation, as well as Food and Agriculture Safety. Close integration of these capabilities must occur with the CBRNE Detection capability.
- Both the Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability section and the Approaches to Large-Scale Events section have been omitted because there is no incident or large-scale event that necessarily occurs before these capabilities come in to play.

- Intelligence/information fusion is an ongoing, cyclical process that incorporates three primary capabilities: Information Gathering and Recognition of Indicators and Warnings; Intelligence Analysis and Production; and Intelligence and Information Sharing and Dissemination. The CBRNE Detection capability relates closely to all three stages of this process.
- All appropriate objectives and critical tasks will be exercised regularly at all levels in order to measure performance and demonstrate capability.
- Planning factors are not based on major events, but on an assessment of the risks and vulnerabilities that pertain to the locality conducting that assessment. CBRNE detection is needed continuously and not just during discrete events.

Resource Element	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
CBRNE detection/operating personnel	Nationwide, organized regionally		Nationwide, organized regionally
Automated Information System	One integrated system will provide the infrastructure for dissemination of information amongst the various command/control and support nodes.		Nationwide, nested regionally
Automated Information System	One integrated system will provide the infrastructure for dissemination of information amongst the various command/control and support nodes.		Nationwide, nested regionally
CBRNE equipment support systems			Nationwide, organized regionally

Approaches for Large-Scale Events

- The main strategy is to use detection technologies and screening processes to interdict the CBRNE materials before they are used. The alternative is to rely on existing detection technology; law enforcement investigations and alternate technologies will determine the presence of threat devices.
- Develop the national capability through design and deployment of the Global Nuclear Detection Architecture and other similar programs.
- Encourage states and local jurisdiction to develop and implement detection capabilities through use of DHS grants and guidance.
- Develop equipment, training and communications standards to facilitate and validate the deployment and use of detection technologies.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
CBRNE detection operator/ personnel	Personnel	Varies by Region	Varies by Region	Federal/State/Local	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Explosive Detection Dog (EDD) Teams	Personnel and Canine	Varies by Region	Varies by Region	Federal	Detect Identify and/or Characterize
Laboratory staff and equipment for agent identification	Personnel and Equipment	Varies by Region	Varies by Region	Federal/State Local	Identify and/or Characterize
Border control and other targeted 'defense layers' personnel	Personnel	Varies by Region	Varies by Region	Federal/State	Detect
Appropriate critical infrastructure personnel	Personnel	Varies by Region	Varies by Region	Private Sector	Detect
Automated information system	Equipment	Varies by Region	Varies by Region	Federal/State/ Local	Communicate
CBRNE detection technology Research and Development	Organization and Leadership	Varies by Region	Varies by Region	Federal	All Activities
CBRNE monitoring and detection equipment	Equipment	Varies by Region	Varies by Region	Federal/State/ Local	Detect Identify and/or Characterize
CBRNE Equipment Support Systems	Equipment	Varies by Region	Varies by Region	Federal/State/ Local	Detect Identify and/or Characterize

References

1. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
2. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
3. Homeland Security Presidential Directive/HSPD-8: National Preparedness. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
4. Homeland Security Presidential Directive/HSPD-7: Critical Infrastructure Identification, Prioritization and Protection.
5. *Hazardous Materials Emergency Planning Guide*. National Response Team. 2001. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
6. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.

This page intentionally left blank

Protect Mission Area Target Capabilities

This page intentionally left blank

CRITICAL INFRASTRUCTURE PROTECTION

Capability Definition

The Critical Infrastructure Protection (CIP) capability enables public and private entities to identify, assess, prioritize, and protect critical infrastructure and key resources so they can detect, prevent, deter, devalue, and mitigate deliberate efforts to destroy, incapacitate, or exploit the Nation’s critical infrastructure and key resources.

Outcome

The risk to, vulnerability of, and consequence of an attack on critical infrastructure are reduced through the identification of critical infrastructure; conduct, documentation, and standardization of risk assessments; prioritization of assets; decisions regarding protective and preventative programs; and implementation of protective and preventative plans.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs)/Annexes:

- ESF #1: Transportation
- ESF #2: Communications
- ESF #3: Public Works and Engineering
- ESF #4: Firefighting
- ESF #5: Emergency Management
- ESF #8: Public Health and Medical Services
- ESF #10: Oil and Hazardous Materials Response
- ESF #11: Agriculture and Natural Resources
- ESF #12: Energy
- ESF #13: Public Safety and Security
- ESF #14: Long-Term Community Recovery and Mitigation
- Cyber Incident Annex
- Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Pro.A1a 1.1.1	Develop National Infrastructure Protection Plan (NIPP)
Pro.A1a 1.5	Establish a national CIP research and development program
Pro.A1a 1.1.2	Develop Sector-Specific Plans (SSPs)
Pro.A1a 1.1.3	Develop State and/or regional CIP Plans

Pro.A1a 1.4	Develop a national risk assessment methodology and standards for Critical Infrastructure/Key Resources (CI/KR)	
Pro.A1a 1.4.1	Develop risk assessment tools	
Pro.A1a 1.3.1	Establish Government Coordinating Councils (GCCs) for each sector	
Pro.A1a 1.3.2	Establish Sector Coordinating Councils (SCCs) for each sector	
Pro.A2a 1.1.2	Coordinate development of standard guidelines for physical security programs	
Pro.A3a 1.3	Develop strategies and guidelines for cyber infrastructure protection	
Pro.A2a 1.6	Develop strategies and guidelines for protection of infrastructure personnel	
Pro.A1a 4.1	Define a sector-specific universe of infrastructure assets, systems, networks, and functions	
Pro.A1a 3.1	Develop sector-specific security goals	
Pro.A1a 1.2.1	Develop national metrics to measure progress and to assess effectiveness of the national CI/KR protection program	
Pro.A1a 1.2.2	Develop sector-specific metrics to measure progress and to assess effectiveness of the sector-specific CI/KR protection programs	
Preparedness Measures		Metrics
NIPP and SSPs are in place		Yes/No
State and/or regional CIP Plans are developed and in place		Yes/No
Appropriate risk methodology (i.e. one that takes into account the threats, consequences, and vulnerabilities) has been developed and approved by the Federal Government for CI/KR protection		Yes/No
Vulnerability assessment tool has been developed		Yes/No
GCCs have been established for each sector		Yes/No
SSPs have been reviewed by appropriate GCC		Yes/No
SCCs have been established for each sector		Yes/No
SSPs have been reviewed by appropriate SCC		Yes/No
A mechanism for coordinating CIP efforts has been established for Federal and State authorities (e.g. State, Local, and Tribal Government Coordinating Council)		Yes/No
National CIP Research and Development Plan has been established		Yes/No
CIP information-sharing mechanism has been established		Yes/No
Sector security goals have been established for each sector in partnership with security partners		Yes/No
Sector security goals support the goal of the NIPP		Yes/No
Sector security goals yield specific, measurable outcomes that allow security partners to allocate security resources and to track progress		Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pro.A1a 2.1.1	Develop and implement risk and vulnerability assessment training
Pro.A1a 2.2.1	Develop a system to “Red Team” CIP measures and technology
Pro.A2a 2.2	Develop and conduct exercise programs to test CI/KR protection plans
Preparedness Measures	
Metrics	
Frequency with which exercises are conducted to test the effectiveness of protective measures	Every 12 months
Vulnerability assessment training program is developed and implemented	Yes/No
Risk assessment training program is developed and implemented	Yes/No
System to “Red Team” CIP measures and technology is in place	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Coordinate and Manage Critical Infrastructure Protection</i>	
Definition: Partner/coordinate with Federal, State, local, and tribal entities, the private sector, and the international community.	
Critical Tasks	
Pro.A1a 3.3.1	Operate public-private partnerships for Critical Infrastructure Protection (CIP) activities
Pro.A1a 3.3.2	Operate sector-specific GCCs
Pro.A1a 3.3.3	Operate sector-specific SCCs
Performance Measures	
Metrics	
Time in which GCC concurrence with respect to CIP is signed by all relevant parties	Within 12 months from official TCL publication
GCC concurrence includes coordination/cooperation with SCCs	Yes/No

Activity: <i>Identify CI/KR</i>	
Definition: Develop an inventory of the individual assets, systems, networks, and functions that make up the Nation’s CI/KR, some of which may be located outside the U.S., and collect information on them, including dependencies, interdependencies, and reliance on cyber systems.	
Critical Tasks	
Pro.A1a 4.1.1	Develop selection criteria to identify CI/KR
Pro.A1a 4	Identify CI/KR within the Nation, region, State, or local area

Performance Measures	Metrics
Sector-specific agencies have identified assets of potential national-, regional-, or sector-level importance	Yes/No
Data have been collected on assets, systems, networks, and functions and are relevant to risk assessment efforts	Yes/No
Data have been collected on assets, systems, networks, and functions and address dependencies and interdependencies that affect functionality and performance	Yes/No
Data have been verified for accuracy	Yes/No
Frequency with which data are updated and provided to DHS	Every 12 months

Activity: Assess Risks	
<p>Definition: Determine which assets, systems, networks, and functions are critical by calculating risk and combining potential direct and indirect consequences of an attack (including dependencies and interdependencies associated with each identified asset), known vulnerabilities to various potential attack vectors, and general or specific threat information</p>	
Critical Tasks	
Pro.A1a 5.1	Conduct a “top-screen” consequence analysis to determine which assets, systems, networks, and functions are high consequence and therefore require risk assessment
Pro.A1a 5.3	Conduct vulnerability assessments on high-consequence assets, systems, networks, and functions
Pro.A1a 5.4	Conduct detailed threat assessments on high-consequence assets, systems, networks, and functions
Pro.A1a 5.5	Determine risk profiles of high-consequence assets, systems, networks, and functions
Pro.A1a 5.6	Conduct an interdependency analysis to determine the relationship of risks within and across sectors
Pro.A1a 5.7	Share the assessment of sector-specific infrastructure risk with interdependent entities within appropriate sectors
Performance Measures	Metrics
Procedures for analyzing threats, vulnerabilities, consequences, and risks were implemented	Yes/No
Consequence or “top-screen” analysis was performed	Yes/No
Potential threats to assets, systems, networks, and functions were identified	Yes/No
Potential threats to high-consequence assets, systems, networks, and functions were identified	Yes/No
Percent of high-consequence assets, systems, networks, and functions that have completed vulnerability assessments	100%
Percent of high-consequence assets, systems, networks, and functions that have completed a risk assessment	100%
Risk analysis results were disseminated to the proper authorities	Yes/No

Activity: <i>Prioritize</i>	
Definition: Aggregate and order assessment results to present a comprehensive picture of national CI/KR risk in order to establish protection priorities and to provide the basis for planning and the informed allocation of resources	
Critical Tasks	
Pro.A1a 6.1	Prioritize high-risk CI/KR for consideration of protective measures
Performance Measures	
CI/KR and high-consequence assets, systems, networks, and functions were normalized and prioritized for consideration of protective programs	Yes/No

Activity: <i>Protect</i>	
Definition: Select appropriate protective measures or programs and allocate resources to address targeted priorities	
Critical Tasks	
Pro.A2a 1.1.4	Develop and implement surge capacity plans to increase CIP capacity during a crisis
Pro.A2a 2.3	Implement surge capacity plans to increase CIP protection during a crisis
Pro.A2a 1.1	Develop protective programs and plans to reduce the general level of risk for the highest risk CI/KR
Pro.A2a 1.2	Develop protective programs and plans to respond to and recover from specific threat-initiated actions
Pro.A2a 5	Implement programs to defend and devalue physical CI/KR
Pro.A3a 5	Implement programs to defend and devalue critical cyber assets, systems, networks, and functions
Pro.A3a 4.1.1	Implement detection measures such as inspection surveillance, employee monitoring, and security counterintelligence
Performance Measures	
Metrics	
Percent of high-risk assets, systems, networks, and functions for which protective programs and/or mitigation strategies have been developed	100%
Percent of high-risk assets, systems, networks, and functions for which protective programs and/or mitigation strategies have been implemented	100%
Percent of high-risk assets, systems, networks, and functions that have active protective programs to measurably reduce risk	100%
Percent of high-risk assets, systems, networks, and functions for which risk has been measurably reduced	100%
Percent of high-risk assets, systems, networks, and functions for which plans for surge capacity during a crisis have been developed	100%
Percent of high-risk assets, systems, networks, and functions for which continuity of operations plans have been developed	100%

Activity: Measure Effectiveness

Definition: Incorporate metrics and other evaluation procedures at the national and sector levels to measure progress and to assess effectiveness of the national CI/KR protection program

Critical Tasks

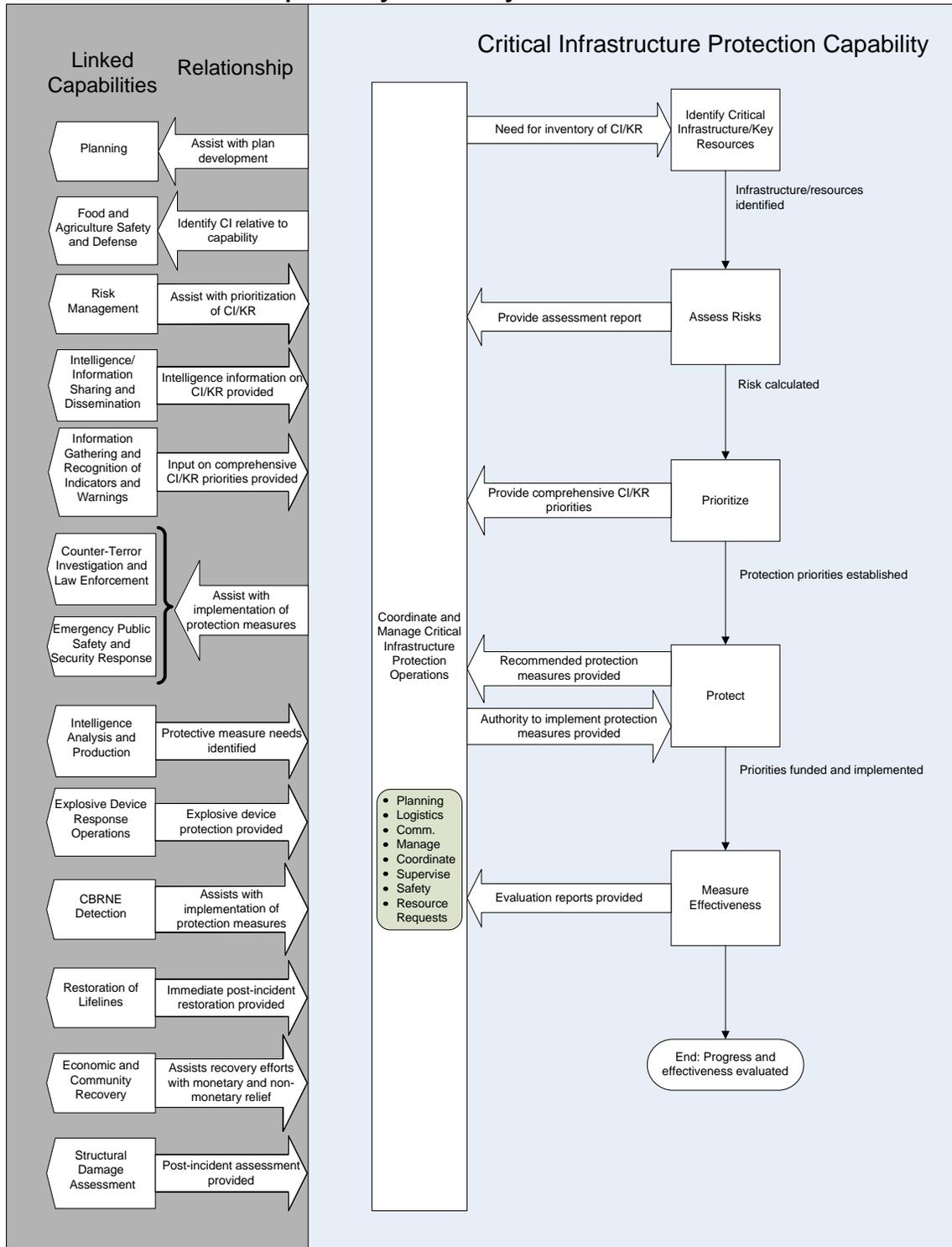
Pro.A1a 7.1	Collect national metrics data	
Pro.A1a 7.1.1	Analyze national metrics data	
Pro.A1a 7.2	Collect sector-specific metrics data	
Pro.A1a 7.2.1	Analyze sector-specific metrics data	
Performance Measures		Metrics
Frequency with which national metrics data are collected and reported		Every 12 months
Frequency with which sector-specific metrics data are collected and reported		Every 12 months

Linked Capabilities

Linked Capability	Relationship to Capability
Planning	Emergency plans developed under this capability will be coordinated with sector-specific CIP plans.
Food and Agriculture Safety and Defense	Because Food and Agriculture is one of the 17 critical infrastructure sectors, CIP provides the initial line of protection for this industry.
Risk Management	Risk Management involves the processes used to prioritize CI/KR for protection.
Intelligence and Information Sharing and Dissemination	Intelligence/information sharing mechanisms support the coordination among security partners in CIP
Information Gathering and Recognition of Indicators and Warnings	Locally generated threat and other criminal and/or terrorism-related information that results from this capability is used to establish the threat picture that forms the basis for risk in CIP
Counter-Terror Investigation and Law Enforcement	Counter-Terror Investigation and Law Enforcement are one method of deterring and thus preventing attacks on critical infrastructure.
Emergency Public Safety and Security Response	Use of law enforcement for emergency public safety and security is one form of protection for critical infrastructure assets.
Intelligence Analysis and Production	The actionable intelligence/information products produced by this capability can indicate the need for specific protective measures in CIP
Explosive Device Response Operations	Explosive Device Response Operations may involve the prevention of an explosive device at a critical asset location.
CBRNE Detection	CBRNE Detection may deter attacks on critical infrastructure or may result in the need for specific protective actions.

Linked Capability	Relationship to Capability
Restoration of Lifelines	Restoration of Lifelines addresses the immediate restoration of critical infrastructure (e.g., water, power, etc).
Economic and Community Recovery	Economic and Community Recovery includes recovery and re-building of critical infrastructure, to include greater protection.
Structural Damage Assessment	Structural Damage Assessment addresses the structural inspection of critical infrastructure to inform and prioritize mitigation resources.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Critical Infrastructure Protection (CIP) planning personnel	
Public and private sector coordinators	
Personnel to complete vulnerability assessments	
Risk analysis personnel	
Infrastructure Security Specialists	
Infrastructure Intelligence Analysts	
National Infrastructure Protection Plan	Per Homeland Security Presidential Directive (HSPD) 7
CIP Research and Development Plan	Per HSPD 7
Sector Specific Plans	Per HSPD 7
Equipment for detection	
Equipment for protection	
Equipment for mitigation	
System to “red team” critical infrastructure protective measures and technology	

Planning Assumptions

- Critical Infrastructure Protection (CIP) may be applicable to any of the 15 National Planning Scenarios as any terrorism-related, accidental, or natural catastrophic event could disrupt or destroy CI/KR in one or more sectors. However, for purposes of determining National Targets, no scenarios were specifically considered because much of the CIP activities take place on an ongoing basis between incidents. Although protective activities are also implemented in response to particular threats or events, information regarding whether an affected asset is considered “critical” needs to be provided before any implementation can occur.
- Under the CIP process as defined in the NIPP, protection of CI/KR requires an initial determination of whether the asset/system in question and the risks being posed are “critical.” Therefore, protection activities are conducted on a case-by-case basis.
- Resource needs at the State and local level may be determined through the development of a model that takes into account the presence and density of CI/KR assets in various geographic areas.
- The understanding of criticality as related to interdependent systems continues to evolve. Additional guidance will be provided as it is developed.
- State and local law enforcement is available to support CI/KR protection efforts, as required.
- Critical infrastructure information is able to be shared between Federal and State authorities and the private sector in a protected and secure way.

Target Capability Preparedness Level

Element Resource Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
CIP planning personnel	Personnel	As needed	Per agency	Federal (DHS, Sector Specific Agencies)/ State	Develop and Maintain Plans, Measure Effectiveness
Public and private sector coordinators	Personnel	As needed	Per agency	Federal (DHS)	Coordinate
Public and private sector coordinators	Personnel	As needed	Per agency	Federal (Sector-Specific Agencies)/ State	Coordinate
Personnel for vulnerability assessments	Personnel	As needed	Per agency	Federal (DHS, Sector Specific Agencies)/ State	Assess Risk Prioritize
Risk analysis personnel	Personnel	As needed	Per agency	Federal (DHS, Sector Specific Agencies)/ State	Assess Risk Prioritize
Infrastructure Security Specialists	Personnel	As needed	Per agency	Federal (DHS, Sector Specific Agencies)/ State	Protect
Infrastructure Intelligence Analysts	Personnel	As needed	Per agency	Federal (DHS, Sector Specific Agencies)/ State	Assess Risk
National Infrastructure Protection Plan	Planning	1	Nationally	Federal (DHS)	All activities
CIP Research and Development Plan	Planning	1	Nationally	Federal (DHS)	All activities
Sector-Specific Plans	Planning	1	Per Sector-Specific Agency	Federal (Sector Specific Agencies)	All activities
Equipment for detection	Equipment	As needed	Per asset	Federal/State/Local	Protect
Equipment for protection	Equipment	As needed	Per asset	Federal/State/Local	Protect
Equipment for mitigation	Equipment	As needed	Per asset	Federal/State/Local	Protect
System to Red Team critical infrastructure protective measures and	Exercises			Federal	All Activities

Element Resource Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
technology					

References

1. National Infrastructure Protection Plan. Department of Homeland Security. June 2006.
2. Homeland Security Presidential Directive/HSPD–8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
3. Homeland Security Presidential Directive /HSPD–7: Critical Infrastructure Identification, Prioritization, and Protection. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-5.html>.
4. National Response Plan. U.S. Department of Homeland Security. December 2004.
5. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
6. Department of Homeland Security Sector-Specific Intelligence Sharing Analysis Center (ISAC) Information. Executive Order 13356, State and Local Tiger Team. U.S. Department of Homeland Security. 2004. <http://a257.g.akamaitech.net/7/257/2422/06jun20041800/edocket.access.gpo.gov/2004/pdf/04-20052.pdf>.
7. The Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
8. Applying Security Practices to Justice Information Sharing. U.S. Department of Justice, Global Justice Information Sharing Initiative, Security Working Group. March 2004. http://it.ojp.gov/documents/200404_ApplyingSecurityPractices_v_2.0.pdf.
9. The National Criminal Intelligence Sharing Plan. U.S. Department of Justice, Global Justice Information Sharing Initiative. Revised June 2005. http://it.ojp.gov/documents/National_Criminal_Intelligence_Sharing_Plan.pdf.
10. Homeland Security Information Network. U.S. Department of Homeland Security. <http://www.dhs.gov/dhspublic/display?theme=43&content=3747&print=true>.
11. Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues. GAO–03–1165T. U.S. General Accounting Office. September 2003. <http://www.gao.gov/new.items/d031165t.pdf>.
12. Information/Intelligence Sharing System Survey. U.S. Department of Justice, Global Justice Information Sharing Initiative, Global Intelligence Working Group. 2003. http://it.ojp.gov/documents/intell_sharing_system_survey.pdf.
13. National Strategy for Homeland Security. Office of Homeland Security, The White House. July 2002. http://www.dhs.gov/interweb/assetlibrary/nat_strat_hls.pdf.
14. Risk Management: An Essential Guide to Protecting Critical Assets. National Infrastructure Protection Center. November 2002.
15. The 9/11 Commission Report. National Commission on Terrorist Attacks upon the United States. July 2004. <http://www.9-11commission.gov/report/911Report.pdf>.
16. National Strategy for Transportation Security. U.S. Department of Homeland Security.
17. National Fire Protection Association Codes and Standards. http://www.nfpa.org/aboutthecodes/list_of_codes_and_standards.asp

This page intentionally left blank

FOOD AND AGRICULTURE SAFETY AND DEFENSE

Capability Definition

Food and Agriculture Safety and Defense is the capability to prevent, protect against, respond to, and recover from chemical, biological and radiological contaminants, and other hazards that affect the safety of food and agricultural products. This includes the timely eradication of outbreaks of crop diseases/pests, assessments of the integrity of the food producing industry, the removal and disposal of potentially compromised materials from the U.S. food supply, and decontamination of affected food manufacturing facilities or retail points of purchase or service. This also includes appropriate laboratory surveillance to detect human foodborne illness or food product contamination. It is accomplished concurrent to protecting public health and maintaining domestic and international confidence in the U.S. commercial food supply. Additionally, the public is provided with accurate and timely notification and instructions related to an event and appropriate steps to follow with regard to disposal of affected food or agricultural products and appropriate decontamination procedures.

Outcome

Threats to food and agriculture safety are prevented, mitigated, and eradicated; trade in agricultural products is restored; affected products are disposed of; affected facilities are decontaminated; public and plant health are protected, notification of the event and instructions of appropriate actions are effectively communicated with all stakeholders; and confidence in the U.S. food supply is maintained.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESF)s/Annexes:

- ESF #8: Public Health and Medical Services
- ESF #11: Agriculture and Natural Resources
- Biological Incident Annex
- Interim Draft Food and Agriculture Incident Annex
- Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Pro.A1a 5.2	Conduct vulnerability assessments of sector-specific critical infrastructure and key resources
Pro.B1b 1.1.2	Develop methods for emergency assessment of firms that manufacture, prepare, and hold U.S. Department of Agriculture (USDA) regulated commodities
Pro.B1b 1.1.3	Develop methods for emergency assessment of firms that manufacture, prepare, and hold U.S. Food and Drug Administration (FDA)-regulated commodities
Pro.B1b 1.2.3	Create emergency response plan for response to all food operations for retail, food service, mass

	feeding, and food processing facilities	
Pro.B1b 1.2.2	Develop emergency guidelines and operation criteria for retail food, wholesale, and processing during disasters	
Pro.B1b 1.3	Develop communications plan for food safety for regulated facilities and the general public	
Pro.B1b 1.4.1	Develop guidelines or procedures for properly conducting a coordinated outbreak investigation of food and agricultural events	
Pro.B1b 1.4.2	Develop plans or guidelines for properly disposing of contaminated food products or diseased crops	
Pro.B1b 1.5	Develop, adapt, or implement plans to support incident command (IC), unified command (UC), or other agencies as needed for food and agricultural safety response	
Pro.B1b 1.5.1	Develop procedures for providing surge staff to support IC and EOCs during a food event	
Pro.B1b 1.4	Develop plans, procedures, and programs for responding to a food safety or agricultural disease event	
Pro.B1b 1.3.1	Prepare food and agriculture emergency public information plans	
Pro.B1b 1.3.2	Develop a food and agriculture crisis communications plan	
Res.B1b 1	Develop plans, policies, procedures, and systems for responder safety and health	
Pro.B1b 1.3.3	Develop plans, procedures, and policies for coordinating, managing, and disseminating public information regarding food and agricultural safety	
Res.B1f 1.3.3	Plan and provide for external media support and operations	
Res.B1f 1.1.5	Develop and maintain emergency declaration protocols and template	
Res.B1f 1.2.4	Develop a communications network with State homeland security departments	
Preparedness Measures		Metrics
<p>Procedures are in place for:</p> <ul style="list-style-type: none"> ▪ Food and agriculture surveillance activities (e.g., active searches, interviews, medical record review, compilation of data)Sample collection ▪ Maintaining chain of custody of laboratory samples ▪ After hours receipt of samples ▪ Triaging samples dependent on priority ▪ Traceback/trace forward investigations ▪ Rapidly informing the public once the contaminated food has been identified ▪ Coordinating public communications between government, academia, and the private sector ▪ Controlling contaminated products (i.e., seizure, product quarantine, recall, embargo, condemnation, administrative detention) ▪ Appropriate disposal of affected food and/or agricultural products ▪ Appropriate decontamination of affected food facilities ▪ Quick recall of affected food or agricultural products from the marketplace ▪ Verifying effectiveness and timeliness of food and agricultural product recalls 		<p>Yes/No</p>
Plans and procedures for responding to a food /agricultural event identify the proper food and agricultural authorities		Yes/No
Communication plans and procedures for responding to a food/agricultural event provide for dissemination of accurate, timely, and accessible information to the public, media, and support agencies		Yes/No

Emergency response plans include all food operations (e.g., retail, food service, mass feeding, food processing facilities)	Yes/No
Memoranda of agreements (MOAs) to facilitate response are in place	Yes/No
Field staff or other designated first responders are appropriately qualified	Yes/No
Redundant emergency communication capabilities are in place	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pro.B1b 2.1.1	Develop and conduct emergency food safety response training to field staff and managers of State/local food programs having responsibility for food safety response (training should include appropriate job safety training)
Pro.B1b 2.1.2	Provide food safety training to responders and volunteers
Pro.B1b 2.2	Develop and implement exercise programs for food and agricultural safety and defense
Preparedness Measures	Metric
Field staff or other designated first responders have: <ul style="list-style-type: none"> ▪ Hazard awareness training ▪ NIMS Training 	Yes/No Yes/No
HSEEP-compliant exercises to evaluate food and agricultural safety and defense are routinely conducted	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Direct Food and Agriculture Safety and Defense Operations</i>	
Definition: In response to a notification of an existing threat of food contamination or crop disease, provide the management and coordination of the epidemiological and food establishment investigations as well as appropriate food and crop control measures to stop further cases of illness or disease.	
Critical Tasks	
Pro.B1b 3.3.2	Dispatch food and agriculture personnel to location of suspected contamination
Res.B1a 4	Activate the on-site incident command system (ICS)
Pro.B1b 3.4.4	Request food and agriculture resources needed for response to field operations
Pro.B1b 3.1.2	Coordinate with Federal, State, and local agencies to ensure the safety and security of meat, poultry, and egg products in retail groceries and food service establishments and institutions
Pro.B1b 3.1.3	Coordinate with Federal, State, and local agencies to ensure the safety and security of products in retail and food service establishments and institutions
Pro.B1b 3.4.1	Coordinate food and agriculture emergency management plans at the local, State, and national levels

Res.B1f 5.1.1	Coordinate the provision of timely and accurate emergency public information through the Joint Information System (JIS)	
Res.B1c 8.1.1	Provide direction, information, and support as appropriate to IC or unified command UC and joint field offices	
Res.B1c 4	Activate the Emergency Operations Center (EOC)	
Res.B1c 3	Direct and coordinate EOC operations	
Pro.B1b 3.4.5	Establish and maintain food and agricultural safety response communication systems	
Pro.B1b 3.4	Coordinate food and agricultural safety response operations and support	
Pro.B1b 3.2	Manage surveillance activities for agriculture and natural resources	
Pro.B1b 3.3	Coordinate food and agriculture investigation activities	
Pro.B1b 3.3.4	Coordinate food and agriculture evidence preservation procedures	
Pro.B1b 3.5.1	Coordinate food recovery programs	
Pro.B1b 3.5.2	Coordinate food facility decontamination	
Pro.B1b 3.5.2.1	Coordinate cleaning and decontamination of affected food facilities	
Pro.B1b 3.5.3	Coordinate the disposal of contaminated food	
Pro.B1b 3.5.4	Coordinate agricultural recovery programs	
Pro.B1b 3.1.6	Ensure the safety, efficacy, and security of regulated foods, the blood supply, drugs, medical devices, and other U.S. Department of Health and Human Services (HHS)-regulated products	
Pro.B1b 3.1	Ensure the Nation’s commercial supply of food is safe and secure following a catastrophic incident	
Pro.B1b 3.3.1	Implement guidelines or procedures for properly conducting a coordinated outbreak investigation of food and agricultural events	
Pro.B1b 3.3.4.1	Ensure close coordination and cooperation among regional, State, Federal, and international agencies and with the private sector and nongovernmental associations to facilitate food and agriculture response efforts	
Pro.B1b 3.2.1	Direct agricultural processes for surveillance and testing and isolation or quarantine for threats to agricultural assets and the food supply	
Pro.B1b 3.3.3	Provide food and agriculture laboratory and diagnostic support, subject matter expertise, and technical assistance	
Pro.B1b 3.4.3	Ensure the adequacy of food and agriculture resources	
Pro.B1b 3.4.3.2	Request subject matter expertise from supporting agencies to assist in the response and recovery effort	
Pro.B1b 3.4.3.3	Establish regional and State plans and protocols for food and agricultural safety response and requests for assistance	
Pro.B1b 3.4.2	Activate food and agriculture safety and defense personnel	
Performance Measures		Metric
Appropriate numbers of trained personnel have been identified to respond to the State or local EOC and possibly the Joint Operations Center		Yes/No
Boilerplate consumer messages have been developed		Yes/No

Assets for decontamination procedures have been identified	Yes/No
Decontamination is conducted in accordance with local protocol for all contaminated personnel, equipment, and animals	Yes/No
Return of food products is monitored	Yes/No
Protective gear is available for field staff or other designated first responders	Yes/No

Activity: <i>Conduct Surveillance</i>	
Definition: In response to a notification that food products are contaminated or that crops are diseased, establish and implement a plan to expand on-going surveillance activities to focus on additional food products, crops, and facilities that might be affected.	
Critical Tasks	
Res.B2d 5.1	Conduct epidemiological investigations as surveillance reports warrants, and coordinate Federal, State, and local veterinary assistance assets/services
Pro.B1b 4.2	Search actively for food and agriculture cases
Pro.B1b 4.2.2.2	Initiate food and agriculture database and data management
Pro.B1a 4.3.1	Develop basic case descriptions by conducting interviews and reviewing medical records
Pro.B1b 4.3	Conduct food and agriculture laboratory detection and confirmation
Pro.B1b 4.3.3	Disseminate food and agriculture laboratory testing results to appropriate stakeholders/partners
Pro.B1b 4.3.2	Maintain chain-of-custody of all food and agriculture evidence
Pro.B1b 4.2.2.1	Integrate surveillance findings related to food and agriculture
Pro.B1b 4.2.2	Compile information about threats to food
Pro.B1b 4.3.1	Use the results from a food sample analysis to determine the breadth of contamination
Performance Measures	Metric
Time in which a surveillance plan is implemented upon determination of a specific food product associated with illness or the presence of a diseased crop	Within 24 hours from confirmed food product association or crop disease
Time in which individual or joint USDA/FDA/DOJ investigation into source of contamination of identified food product or diseased crop is initiated	Within 24 hours from confirmed food product association or crop disease
Frequency and quality of inspection for surveillance of food products at manufacturing, distribution, retail, or food service facilities is conducted in accordance with Federal and State protocol	Yes/No
Federal/State authorities had access to laboratories with validated methods for detection/identification of pathogens, chemical, biological, and radiological contaminants	Yes/No

Activity: Trace Suspect Products	
Definition: Conduct investigations to determine the source(s) of contamination and identify other products, crops, and facilities that could be contaminated.	
Critical Tasks	
Pro.B1b 5.1.1	Collect and preserve contaminated food and agriculture evidence
Pro.B1b 5.1.2	Collect and preserve non-contaminated food and agriculture evidence
Pro.B1b 5.2	Inspect the safety and security of the food infrastructure in the affected area
Pro.B1b 5.3	Inspect the safety and security of the agricultural infrastructure in the affected area
Pro.B1b 5.2.3	Inspect and monitor meat, poultry, and egg establishments that can continue to operate in the affected area
Pro.B1b 5.2.2	Inspect food facilities that can continue to operate in the affected area
Pro.B1b 5.2.4	Use laboratory testing and field investigations to identify products that are safe and fit for human consumption
Pro.B1b 5.1.4	Conduct product tracing to determine the source, destination, and disposition of adulterated or contaminated products
Pro.B1b 5.2.1	Conduct inspection and monitoring of food products and establishments in affected areas
Pro.B1b 5.3.1	Conduct inspection and monitoring of agriculture products and establishments in affected areas
Pro.B1b 5.1.3	Generate possible associations of transmission, exposure, and source of food and agriculture events
Pro.B1b 5.1.5	Identify possible sources of food and agricultural safety event
Pro.B1b 5.4	Identify populations and locations at risk from food and/or agricultural safety event
Performance Measures	Metric
Time in which trace back investigation is initiated following notification of contaminated food product involvement	Within 1 hour from notification
Time in which trace forward investigation was initiated following notification of contaminated food product involvement	Within 1 hour from notification
Time in which epidemiological investigation was initiated following report to health department	Within 3 hours from report
Time in which epidemiological investigation was completed following report to health department	Within 36 hours from report
Time in which analysis of samples was conducted after samples reach the lab	Within 1 hour from receipt at lab
Laboratory samples were analyzed within time period appropriate for type of contaminant and whether screening and/or confirmatory analysis was conducted	Yes/No
Percent of potentially affected food facilities identified	100%
Time in which FBI was notified for an event that appeared to be due to intentional contamination	Within 6 to 12 hours after determination

<p>Activity: <i>Implement Control Measures for Contaminated Food Products or Diseased Crops</i></p> <p>Definition: Implement product recalls/embargoes, alert the public about the situation, and take control of contaminated facilities and products or diseased crops to ensure contaminated products do not enter the food supply and diseased crops are not further distributed.</p>	
Critical Tasks	
Pro.B1b 6.3	Secure the contamination source and affected areas during a food and agriculture event
Pro.B1b 6.4.7	Provide appropriate information to the public regarding disposal of potentially contaminated food
Pro.B1b 6.2.1	Determine the need for a food embargo or detention
Pro.B1b 6.2.2	Determine the need for food condemnation, retention, or seizure
Pro.B1b 6.2.3	Determine the need to stop the movement of food
Pro.B1b 6.4.2	Control all identified food safety and inspection service-inspected products at inspected establishments that are suspected of being contaminated through product recall, administrative detention, and plant closures
Pro.B1b 6.4.3	Control any foodstuffs or other HHS-regulated products suspected of being contaminated following an establishment's inspections through product recall, administrative detention, and plant closures
Pro.B1b 6.4.4	Control all identified products at inspected facilities suspected of being contaminated through product recall and administrative detention
Pro.B1b 6.4.5	Stop all interstate movement of regulated plant articles and means of conveyance as needed
Pro.B1b 6.4.6	Provide for embargoed food storage
Performance Measures	
	Metric
Food recall was issued	Yes/No
Recalls were announced to the public	Yes/No
Percent of potentially affected locations secured to prevent spread of contamination	100%

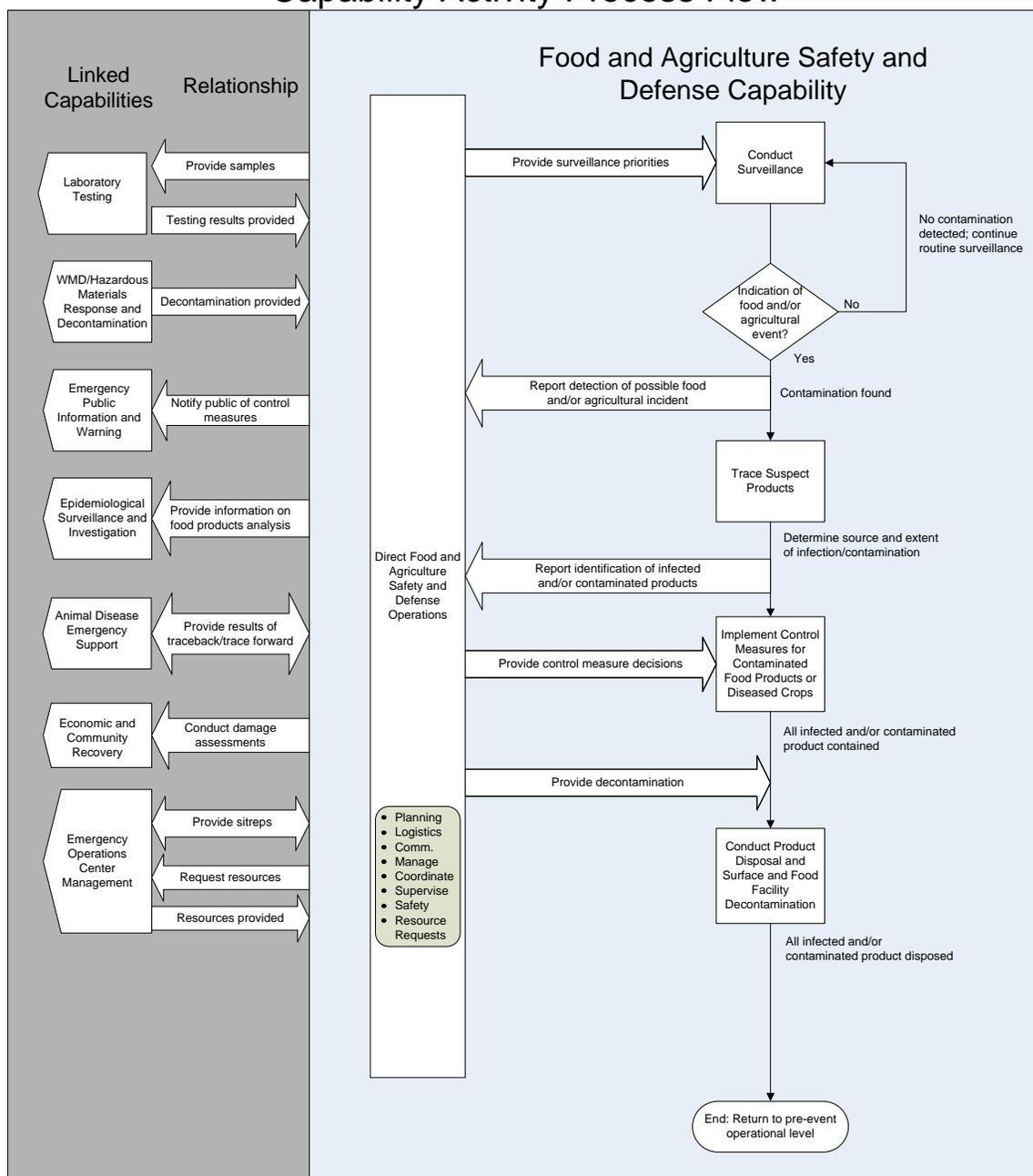
<p>Activity: <i>Conduct Product Disposal and Surface and Food Facility Decontamination</i></p> <p>Definition: Dispose of contaminated food products or diseased crops in an environmentally safe manner that prevents its use as a food or food product as well as utilize appropriate procedures for surface and facility decontamination.</p>	
Critical Tasks	
Pro.B1b 7.1.1	Identify assets for food and agriculture decontamination activities
Pro.B1b 7.1	Implement food and agriculture hazardous material disposal plan
Pro.B1b 7.1.2	Conduct surface and facility decontamination
Pro.B1b 7.1.3	Perform food and agriculture clean-up operations
Pro.B1b 7.1.4	Dispose of contaminated food

Performance Measures	Metric
Hazardous Material Disposal Plan was implemented	Yes/No

Linked Capabilities

Linked Capability	Relationship
Laboratory Testing	Food and Agriculture Safety and Defense provides samples to Laboratory Testing for testing
WMD and Hazardous Materials Response and Decontamination	Food and Agriculture Safety and Defense receives technical decontamination from WMD and Hazardous Materials Response and Decontamination
Emergency Public Information and Warning	Food and Agriculture Safety and Defense develops control measures for Emergency Public Information and Warning, which will be released to the public
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation provides information to Food and Agriculture Safety and Defense on the food product associated with illness
Animal Disease Emergency Support	Animal Disease Emergency Support will provide information to Food and Agriculture Safety and Defense if contaminated animals are associated with human illness
Economic and Community Recovery	Food and Agriculture Safety and Defense conducts damage assessments for Economic and Community Recovery
Emergency Operations Center Management	Food and Agriculture Safety and Defense requests resources from Emergency Operations Center Management, who then in turn provides the requested resources. Emergency Operations Center Management and Food and Agriculture Safety and Defense both provide situational reports to each other

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Incident Command System	A fully expanded incident command system (ICS) includes subject matter experts (SMEs) and policy staff. Subject matter experts include microbiologists, toxicologists, food technologists, veterinarians, epidemiologists, etc. For large incidents, assume 4 – 6 SMEs and 4 - 6 policy staff per 24 hour period above normal staffing levels.
FDA Emergency Operations Center	This resource manages the FDA Emergency Operations Center facility 24 hours per day. In addition to normal staffing levels, it requires 24 – 30 support staff & SMEs (or 8 – 10 per 8 hour shift).
USDA Emergency Operations Center	This resource manages the USDA Emergency Operations Center facility 24 hours per day. In addition to normal staffing levels, it requires 21 additional staff (including SMEs) or 7 per 8-hour shift.
USDA/FSIS Emergency Management Committee (EMC)	The EMC manages large-scale food emergencies and non-routine incidents in an established Situation Room. It is composed of the most senior managers from all program areas. Operations of EMC managed by the Biosurveillance and Emergency Response Staff (9 staff members)
State Emergency Operations Centers	The State EOC manages the response within each State. The normal staffing level is 60 staff; in addition, it would require 18 to 24 SMEs and policy staff per 24 hour period (or 6 – 8 per 8 hour shift).
Local Emergency Operations Center	The Local EOC manages the response within each locality. Typically includes 5 to 20 staff, but this is entirely dependent on the size of the locality.
Human Disease Surveillance Team	Team of experts to track all reportable disease and specified syndromes within a defined area. Each team includes 1 supervisor (MD, PhD, or Doctor of Veterinary Medicine (DVM)), 2 epidemiologists, 1 IT staff per, and 1 statistician per 8 hour shift.
Food Investigation Team	Field teams of 4 people to collect product samples and food samples, collect traceback and trace forward information, conduct investigations, and coordinate responses at food facilities.
Food Facility Decontamination Team	Field teams of 4 people to decontaminate affected food facilities.
Food Facility Decontamination Team Supervisors	Supervisors to manage Food Facility Decontamination Teams. One supervisor can manage 10 team staff.
Food Facility Decontamination Team SMEs	Subject Matter Experts to assist Food Facility Decontamination Teams. One SME can assist at every 20 facilities.
Disposal Team	Field teams of 4 people to dispose of affected food products.
Semi-tractor trailers	Equipment used for disposal of affected food products.
Disposal Team Supervisors	Supervisors to manage food facility Disposal Teams. One supervisor can manage 10 team staff.
Disposal Team SMEs	Subject Matter Experts to assist food facility Disposal. One SME can assist at every 20 facilities.

Resource Elements	Components and Description
Sample Analysis Laboratory Analysts	Analysts in a state laboratory capable of analyzing samples. Assume laboratory participates in Food Emergency Response Network
Sample Analysis Laboratory Supervisors	One supervisor for every 10 laboratory analysts.
Confirmatory Testing Laboratory Analysts	Analysts in a state laboratory capable of analyzing confirmatory samples
Confirmatory Testing Laboratory Supervisors	One supervisor for every 10 laboratory analysts
Federal Risk Communication Staff	Risk communication personnel from Federal agencies involved in response.
State Risk Communication Staff	Risk communication personnel from state agencies involved in response.
Federal Embargo/Recall Team	Team of recall staff and compliance officers from Federal agencies participating in response at one state. Personnel: 5 Federal recall staff and 6 – 10 compliance officers per team.
State Embargo/Recall Team	Team of recall staff and compliance officers from state agencies. Personnel: 5 recall staff and 10 compliance officers per team.
Federal Public information staff	Public information personnel from Federal agencies involved in response.
State Public information staff	Public information personnel from state agencies involved in response.
Law enforcement – secure scene	Coordinated Federal/State/local response
Law enforcement – investigate event	Coordinated Federal/State/local response
IT support personnel	Personnel to provide technical support for IT equipment provided to persons deployed
IT support equipment cache	One Blackberry, one cell phone, one laptop, and one portable printer for each person deployed
Additional transportation	Vehicles to transport personnel

Planning Assumptions

Scenario-Specific

- Although applicable to several of the 15 National Planning Scenarios except for blister agents and nerve agents, the capability planning factors were developed from an in-depth analysis of the Food Contamination scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- The capability applies to a wide range of incidents and emergencies including accidental or deliberate disease outbreaks, natural disasters, nuclear and conventional events with potential for contamination of the food supply.
- The identification of an intentional contamination incident involving a food product in the U.S. would have national implications. Because of the movement of food products around the US, it is highly probable that multiple food facilities in multiple States would be contaminated. Even States that

eventually are found to have no contaminated product will initially require a stepped up effort to ensure that no contaminated product is in their State.

- If terrorists were to introduce a chemical or biological agent into a food product at multiple sites simultaneously, the requirements for resources would increase proportionately and exist in many States simultaneously. The requirements for tactical (incident command) resources will increase proportionately with the amount of product/products contaminated.
- It is likely that States would share resources, yet States would have to balance the sharing of resources with their need to protect public health within their State. The amount of tactical resource requirements would vary depending on the concentration of food facilities.
- In high concentration areas, the spread may be rapid and many food facilities that purchased contaminated food may be affected. In areas with low concentration of food facilities/people, logistical obstacles such as driving time or distance between involved locations may present additional challenges.
- The multiplication factors used to gear up from a single point introduction incident to a multiple (national) site introduction assumes resource requirements to increase proportionately with the number of introductions. In estimating national resource requirements, it was assumed the scenario would affect 25 States directly, but all 50 States would have increased workload. The time to resolve the scenario would vary depending on number of site introductions and multiple different food items contaminated.
- This scenario is very limited in scope and only lists a food commodity regulated by the U.S. Department of Agriculture (ground beef). The Food and Drug Administration regulates 80 percent of the nation's food supply – everything except meat, poultry, and egg products which are regulated by USDA. Other scenarios could have potentially more far reaching effects. This is based on vulnerability assessments conducted by FDA and USDA.
- Assume all response personnel in key positions are able to respond to their respective response positions after the contaminant has been introduced and they respond as expected.
- Assume that sector partners are connected to an information sharing and analysis or fusion system concept where preventative and protective measure information is proactively being shared.
- Lack of infrastructure – electricity, phones, transportation, etc., will affect the ability to effectively communicate and will significantly affect the ability to plan appropriately or to respond to an incident. For example, if the roads are non-passable due to a natural disaster, this will affect the ability to get to the affected area and ensure the safety and security of the food supply.
- Assume that Multi-Agency Coordination is adequately being addressed at the State, Federal and local levels and the agencies are coordinating as expected.
- The following information is needed to effectively detect/respond to/recover from to an event:
 - Quantity of product affected.
 - Distribution of product.
 - Product type or types contaminated.
 - Laboratory capability.
 - Ability to determine the cause of illness.
 - Ability to determine the food item associated with illness or to rule out certain food items.
 - Ability to trace back product.
 - Ability to trace forward product.
 - Ability to effectively recall all affected product.
 - Appropriate disposal of recalled product.
 - Appropriate decontamination of food facility or other locations where food was available for purchase.

- Risk communication to consumers about appropriate food disposal instructions.
- Communication with international partners.
- Recovery Timeline could potentially be months due to the breadth of the event.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Food Contamination)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Incident Command Center	One fully expanded IC center can respond to an incident in one state, if staffed with additional personnel (4 – 6 SMEs and 4 - 6 policy staff) per 24 hour period.	Assume 25-state incident requiring SME and policy staff above normal staffing levels. <u>Personnel above normal staffing</u> 4-6 SME* per 24 hours 4-6 policy staff per 24 hours	One IC center and one back-up per state affected.
FDA Emergency Operations Center	Capable of responding 24 hours per day to a large national incident for one month, assuming 8 – 10 staff per 8 shift on top of normal staffing	Assume 25-state incident. In addition to normal staffing, the EOC would need 8-10 people/8 hour shift	One national FDA EOC with 24 - 30 staff (per 24 hours) in additional to normal staffing.
USDA Emergency Operations Center	Capable of responding to a large national incident for one month, assuming 7staff per 8 shift on top of normal staffing	Assume 25-state incident. In addition to normal staffing, the EOC would need 7 SMEs/8 hour shift	One national USDA EOC with 21 staff (per 24 hours) in additional to normal staffing
USDA/FSIS Emergency Management Committee (EMC)	Capable of responding to large national incident, 24 hours per day.	Assume 25-state incident. Composed of the most senior representatives of all program areas.	1 EMC
State Emergency Operations Centers	Capable of managing the response within each State, assuming surge staffing numbers. 60 Staff is the normal operating number In addition to normal staffing, 6-8 SMEs and policy staff would be needed/ 8 hour shift	Assume 25-state incident requiring SME and policy staff above normal staffing levels. <u>Personnel above normal staffing</u> 6-8 SMEs per 8 hour shift	One EOC and one back-up per state affected.
Local Emergency	Capable of responding to a local incident,		

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Operations Centers	typically with 5 - 20 staff.		
Human Disease Surveillance Team	<p>Team capable of responding to an incident within one state for one month</p> <p>Consists of 1 supervisor (MD, PhD, or Doctor of Veterinary Medicine (DVM)) per 8 hour shift,</p> <p>2 epidemiologists per 8 hour shift,</p> <p>1 IT staff per 8 hour shift per team,</p> <p>1 statistician per 8 hour shift per team</p>	Assume 25-state incident requiring 100% staff needs for 30 days at each location.	One team per state
Food Investigation Team	<p>Each team is capable of providing coordinated Federal/State/local response to food facilities, conduct investigations, and collect samples at 40 food facilities within a State</p> <p>Each team consists of 4 people per food facility for 2 days. Teams may be split in order to cover a larger number of facilities</p>	<p>Initially all 50 states will be on heightened alert and will be investigating food facilities in each State</p> <p>Assume 1000 food facilities per State are potentially contaminated</p>	<p>1000 facilities =</p> <p>= 25 teams per state (4 people per team)</p> <p>= 100 people per state</p> <p>= 5000 staff nationally</p>
Food Facility Decontamination Team	<p>One field team of 4 people capable of providing coordinated response at 10 affected food facilities</p> <p>Assume that decontamination takes 2 days per facility</p>	<p>Assume 25-state incident</p> <p>Assume 100 food facilities per State are contaminated</p>	<p>10 teams per state (4 people per team)</p> <p>For 25 States = 1000 staff nationally</p>
Food Facility Decontamination Team Supervisors	1 supervisor can manage every per 10 team staff employees.	<p>Assume 25-state incident</p> <p>Assume 100 food facilities per State are contaminated</p>	<p>10 teams per state = 40 staff per state = 4 supervisors per state</p> <p>For 25 States = 100 supervisors nationally</p>
Food Facility	1 SME can assist at	Assume 25-state incident	5 SMEs per state

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Decontamination Team SMEs	every 20 facilities	Assume 100 food facilities per State are contaminated	For 25 States = 125 SMES nationally
Disposal Team	One field team of 4 staff capable of response to dispose of affected food products at one site	Assume 50 disposal sites per State	50 Teams per state (200 staff) For 25 States = 1250 teams (5000 staff) nationally
Semi-tractor trailers	5 semi-tractor trailers are needed per affected facility	Assume 100 facilities per State have product that needs to be properly disposed	100 facilities per state = 500 semi-tractor trailers For 25 States = 12,500 semi-tractor trailers nationally
Disposal Team Supervisors	1 supervisor per 10 employees on disposal team	Assume 50 disposal sites per State	50 sites = 50 teams per state = 200 staff = 20 supervisors per state For 25 States = 500 supervisors nationally
Disposal Team SMEs	1 SME for every 10 disposal sites	Assume 50 disposal sites per State	5 SMEs per state For 25 States = 125 SMEs nationally
Sample Analysis Laboratory Analysts	20 analysts are capable of analyzing 200 samples/lab/week in one state 20 lab analysts/State lab	Assume 50 states are involved Assume at least one Food Emergency Response Network lab per State	Nationally = 1000 laboratory analysts
Sample Analysis Laboratory Supervisors	Assume 1 supervisor per 10 employees	Assume 50 states are involved	Nationally = 100 supervisors
Confirmatory Testing Laboratory Analysts	5 Analysts capable of analyzing 50 confirmatory samples/lab/week in one state	Assume 50 states are involved	Nationally = 250 laboratory analysts
Confirmatory Testing Laboratory Supervisors	Assume 1 supervisor per 10 employees	Assume 50 states are involved	Nationally = 25 laboratory supervisors
Federal Risk Communication Staff	Capable of coordinating the response within a given area Need 5 personnel per Federal agency involved	Assume 5 Federal agencies are involved	Nationally = 25 staff at Federal level
State Risk Communication Staff	Capable of coordinating the response within a	Assume all 50 states are involved	Nationally = 250-500 state staff

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
	given area Assume 5-10 personnel per State involved		
Federal Embargo/Recall Team	One team can coordinate the Federal response in each state Each team comprises 5 recall staff 6-10 Federal compliance officers (FDA and USDA)	Assume response in 25 states	One Federal Embargo/Recall Team per state 25 States = 125 recall staff and 150-250 Federal compliance officers nationally
State Embargo/Recall Team	One team can coordinate the response in each state Each team comprises 10 compliance officers and 5 recall staff	Assume response in 25 states	One State Embargo/Recall Team per state 25 States = 250 state compliance officers and 125 state recall staff nationally
Federal public information staff	5 staff per Federal agency	Assume 5 Federal agencies are involved	25 staff at Federal level nationally
State public information staff	4 staff /8 hour shift at State level	Assume 50 states	Per State = 12 staff/24 hours 50 states = 600 staff nationally
Law enforcement staff – secure scene	2 staff capable of response at each contaminated facility	Assume 25 states Assume 100 facilities are contaminated per State	2 staff x 100 facilities = 200 per state x 25 States = 5000 personnel nationally
Law enforcement staff – investigate event	2 staff capable of response at each contaminated facility	Assume 25 states Assume 100 facilities are contaminated per State	2 staff x 100 facilities = 200 per state x 25 States = 5000 personnel nationally
IT support staff	One IT support person per 20 staff deployed	Assume 12000 personnel deployed in 25 states	Nationally =600 IT support staff
IT support equipment	Cache of one Blackberry, one cell phone, one laptop, and one portable printer for each person deployed	Assume 12000 people deployed in 25 states	Nationally = 12,000 IT support equipment caches: 12,000 blackberries, 12,000 cell phones, 12,000 laptops, 12,000 portable printers
Additional transportation	One vehicle per two people deployed	Assume 120 people deployed per state Assume 3000 people deployed in 25 States	240 vehicles per state 6,000 vehicles nationally

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Incident Command Center	Resource Organization	2	Per State (central and backup).	State	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products Conduct Product Disposal and Food Facility Decontamination
FDA Emergency Operations Center	Federal Resource Organization	1	Nationally	Federal (HHS/FDA)	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products
USDA Emergency Operations Center	Federal Resource Organization	1	Nationally	Federal (USDA)	Direct Food and Agriculture Safety and Defense Operations Trace Suspect Products Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
USDA/FSIS Emergency Management Committee (EMC)	Federal Resource Organization	1	Nationally	Federal (USDA/FSIS)	Direct Food and Agriculture Safety and Defense Operations Trace Suspect Products Implement Control Measures for Contaminated Products
State Emergency Operations Center (EOC)	Resource Organization	2	Per State (central and backup)	State	Direct Food and Agriculture Safety and Defense Operations Implement Control Measures for Contaminated Products Conduct Product

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Disposal, Surface, and Food Facility Decontamination
Human Disease Surveillance Team	Non-NIMS Resource Organization	1	Per State	State	Surveillance
Food Investigation Team	Non-NIMS Resource Organization	25	Per State	State	Surveillance Trace Suspect Products
Food Facility Decontamination Team	Non-NIMS Resource Organization	10	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Food Facility Decontamination Team Supervisors	Non-NIMS Resource Organization	4	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Food Facility Decontamination SMEs	Non-NIMS Resource Organization	5	Per State	State	Implement Control Measures for Contaminated Products Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team	Resource Organization	50	per State	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Semi-tractor trailers for disposal	Equipment	500	Per state	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team Supervisors	Personnel	20	Per state	State	Conduct Product Disposal, Surface, and Food Facility Decontamination
Disposal Team SMEs	Personnel	5	Per State	State	Conduct Product Disposal, Surface, and Food Facility Decontamination

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Sample Analysis Laboratory Analysts	Personnel	1000	Nationally	State	Surveillance
Sample Analysis Laboratory Supervisor	Personnel	100	Nationally	State	Surveillance
Confirmatory Testing Laboratory Analysts	Personnel	250	Nationally	State	Surveillance
Confirmatory Testing Laboratory Supervisor	Personnel	25	Nationally	State	Surveillance
Federal Risk Communication Staff	Personnel	25	Nationally	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Risk Communication Staff	Personnel	250 - 500	Nationally	States	Implement Control Measures for Contaminated Products
Federal Embargo/recall Team	Non-NIMS Organization	1	Per State	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Embargo/recall Team	Non-NIMS Organization	1	Per State	State	Implement Control Measures for Contaminated Products
Federal Public information staff	Personnel	25	Nationally	Federal (HHS/FDA, USDA)	Implement Control Measures for Contaminated Products
State Public information staff	Personnel	12	Per State	State	Implement Control Measures for Contaminated Products
Law enforcement staff – secure scene	Personnel	200	Per State	State	Implement Control Measures for Contaminated Products
Law enforcement staff - investigate event	Personnel	200	Per State	State	Implement Control Measures for Contaminated Products
IT support staff	Personnel	600	Nationally	State	All Activities
IT equipment cache	Equipment	12000	Nationally	State	All Activities
Additional transportation	Vehicles	240	Per State	State	Trace Suspect Product Implement Control Measures for Infected and/or Contaminated Products

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Conduct Product Disposal, Surface, and Food Facility Decontamination

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan (NRP). Department of Homeland Security. December 2004.
3. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
4. Bio-security and the Food Supply. Food Safety and Inspection Service, Department of Agriculture. 2004. http://www.fsis.usda.gov/Fact_Sheets/Biosecurity_&_the_Food_Supply/index.asp
5. Emergency Response to Terrorism Job Aid, Ed 2.0. Federal Emergency Management Agency and Department of Justice. February 2003. <http://biotech.law.lsu.edu/blaw/FEMA/ert-ja.pdf>
6. Federal Meat Inspection Act. Food Safety and Inspection Service, Department of Agriculture. 2002.
7. Code of Federal Regulations, Title 10, Part 835; Volume 4, Parts 500 to end. U.S. Government Printing Office. 2000.
8. OSHA/NIOSH Interim Guidance - August 30, 2004: Chemical - Biological - Radiological - Nuclear (CBRN) Personal Protective Equipment Selection Matrix for Emergency Responders, Biological Agents. Occupational Safety & Health Administration, Department of Labor
9. Hazard Analysis and Critical Control Point (HACCP). U.S. Food and Drug Administration. Center for Food Safety and Applied Nutrition. <http://vm.cfsan.fda.gov/~lrd/haccp.html>
10. Post-Emergency Response Resources Guide. US Nuclear Regulatory Commission and Federal Emergency Management Agency. 1991.
11. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, 400-R-92-0001. Environmental Protection Agency (EPA). 1991.
12. Radiological Sources of Potential Exposure and/or Contamination, USACHPPM Tech Guide 238. Aberdeen Proving Ground, MD. 1999.
13. Code of Federal Regulations (CFR) Title 10, Part 835; Volume 4; Parts 500 to end. U.S. Government Printing Office. 2000. http://www.access.gpo.gov/nara/cfr/waisidx_03/10cfr835_03.html
14. National Fire Protection Association. 2002. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. 2002 Edition. Available at: <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>. Accessed October 10, 2005.
15. National Fire Protection Association. 2004. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs, National Fire Protection Association, 2004 Edition. Available at: <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1600>. Accessed October 10, 2005.
16. Multistate Foodborne Outbreak Investigations: Guidelines for Improving Coordination and Communication” – National Food Safety System Project, Outbreak Coordination and Investigation Workgroup, February 2001.
17. Environmental Health Officers Readiness Guide, U.S. Public Health Service
18. Core Competencies for Public Health Workers, Columbia School of Nursing

EPIDEMIOLOGICAL SURVEILLANCE AND INVESTIGATION

Capability Definition

The Epidemiological Surveillance and Investigation capability is the capacity to rapidly conduct epidemiological investigations. It includes exposure and disease (both deliberate release and naturally occurring) detection, rapid implementation of active surveillance, maintenance of ongoing surveillance activities, epidemiological investigation, analysis, and communication with the public and providers about case definitions, disease risk and mitigation, and recommendation for the implementation of control measures.

Outcome

Potential exposure to disease is identified rapidly by determining exposure and mode of transmission and agent; interrupting transmission to contain the spread of the event; and reducing number of cases. Confirmed cases are reported immediately to all relevant public health, food regulatory, environmental regulatory, and law enforcement agencies. Suspected cases are investigated promptly, reported to relevant public health authorities, and accurately confirmed to ensure appropriate preventive or curative countermeasures are implemented. An outbreak is defined and characterized; new suspect cases are identified and characterized based on case definitions on an ongoing basis; relevant clinical specimens are obtained and transported for confirmatory laboratory testing; the source of exposure is tracked; methods of transmission identified; and effective mitigation measures are communicated to the public, providers, and relevant agencies, as appropriate.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Function (ESF)/Annexes:

- ESF#8: Public Health and Medical Services
- Biological Incident Annex
- Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
ProB1a 1.1	Develop plans, procedures, and protocols for investigating a potential disease outbreak
ProB1a 1.1.1	Develop procedures for identification of disease, vector and epidemic
ProB1a 1.1.2	Develop guidelines or procedures for properly conducting a coordinated outbreak investigation
Pro.B1a 1.1.4	Develop and maintain efficient surveillance systems supported by information systems that comply with PHIN functional requirements for <i>Early Event Detection, Outbreak Management and Countermeasure and Response Administration</i> to facilitate early detection, mitigation and evaluation of expected and unexpected public health conditions

Pro.B1a 1.1.5	Distinguish on the State list of notifiable conditions between select conditions that require immediate reporting to the public health agency (at a minimum, Cat A agents), and conditions for which a delay in reporting is acceptable	
ProB1a 1.2	Develop plans and procedures to respond to a disease outbreak	
ProB1a 1.2.1	Develop policies and procedures to respond appropriately to positive notifications of medical hazards	
Pro.B1a 1.2.1.1	Describe time frames for notification for conditions where a delay in reporting is acceptable,	
ProB1a 1.2.2	Develop plans, procedures and protocols for the provision of medical personnel, equipment, laboratories, and pharmaceuticals and supplies	
ProB1a 1.2.3	Plan and prepare for pandemic influenza, particularly for the stage when vaccine either is non-existent or in severely short supply	
ProB1a 1.2.4	Develop plans, procedures and protocols to inventory medical supplies, equipment, ambulance services, hospitals, clinics and first aid units	
ProB1a 1.2.5	Develop communications to physicians and hospitals regarding use of testing of symptomatic and non-symptomatic patients during epidemic	
ProB1a 1.2.6	Develop an integrated response plan that directs how public health, hospital-based, environmental, food, veterinary and agricultural laboratories will respond to a bioterrorism incident	
Preparedness Measures		Metrics
Epidemiological and laboratory emergency plans are in place		Yes/No
Epidemiological plans identify the conditions (e.g., trigger points) for initiating the investigation		Yes/No
Epidemiological emergency response plans delineate the epidemiological investigation steps for identifying the population at risk		Yes/No
Epidemiological emergency response plans address surveillance – ongoing and event-specific collection of health data		Yes/No
Epidemiological emergency response plans include steps for comparison of cases to the baseline and confirmation of diagnosis		Yes/No
Epidemiological emergency response plans include steps for case finding – actively searching for cases		Yes/No
Epidemiological emergency response plans include steps for managing data that warrants public health attention (e.g. detect through pattern recognition and compile, analyze, and report surveillance data)		Yes/No
Epidemiological emergency response plans include steps for contact tracing		Yes/No
Epidemiological emergency response plans identifying/developing information systems to support the epidemiological investigation that comply with PHIN functional requirements for Outbreak Management and Countermeasure and Response Administration including a protocol for management/flow of data		Yes/No
Epidemiological emergency response plans include steps for development of descriptions of cases through interviews, medical record review and other mechanisms (person, place and time)		Yes/No
Epidemiological emergency response plans include steps for generating possible associations		Yes/No

of transmission, exposure and source	
Epidemiological emergency response plans include steps for coordinating with environmental investigation	Yes/No
Epidemiological emergency response plans include steps for performing and analyzing definitive studies	Yes/No
Epidemiological emergency response plans include steps for sharing with and reporting appropriate information to key Federal, State, and local public health partners	Yes/No
Epidemiological emergency response plans address monitoring the containment of diseases (e.g. outbreak course and population characteristics, effectiveness of mitigation steps, status of those exposed from identification through disposition, etc.).	Yes/No
Epidemiological emergency response plans include steps for evaluating therapeutic outcome	Yes/No
Epidemiological emergency response plans include steps for monitoring adverse reactions to public health interventions	Yes/No
Epidemiological emergency response plans include communication requirements (e.g., dissemination of accurate, timely, and accessible information to the public, media, and support agencies)	Yes/No
Chain of evidence and chain of custody protocols are followed according to SOP – zero loss of evidence or specimens	Yes/No
Information tracking systems (e.g., registries of exposed or potentially exposed persons, systems to support investigating, describing, understanding events).	Yes/No
State notifiable conditions list distinguishes between select conditions that require immediate reporting to the public health agency (at a minimum, Cat A agents), and conditions for which a delay in reporting is acceptable	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
ProB1a 2	Develop and implement training and exercises for epidemiological surveillance and investigation
ProB1a 2.1	Develop and implement training programs epidemiological surveillance and investigation
ProB1a 2.1.1	Support training on various types and models of equipment likely to be used in an emergency situation through government grants and industry sponsored workshops
ProB1a 2.2	Develop and implement exercises for epidemiological surveillance and investigation
Preparedness Measures	Metric
Staff are trained on activities required to conduct epidemiological surveillance and detection including exposure and disease detection, surveillance, analysis, reporting, and use of equipment	Yes/No
HSEEP-compliant exercises to evaluate epidemiological surveillance and detection are routinely conducted	Yes/No

Performance Tasks and Measures/Metrics

<p>Activity: <i>Direct Epidemiological Surveillance and Investigation Operations</i></p> <p>Definition: Coordinate, maintain, enhance, analyze, and provide efficient surveillance and information systems to facilitate early detection and mitigation of disease.</p>	
<p>Critical Tasks</p>	
Pro.B1a 3.3.2	Identify applicable laws, policies, and implementation procedures for public health reporting and notification
Pro.B1a 3.3.1	Maintain public health communication channels supported by information systems that comply with the PHIIN functional requirements for <i>Partner Communications and Alerting</i>
Pro.B1a 3.3.3	Provide Public Health information to emergency public information for release
Pro.B1a 3.2.3	Coordinate resources needed to respond to public health concern
Pro.B1a 3.1	Lead public health investigations to determine source of disease in collaboration with law enforcement
Pro.B1a 3.2.2	Identify all stakeholders and agency representatives or liaisons for public health response
Pro.B1a 4.5.1	Report instances of disease that raise the index of suspicion of terrorist or criminal involvement to FBI Headquarters (National Response Plan)
Pro.B1a 3.3.4	Make public health recommendations for prophylaxis and other interventions
Pro.B1a 3.2.4	Coordinate examination of deceased suspect patients with the medical examiner and/or coroner
<p>Performance Measures</p>	
	Metric
Time in which State informed local or local informed State of receipt of notice of a case with a high index of suspicion of an immediately notifiable condition	Within 1 hour from receipt
Time in which information was issued to the public that acknowledged the event, provided status, and committed to continued communication	Within 1 hour from implementation of response plan
Time in which case finding and public health instruction was disseminated to all hospitals in jurisdiction through the Health Alert Network (HAN) whose supporting information systems comply with the PHIIN functional requirements for <i>Partner Communications and Alerting</i> .	Within 12 hours from case definition
Percent of public health epidemiological staff with sufficient equipment (e.g., PPE, IT, communication, clinical sampling equipment, specimen collection material) to conduct investigation	100%
Time in which knowledgeable public health professional answered a call of urgent public health consequence 24/7/365	Within 15 minutes from call
Time in which message was approved and authorized for distribution of public health and medical information to clinicians and other responders	Within 1 hour from finalization of message

Activity: Surveillance and Detection	
Definition: Collect ongoing and event-specific health data to recognize events of public health significance	
Critical Tasks	
Pro.B1a 4.5.4	Facilitate reporting consistent with disease reporting laws or regulations
Pro.B1a 4.3	Compile surveillance data
Pro.B1a 4.4	Analyze surveillance data
Pro.B1a 4.2.1	Detect suspected outbreak through pattern recognition
Pro.B1a 4.3.3	Maintain chain of custody
Pro.B1a 4.3.2	Have or have access to PHIN compliant information systems to support detecting events of public health significance and tracking of chain of custody
Performance Measures	Metric
Data warranting public health attention were received, reviewed, and analyzed	Yes/No
Time in which epidemiological investigation was initiated following report to health department	Within 3 hours from report
Time in which epidemiological investigation was completed following report to health department	Within 36 hours from report

Activity: Conduct Epidemiological Investigation	
Definition: Investigate a disease and its determinants in a population; characterize and classify a case; identify the source of the public health event; and define the population at risk	
Critical Tasks	
ProB1a 5.1	Dispatch public health personnel to location of suspected contamination
ProB1a 5.2	Conduct epidemiological investigations to identify potential exposure and disease
Pro.B1a 5.3	Confirm the outbreak using lab data and disease tracking data
Pro.B1a 5.2.1	Define case characteristics
Pro.B1a 5.3.1	Search actively for cases (case finding)
Pro.B1a 5.3.2	Create registries of ill, exposed, and potentially exposed persons
Pro.B1a 5.4	Conduct contact tracing
Pro.B1a 5.4.1	Analyze and interpret epidemiological investigation data in coordination with data from Counter-Terror Investigation and Law Enforcement
Pro.B1a 5.4.2	Analyze and confirm origin of outbreak
Pro.B1a 5.5.1	Recommend control measures for outbreak
Pro.B1a 5.6	Draft and disseminate initial report of epidemiological investigation

Pro.B1a 5.6.1	Have or have access to information systems to support investigating, describing and understanding events of public health significance that comply with the PHIN Functional Area <i>Outbreak Management</i>	
Performance Measures		Metric
Time in which public health epidemiologist initiated initial investigation		Within 3 hours from initial notification
Time in which recommendation for public health intervention was provided		Within 6 hours from first identification of agent
Time in which suspect case was sent to key Federal, State, and local public health partners (e.g., CDC, FBI, law enforcement, State, and local)		Within 3 hours from identification
Time in which case definitions were created		Within 12 hours from confirmation of index case
Time in which a health alert that describes the initial report of an indexed case along with known cases, possible risk factors, and initial public health interventions to be distributed via multiple means such as: Epi-X, Health Alert Network (HAN), fax, and e-mail was developed		Within 12 hours from initiation of case investigation
Time in which active case findings in all affected States was initiated		Within 24 hours from established working case definition.
Time in which law enforcement was notified of initial laboratory confirmation of high priority diseases or events with suspicion of terrorism		Within 1 hour from laboratory confirmation.
Time in which clinical diagnostic specimens/samples were received at the laboratory response network (LRN) after epidemiologist acquisition		Within 6 hours from acquisition
Time in which 75 % of known suspected cases (or proxies) were contacted/interviewed for more detailed epidemiologic follow-up		Within 48 hours from identification of the index case
Time in which an initial report describing all suspected cases by person, place, and time was produced		Within 60 hours from identification of the index case

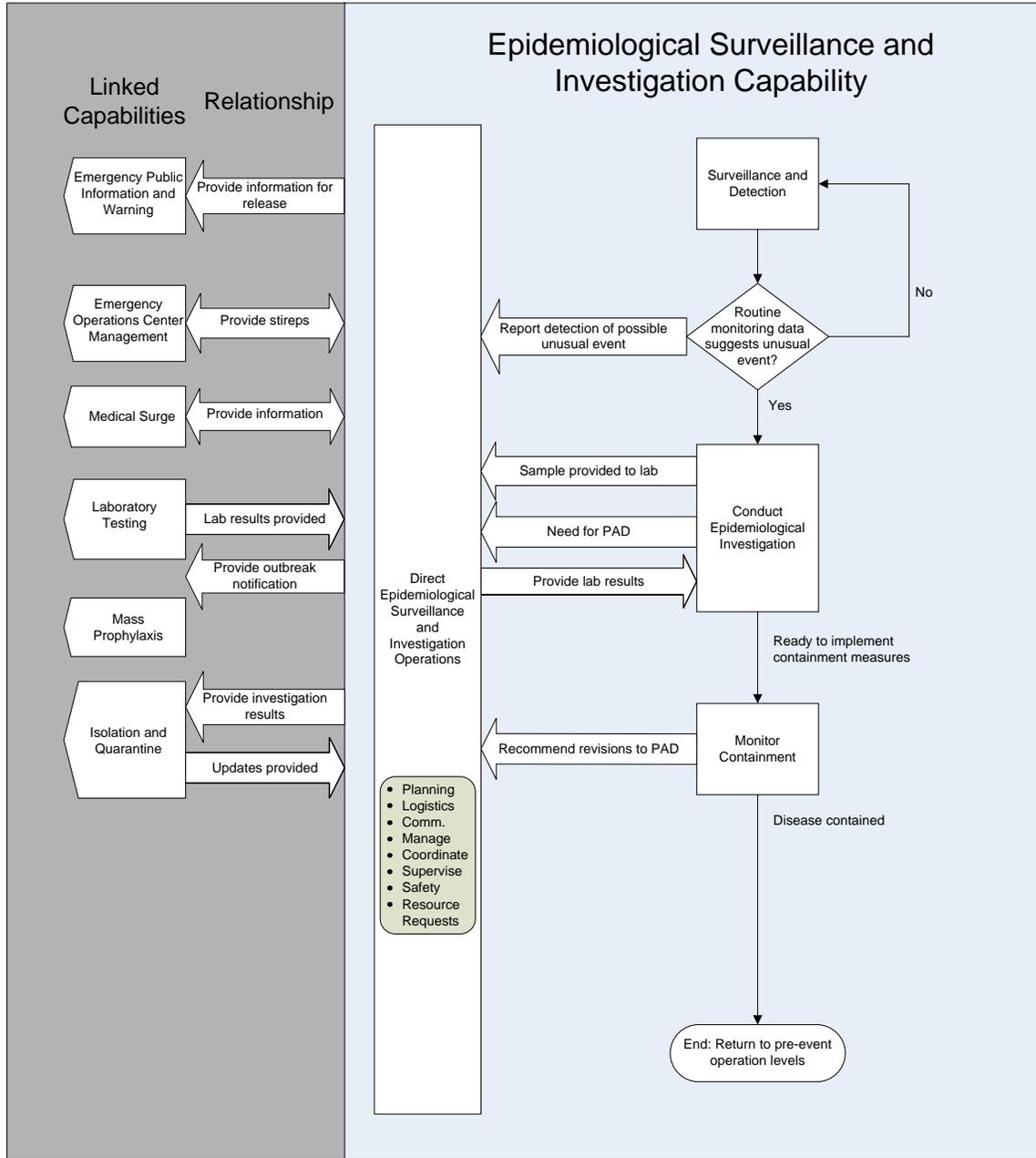
Activity: <i>Monitor Containment</i>	
Definition: Based upon the extent of the population at risk and recommendations for outbreak control, assess the effectiveness of disease containment measures	
Critical Tasks	
Pro.B1a 6.1.1	Monitor the course and population characteristics of a recognized outbreak
Pro.B1a 6.2	Have or have access to information systems that support administration of outbreak control and that comply with the PHIN functional requirements for <i>Countermeasure and Response Administration</i> .
Pro.B1a 6.1	Monitor effectiveness of mitigation steps
Pro.B1a 6.4	Conduct an after action debriefing (hotwash) to identify deficiencies that require corrective actions in areas such as personnel, training, equipment, and organizational structure
Pro.B1a 6.3.2	Conduct special studies of critical public health issues

Performance Measures	Metric
Percent of known cases and exposed successfully tracked from identification through disposition to enable follow-up	100%

Linked Capabilities

Linked Capability	Relationship
Emergency Public Information and Warning	Epidemiological Surveillance and Investigation provides information for release to Emergency Public Information and Warning.
Emergency Operations Center Management	Epidemiological Surveillance and Investigation and Emergency Operations Center Management both contribute to situation reports.
Medical Surge	Epidemiological Surveillance and Investigation and Medical Surge both provide situation reports.
Laboratory Testing	Epidemiological Surveillance and Investigation receives lab results from Laboratory Testing.
Mass Prophylaxis	Epidemiological Surveillance and Investigation provides outbreak notification to Mass Prophylaxis.
Isolation and Quarantine	Epidemiological Surveillance and Investigation provides investigation results to Isolation and Quarantine, while Isolation and Quarantine provides containment updates to Epidemiological Surveillance and Investigation.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Local Health Department-based Surveillance Team	Team to track suspect case reports (reportable diseases) within their jurisdiction; personnel (per 12-hour shift): 1 supervisor (MD, DVM, or PhD level), 2 epidemiologists, 1 IT staff, and 1 statistician. The team is led by a local health department, but staff may be drawn from local, State, and/or Federal resources.
Investigation Epidemiologist	Personnel: 1 Epidemiologist (or public health nurse or public health advisor) to interview cases and perform investigation
Active Surveillance/Case Finding Epidemiologist	Personnel: 1 epidemiologist (or public health nurse or public health advisor) per 12 hour shift per facility (e.g. hospital ER in affected region) to find to cases in hospitals and the community.
Special Studies Team	Team to undertake focused scientific investigations of interest; personnel: 1 epidemiology supervisor (MD, DVM, or PhD), 5 epidemiologists or scientists, 1 public health advisor, 1 subject matter expert, 1 interviewer per 10 persons, and 1 statistician
CDC Department Emergency Operations Center (DEOC) Surge Team	Team to coordinate CDC response to an incident at a location. Personnel: 1 senior epidemiology supervisor, 1 Federal-State liaison epidemiologist per affected State, 5 support epidemiologists, 1 public health advisor (PHA), 1 data entry manager, 10 data entry staff
State/Local EOC Surge Team	EOC personnel to coordinate the response to the incident. Personnel: 1 epidemiology incident commander, 1 senior epidemiology supervisor per 12 hour shift, 1 Bioterrorism coordinator, 5 support epidemiologists per 12 hour shift, 1 PHA per 12 hour shift, 1 Database manager, 1 programmer, 2 analysts, 2 transport teams (each with 1 driver), 1 clerical staff member, 1 IT person
Personal Equipment Cache	1 Blackberry/cell phone, PPE, and appropriate equipment cache per person
Laptop computers/printers	1 laptop per 2 persons deployed; 1 printer per 10 laptops (1 printer per 20 persons deployed)

Planning Assumptions

Scenario-Specific

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Anthrax and Pandemic Influenza scenarios. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Estimates are made of the needs for communities to respond to this emergency once identified and for baseline resources needed for timely initial detection
- *B. anthracis* spores added directly to product without aerosolization
- Ground beef was sent to San Diego, Seattle, and Phoenix
- Orange juice was sent to Albuquerque, Las Vegas, and Palm Springs
- Patient presentations involved gastrointestinal, oropharyngeal, and cutaneous forms of anthrax.
- Clinical and laboratory confirmation (LRN) occurred between days 2 and 5 after index case presentation

- Production facilities and distribution system mechanisms will be contaminated until formally decontaminated
- Cases will continue sporadically following public health intervention due to consumers and retailers failing to discard/return/destroy contaminated product
- No simultaneous disasters are occurring during the same time
- There will be an unprecedented level of public concern, anxiety, and fear as a result of this incident
- Assume field investigation will last 10 days at full personnel strength and then another 20 days at 50 percent personnel strength.
- Assume a concurrent law enforcement investigation
- Assume health departments and Emergency Operation Centers (EOC) will require 100 percent surge staffing for 30 days in 10 cities (6 affected cities and 4 neighboring areas that have high levels of anxiety/concern) and at CDC.
- Staff requirements, detailed in this worksheet, represent existing local, State, and Federal resources that are devoted to routine (baseline) public health activities.
- Assume that staff at the local level may include Federal or State employees; assume that staff at the State level may include Federal employees.
- Assume that for every case interviewed, 10 ill persons with diseases other than anthrax will need to be interviewed in a more abbreviated manner. Assume these “non-case” interviews will take half the time of a case interview. Given that 2,300 cases are indicated in the scenario, this means that 25,300 total interviews will need to be conducted.
- Assume 100 percent of cases and 50 percent of non cases will be interviewed during first 10 days. The remaining 50 percent of non-cases will be interviewed during the next 20 days.
- Assume there will be 100 facilities (hospital emergency departments) requiring active surveillance in 10 locations.
- Assume 10 special studies will be conducted. Each study will require 50 interviews.
- The food contamination scenario explored would be considered a national response that involves local, State and Federal resources.
- To provide 24 hour coverage for the first 10 days, the national response described in this scenario would require a staff of 110 epidemiology supervisors, 451 epidemiologists, 60 data entry staff, 40 IT staff, 30 statisticians, 60 public health advisors, 10 occupational/environmental epidemiologists, 50 non-epidemiologist interviewers, 10 subject matter experts and 10 State bioterrorism coordinators.
- Over the next 20 days of the investigation, staffing could be reduced to 70 epidemiology supervisors, 270 epidemiologists, 31 data entry staff, 30 IT staff, 30 statisticians, 40 public health advisors, 10 occupational/environmental epidemiologists, 50 non-epidemiologist interviewers, 10 subject matter experts and 10 State BT coordinators.
- The percent of staff contributions to the investigation from the State and local levels is dependent on baseline availability of resources. It should be noted that the Council of State and Territorial Epidemiologists (CSTE) *2004 National Assessment of Epidemiology Capacity: Findings and Recommendations* sites a 40 percent deficiency of trained public health epidemiologists nationally.
- Due to potentially unforeseen delays in the identification of a non-naturally occurring epidemiological event, detection of disease outbreaks may not occur until large numbers of victims are affected, particularly when the agent has a long incubation period.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Anthrax and Pandemic Influenza)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Local Health Department-based Surveillance Team	One team can track diseases at one location per 12 hour shift.	Assume 24 hour/day staff needs for 30 days at 10 locations	All 30 days – need 20 teams nationally Each location needs 2 teams (1 per shift)
Investigation Epidemiologist	One epidemiologist can conduct investigations at 5 locations during first 10 days	Assume 100 facilities requiring active surveillance in 10 locations (cities) during first 10 days	<u>Nationally:</u> 200 epidemiologists for first 10 days 100 epidemiologists for next 20 days
Active Surveillance/Case Finding Epidemiologists	One epidemiologist per shift can conduct surveillance/case finding at 1 health facility during first 10 days. For 24-hour surveillance, need 2 epidemiologists per day at each facility.	Assume 100 facilities requiring active surveillance across 10 locations (cities) during first 10 days.	<u>Nationally:</u> 200 epidemiologists for first 10 days; 100 epidemiologists for next 20 days 2 Epidemiologist per health facility
Special Studies Team	One team (comprising personnel in Resource Element Description Table) can conduct one study	Assume 10 special studies conducted, each requiring 50 interviews	All 30 days – need 10 Teams nationally
CDC Department Emergency Operations Center (DEOC) Surge Team	100% surge staffing for first 10 days, and 50% staffing for next 20 days at CDC EOC. Assume 1 surge team can support response for one affected location per 12 hour shift	Assume 10 affected locations (6 with cases + 4 additional) requiring 24 hour/day response	Nationally – 20 Surge Teams
State/Local EOC Epidemiology Surge Personnel Team	Assume 100% staff needs for first 10 days, and 50% staffing for next 20 days at each location Assume 1 surge team can support response for one affected location per 12 hour shift	Assume 10 affected States (6 with cases + 4 additional)	2 Surge Teams per State EOC for 1 st 10 days; then 1 Surge Team for 20 days.
Personal Equipment Cache	Blackberry/cell phone; PPE and appropriate equipment cache per person – 1 per person deployed;	Assume 511 people deployed during first 10 days; 341 people next 20 days	<u>First 10 Days:</u> 511 Blackberry/cell phones/PPE/appropriate equipment cache <u>Next 20 Days:</u> 341 Blackberry/cell phones/PPE/appropriate

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
			equipment cache
Laptop computers/printers	1 laptop for every 2 people deployed; 1 printer for every 10 laptops (or 10 laptops and 1 printer for every 20 people deployed)	Assume 511 people deployed during first 10 days; 341 people next 20 days	<u>First 10 Days:</u> 256 laptops, 26 printers <u>Next 20 Days:</u> 171 laptops, 17 printers

Approaches for Large-Scale Events

Pandemic Flu – For all teams, the work force will be diminished by one-third. The need for epidemiologic investigation will be far reduced relative to surveillance needs; resource needs for pandemic flu are orders of magnitude greater.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Local Health Department-based Surveillance Team	Personnel	2	Per affected county	Federal/State/Local	Monitor Containment Surveillance and Detection
Investigation Epidemiologist	Personnel	1	Per affected county	Local (County)	Conduct Epidemiological Investigation
Active Case Finding/ Surveillance Epidemiologist	Personnel	1	Per affected county	Local (County)	Conduct Epidemiological Investigation Monitor Containment Surveillance and Detection
Special Studies Team	Personnel	10	Nationally	Federal/ State/ Local	Conduct Epidemiological Investigation Monitor Containment Surveillance and Detection

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
CDC Department Emergency Operations Center (DEOC) Surge Team	Federal Resource Organization	10	Nationally	Federal (HHS/CDC)	Direct Epidemiological Surveillance and Investigation Operations
State/Local EOC Epidemiology Surge Personnel Team	Resource Organization	2	Per State	State	Direct Epidemiological Surveillance and Investigation Operations
Personnel Equipment cache	Equipment	511	Nationally	Federal/State/Local	All Activities
Laptop computers/printers	Equipment	256	Nationally	Federal/State/Local	All Activities

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan (NRP) Department of Homeland Security. December 2004.
3. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
4. Bravata, D, McDonald, K, Owens, D et al. Bioterrorism Preparedness and Response: Use of Information Technologies and Decision Support Systems. Evidence Report/Technology Assessment No 59, HRQ Publications No. 02-E028. Agency for Healthcare Research and Quality. June 2002. <http://www.ahrq.gov/clinic/epcsums/bioitsum.pdf>
5. Syndrome and Outbreak Detection Using Chief-Complaint Data: Experience of the Real-Time Outbreak and Disease Surveillance Project. Morbidity and Mortality Weekly Report. September 2004. <http://www.cdc.gov/mmwr/preview/mmwrhtml/su5301a7.html>
6. Epidemic Intelligence Service. Center for Disease Control. 2004. <http://www.cdc.gov/eis>
7. State Public Health Preparedness and Response Capacity Inventory; Version 1.1. Centers for Disease Control and Prevention. December 2002. http://www.phppo.cdc.gov/od/inventory/docs/State%20Inventory%20version%201_1_FINAL.pdf
8. Bioterrorism and Public Health Emergency Preparedness and Response: A National Collaborative Training Plan. Centers for Disease Control and Prevention. February 2002. <http://www.phppo.cdc.gov/owpp/docs/library/2002/BioTerrorism%20National%20Training%20Plan%20Exec%20Sum.pdf>
9. National Bioterrorism Hospital Preparedness Program, Continuation Guidance. Department of Health and Human Services, Health Resources and Services Administration. 2005. <http://www.hrsa.gov/grants/preview/guidancespecial/hrsa05001.htm>

10. FY05 CDC Public Health Preparedness and Response Cooperative Agreement. 2005.
<http://www.bt.cdc.gov/planning/guidance05/index.asp>
11. U.S. Department of Health and Human Services Strategic Plan to Combat Bioterrorism and Other Public Health Threats and Emergencies. October 2003. <http://www.hhs.gov/emergency/index.shtml#bioterrorism>
12. Ready or Not...Chemical Terrorism Project. Association of Public Health Laboratories (APHL). July 2003.
www.aphl.org
13. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) Program,
<http://mmrs.fema.gov>.

LABORATORY TESTING

Capability Definition

The Laboratory Testing capability is the ongoing surveillance, rapid detection, confirmatory testing, data reporting, investigative support, and laboratory networking to address potential exposure, or exposure, to all-hazards which include chemical, radiological, and biological agents in all matrices including clinical specimens, food and environmental samples, (e.g., water, air, soil). Such all-hazard threats include those deliberately released with criminal intent, as well as those that may be present as a result of unintentional or natural occurrences.

Outcome

Potential exposure to disease is identified rapidly by determining exposure and mode of transmission and agent; interrupting transmission to contain the spread of the event; and reducing number of cases. Confirmed cases are reported immediately to all relevant public health, food regulatory, environmental regulatory, and law enforcement agencies. Suspected cases are investigated promptly, reported to relevant public health authorities, and accurately confirmed to ensure appropriate preventive or curative countermeasures are implemented. An outbreak is defined and characterized; new suspect cases are identified and characterized based on case definitions on an ongoing basis; relevant clinical specimens are obtained and transported for confirmatory laboratory testing; the source of exposure is tracked; methods of transmission identified; and effective mitigation measures are communicated to the public, providers, and relevant agencies, as appropriate.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Function (ESF)/Annexes:

- ESF#8: Public Health and Medical Services
- Biological Incident Annex
- Terrorism Incident Law Enforcement and Investigation Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Pro.B1e 1.1.1	Identify, establish and maintain working collaboration with all Laboratory Response Network (LRN) Sentinel and LRN Clinical Chemistry laboratories within the jurisdiction
Pro.B1e 1.1.1.1	Develop and maintain an accurate and current database of contact information and capability for all the Laboratory Response Network (LRN) Sentinel and LRN Clinical Chemistry laboratories
Pro.B1e 1.1.1.2	Provide all the Laboratory Response Network (LRN) Sentinel and LRN Clinical Chemistry laboratories with updated LRN Reference laboratory contact information
Pro.B1e 1.1.3	Establish and maintain collaborative linkages with other State laboratories, e.g., environmental, agriculture, veterinary, and university, as well as the jurisdiction’s National Guard Civil Support Team (CST) and other first responders

Pro.B1e 1.1.4	Establish and maintain linkages with Federal laboratory networks and member laboratories within the jurisdiction, e.g., the Food Emergency Response Network (FERN), National Animal Health Laboratory Network (NAHLN), and the EPA	
Pro.B1e 1.1.5	Establish and maintain a sentinel laboratory advisory committee or equivalent that meets at least Every year and includes representatives from clinical microbiology, clinical chemistry, veterinary, food, and environmental laboratories in your jurisdiction	
Pro.B1e 1.3.3	Establish and utilize a State and local health alert network that complies with the PHIN Functional Area <i>Partner Communication and Alerting</i> for electronic connectivity with all LRN Sentinel laboratories	
Pro.B1e 1.3.4	Establish and maintain connectivity with the State Emergency Operations Center (SEOC) and other official components of the State and local emergency response, including the Emergency Management Assistance Compact (EMAC)	
Pro.B1e 1.3.5	Establish and maintain communication linkages with local, State, and Federal (e.g., CDC DEOC and LRN) public safety and law enforcement entities, e.g., police, fire, emergency management, and the FBI	
Pro.B1e 1.5.1	Hire and/or maintain a biosafety officer for each facility	
Pro.B1e 1.5.2	Develop a contingency plan for a breach in biosafety	
Pro.B1e 1.6.4	Provide a ready supply of the reagents required for rapid testing of biological threat agents by LRN Reference laboratories	
Pro.B1e 1.6.5	Maintain a ready supply of the reagents and materials, not supplied by CDC, required for rapid testing of biological and chemical threat agents at the reference level	
Pro.B1e 1.6.6	Maintain an accurate inventory of reagents and supplies in their respective laboratories.	
Pro.B1e 1.7.1	Develop and validate, in partnership with LRN Reference and LRN Chemical laboratories, standard laboratory methods to test for chemical and biological threat agents	
Pro.B1e 1.7.2	Transfer standardized technology and laboratory methods from the CDC to State and local LRN Reference and LRN Chemical laboratories	
Pro.B1e 1.7.3	Develop, in collaboration with CDC, e.g., EPA, FDA, USDA, and DOD, additional standardized and validated methods for testing for chemical and biological agents in non-clinical samples	
Pro.B1e 1.7.4	Integrate new advanced biological and chemical rapid identification methods, as they are developed and approved by the LRN, into the current laboratory testing algorithm for human, environmental, animal, or food specimens	
Preparedness Measures		Metrics
Laboratory plans and procedures address linkages to Federal lab networks and member labs within the jurisdiction (e.g. Food Emergency Response Network, National Animal Health Laboratory Network, EPA)		Yes/No
Laboratory plans and procedures address collaborative linkages with other state laboratories (e.g. environmental, agriculture, veterinary, university).		Yes/No
Laboratory plans and procedures address sharing information with key Federal, State, and local public health partners (e.g. FBI, first responders, HazMat teams, LRN Sentinel and Chemical labs)		Yes/No
Laboratory plans and procedures address dissemination of accurate, timely, accessible information to public, media, support agencies		Yes/No

Laboratory plans and procedures address investigation and follow-up lab support (e.g. analytical and investigative assistance to epidemiologist, law enforcement, and environmental health).	Yes/No
Laboratory plans and procedures address information tracking systems (e.g. database of contact information and capability at all LRN labs, database of inventory of reagents and supplies at their respective labs).	Yes/No
The Public Health Laboratory has or has access to information systems that comply with the PHIN Functional Area <i>Connecting Laboratory Systems</i> to send and receive laboratory test orders and results	Yes/No
LRN reference laboratory has a system to maintain an inventory of reagents and supplies to support LRN testing	Yes/No
CDC (BPRP) produces and/or acquires sufficient reagents to maintain LRN reference testing of biological threat agents	Yes/No
Percent of Health Resources & Services Administration (HRSA) funded hospitals that have PHIN compliant IT systems that are interoperable with their jurisdictional public health agency and that transmit clinical and/or hospital utilization data in near real-time to a PHIN-compliant early-event detection information systems. (responsibility aligns with Health Resources and Services Administration and interface with Interoperable Communications, Epidemiology and Medical Surge Capabilities) <i>(Reference National Bioterrorism Hospital Preparedness Program FY2005 Continuation Guidance Health Resources and Services Administration Announcement number 5-U3R-05-001)</i>	100%
Frequency with which tests are conducted of select LRN Sentinel laboratories laboratory to reach a knowledgeable public health laboratory professional at the jurisdictional confirmatory LRN Reference and LRN Chemical laboratories 24/7/365 by landline phone	Every 12 months
Time in which public health laboratory professionals are reached by landline phone	Within 15 minutes
Percent of LRN Sentinel laboratories within the LRN jurisdiction that successfully acknowledge receipt of health alerts. <i>Note: Reference PHIN Preparedness Functional Area Partner Communication and Alerting</i>	100%
Frequency with which acknowledgement of receipt of health alerts that includes at least one priority category (i.e., alert, advisory, update, etc.) is tested	Every 12 months
The laboratory has a primary system that ensures delivery of specimens/samples 24/7/365	Yes/No
The laboratory has a secondary courier (e.g., State patrol helicopter) system that ensures rapid delivery in an emergency situation	Yes/No
At least one operational Biosafety Level Three (BSL-3) facility is available within jurisdiction for testing for biological agents, <i>or</i> if not immediately possible, BSL-3 practices, as outlined in the CDC-NIH publication “Biosafety in Microbiological and Biomedical Laboratories, 4th Edition” (BMBL), used (see www.cdc.gov/od/ohs) or formal arrangements (i.e., MOU) established with a neighboring jurisdiction to provide this capability.	Yes/No
At least one laboratory exists within jurisdiction for testing of chemical agents or formal arrangements (i.e., MOU) established with a neighboring jurisdiction to provide this capability	Yes/No
Laboratory registration, operations, safety, and security are consistent with both the minimum requirements set forth in Select Agent Regulation (42 CFR 73) and the USA PATRIOT ACT of 2001(P.L. 107-56) and subsequent updates	Yes/No
Laboratory plans address developing and maintaining a public health laboratory information website	Yes/No

Public health laboratory website includes information about protocol updates for rule-out testing	Yes/No
Public health laboratory website includes information about Department of Transportation (DOT) compliant packaging and shipping	Yes/No
Public health laboratory website includes chain-of-custody guidelines	Yes/No
Public health laboratory website includes CDC endorsed material on referral of clinical human and Veterinary specimens	Yes/No
Public health laboratory website includes information about environmental samples	Yes/No
Public health laboratory website includes information about suspect bioterrorism (BT) isolates	Yes/No
Public health laboratory website includes information about bacterial and viral food borne pathogens	Yes/No
The LRN reference laboratories maintains a ready supply of the reagents, not supplied by CDC, required for rapid testing of biological threat agents at the reference level	Yes/No
Adequate amounts of required test reagents and materials are maintained by and immediately available to LRN Reference and LRN Chemical laboratories during an emergency event	Yes/No
Materials for chemical methods are available through commercial vendors and stocked by chemical laboratories for use in an emergency	Yes/No
Laboratory system to receive and triage specimens and samples is in place	Yes/No
Laboratory plans and procedures address compiling an all hazards team to address laboratory testing	Yes/No
All-hazards team includes chemical terrorism (CT) laboratory coordinator (chemist or medical technologist)	Yes/No
All-hazards team includes assistant CT laboratory coordinator	Yes/No
All-hazards team includes bioterrorism laboratory coordinator	Yes/No
All-hazards team includes biologic sentinel network liaison who is available 24/7/365 to advise public health agencies, hospitals, private laboratories, first responders, HazMat teams, local, State, and Federal law enforcement, the Army National Guard (WMD-CST), and poison control	Yes/No
All-hazards team is capable of proper triage screening	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of biological/environmental sample	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of biological/clinical specimen	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of biological/food sample	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of chemical/environmental samples	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of chemical/clinical specimen	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of chemical/food sample	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of	Yes/No

radiological/environmental sample	
All-hazards team is capable of collection, packaging, labeling, and shipping of radiological/clinical specimen	Yes/No
All-hazards team is capable of collection, packaging, labeling, and shipping of radiological/food sample	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Pro.B1e 2.1.3	Participate in a CDC-approved proficiency testing program to assure laboratory competency
Pro.B1e 2.1.4	Participate in training provided by other Federal partners for the use of standardized methods to detect and identify chemical and biological agents
Pro.B1e 2.1.5	Provide information and training on the use of appropriate safety and security equipment and procedures
Pro.B1e 2.1.6	Train all LRN Sentinel laboratories in the use of LRN biological agent rule-out protocols, specimen or isolate referral responsibilities and notification algorithms
Pro.B1e 2.1.7	Participate in CDC training to use standardized protocols to detect biological agents
Pro.B1e 2.1.8	Participate in CDC training as required for designated levels of chemical preparedness, e.g., LRN Level-1, 2, or 3
Pro.B1e 2.2.5	Coordinate response planning, drills and exercises for the laboratory with all relevant partners
Preparedness Measures	Metric
LRN Reference and LRN Chemical laboratories have internal competency training program for LRN methods	Yes/No
Laboratory training includes CDC lab proficiencies, use of appropriate safety and security equipment, biological agent rule-out protocols, specimens, or isolate referral responsibilities and notification algorithms	Yes/No
Frequency with which LRN Reference laboratory offers training to LRN Sentinel laboratories	Every 12 months
Percent of participating LRN Reference laboratories and Level-1 and Level-2 LRN chemical laboratories that pass their proficiency tests according to CDC criteria	100%
Percent of LRN Sentinel and LRN Clinical Chemistry laboratories that participate in State-developed training programs, <i>i.e., by LRN Reference laboratories</i> (responsibility aligns with Health Resources and Services Administration)	100%
Percent of participating LRN Level 1, 2, or 3 chemical laboratories that successfully complete packaging and shipping exercises	100%
Frequency with which tests are conducted of select LRN Sentinel and LRN Clinical Chemistry laboratory to reach a knowledgeable public health laboratory professional at the jurisdictional confirmatory LRN Reference and LRN Chemical laboratories 24/7/365 by landline phone	Every 12 months
Frequency with which tests are conducted of select LRN sentinel and LRN clinical chemistry laboratory to reach a knowledgeable public health laboratory professional at	Every 12 months

jurisdictional confirmatory LRN laboratory 24/7/365 by redundant means not dependent on electricity, cellular/landline phone service, internet (e.g., radio/satellite phone)	
Percent of LRN Sentinel laboratories within the LRN jurisdiction that successfully acknowledge receipt of health alerts. <i>Note: Reference PHIN Preparedness Functional Area Partner Communication and Alerting</i>	100%
Frequency with which acknowledgement of receipt of health alerts that includes at least one priority category (i.e., alert, advisory, update, etc.) is tested	Every 12 months
LRN Sentinel and LRN Clinical Chemistry laboratory staff are trained in the use of standardized procedures for collecting and shipping clinical specimens.	Yes/No
Training includes International Air Transport Association (IATA), and US Department of Transportation (DOT) packaging and shipping of infectious agents regulations	Yes/No

Performance Tasks and Measures/Metrics

<p>Activity: Direct Laboratory Testing</p> <p>Definition: Direct and coordinate local, State, and Federal public health, food testing, veterinary diagnostic, and environmental testing laboratory efforts in response to biological and chemical terrorism.</p>	
Critical Tasks	
Pro.B1e 3.1.6	Coordinate laboratory activities with the Laboratory Response Network (LRN) within the jurisdiction
Pro.B1e 3.1.1	Function as the gatekeeper for the Laboratory Response Network (LRN) within the jurisdiction
Pro.B1e 3.1.5	Operate laboratory within the Laboratory Response Network (LRN)
Pro.B1e 3.1.2	Function as Laboratory Response Network (LRN) Sentinel laboratories
Pro.B1e 3.1.3	Function as Laboratory Response Network (LRN) Chemical laboratories
Pro.B1e 3.2.2	Work in close partnership with public health epidemiology and environmental health, and poison control to provide timely data to assure implementation of effective prevention, detection, and control measures, including treatment
Performance Measures	
Percent of calls/inquiries received by the CDC LRN Coordinating Office for which a response is initiated within 2 hours during an emergency	Metric 100%
Percent of calls/inquiries received by the CDC LRN Coordinating Office that require a response for which a response is initiated within 24 hours on a routine basis	100%
Time in which public health department and other State and Federal partners are notified of a <i>high-level</i> threat credibility assessment of suspicious agent	Within 2 hours from credibility assessment
Time in which key Federal, State, and local health partners (e.g. CDC, FBI) are notified of presumptive identification of potential bioterrorism agent or communication that signals a high index of suspicion	Within 3 hours of presumptive identification

Activity: <i>Sample and Specimen Management</i>	
Definition: Implement LRN established protocols /procedures for specimen collection, transport, and testing.	
Critical Tasks	
Pro.B1e 4.1	Establish and maintain a jurisdiction-wide transport system to assure timely receipt of samples or specimens for laboratory testing
Pro.B1e 4.2	Perform triage screening on environmental samples per Department of Homeland Security and Environmental Protection Agency protocols
Pro.B1e 4.3	Communicate requirements for all-hazard specimen or sample collection, packaging, and shipping to submitters, e.g., FBI, CST, first responders, HazMat Teams, and LRN Sentinel and Clinical Chemistry Laboratories
Pro.B1e 4.4	Provide consultation to all submitters regarding appropriate collection and shipment of specimens or samples for testing
Pro.B1e 6.3	Provide surge capacity for CDC to measure metabolites (e.g., of nerve agents, in clinical specimens)
Performance Measures	Metric
Time in which designated <i>State LRN-1 Level 1</i> Chemical Laboratories to accept clinical specimens begins analysis	Within 24 hours from receiving the call for assistance from CDC
Time in which laboratory health alert detailing laboratory related information (including specimen collection, packaging, and shipping guidelines) is distributed after health alert by agency epidemiologist, environmental health, or relevant partner is distributed via HAN	Within 12 hours from initial distribution
Time in which samples are shipped to an LRN reference laboratory with relevant confirmatory capabilities	Within 2 hours from presumptive identification
Time in which LRN reference laboratory (appropriate confirmatory capabilities) confirms identification of agent	Within 48 hours of receipt
Percent of LRN reference laboratories that provide technical assistance to submitters on errors within 3 business days of receipt of mislabeled, mis-packaged, and mis-shipped packages	100%

Activity: <i>Provide Surveillance Support</i>	
Definition: Provide support to agencies in chemical, biological, and radiological agent and public health disease surveillance by testing and analyzing samples.	
Critical Tasks	
Pro.B1e 5.3.1	Acquire timely isolates of selected enteric and invasive biological agents from all LRN Sentinel laboratories
Pro.B1e 5.3.2	Analyze quickly the isolates submitted by LRN Sentinel laboratories using advanced technologies to rapidly identify and subtype isolates
Pro.B1e 5.3.3	Provide reference analysis and identification of unusual or emerging biological agents present in communities

Pro.B1e 5.2	Perform analyses for BioWatch 24/7/365	
Pro.B1e 5.1.1	Enhance, in coordination with public health epidemiology partners, the capacity to apply standardized molecular methods (e.g., DNA sequencing) in real-time to support surveillance and outbreak investigations as appropriate	
Performance Measures		Metric
<p>Percent of isolates for which pulse-field gel electrophoresis (PFGE) testing and analysis of data is completed within 3 working days of receipt in the laboratory (or within 3 working days of organism isolated in pure culture, if lab processes clinical specimen)</p> <p><i>E. coli</i> O157:H7</p> <p><i>Listeria monocytogenes</i></p> <p>(# of isolates that have PFGE patterns analyzed within 3 working days of identification/denominator = # of isolates identified in lab)</p> <p>Start time: Date and time isolate identified in lab</p> <p>Stop time: Date and time PFGE sub-typing pattern analysis is complete</p>		100%
<p>Percent of PFGE patterns submitted to the National PulseNet Server (or the PulseNet Database Team at CDC) that are designated with an official PulseNet pattern name within 3 working days of submission.</p> <p><i>E. coli</i> O157:H7</p> <p><i>Listeria monocytogenes</i></p> <p># of isolate patterns in the National PulseNet database that are given an official PulseNet pattern name within 3 working days of submission/# of isolate patterns submitted to the National PulseNet Server/database team</p> <p>Start time: Date and time PFGE isolate pattern submitted to National PulseNet Server/database team</p> <p>Stop time: Date and time official PulseNet name is assigned to the submitted isolate pattern</p>		100%
<p>Percent of PFGE patterns and associated data submitted to the National PulseNet Server (or the PulseNet Database Team at CDC) within one (1) working day of PFGE pattern analysis.</p> <p><i>E. coli</i> O157:H7</p> <p><i>Listeria monocytogenes</i></p> <p>(numerator = # of patterns submitted to PulseNet within 1 working day)</p> <p>(denominator = # of isolates PFGE pattern-analyzed)</p> <p>Start time: Date and time PFGE sub-type/pattern analysis complete</p> <p>Stop time: Date and time PFGE sub-type/pattern is submitted to PulseNet server/team</p>		100%

Activity: *Detection Testing and Analysis*

Definition: Test and analyze initial chemical, biological, and radiological samples to provide presumptive agent identification or diagnosis.

Critical Tasks

Pro.B1e 6.2.5	Evaluate clinical specimens from patients exposed to chemical or radiochemical agents, e.g., tests for blood gases, CBC analysis, and enzyme levels (link with Health Resources and Services Administration)
Pro.B1e 6.2.3	Test initial 20-40 clinical specimens to assess human exposure by measuring metabolites of chemical agents (e.g., of nerve agents)

Pro.B1e 6.2.4	Test environmental samples for toxic industrial chemicals and materials	
Pro.B1e 6.2.6	Identify all emerging infectious agents or possible bioterrorism agents using available LRN protocols	
Performance Measures		Metric
Time in which specimen/sample is received at the public health laboratory following <i>high-level</i> threat credibility assessment of suspicious agent to		Within 6 hours from identifying a suspicious agent
Time LRN Reference Laboratory makes presumptive identification of agent by rapid biological assays		Within 8 hours from sample receipt
Time in which CDC Chemical laboratory conducts Rapid Toxic Screen on initial 20-40 specimens analyzed for 150 chemical agents (including nerve agents)		Within 36 hours from receipt of specimens (surge)

Activity: Confirm Testing		
Definition: Test and analyze chemical, biological, and radiological samples to provide confirmation agent identification or diagnosis.		
Critical Tasks		
Pro.B1e 7.2.3	Confirm results using CDC clinical chemical detection methods	
Pro.B1e 7.1.1	Use standardized, Laboratory Response Network (LRN) protocols to detect emerging infectious agents or possible bioterrorism agents in clinical specimens, food, or environmental samples	
Pro.B1e 7.4	Verify reactive BioWatch samples	
Pro.B1e 7.4.1	Verify reactive samples from the Biohazard Detection Systems (BDS) located in facilities of the U.S. Postal Service (USPS)	
Performance Measures		Metric
Time in which sample is shipped to an LRN Reference Laboratory with relevant confirmatory capabilities from the presumptive notification		Within 2 hours
Time from presumptive identification to confirmatory identification by LRN reference laboratory		Within 48 hours

Activity: Support Public Health Epidemiological Investigations	
Definition: Provide follow-up analytical and investigative support to epidemiologists, law enforcement, and environmental health and/or poison control efforts to test additional specimens, determine cause and origin of an event, definitively characterize an agent, and genotype disease strains through LRN member labs.	
Critical Tasks	
Pro.B1e 3.2.2	Work in close partnership with public health epidemiology and environmental health, and poison control to provide timely data to assure implementation of effective prevention, detection, and control measures, including treatment

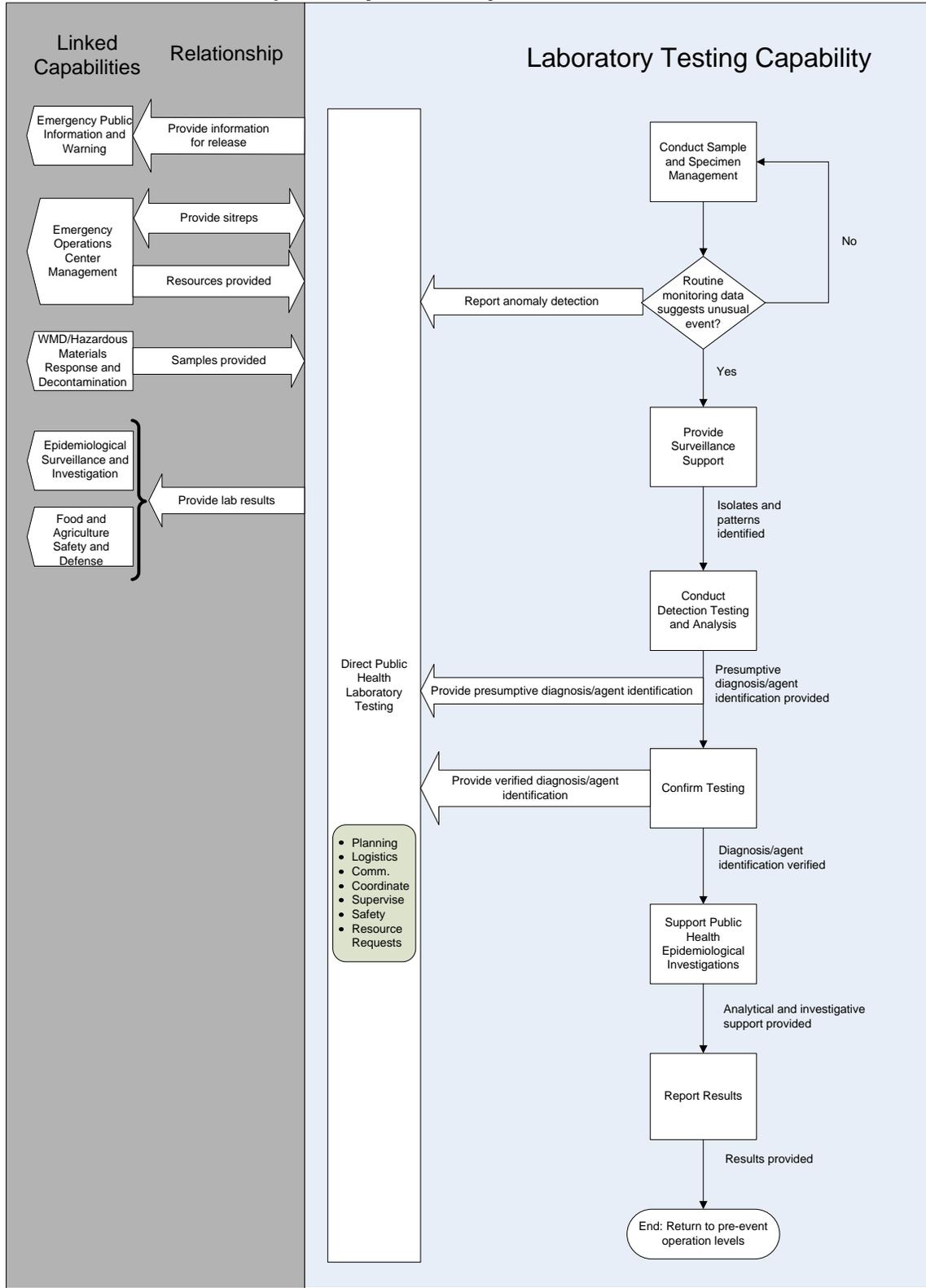
Pro.B1e 8.3.2	Collaborate with law enforcement and perform testing of evidentiary samples (link to law enforcement)
Pro.B1e 8.3.3	Test additional clinical specimens by CDC or another qualified select Laboratory Response Network (LRN) Reference lab for retrospective assessment of chemical exposure following an event
Pro.B1e 8.3.4	Coordinate testing of environmental samples for assessment and remediation
Pro.B1e 8.6	Isolate emerging infectious or biological threat agents tested by CDC and qualified select Laboratory Response Network (LRN) reference laboratories using Clinical Laboratory Improvement Act (CLIA) approved methods to determine the agent’s susceptibility to antimicrobial drugs used for prevention and control
Pro.B1e 8.5	Use Clinical Laboratory Improvement Act (CLIA) approved methods for antimicrobial susceptibility testing
Pro.B1e 8.7	Determine whether an emerging infectious disease agent or a biological threat agent consists of single or multiple strains

Activity: Report Results	
Definition: Report surveillance results to public health epidemiology officials and other decision-makers.	
Critical Tasks	
Pro.B1e 3.2.3	Report surveillance results suggestive of an outbreak immediately to public health epidemiology
Pro.B1e 3.2.4	Report results of CDC chemical or biological testing to submitting LRN Reference and Chemical laboratories through the secure LRN website
Pro.B1e 3.2.6	Report confirmed laboratory results to all submitters in a timely manner using PHIN-compliant Laboratory Information Management Systems (LIMS)
Pro.B1e 6.4	Contact the nearest LRN Reference laboratory when unable to identify or rule-out emerging infectious agents or possible bioterrorism agents
Pro.B1e 3.2.5	Notify appropriate public health, public safety, and law enforcement officials immediately (24/7) of presumptive and confirmed laboratory results of a chemical and biological threat agent
Performance Measures	
Time in which appropriate Federal, State, and local officials, also including the specimen/sample submitter, are notified of identification (positive or negative)	Metric Within 1 hour from confirmatory identification
Laboratory Response Network (LRN) reference laboratory has a Public Health Information Network (PHIN)-compliant Laboratory Information Management System (LIMS)	Yes/No

Linked Capabilities

Linked Capability	Relationship
Emergency Public Information and Warning	Laboratory Testing provides information for release to Emergency Public Information and Warning.
Emergency Operations Center Management	Laboratory Testing provides situation reports to Emergency Operations Center Management. Emergency Operations Center Management provides situation reports and resources to Laboratory Testing.
WMD and Hazardous Materials Response and Decontamination	WMD and Hazardous Materials Response and Decontamination provides samples for testing to Laboratory Testing.
Epidemiological Surveillance and Investigation	Laboratory Testing provides lab results to Epidemiological Surveillance and Investigation.
Food and Agriculture Safety and Defense	Laboratory Testing provides lab results to Food and Agriculture Safety and Defense.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Laboratory Response Network (LRN) National Level Laboratories	Laboratories in the Laboratory Response Network (LRN) that have unique resources to handle highly infectious agents and the ability to identify specific agent strains. These include labs at CDC, the US Department of Agriculture, the Food and Drug Administration (FDA), and other facilities run by Federal agencies. National Laboratory at National Center for Environmental Health capable of 24/7 coverage
Centers for Disease Control (CDC) Chemical Laboratory	LRN Chemical Laboratory capable of advanced testing located in the National Center for Environmental Health's (NCEH's) Division of Laboratory Sciences
State Public Health Laboratory	State laboratory that performs testing and other laboratory services on behalf of the entire jurisdiction, scanning the horizon for anything suspicious
LRN National Level Biological Laboratory	LRN National Level Laboratory at Bioterrorism Preparedness and Response Program (RRAT Lab) capable of 24/7 coverage. There are currently 3 National laboratories (CDC, DOD).
LRN Reference Laboratories	Laboratories that can perform rapid tests to detect and confirm the presence of a threat agent. These labs ensure a timely local response in the event of a terrorist incident or other public health emergencies. There are currently 152 Reference laboratories for biological agents across the national (105 public health, 15 military, 9 veterinary, 12 food, 8 international, 5 other Federal laboratories).
LRN Chemistry Laboratories – Level 1	Public health laboratories that comprise the chemical component of the LRN; Level 1 laboratory personnel are trained to detect exposure to an expanded number of chemicals in human blood or urine, including all Level 2 laboratory analyses, plus analyses for mustard agents, nerve agents, and other toxic chemicals
LRN Chemistry Laboratories – Level 2	Public health laboratories that comprise the chemical component of the LRN; they are designated as Level 3, 2, or 1, with increasing technical expertise. Level 2 laboratory personnel are trained to detect exposure to a limited number of toxic chemical agents in human blood or urine;
LRN Chemistry Laboratories – Level 3	Public health laboratories that comprise the chemical component of the LRN; Level 3 laboratories work with hospitals in clinical specimen collection/storage/shipment and also work to help develop a coordinated response plan for their State and/or geographical area.
LRN Sentinel Clinical Labs	Laboratories that perform rule-out or refer testing to LRN Reference Level Laboratory. There are about 4,500 laboratories nationally; majority are in-hospital laboratories
CDC Coordinating Office for LRN	Existing Personnel: 1 LRN Coordinator, 1 Program Manager, 1 Help Desk Support, 1 Technical Officer, 1 Communication Officer (technical writing, interface with CDC Office of Emergency Communication) Surge: 1 LRN Coordinator, 3 Program Managers, 4 Help Desk Support on 12-hour shifts, 2 Technical Officers, 1 Communication Officer (technical writing, interface with CDC Office of Emergency Communication)
CDC Scientific Resources Program/Biologics Branch	Existing Personnel: 6 – production, 2 – shipping, 6 inventory management Surge Personnel: 12 – production, 4 – shipping, 12 inventory management

Resource Elements	Components and Description
CDC SME	Existing personnel : < 1 per agent; Surge personnel: 2 per agent
CDC Bioterrorism Rapid Response and Advanced Technology Laboratory	Existing personnel: 9 CDC laboratorians for short-term biological response Surge Personnel: 15 laboratorians
LRN Partner Organizations	Includes APHL, DOD, ASM, FBI, EPA, FDA, USDA/APHIS, DHS
Reagents	A rapidly deployable repository of LRN reagents sufficient to meet current needs and potential emergency surge needs Reagents for biological agent testing and materials for chemical methods
Laboratory equipment	Polymerase chain reaction (PCR) = Smart Cycler, Light Cycler, ABI 7500, or ABI 7000 Time-resolved fluorescence (TRF) = Victor
LRN and biosafety training	TRF Training – 2 day course provided by CDC (Atlanta); Conventional Microbiology train-the-trainer one week course provided by CDC (location varies); PCR Training
LRN lab credentials	Select agent registration and staff security risk assessment approval USDA/APHIS Regulations CLIA (Clinical Laboratory Inspection Standards) Accreditation from AAVLD (American Association Veterinary Laboratorian Diagnosticians)
Courier system for sample transport	System or contract to ensure secure transport of samples
Laboratory equipment and supplies	Sufficient instrumentation and adequate supplies
CDC Directors Emergency Operations Center (DEOC)	
State and Local EOC	

Planning Assumptions

- Plans to augment the capacity of public health laboratories should include having or having access to information systems that electronically send and receive test orders and results in compliance with PHIN Functional Area for *Connecting Laboratory Systems*

Scenario-Specific

Laboratory Testing (Chemical Nerve Agent):

- Assume 10,000 worried well; assume that 2,500 worried well population will require testing. Scenario does not state exact number of worried well. Difficult to determine exactly what proportion of the downwind population would fall in this category but assumed 80 percent for purposes of this effort. Of these, assume 25 percent will require/request testing for exposure to nerve agents.
- 40 analyses per day per instrument.

- 13 instruments within Centers for Disease Control (CDC) and seven instruments within States can perform analysis of nerve agent metabolites.
- CDC stockpiles enough standards/materials to analyze 5,000 samples. Each of seven States stockpiles enough standards/materials to analyze 500 samples. Total for CDC and States are 8,500 samples. Conducting additional analyses requires additional materials/standards.
- Depending on how urgently results are needed, along with involving the States, additional instruments in CDC's laboratory can be ramped up quickly.
- Currently, analytic resources are located at CDC (Atlanta) and 7 State health departments (California, Florida, Michigan, Minnesota, New Mexico, New York and Virginia). Given the nature of the need and this resource, a centralized/regionalized approach is acceptable.

Laboratory Testing (Biological)

- Estimates address needs for communities to respond to this emergency once identified. Estimate does not include needs for baseline resources needed for timely initial detection.
- *B. anthracis* spores added directly to product without aerosolization.
- Ground beef was sent San Diego, Seattle, and Phoenix.
- Orange juice was sent to Albuquerque, Las Vegas and Palm Springs.
- Patient presentations involved gastrointestinal, oropharyngeal and cutaneous forms of anthrax.
- Laboratory confirmation by the Laboratory Response Network (LRN) occurred between days 2 and 5 after index case presentation.
- Production facilities and distribution system mechanisms will be contaminated until formally decontaminated.
- Cases will continue sporadically following public health intervention due to consumers and retailers failing to discard/return/destroy contaminated product.
- No simultaneous disasters are occurring during the same time.
- Assume multi-agency coordination is adequately being addressed at Federal (CDC, Food and Drug Administration [FDA], USDA/APHIS [United States Department of Agriculture/Animal and Plant Health Inspection Service, FBI), State, and local levels and the agencies are coordinating as expected. Overall assumptions for LRN testing of specimens/samples: 1. All Reference LRN laboratories in the affected jurisdictions have the testing capability for the agent. 2. For planning purposes, throughput for four types of equipment available in the LRN Reference laboratory was provided. 3. There are a sufficient number of trained personnel to operate the equipment. 4. There is sufficient availability of reagents.
- Factors that could affect the number of specimens/samples calculated assuming laboratorians perform three runs in each shift include time involved to set up the assay, machine capacity, personnel shift duration, condition specimen/sample arrived in, physical working space, individual pace of laboratorian.
- For LRN Sentinel laboratories, the first 1,000 patients are distributed evenly among the six affected cities resulting in an even distribution of laboratory rule-out tests (approximately 167 per city), which would result in approximately 16 tests per Emergency Room. The burden on the LRN Sentinel laboratories for foodborne anthrax is inconsequential.
- Case definition by epidemiologists will be created within the first 10 days resulting in no further rule-out testing at the LRN Sentinel laboratories following the first 1,000 patients.
- Assume a concurrent Law Enforcement Investigation.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Element	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Centers for Disease Control (CDC) Chemical Laboratory	Days 1-5: 80 samples/day using 2 instruments (1 instrument can process 40 samples/day) Days 6-10: 320 samples/day using an additional 6 instruments (8 instruments total, so 8*40=320) 520 samples/day using all instruments available (13 instruments total, so 13*40=520)	Testing for 350 injured people (assume testing 2 samples per person) = 700 2500 tests performed for worried well Total = 3200 samples CDC stockpiles enough standards/materials to analyze 5,000 samples.	1 resource organization (either CDC alone or CDC and affiliated State chemical laboratories). Based on urgency: approximately 4 weeks if only CDC is involved. With involvement of State public health laboratories, priority analysis of the first 350 samples (one sample from each of the injured people) could be completed in a matter of days
State Public Health Laboratories	5 States are currently capable to perform nerve agent analysis. Each laboratory can analyze 40 samples/day. = 200 samples/day capacity	Total = 3200 samples	Depends on how quickly analyses need to be completed (See above)
LRN National Level Biological Laboratory	CDC would accept specimens/samples for susceptibility testing and genotyping.		1 CDC laboratory
LRN Reference Laboratories	LRN reference laboratories in the affected cities would handle test volume in that area; assume a 12-hour shift and a 30-day time period	For planning purposes, assume 8235 specimens	Each state at a minimum should have access to a reference laboratory. If Victor equipment = 14 pieces of equipment needed If ABI 7000 = 3 machines needed If Light Cycler = 11 machines needed If Smart Cycler = 23 instruments needed
LRN Chemistry Laboratories – Level 1			
LRN Chemistry Laboratories – Level 2			

Resource Element	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
LRN Sentinel Clinical Laboratories	Existing Sentinel lab personnel will support the required testing		
CDC Coordinating Office for LRN			
CDC Scientific Resources Program/Biologics Branch			
CDC SME			
CDC Bioterrorism Rapid Response and Advanced Technology Laboratory			
LRN Partner Organizations	All other organization involvement is scenario specific		1 APHL Gatekeeper, 1 DOD Gatekeeper, and 1 FDA Gatekeeper
Reagents (CDC)	(Food borne/Plague) -- One specimen per suspected case will be sent to the LRN for testing; additional 15% of tests will be conducted for quality control; polymerase chain reaction (PCR) kits can complete 500 tests per kit using smart cycler or light cycler; PCR kits can complete 1,000 tests per kit using ABI 7000 equipment; TRF kits can complete 60 tests per kit using Victor equipment	(Aerosolized Anthrax) Cannot determine lab requirements because scenario involves undetermined environmental exposure which will require extensive sampling for source identification and decontamination efforts (Foodborne) Approximately 7000 suspected cases will result in 7000 specimens and 1235 controls for a total of approximately 8235 tests; does not include food samples that would also be tested at LRN laboratory in response to this event (Plague) Dependent on Epi calculations, not yet complete	(Aerosolized Anthrax) In Anthrax event of 2001, 125,000 environmental samples for less than 10 victims (Pandemic Flu) Cannot determine because assays under development (Foodborne) Assuming all tests are conducted at one LRN, the lab would need 16 PCR kits if at same LRN using smart cycler or light cycler equipment; 9 PCR kits if at same LRN using ABI7000 equipment; 138 TRF kits if at same LRN using TRF equipment; does not include reagents needed for food samples that would also be tested at LRN laboratory in response to this event (Plague) Dependent on Epi calculations, not yet complete

Approaches for Large-Scale Events

Pandemic Flu – For all teams, the work force will be diminished by one-third. The need for epidemiologic investigation will be far reduced relative to surveillance needs. Resource needs for pandemic flu are orders of magnitude greater.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
CDC Chemical Laboratory	Federal Resource Organization	1	Nationally	Federal (HHS/CDC)	Provide Surveillance Support Detection and Analysis Confirmation Testing Investigation and Follow-up Laboratory Support
LRN National Level Biological Laboratory	Federal Resource Organization	1	Nationally	Federal (HHS/CDC)	Provide Surveillance Support Detection and Analysis Confirmation Testing Investigation and Follow-up Laboratory Support
LRN Reference Laboratories	Non-NIMS Resource Organization	1	Minimum per State (152 Nationally)	State/Federal	Provide Surveillance Support Detection and Analysis
LRN Chemistry Laboratories – Level 1	Non-NIMS Resource Organization	10	Nationally	Federal	Provide Surveillance Support Detection and Analysis
LRN Chemistry Laboratories – Level 2	Non-NIMS Resource Organization	36	Nationally	State/Local	Provide Surveillance Support Detection and Analysis

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
LRN Sentinel Clinical Laboratories	Non-NIMS Resource Organization	4,000	Nationally	State/Local	Sample and Specimen Management
Reagents	Equipment	As needed	Per laboratory	Federal/State/Local	Sample and Specimen Provide Surveillance Support Detection and Analysis Confirmation Testing Investigation and Follow-up Laboratory Support
Courier system for sample transport	Non-NIMS Resource Organization	1	Per State	State	Sample and Specimen Management
Laboratory Equipment and Supplies	Equipment	As needed	Per laboratory	Federal/State/Local	Sample and Specimen Provide Surveillance Support Detection and Analysis Confirmation Testing Investigation and Follow-up Laboratory Support
CDC Director's Emergency Operations Center (DEOC)	Non-NIMS Resource Organization	1	Nationally	Federal (HHS/CDC)	Direct Laboratory Testing
State and Local EOC	Resource Organization	1	Per State and/or affected local jurisdiction	State/Local	Direct Laboratory Testing

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan (NRP) Department of Homeland Security. December 2004.

3. National Incident Management System (NIMS). Department of Homeland Security. March 2004.
<http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
4. Bravata, D, McDonald, K, Owens, D et al. Bioterrorism Preparedness and Response: Use of Information Technologies and Decision Support Systems. Evidence Report/Technology Assessment No 59, HRQ Publications No. 02-E028. Agency for Healthcare Research and Quality. June 2002.
<http://www.ahrq.gov/clinic/epcsums/bioitsum.pdf>
5. Syndrome and Outbreak Detection Using Chief-Complaint Data: Experience of the Real-Time Outbreak and Disease Surveillance Project. Morbidity and Mortality Weekly Report. September 2004.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/su5301a7.html>
6. Epidemic Intelligence Service. Center for Disease Control. 2004. <http://www.cdc.gov/eis>
7. State Public Health Preparedness and Response Capacity Inventory; Version 1.1. Centers for Disease Control and Prevention. December 2002.
http://www.phppo.cdc.gov/od/inventory/docs/State%20Inventory%20version%201_1_FINAL.pdf
8. Bioterrorism and Public Health Emergency Preparedness and Response: A National Collaborative Training Plan. Centers for Disease Control and Prevention. February 2002.
<http://www.phppo.cdc.gov/owpp/docs/library/2002/BioTerrorism%20National%20Training%20Plan%20Exec%20Sum.pdf>
9. National Bioterrorism Hospital Preparedness Program, Continuation Guidance. Department of Health and Human Services, Health Resources and Services Administration. 2005.
<http://www.hrsa.gov/grants/preview/guidancespecial/hrsa05001.htm>
10. FY05 CDC Public Health Preparedness and Response Cooperative Agreement. 2005.
<http://www.bt.cdc.gov/planning/guidance05/index.asp>
11. U.S. Department of Health and Human Services Strategic Plan to Combat Bioterrorism and Other Public Health Threats and Emergencies. October 2003. <http://www.hhs.gov/emergency/index.shtml#bioterrorism>
12. Ready or Not...Chemical Terrorism Project. Association of Public Health Laboratories (APHL). July 2003.
www.aphl.org
13. *DHS, Office for Domestic Preparedness*, Metropolitan Medical Response System (MMRS) Program,
<http://mmrs.fema.gov>

Respond Mission Area Target Capabilities

This page intentionally left blank

ON-SITE INCIDENT MANAGEMENT

Capability Definition

Onsite Incident Management is the capability to effectively direct and control incident activities by using the Incident Command System (ICS) consistent with the National Incident Management System (NIMS).

Outcome

The event is managed safely, effectively and efficiently through the common framework of the Incident Command System.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

All Emergency Support Functions (ESFs) are coordination (resource providing) functions, thus ESFs are not involved in on-scene command. The ESFs work through coordination centers to provide the incident management organization with the resources it needs. Command is generally a local/county or State responsibility.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B1a 1.1.2	Develop NIMS-compliant plans and standard operating procedures (SOPs) for emergency response operations within the jurisdiction
Res.B1a 1.1.3	Develop jurisdiction emergency management plans and SOPs that are compatible and integrate support for unified command during operations
Res.B1a 1.2.1	Pre-identify resources available to supplement command and control capabilities
Res.B1a 1.1.1	Develop processes to order, track, and assign incident resources
Res.B1a 1.1.2	Develop systems for tracking on-site incident resources and personnel
Preparedness Measures	Metrics
Emergency management plans and SOPs include a formal process for activating onsite incident management for large and complex events	Yes/No
Emergency management plans and SOPs include are based on a formal assessment of risks and vulnerabilities	Yes/No
Emergency management plans and SOPs address establishing incident command (e.g., IC posts, staging areas, command and general staff)	Yes/No
Emergency management plans and SOPs address the process for developing an incident action plan (e.g. to establish priorities, procedures, actions to meet incident objectives)	Yes/No
Emergency management plans and SOPs address command management (e.g., transitioning from Incident Command to Unified Command, interface with agency administrators like municipal executives)	Yes/No

Emergency management plans and SOPs address communication requirements (e.g., maintaining communications with responding units, dispatching centers, EOC)	Yes/No
Emergency management plans and SOPs address demobilization of onsite incident management (e.g. transition from IC to recovery management, incident resources are returned to normal service)	Yes/No
Incident Command Post is equipped with processes and/or technologies to maintain accountability of deployed resources and personnel	Yes/No
Incident Command Post is equipped with ability to display real-time video feed of incident site (large cities only)	Yes/No
Standard Operating Procedure (SOP) is in place to provide Incident Commander with observation trips for aerial view or satellite imaging of incident (large cities only)	Yes/No
Plans and SOPs are NIMS-compliant and support multi-agency response operations	Yes/No
Electronic personnel tracking system is in place with ability to transmit personnel information to Department Operations Center (large cities only)	Yes/No
Command Post is equipped with ability to receive information from Command and General Staff and participating agencies and transmit IAPs and other documentation	Yes/No
A records management system is in place (or is accessible) to order, track, and assign incident resources and to identify personnel who need training	Yes/No
Emergency management plans and procedures include processes for ensuring the safety, security, structural integrity, and self-sufficiency of facilities used for onsite incident management facilities	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.B1a 2.1.1	Train personnel in accordance with NIMS typing
Res.B1a 2.2.1	Exercise personnel in accordance with NIMS typing
Res.B1a 2.1.3	Arrange for command and elected officials to attend NIMS and other applicable training
Res.B1a 2.1.2	Develop a records management system to identify appropriate personnel who lack Incident Command System (ICS) training, and provide automated notification of training opportunities
Preparedness Measures	Metric
Percent of capability staff and elected officials trained and exercised on their roles and responsibilities for implementing National Incident Management System (NIMS) during an incident	100%
Percent of command staff (police, fire, EMS, public health) with training on how ICS will be applied locally	90%
Percent of personnel trained and exercised on incident command and management protocols and procedures in compliance with NIMS	100%
Personnel have had experience (e.g., through exercises) in activating and implementing onsite incident command operations	Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct On-Site Incident Management	
Definition: In response to indication of an incident, implement management, planning, and coordination of on-site incident	
Critical Tasks	
Res.B1a 3.3.6.1	Establish and maintain communications with EOC, dispatch center, and responding units
Res.B1a 3.3.6.2	Direct and coordinate with arriving local, tribal, regional, State, and Federal first responders
Res.B1a 3.3.4	Monitor/measure performance of assigned resources and request additional resources as needed
Performance Measures	Metric
Time in which additional resources are requested following initial scene assessment	Within 5 minutes from completion of assessment
Frequency with which resources are tracked and managed from arrival on-scene or at staging area until release	Continuous
Time in which communication is established with appropriate local, State, and Federal response entities	Within 30 minutes from arrival

Activity: Implement On-Site Incident Management	
Definition: In response to an incident, arrive on scene and provide initial scene report while beginning response operations; carry out management, planning, and coordination of on-site incident	
Critical Tasks	
Res.B1a 4.1.1	Conduct initial assessment (size-up) (first arriving units)
Res.B1a 4.1.2	Determine initial incident site perimeter (first arriving unit)
Res.B1a 4.2	Initiate and implement the Incident Command System (ICS)
Res.B1a 4.2.5	Transfer command between oncoming and outgoing Incident Commander as appropriate
Res.B1a 4.2.4	Request additional resources as necessary for operations and on-site incident management
Performance Measures	Metric
Frequency with which resources are tracked and managed from arrival on-scene or at staging area until release	Continuous
Frequency with which communication is established with appropriate local, tribal, regional, State, and Federal response entities	Continuous
Time in which initial incident conditions are reported to responding units	Within 2 minutes from arrival of first unit on scene

Activity: Establish Full On-Site Incident Command**Definition: Establish staff and facilities necessary to conduct on-site incident command****Critical Tasks**

Res.B1a 5.1	Establish Incident Command (IC)	
Res.B1a 5.1.2	Establish the command structure to manage the incident and meet objectives	
Res.B1a 5.1.3	Establish branches, groups, and divisions needed to manage the incident and meet incident objectives, strategies, and tactics	
Res.B1a 5.1.1	Establish an incident command post (ICP), incident bases, camps, staging areas, helispot or helibase, and other facilities as required	
Res.B1a 4.2.1	Establish communications with emergency operations center multi-agency coordinating center (EOC/MACC)	
Res.B1a 4.2.1.1	Maintain communications with emergency operations center multi-agency coordinating center (EOC/MACC)	
Res.B1a 4.2.2	Coordinate operations with specialized emergency response teams (e.g. SWAT/tactical, bomb squad/explosives, HAZMAT, Land-based Search and Rescue)	
Res.B1a 5.3.2	Transition from incident command to unified command for incidents involving multiple jurisdictions, a single jurisdiction with multi-agency involvement, or multiple jurisdictions with multi-agency involvement	
Res.B1a 5.2	Implement processes to order, track, and assign incident resources	
Performance Measures		Metric
Time in which on-site incident command is established		Within 5 minutes from arrival of the first unit on scene
Time in which the Incident Commander designates command and general staff, dependent upon complexity and scope of incident		Within 30 minutes from establishment of command
Command is successfully transferred to incident command organization able to manage the level of complexity and achieve the incident objectives		Yes/No

Activity: Conduct Resource Management**Definition: Implement policies and procedures to ensure the provision and tracking of all necessary resources****Critical Tasks**

Res.B1a 5.2	Implement processes to order, track, assign and release incident resources	
Res.B1a 3.3.4	Monitor/measure performance of assigned resources and request additional resources as needed	
Res.B1a 5.2.2	Request mutual aid through the EOC and Multi-Agency Coordination (MAC) Group ordering process	
Res.B1a 4.2.3	Direct and coordinate with arriving local, tribal, regional, State, and Federal first responders	
Performance Measures		Metric
Percent of resources tracked throughout incident		100%

Activity: Develop Incident Action Plan (IAP)**Definition: Develop all necessary components of the IAP and obtain approval****Critical Tasks**

Res.B1a 6.1	Establish incident objectives, priorities, and operational periods
Res.B1a 6.2	Develop the incident action plan (IAP) to establish priorities, procedures, and actions to be accomplished to meet the incident objectives
Res.B1a 6.2.1.1	Obtain IC/UC approval of IAP
Res.B1a 6.1.1	Establish operational period, not to exceed 24 hours

Performance Measures**Metric**

Initial incident priorities and objectives are effectively communicated	Yes/No
Time in which Incident Action Plan (IAP) is developed and approved	Within 12 hours from designation of command and general staff
Incident Action Plan (IAP) incorporates Incident Command System (ICS) management structures in accordance with the National Incident Management System (NIMS)	Yes/No
IAP clearly states measurable incident objectives and communicates strategies and tactics required to fulfill the incident objectives throughout the entire operational period	Yes/No

Activity: Execute Plan**Definition: For each operational period, distribute Incident Action Plan (IAP) to response organizations for their assigned operations. The IAP is implemented to achieve the desired incident objectives****Critical Tasks**

Res.B1a 7.1.1	Disseminate IAP to other response organization through operational briefing
Res.B1a 7.3	Direct efforts to meet incident objectives in accordance with current IAP
Res.B1a 7.5.1	Review progress towards meeting incident objectives
Res.B1a 7.3.2	Direct efforts to achieve personnel accountability
Res.B1a 7.3.3	Develop mechanisms for controlling incident
Res.B1a 7.3.5	Consider potentially impacted areas
Res.B1a 7.3.4	Update IAP based on review of resource requirements
Res.B1a 7.5.1	Evaluate, revise and prioritize tactics to meet incident developments

Performance Measures**Metric**

Time in which IAP is shared with other agencies and organizations at each operations briefing	Within 30 minutes from IAP approval
---	-------------------------------------

Formal operational briefings are conducted at the start of each operational period	Yes/No
Incident objectives are accomplished through strategic and tactical actions	Yes/No
Potentially impacted areas are considered	Yes/No
IAP is re-assessed, revised, distributed, and briefed at least at the start of each new operational period	Yes/No
All on-site management activities are coordinated through the Incident Command System (ICS)	Yes/No

Activity: *Demobilize On-Site Incident Management*

Definition: Upon completion of the incident, implement demobilization plan and/or transition to recovery operations

Critical Tasks

Res.B1a 8.1	Implement demobilization plan
Res.B1a 8.3	Transition incident command to recovery management
Res.B1a 8.2	Monitor demobilization/transition process

Performance Measures

Metric

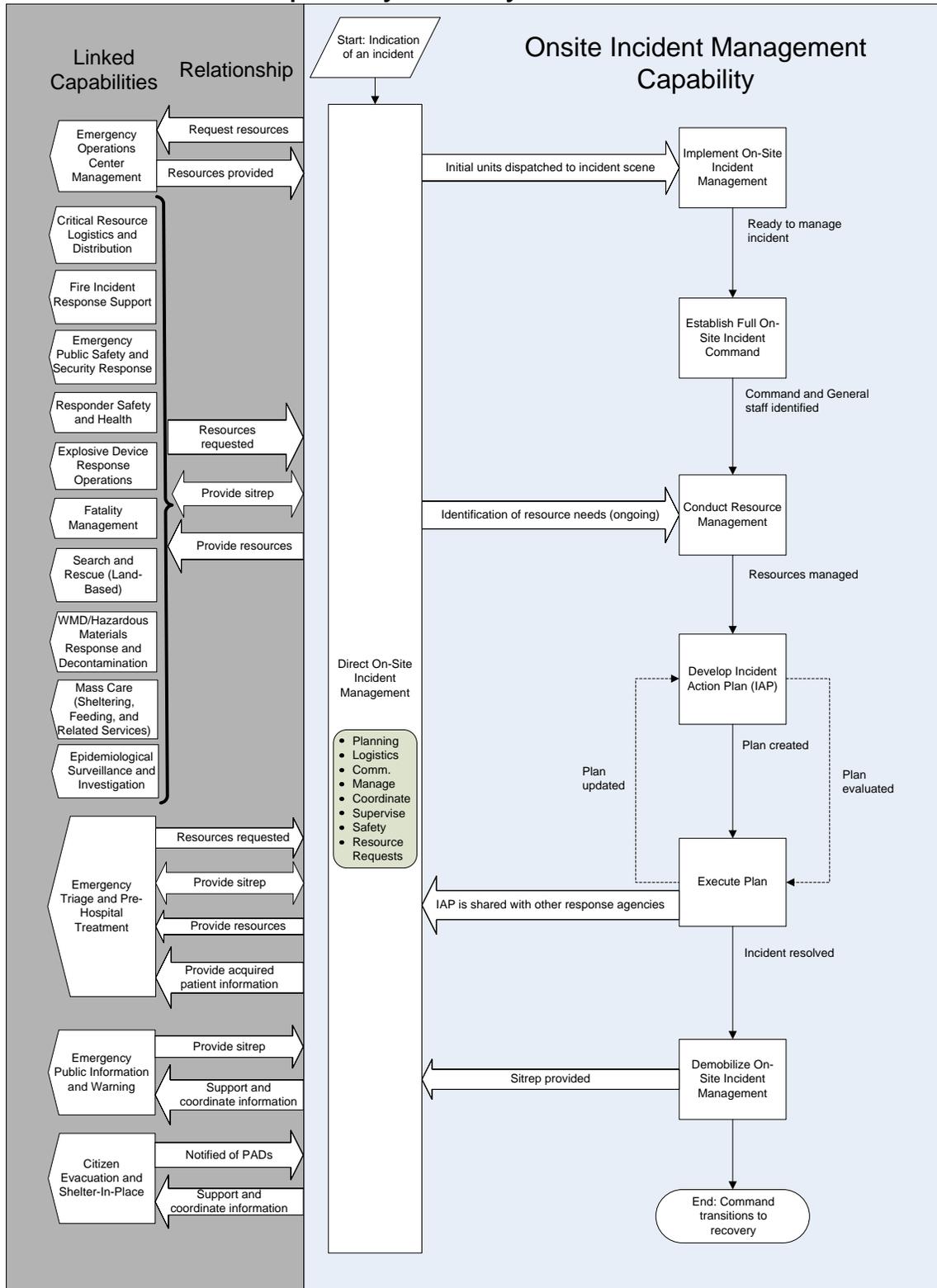
Demobilization is implemented in accordance with demobilization plan	Yes/No
Effective transition is made from the on-site Incident Commander to recovery manager	Yes/No
Incident resources are returned to normal service when no longer needed	Yes/No

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	On-Site Incident Management requests resources from the EOC and provides regular situation reports on incident response operations.
Critical Resource Logistics and Distribution	On-Site Incident Management receives resource requests and coordinates resource allocation.
Fire Incident Response Support	On-Site Incident Management receives resource requests and incident updates.
Emergency Public Safety and Security Response	On-Site Incident Management requests public safety resources and coordinates resource allocation.
Responder Safety and Health	On-Site Incident Management provides resources and processes resource requests.
Explosive Device Response Operations	On-Site Incident Management provides resources and processes resource requests specific to EDRO
Fatality Management	On-Site Incident Management processes resource requests and coordinates fatality management with the appropriate agencies/organizations.

Linked Capability	Relationship
Search and Rescue (Land-Based)	On-Site Incident Management coordinates with Search and Rescue (Land-Based) to determine resource needs and identify the scope of the incident.
WMD and Hazardous Materials Response and Decontamination	On-Site Incident Management provides resources and requests technical assistance on CBRNE incidents.
Mass Care (Sheltering, Feeding, and Related Services)	On-Site Incident Management processes resource requests and provides assistance to shelter impacted individuals.
Epidemiological Surveillance and Investigation	On-Site Incident Management coordinates with public health when the incident is expected to have adverse human effects.
Emergency Triage and Pre-Hospital Treatment	On-Site Incident Management coordinates with EMS and hospitals to ensure rapid triage, treatment, and transport of impacted individuals while tracking the quantity, destination, and disposition of patients leaving the incident site.
Emergency Public Information and Warning	On-Site Incident Management provides support and coordination to ensure prompt warning and notification to the public.
Citizen Evacuation and Shelter-In- Place	On-Site Incident Management receives protective action decisions and provides support and coordination to ensure citizens receive correct information regarding the need to shelter in place or evacuate.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Type IV Incident Management Team	NIMS Typed Resource. Type IV IMTs are designated teams of fire, EMS, and/or law enforcement officers from a region or single jurisdiction (city or county), activated to manage a major or complex incident during the first 6-12 hours and possibly transition to a Type III IMT. Capable of functioning in an incident management function that may involve resources from multiple agencies from the discovery of and arrival at an incident up to and including a full operational period as defined by the agency or jurisdiction.
Type III Incident Management Team	NIMS Typed Resource. Type III IMTs are standing teams of trained personnel from different departments, organizations, agencies, and jurisdictions within a State or metropolitan region, deployed within a State or region to manage or support incident management at incidents that extend beyond one operational period and possibly transition to a Type II or Type I IMT. Capable of functioning in an incident management function that involves resources from multiple agencies and jurisdictions from local to Federal levels for multiple operational periods.
Type II Incident Management Team	NIMS Typed Resource. Type II IMTs are Federally or State-certified standing team comprised of up to approximately 38 members qualified and certified through the National Wildfire Coordinating Group (NWCG) qualification process. A Type II IMT may be self-contained and is typically deployed to incidents of regional significance. Capable of functioning in an incident management function that involves utilization of significant numbers of State and Federal-level resources.
Type I Incident Management Team	NIMS Typed Resource. Type I Incident Management Teams (IMTs) are Federally or State-certified standing teams comprised of approximately 38 members qualified and certified through the NWCG qualification process. A Type I IMT is the most robust IMT with the most experience; is fully equipped and self-contained and is typically deployed to catastrophic events. Capable of functioning in an incident management function that involves utilization of significant numbers of Federal-level resources.
Federal Incident Response Support Team (FIRST)	Per the National Response Plan, a quick and readily deployable Emergency Response Team providing on-scene support to the local incident command. The FIRST is a forward extension of the Emergency Response Team-Advanced (ERT-A) providing the ERT-A Team Leader and, after a Stafford Act Declaration, the Federal Coordinating Officer (FCO). FIRST has an Incident Command System (ICS) structure and each team has five permanent team members including a Team Leader, Operations Section Chief, Planning Section Chief, Logistics Section Chief, and a Communications Unit Leader. A State may choose to assign a person(s) to respond with the FIRST. Other Federal expertise may be assigned to augment the FIRST on an as-needed basis. The FIRST is considered a National Asset but is stationed in a FEMA Region and on a day-to-day basis reports to the Regional Response and Recovery (R&R) Division Director

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the “Toxic Industrial Chemical” scenario. Other

scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets

- Any scenario might require the combined efforts of responders from various local, State, regional, private sector, and Federal entities to carry out sustained support for emergency operations and expand the Incident Command System (ICS) to an inter-jurisdictional and national focus. The coordination of the ICS will be critical in this regard to avoid duplication of effort and to manage strained resources. While the focus would be on response, it is important to note that some scenarios can impact a large geographical area in a relatively short period of time (e.g., when hazards are fast-moving).
- Establishment of an intelligence/investigation function will be required if the event is terrorist-initiated and, as such, is a criminal act that will require coordinated intelligence gathering and analysis and extensive criminal investigation.
- Type V IMTs are a “pool” of primarily fire officers from several neighboring departments, trained to serve in Command and General Staff positions during the first 6-12 hours from a major or complex incident and possibly transition to a Type IV or Type III IMT.
- Complex incident management-unified incident command will have to be established immediately. Multi-agency coordination will be required.
- Resource management processes will have to be established immediately.
- An inadequate number of first responder resources will be available to manage the entire incident scene as it grows due to the wind transportation of toxic chemicals.
- Incident command post, incident base camps, staging areas, and decontamination sites will have to be established.
- The multi-agency coordinating group and incident communications management required to supplement dispatch centers and Emergency Operations Centers (EOCs) will be overwhelmed from the onset.
- Responder care issues will have an immediate impact on the emergency response system.
- All incidents will be managed using the National Incident Management System/Incident Command System (NIMS/ICS) at the local level. Expanding or complex incidents may require transitioning incident management to a Type III, Type II, or Type I Incident Management Team (IMT).
- “Drawdown” of Type I and Type II IMTs due to significant wildfire activity results in increased use of Type III IMTs at catastrophic events.
- Hazardous conditions, weather, size of area, scope, access, and criminal activity (hazard) affect how quickly incident scene can be sized up.
- The Toxic Industrial Chemical scenario involves a fire and toxic industrial chemical release from a petroleum refinery caused by terrorist attack using rocket-propelled grenades and explosive devices. There are 350 fatalities, 1,000 hospitalized victims, 10,000 evacuated, 1,000 seeking shelter, 25,000 shelter-in-place, and 100,000 self-evacuating. One-half of the structures at the refinery are damaged from explosions.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Toxic Industrial Chemical)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Type III Incident Management Team	One Team can respond to one moderate/complex incident	All-risk incident Single or unified command Assume 100-200 responders in operations section	1 IMT; if incident is a long-duration incident, it may require a transition of a new IMT
Type II Incident Management Team	One Team can respond to one moderate/complex incident	All-risk incident Single or unified command Assume 200-500 responders in operations section	1 IMT; if incident is a long-duration incident, it may require a transition of a new IMT
Type I Incident Management Team	One Team can respond to one complex incident	All-risk incident Single or unified command Assume 500+ responders in operations section	1 IMT; if incident is a long-duration incident, it may require a transition of a new IMT

Approaches for Large-Scale Events

- National ICS positions and qualification standards need to be established by the NIMS Integration Center (NIC) using existing standards established for IMTs by the National Fire Protection Association (NFPA), National Wildfire Coordinating Group (NWCG), U.S. Department of Agriculture (USDA), U.S. Coast Guard (USCG), and U.S. Fire Administration.
- Increase the local-level Type III and IV IMT training using existing programs such as that of the U.S. Fire Administration. Use subject matter experts (SMEs) from local, State, and Federal agencies certified/qualified in ICS to accomplish national training needs.
- The NIMS Integration Center (NIMS) needs to establish training and exercise requirements; use those established by NWCG, USDA, and USCG.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Type IV Incident Management Team	NIMS-Typed Resource	1	Per large cities, counties, or regions	Local	All Activities
Type III Incident Management Team	NIMS-Typed Resource	1	State and UASI Regions	State/Local (City)	All Activities
Type II Incident Management Team	NIMS-Typed Resource	1	Per State with high occurrence, or per regional area available to multiple States	State	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Type I Incident Management Team	NIMS-Typed Resource	6	Nationally, strategically placed	Federal	All Activities
Federal Incident Response Support Team	NIMS-Typed Resource	1	Nationally	Federal	All Activities

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
5. Statement of Requirements for Public Safety Wireless Communications & Interoperability. Version 1.0. U.S. Department of Homeland Security, SAFECOM Program. March 2004. http://www.safecomprogram.gov/SAFECOM/library/technology/1200_statementof.htm.
6. Telecommunications. Washington Military Department, Emergency Management Division. 2004. <http://emd.wa.gov/6-rr/com/com-idx.htm>.
7. Incident Communications Emergency Plan, ICEP-2004. U.S. Department of Homeland Security. 2004.
8. NFPA Standard on Incident Management Professional Qualifications <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1026>
9. NFPA 1561: Standard on Emergency Services Incident Management System <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>
10. FEMA 508-2 Typed Resource Definitions – Incident Management Resources, July 12, 2005 http://www.fema.gov/pdf/emergency/nims/incident_mgmt.pdf
11. NFPA 1021, Standard for Fire Officer Professional Qualifications, National Fire Protection Association, 2003 Edition, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1021>.
12. NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, National Fire Protection Association, 2002 Edition, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1500>.
13. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>.
14. Emergency Management Accreditation Program Standards. September 2003. <http://www.emaponline.org/index.cfm>.
15. Code of Federal Regulations, Title 10, Part 835; Title 10, Volume 4, Parts 500 to end. U.S. Government Printing Office. 2001.
16. National Disaster Medical System. U.S. Department of Homeland Security. 2004. <http://ndms.dhhs.gov/>.
17. NFPA 1561: Standard on Emergency Services Incident Management Systems. National Fire Protection Association. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.

EMERGENCY OPERATIONS CENTER MANAGEMENT

Capability Definition

Emergency Operations Center (EOC) Management is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities. Similar entities may include the National (or Regional) Response Coordination Center (NRCC or RRCC), Joint Field Offices (JFO), National Operating Center (NOC), Joint Operations Center (JOC), Multi-Agency Coordination Center (MACC), Initial Operating Facility (IOF), etc.

Outcome

The event is effectively managed through multi-agency coordination for a pre-planned or no-notice event.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports Emergency Support Function (ESF) #5: Emergency Management.

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
ResB1c 1.1.1	Develop standard operating procedures for activation, operation, and deactivation of EOC
Res.B1c 1.1.2	Develop security and access control plans for EOC
Res.B1c 1.1.3	Develop, adapt, or implement plans to support the IC, UC, or other agencies as needed
Res.B1c 1.1.4	Establish and implement an order of command succession or continuity consistent with NIMS
Res.B1c 1.3	Establish operational and redundant communication systems for EOC operation
Res.B1c 1.3.1	Verify that all critical communication links/circuits/systems have been identified and regularly tested; redundant and diverse links exist in case of single point of failure; and all emergency circuits are protected with telecommunications service priority for prompt restoration/provisioning
Res.B1c 1.3.2.7	Verify that all participating public safety-related Communication Centers—serving the EOC/MACC/IOF directly or indirectly—are secure and functional, have established communication links with the EOC/MACC/IOF, have appropriate supplemental resources and other outlets to provide prompt, accurate public information and effective, timely notifications, and maintain a valid common operating picture for all responders/participants

Res.B1c 1.3.2.5	Verify that all serving Public Safety Communication Centers have clear and standard operating procedures (SOPs), consistent with the potential needs specifically related to the event	
Res.B1c 1.3.2.6	Verify that primary and secondary means to establish and maintain communication services through the event timeline are in place, can be activated promptly, and can continue to operate at acceptable levels	
Res.B1c 1.2.1	Create one central and one backup EOC/MACC/IOF	
Res.B1c 1.1.6	Develop emergency operations plans, policies, and procedures	
Res.B1c 1.1.7	Develop continuity of operations/continuity of government (COOP/COG) plans	
Preparedness Measures		Metrics
A national security policy to identify classified information handling requirements has been developed for Federal, State, and local EOC/MACC/IOFs		Yes/No
Standard operating procedures (SOPs) for activation, operation, and deactivation of EOC/MACC/IOFs are in place		Yes/No
Standard operating procedure (SOP) sections related to the role of each entity in the management of EOC/MACC/IOFs have been reviewed		Yes/No
EOC plans and SOPs address continuity of operations (e.g. central and backup EOCs, primary and secondary communications services).		Yes/No
EOC Plans and SOPs address resource and personnel use limitations (e.g. work/rest, maintenance restrictions).		Yes/No
EOC Plans and SOPs address dissemination of accurate, timely, accessible information to public, media, support agencies)		Yes/No
A system is in place (or is accessible) for mapping, modeling, and forecasting potential hazards		Yes/No
EOC plans and SOPs address the demobilization of Emergency Operations Center (e.g. re-assess and implement EOC deactivation plan, re-supply EOC entity to return to a state of readiness).		Yes/No
EOC plans and procedures include processes for ensuring the safety, security, structural integrity, and self-sufficiency of EOC facilities		Yes/No
EOC Plans and SOPs address dissemination of accurate, timely, accessible information to public, media, support agencies)		Yes/No
Communications plans to exchange data and voice in real time are in place		Yes/No
Frequency with which critical communication links/circuits/systems are identified and tested		Every 3 months
Redundant and diverse links in case of single point of failure for all critical communications are in place		Yes/No
Design, construction, and repair reports identify and resolve any single failure point		Yes/No
Critical circuits are identified and telecommunication service priority contracted with provider		Yes/No
Alternate processes for sharing public information have been created, tested and deployed		Yes/No
Policy/procedure, appropriate equipment, and capability to relocate safely, without loss of operational integrity, is established and tested		Yes/No

Primary and secondary means to establish and maintain communication services through the event timeline so that services can be activated promptly and have the capacity to continue to operate at acceptable levels are in place	Yes/No
Effective process for assessing the status of any/all public safety communication centers throughout the lifetime of event are in place	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B1c 2.1	Conduct EOC/MACC/IOF specific training
Res.B1c 2.2.2	Develop exercise program to evaluate the effectiveness of emergency operations center (EOC) incident management process
Res.B1c 2.2	Develop exercise program for emergency operations plans, policies and procedures
Res.B1c 2.2.1	Develop exercise program for continuity of operations/continuity of government (COOP/COG) plans
Res.B1c 2.3	Brief chief executive and other key officials of the jurisdiction in the jurisdiction's command and control plans for large-scale emergencies
Res.B1c 2.4	Conduct annual command and control training and exercises for large-scale emergencies

Preparedness Measures

Metric

Appropriate personnel have completed FEMA Independent Study Program for IS 700-NIMS, An Introduction	Yes/No
Appropriate personnel have completed FEMA Independent Study Program for IS 800-National Response Plan, An Introduction;	Yes/No
Appropriate personnel have completed FEMA Independent Study Program for IS 275-EOC Management and Operations;	Yes/No
Appropriate personnel have completed FEMA Independent Study Program for IS 100-Introduction to Incident Command System	Yes/No
Appropriate personnel have completed FEMA Independent Study Program for IS 200-ICS for Single Resources and Initial Action Incidents	Yes/No
Chief executive and other key officials of the jurisdiction are briefed in the jurisdiction's command and control plans for large-scale emergencies	Yes/No
HSEEP-compliant exercises are conducted to test EOC management plans and procedures (e.g. secure EOC, track incidents, deliver resources).	Yes/No
Chief executive and other key officials of the jurisdiction participate in annual command and control training and exercises for large-scale emergencies	Yes/No
Exercises include private sector participation	Yes/No
EOC/MACC/IOF personnel (primary and backup) are trained to perform EOC/MACC/IOF tasks and on their assigned roles and responsibilities as part of the EOC/MACC/IOF team	Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct Emergency Operation Center's Tactical Operations	
Definition: In response to notification of incident, activate, staff, and organize the EOC/MACC/IOF in accordance with emergency plans and standard operating procedures; plan, direct, and coordinate information and activities internally within EOC/MACC/IOF functions, and externally with other multi-agency coordination entities and the public information system; coordinate logistical support to maintain an operationally functioning EOC/MACC/IOF until deactivation.	
Critical Tasks	
Res.B1c 3.1	Establish organization/operation of EOC/MACC/IOF
Res.B1c 3.1.1	Ensure that all Emergency Support Functions (ESFs) are staffed
Res.B1c 3.3.3	Direct all support organizations participating in EOC/MACC/IOF
Res.B1c 3.1.3	Ensure appropriate maintenance and rest cycles are included in resource (personnel and equipment) management activities
Res.B1c 3.5.3.1	Arrange for shelter, housing, and feeding for responders and personnel supporting the operation per the emergency plan, as applicable
Res.B1c 3.5.3.2	Arrange for shelter, housing, and feeding for displaced responder families and general population
Res.B1c 3.3.1	Coordinate jurisdictional emergency management operations
Res.B1c 3.7	Transition from response to recovery
Res.B1c 3.7.1	Include Business Operation Center capability within state EOCs
Performance Measures	Metric
The emergency operations center (EOC) is activated upon notification of the incident	Yes/No
The emergency operations center (EOC/MACC/IOF) was activated upon notification of the incident	Yes/No
EOC/MACC/IOF is appropriately staffed to meet incident demands	Yes/No

Activity: Activate EOC/MACC/IOF	
Definition: In response to activation, perform incident notifications, recall of essential personnel, and stand-up of EOC/MACC/IOF systems to provide a fully staffed and operational EOC.	
Critical Tasks	
Res.B1c 4	Activate the EOC/MACC/IOF
Res.B1c 4.3	Activate, alert, and request response from EOC/MACC/IOF personnel
Res.B1c 4.4	Brief incoming personnel
Res.B1c 4.3.3	Designate a Principal Federal Official (PFO) from an appropriate agency, who will assemble a support staff and deploy to the affected area as soon as possible (Federal only)
Performance Measures	Metric
Time in which the EOC/MACC/IOF is fully staffed	Within 2 hours from activation

Time in which the EOC/MACC/IOF commences operations	Within 2 hours from activation
Time in which incoming staff are appropriately briefed and assigned	Within 15 minutes from staff arrival
Time in which DHS designates a Principal Federal Official (PFO)	Within 1 hour from start of the incident
Time in which PFO assembles a support staff and deploys to the affected area	Within 1 hour from start of the incident

Activity: *Gather and Provide Information*

Definition: Upon establishing EOC/MACC/IOF operations, gather, organize, and document incident situation and resource information from all sources to maintain situational awareness within the EOC/MACC/IOF, and horizontally and vertically within the National Incident Management System.

Critical Tasks

Res.B1c 5.1.1	Verify that all participating public safety-related Communication Centers, serving the EOC/MACC/IOF directly or indirectly, have established communication links with the EOC/MACC/IOF
Res.B1c 5.1	Make proper connections with other agencies involved in incident
Res.B1c 5.2.2	Coordinate emergency management efforts among local, county, regional, State, and Federal EOC/MACC/IOF
Res.B1c 5.2.3	Coordinate with non-government agencies and/or private sector to collect/share data on incident situation
Res.B1c 5.1.2	Monitor communications and information systems
Res.B1c 5.2	Collect, analyze, and disseminate information and intelligence
Res.B1c 5.2.4	Ensure appropriate notifications are made

Performance Measures

Metric

Process for assessing the status of any/all public safety communication centers throughout the event has been established	Yes/No
Time in which connectivity is established with all participating public safety-related Communication Centers, serving the EOC/MACC/IOF directly or indirectly	Within 30 minutes from EOC/MACC/IOF becoming operational
Connectivity has been verified with all participating public safety-related Communication Centers, serving the EOC/MACC/IOF directly or indirectly	Yes/ No
Time in which the availability and functionality status of all plan supporting teams and resources, including identification of deficiencies or limiting factors, are reported to the NRCC	Within 12 hours from the incident
Time in which the jurisdiction produces an incident action plan (IAP) defining a schedule and setting the operational period	Within 2 hours from the EOC/MACC/IOF entity becoming operational
Time in which the jurisdiction produces and distributes a situation report	Within 2 hours from the EOC/MACC/IOF entity becoming operational
The jurisdiction provides situation reports at least once per operational period	Yes/No

Activity: *Identify and Address Issues*

Definition: Upon receiving information, assess and identify current and anticipated resource shortages, technical support issues, and key policy decisions needed across all capabilities, and provide to the applicable agency, function, jurisdiction or multi-agency coordination entity for resolution.

Critical Tasks	
Res.B1c 6.1.4	Identify issues
Res.B1c 6.1.5	Identify and elevate needs/issues up the chain of command as needed, while tracking status
Res.B1c 6.3	Track issues until they are resolved
Performance Measures	Metric
Issues are tracked until they are resolved	Yes/No
Time in which appropriate decision-makers are consulted to facilitate resolution of issues	Within 30 minutes from recognizing need to consult decision-makers

Activity: *Provide EOC/MACC/IOF Connectivity*

Definition: Upon identification of issues, establish priorities between Incident and/or Area Commands; provide strategic direction; coordinate and resolve multi-agency policy issues, including the issuance of protective action recommendations and protective action decisions.

Critical Tasks	
Res.B1c 7.3.4	Coordinate legal and regulatory issues with support of general counsel
Res.B1c 7.3.1	Facilitate resolution to legal, policy, political, social, and economic sensitivities of the affected jurisdiction(s) as they impact response and recovery operations
Res.B1c 7.3.2	Facilitate formulation of protective action decisions (PADs), as needed
Res.B1c 7.3.3	Facilitate decision to implement isolation and quarantine, when needed
Res.B1c 7.4	Implement continuity of operations (COOP) plans and continuity of government (COG) plans
Performance Measures	Metric
EOC/MACC/IOF recognizes the need to implement mutual aid agreements (MAAs)	Yes/No
Mutual aid, State and/or Federal resources are requested during an incident based on availability of resources and mutual aid	Yes/No
EOC/MACC/IOF consults appropriate decision-makers and facilitates resolution of needs/issues in a timely manner	Yes/No
Resource staging areas, Logistical Bases, and Logistical Staging Areas (LSAs) have been designated	Yes/No
Activation of pre-positioned resources has been requested	Yes/No
Time in which establishment of a Joint Field Office (JFO), National Response Coordination Center (NRCC), and Regional Response Coordination Center (RRCC) is initiated/expedited	Within 4 hours from the incident

Time in which of continuity of operations (COOP) plans and continuity of government (COG) plans are successfully implemented	Within 2 hours from the incident
Time in which Federal staging areas are designated inside incident area (forward of Federal Mobilization Center)	Within 1 hour from the incident
Time in which pre-positioned Equipment Program Teams are activated	Within 2 hours from the incident
Time in which pre-positioned Equipment Program Teams are deployed	Within 2 hours from the incident
Time in which field survey support team and remote sensing aircraft are deployed to the incident area	Within 4 hours from the incident

Activity: *Support and Coordinate Response*

Definition: Once requested, provide resource, technical, and policy support to the Incident Command by coordinating the actions of off-site agencies, organizations, and jurisdictions, implementing mutual aid agreements, and requesting higher-level assistance

Critical Tasks

Res.B1c 8.3.1	Coordinate activation of mutual aid agreements to obtain resources
Res.B1c 8.1.1	Provide direction, information, and/or support as appropriate to IC/UC), and/or EOC/MACC/IOF
Res.B1c 8.3.2	Support incident response operations by providing resources ordered by the Incident Management Team (IMT) through the EOC/MACC/IOF/JFO/ICP
Res.B1c 8.3	Coordinate resource logistics and distribution
Res.B1c 8.2.2	Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting

Performance Measures

Metric

Time in which the jurisdiction recognizes the need to implement mutual aid agreements and request private sector resources	Within 2 hours from EOC/MAC operations beginning
Time in which mutual aid and State and/or Federal resources are requested, as needed, during an incident	Within 2 hours from recognizing need for mutual aid, State and/or Federal resources
Time in which private sector resources are requested, as needed, during an incident.	Within 2 hours from recognizing need for mutual aid, State and/or Federal resources
Process to ensure direction, information, and/or support provided to field is established	Yes/No
Status of resource requests are provided at least once per operational period	Yes/No

Activity: *Demobilize Emergency Operations Center Management*

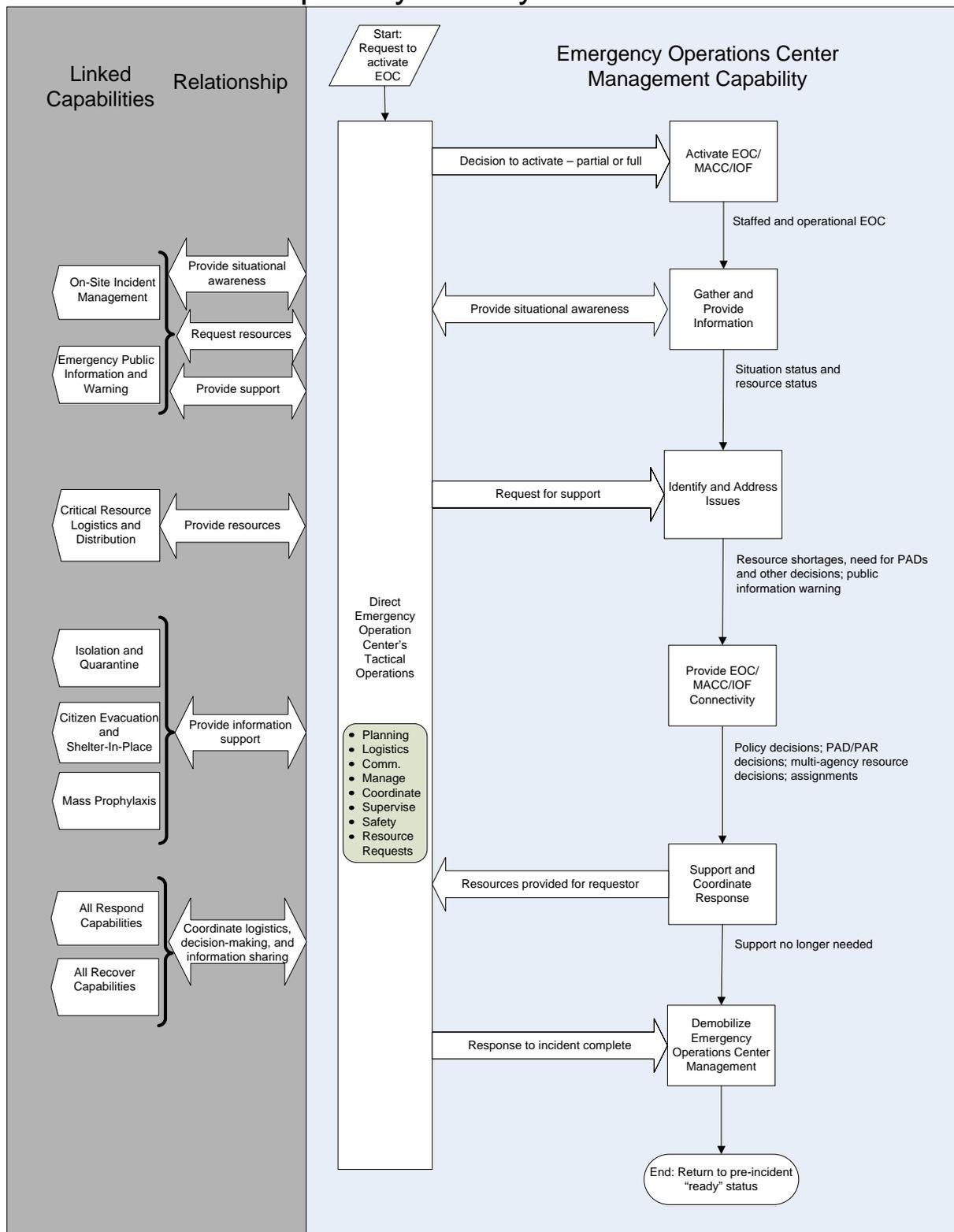
Definition: Upon completion of response phase, terminate EOC response activities, archive records, and restore systems, supplies, and staffing to a pre-incident ready State (or as appropriate for recovery activities).

Critical Tasks	
Res.B1c 9.3	Facilitate demobilization plans and procedures for preparation of after-action reports
Res.B1c 9.3.2	Implement EOC/MACC/IOF demobilization, deactivation, and transitional plan to JFO
Res.B1c 9.1	Re-assess and implement EOC demobilization and deactivation plans
Res.B1c 9.4	Rehabilitate and re-supply EOC/MACC/IOF entity/resources to return to state of readiness
Performance Measures	Metric
Time in which criteria for demobilization of EOC are established	Within 2 hours from receipt of first demobilization request
Time in which EOC/MAC entity is deactivated/demobilized	Within 24 hours from decision to deactivate

Linked Capabilities

Linked Capability	Relationship
All Respond Capabilities	EOC Management, in coordination with On-Site Incident Management, coordinates resource logistics, information sharing, decision-making, and implementation of activities in other Respond Capabilities.
All Recover Capabilities	EOC Management coordinates resource logistics, decision-making, information sharing, and implementation of activities in Recover Capabilities
On-Site Incident Management	EOC Management coordinates closely with IC/UC to set incident priorities, facilitate resource requests, and troubleshoot political, economic, policy, legal or regulatory, or social issues affecting on-site response operations.
Emergency Public Information and Warning	EOC Management provides information to Emergency Public Information and Warning for release to the media and the public. EOC Management receives information from Emergency Public Information and Warning on mis-information and rumors in the public domain that may impact response operations.
Critical Resource Logistics and Distribution	EOC Management coordinates with Critical Resource Logistics and Distribution to facilitate resources being distributed according to incident priorities.
Isolation and Quarantine	EOC Management receives protective action recommendations from Isolation and Quarantine, when appropriate. Isolation and Quarantine assists EOC Management in making well-informed protective action decisions and in implementing those decisions.
Citizen Evacuation and Shelter-In-Place	EOC Management receives protective action recommendations from Citizen Evacuation and Shelter In-Place, when appropriate. Citizen Evacuation and Shelter In-Place assists EOC Management in making well-informed protective action decisions and in implementing those decisions.
Mass Prophylaxis	EOC Management receives protective action recommendations from the Mass Prophylaxis, when appropriate. Mass Prophylaxis assists EOC Management in making well-informed protective action decisions and in implementing those decisions.

Capability Activity Process Flow



Resource Element Description

Resource Element	Description
City EOC	<p>Personnel: Consists of basic EOC functional requirements, including: chief executive and key officials, command staff, incident commander, EOC Management Support Team (defined in NIMS), Operations Section (defined in NIMS), Logistics Section, Planning Section (defined in NIMS), Administration/financial Section (defined in NIMS), Information technology (IT), safety/security, 15 Emergency Support Functions (ESF) (if required to activate).</p> <p>Plans: Emergency operations plans, policies and procedures; continuity of operations/continuity of government (COOP/COG) Plans</p> <p>Equipment: Communications equipment (e.g., telephones, satellites, radio, Video wall/plasma screen, Facsimile, Video teleconferencing (VTC), Cable TV, Satellite TV, VHS/UHF/HF communications) Network (e.g., internet, wired and/or secure wireless local area network , Sensitive-but-unclassified network, Common operational picture) Computers and software (e.g., a geographic information system (GIS), Geospatial imagery, Level 1 mobile central processor, interoperable software, EOC operation software, state-of-the-art computer blade technology) 2 Level 1 mobile central processors (CP): 1 to be used to restore “normal” public safety communications services to some level during the duration of recovery effort Unclassified capability equipment, including the National Alert Warning System (NAWAS) and the Washington Area Warning System (WAWAS). Other (e.g., special lighting, room acoustics, architectural noise and vibration control, environmental acoustics, sound reinforcement systems) Training: EOC specific training; FEMA Independent Study Program: IS 700-NIMS, An Introduction; FEMA Independent Study Program: IS 800-National Response Plan, An Introduction; FEMA Independent Study Program: IS 275-EOC Management and Operations; FEMA Independent Study Program: IS 100-Introduction to Incident Command System; FEMA Independent Study Program: IS 200-ICS for Single Resources and Initial Action Incidents Exercises, Evaluations and Corrective Actions: Exercise program to evaluate the effectiveness of emergency operations center (EOC) incident management processes; exercise program for emergency operations plans, policies and procedures; exercise program for continuity of operations/continuity of government (COOP/COG) Plans</p>
County EOC	Same as City EOC
State EOC	Same as City EOC, except: Equipment: Add the following: sensitive compartmented information facilities (SCIF), secret capability equipment, including: Homeland Security Information Network (HSIN)/Joint Regional Information, Exchange System (JRIS), other classified systems connectivity, secure telephone and VTC equipment, Top Secret/Sensitive Compartmented Information (TS/SCI) capable equipment, including: Automatic Digital Network (AUTODIN)/Defense Message System (DMS), other classified systems, secure telephone equipment (STE), National Secure Telephone System (NSTS), Top Secret/Sensitive Compartmented Information (TS/SCI) secure VTC equipment, Top Secret/Sensitive Compartmented Information (TS/SCI) secure facsimile equipment

Federal EOC	Same as State EOC, except: Personnel: Add the following: Emergency Response Team (ERT), National Emergency Response Team (ERT-N), Federal Incident Response Support Team (FIRST), Mobile Emergency Response Support (MERS) Detachment, Mobilization Center Management Team (MCMT), Hurricane Liaison Team (HLT), DHS Science and Technology Advisory and Response Team, CDC Incident Support Team Equipment: Same as State EOC
DHS EOC	Same as Federal EOC

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Improvised Nuclear Device (IND) scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability is applicable to all scenarios in which the incident is a large-scale event requiring the establishment of a command center away from the incident site.
- One central and backup EOC for each of 3,142 counties. One central and backup State EOC are available for each State and 6 territorial governments (56+). Individual municipalities (19,429) and towns and townships (16,504) may need an EOC depending on population, legislation, and identified requirements.
- Type III Incident Management Teams (IMTs) can be maintained at the local level (city, county, and State) and staffed by qualified individuals from first-responder agencies (interagency IMTs). Such IMTs are readily available for a quick response and rapidly establish incident command on expanding incidents.
- One central and backup EOC are available for each of the signatory departments and agencies listed in the *National Response Plan* (40+).
- All jurisdictions have identified the need to carry out minimum emergency functions for effective control of any emergency through their own EOC or a shared EOC that has been identified under National Incident Management System (NIMS) operations.
- The primary or alternate EOC facility is operational and habitable.
- Sufficient personnel, ranging from 2 to 3 shifts, 24/7, are available to staff the EOC and manage all tasks.
- Sufficient personnel and equipment are available to conduct EOC operations.
- Trained personnel are available to perform EOC tasks. Personnel know their assigned roles and responsibilities as part of the EOC team.
- Primary and/or alternate communications capabilities are still functional to coordinate response and incident management.
- Governments within the United States:
 - 19,429 municipalities
 - 16,504 towns or townships
 - 3,142 counties
 - 50 State governments
 - 6 territorial governments
 - 1 Federal government
 - Total of more than 39,000 jurisdictions

- Cities with populations greater than 50,000 should identify the need for an EOC. The numbers of cities with levels of populations above 50,000 follow:
 - 364 cities with populations of 50,000—100,000
 - 173 cities with populations of 100,000—200,00
 - 36 cities with populations of 250,000—500,000
 - 29 cities with populations of 500,000+

Scenario-Specific

- The capability targets for a single incident are based primarily on the “improvised nuclear device” (IND) scenario because it was considered the most encompassing for an Emergency Operations Center (EOC) standup and response to minimize the impact and to manage the incident. An earthquake was considered the next most encompassing. The 15 possible scenarios were rated from most to least encompassing.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Improvised Nuclear Device)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Primary City EOC			Cities with populations greater than 50,000 should identify the need for an EOC.
County EOC			One central and backup EOC for each of 3,142 counties.
State EOC			One central and backup State EOC are available for each State and 6 territorial governments
Federal EOC			One central and backup EOC are available for each of the signatory departments and agencies listed in the National Response Plan
DHS EOC			One central and one backup

Approaches for Large-Scale Events

During an emergency caused by an improvised nuclear device, when both the local and alternate EOC are not operational, it would be beneficial to know neighboring counties’ vital information (e.g., population, local hazards, infrastructure complexity, urban versus rural)

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Primary City EOC	Non-NIMS Resource Organization	1	Per city with population \geq 50k	Local (City)	All performance activities

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
County EOC	Non-NIMS Resource Organization	2	Per county (primary and backup)	Local (County)	All performance activities
State EOC	Non-NIMS Resource Organization	2	Per State/Territory (primary and backup)	State	All performance activities
Federal EOC	Non-NIMS Resource Organization	2	Per designated Federal agency (primary and backup)	Federal	All performance activities
DHS EOC	Non-NIMS Resource Organization	2	Per DHS/FEMA Regional Office (Primary and backup)	Federal (DHS/FEMA)	All performance activities

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
3. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. *Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement*. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
5. *Statement of Requirements for Public Safety Wireless Communications & Interoperability*. Version 1.0. U.S. Department of Homeland Security, SAFECOM Program. March 2004. http://www.safecomprogram.gov/SAFECOM/library/technology/1200_statementof.htm.
6. Incident Communications Emergency Plan, ICEP-2004. U.S. Department of Homeland Security. 2004.
7. *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs*. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>.
8. *Resource Typing Definitions-I: First 60 Resources*. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
9. Emergency Management Accreditation Program Standards. September 2003. <http://www.emaponline.org/index.cfm>.
10. Federal Executive Branch Continuity of Operations. Federal Preparedness Circular (FPC 65). U.S. Department of Homeland Security, Federal Emergency Management Agency, Office of National Security Coordination. June 2004. <http://www.fema.gov/onsc/>.
11. PDD 67: Enduring Constitutional Government and Continuity of Government Operations. October 1998. http://www.emergency-management.net/laws_pdd67.htm.

This page intentionally left blank

CRITICAL RESOURCE LOGISTICS AND DISTRIBUTION

Capability Definition

Critical Resource Logistics and Distribution is the capability to identify, inventory, dispatch, mobilize, transport, recover, and demobilize and to accurately track and record available human and material critical resources throughout all incident management phases. Critical resources are those necessary to preserve life, property, safety, and security.

Outcome

Critical resources are available to incident managers and emergency responders upon request for proper distribution and to aid disaster victims in a cost-effective and timely manner.

Relationship to National Response Plan Emergency Support Function/Annex

The capability supports the following Emergency Support Functions (ESFs):

ESF #1:	Transportation
ESF #2:	Communications
ESF #3:	Public Works and Engineering
ESF #4:	Firefighting
ESF #5:	Emergency Management
ESF #6:	Mass Care, Housing, and Human Services
ESF #7:	Resource Support
ESF #8:	Public Health and Medical Services
ESF #9:	Urban Search and Rescue
ESF #10:	Oil and Hazardous Materials Response
ESF #11:	Agriculture and Natural Resources
ESF #12:	Energy
ESF #13:	Public Safety and Security
ESF #14:	Long-Term Community Recovery and Mitigation
ESF #15:	External Affairs

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Res.B1d 1	Develop plans, procedures, and protocols for resource management in accordance with the National Incident Management System (NIMS), and include pre-positioning of resources to efficiently and effectively respond to an event
ResB1d 1.1	Establish plans and systems for resource identification, typing, and inventorying

ResB1d 1.2	Establish plans and systems for acquiring and ordering resources	
ResB1d 1.3	Establish plans and systems for mobilizing and allocating resources	
ResB1d 1.5	Establish plans and systems for resource recovery and reimbursement	
Res.B1d 1.6	Establish plans and procedures for coordinating with non-governmental and private sector organizations for obtaining resources	
Res.B1d 1.3.2	Develop plans for the establishment of logistic staging areas (LSAs) for internal and external response personnel, equipment, and supplies	
ResB1d 1.4.1	Establish a national resources tracking and reporting system that can integrate with state/local systems	
Res.B1d. 1.4.2	Establish resource tracking system or resource inventories at the state and local level	
Preparedness Measures		Metrics
Plans and procedures address activation of the resource management system		Yes/No
Plans and procedures address management of supplies (e.g., secure and appropriate storage, transportation through restricted areas, etc)		Yes/No
Plans and procedures include communications requirements (e.g. jurisdiction requests are monitored to track inventory, transportation vendors can maintain contact during distribution).		Yes/No
Tracking and recording systems for resources are developed and tested		Yes/No
Resource and vendor lists are in place		Yes/No
Resource lists are updated as required or every 12 months		Yes/No
Critical resource management plans are supported by standing contracts and/or emergency purchase mechanisms such as credit cards or debit cards (e.g. rapid purchasing mechanisms are in place for specialized resources such as GIS and cell providers).		Yes/No
Pre-negotiated vendor contracts for critical resources and essential services are in place and maintained		Yes/No
Plans, procedures, and systems to pre-position resources in order to efficiently and effectively respond to an event are in place		Yes/No
Processes and procedures to ensure that resource providers are reimbursed in a timely manner are in place		Yes/No
Plans and procedures address unused resources and disposal of waste materials generated by logistics operations.		Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

ResB1d 2.1	Develop and implement resource logistics and distribution training programs
ResB1d 2.1.1	Develop and implement training in emergency logistics that incorporates linkages among damage/needs assessment, logistics management, and volunteer/donations management

Res.B1d 2.2.1	Validate resource logistics, distribution plans, and training programs using exercises ranging from tabletop to full-scale	
Preparedness Measures		Metric
Training in emergency logistics that incorporates linkages among damage/needs assessment, logistics management, and volunteer/donations management has been developed according to established standards for logisticians		Yes/No
Frequency with which personnel testing and training on tracking and recording systems is verified (including as required or necessary)		Every 18 months
Frequency with which resource and logistic tracking and recording systems are exercised (including during other exercises)		Every 12 months

Performance Tasks and Measures/Metrics

Activity: Direct Critical Resource Logistics and Distribution Operations

Definition: In response to an incident or situation that may require outside resource support, provide management and coordination for the Critical Resource Logistics and Distribution capability, from activation through demobilization

Critical Tasks

Res.B1d 3.1.1	Establish communication between EOC and Incident Management Team to determine resource needs to support incident response and operations
Res.B1d 3.2.2	Identify existing internal, jurisdiction-specific resources available to support response and recovery operations
Res.B1d 3.1.2	Make a determination regarding the need for additional external resources and the implementation of a critical resource logistics and distribution plan
Res.B1c 3.5	Provide logistical support for the operation and requests of the IC/EOC
Res.C2a 3.1.1	Coordinate distribution of stockpile assets
Res.B3a 3.5.1	Coordinate the handling and transporting of affected persons requiring assistance
Rec.C1a 3.2.5	Provide and coordinate the use of emergency power generation services at critical facilities

Performance Measures

Performance Measures	Metric
Time in which the multi-agency coordination system is activated following the request for critical resources needed for the incident	Within 2 hours of request
Time in which it is determined that there is a need to supplement internal resources by implementing critical resource logistics and distribution operations	Within 8 hours of incident
Time in which requests for critical resources are processed and approved	Within 1 hour of receipt of request
Determination is made regarding whether assistance from outside jurisdictions (i.e. mutual aid, Emergency Management Assistance Compact (EMAC)) is needed	Yes/No
Assistance from outside jurisdictions is tracked to certify performance	Yes/No

Activity: Activate Critical Resource Logistics and Distribution

Definition: In response to activation, initiate the resource logistics and distribution process, including identifying and establishing a logistics staging area (LSA)

Critical Tasks	
Res.B1d 4.1	Initiate resource logistics and distribution support for incident response operations according to the Incident Management Team (IMT) assignments in the Incident Action Plan (IAP)
Res.B1d 4.2	Implement plans and procedures for establishing a logistics staging area (LSA) for internal and external response personnel, equipment, and supplies
Res.B1d 3.2.4	Meet ongoing resource support needs through appropriate procurement sources from the EOC/MACC/IOF
Res.B1d 6.3.2	Provide facilities, transportation, supplies, equipment/equipment maintenance, fueling, food service, and communications through the logistics staging area (LSA)
Res.B1d 4.3	Implement a resource-tracking system
Res.B1b 8.1.1	Report and document the incident by completing and submitting request forms, reports, documentation, and follow-up notation.
Res.B1d 4.4	Plan and prepare for the demobilization process well in advance in accordance with NIMS in order to facilitate accountability and make transportation of resources as efficient as possible
Performance Measures	Metric
Time in which logistics staging area (LSA) is opened	Within 8 hours of incident
Critical resources are accurately tracked and recorded	Yes/No

Activity: Respond to Needs Assessment and Inventory

Definition: Based on tasking from the EOC/MAC per field needs assessments, determine types of resources needed to support response operations.

Critical Tasks	
Res.B1d 5.1	Determine additional human and material resources needed to support response
Res.B1d 5.3	Request needed resources from EOC/MACC/EOC/IOF
Res.B1d 5.2	Identify and inventory by type and category all resources available to support emergency operations, including facilities, equipment, personnel, and systems
Res.B1d 5.2.2	Determine availability of supplies stocked in distribution facilities, national stockpiles, and customer supply centers
Performance Measures	Metric
Time in which logistics staging area (LSA) responds to EOC tasking for resource support	Within 1 hour from request

Activity: Acquire Resources**Definition: Request and acquire resources from local, State, Federal, or private providers.****Critical Tasks**

Res.B1d 6.1	Implement plans, procedures, and protocols for resource acquisition and management in accordance with NIMS	
Res.B1d 7.4	Provide support from EOC/MACC/IOF to IC with human and material resource needs	
Res.B1d 6.3.4	Track/record resource movement in and out of the logistics staging area (LSA)	
Res.B1d 6.3.3	Obtain supplies stocked in distribution facilities, national stockpiles, and customer supply centers	
Performance Measures		Metric
Percent of resource movement tracked/recorded		100%
Time in which the resource is available for deployment		Within 2 hours from arrival
Time in which critical resources from the State (within the State) are delivered		Within 12 hours from approval of request
Time in which critical resources from the State (State-to-State)/EMAC are delivered		Within 24 hours from approval of request
Time in which Federal critical resources are delivered		Within 24 hours from approval of request
Time in which private sector is tasked to inventory and identify available assets		Within 2 hours from determination of need for private sector involvement
Time in which all large-space facility structures within 250 miles of the incident venue(s) that could be made available for use as needed are inventoried and identified to ESF-7		Within 6 hours from request
EOCs and Incident Management Teams follow standard interagency mobilization guides at the national, regional, State, tribal, and local levels		Yes/No

Activity: Transport, Track, and Manage Resources**Definition: Once a resource request has been filled, deploy the resource to the incident through the logistics staging area (LSA) and in coordination with EOC.****Critical Tasks**

Res.B1d 7.1.4	Mobilize transportation to distribute resources
Res.B1d 7.2	Deploy and transport resources to appropriate, pre-determined locations
Res.B1d 7.3	Track the deployment, movement, and transportation of resources prior to and during an incident
Res.B1d 7.5	Request State critical resources
Res.B1d 7.6	Request Federal critical resources

Performance Measures	Metric
Private sector linkages are activated to inventory and identify available transportation assets, potential mass shelters facilities and medical facilities, personnel, equipment, and supplies	Yes/No
Sufficient transportation assets are established to transport critical human and material resources throughout incident management phases	Yes/No
Time in which resources received at logistics staging area (LSA) are available to support response and recovery operations	Within 8 hours from receipt at LSA
Critical resources are managed and inventoried to ensure sustained operations	Yes/No
All required procedures for acquiring and managing resources, including reconciliation, accounting, auditing, and inventorying, are followed	Yes/No
Percent of approved resource requests met and filled accurately during the incident	100%
Time in which actions to deploy Pre-Positioned Disaster Supply (PPDS) containers are initiated	Within 24 hours from identification of need
Time in which actions to deploy additional Pre-Positioned Disaster Supply (PPDS) containers are initiated	Within 48 hours from identification of need
Time in which backfill of Pre-Positioned Disaster Supplies (PPDS) containers is initiated	Within 72 hours
Resource status changes are recorded and reported as they occur	Yes/No

Activity: *Maintain and Recover Resources*

Definition: Recover all resources deployed for response and recovery support, rehabilitate and re-supply all resources, rest and recuperate all personnel, review tracking system, and retrace all resources back to original provider. The recovery process involves the final disposition of all resources

Critical Tasks

Res.B1d 8.1.1	Cycle personnel to allow for rest and recuperation
Res.B1d 8.1.2	Cycle resources to allow for rehabilitation and/or re-supply efforts
Res.B1d 8.2.2	Rehabilitate and/or re-supply all expendable and nonexpendable resources
Res.B1d 8.2.3	Recover all deployed resources that are salvageable
Res.B1d 8.2.4	Return resources to issuing location
Res.B1d 8.4.2	Account for all resource use and expenditure
Res.B1d 8.3.1	Use established regulations and policies to deal with resources that require special handling and disposition, such as biological waste, contaminated supplies, debris, and equipment
Res.B1d 8.3.2	IC/UC, EOC, and LSA make a joint determination that equipment and resources/supplies are no longer needed to support operation

Performance Measures	Metric
Resources and personnel are cycled per the IAP	Yes/No

The recovery and disposition of resources is tracked and documented	Yes/No
Resources are returned to original provider	Yes/No

Activity: Demobilize Critical Resource Logistics and Distribution

Definition: Upon completion of assigned duties or as directed by superiors, shut down the logistics staging area and return to pre-incident readiness

Critical Tasks

Res.B1d 9.2	Determine that equipment and unused resources/supplies are no longer needed to support operation
Res.B1d 9.3	Implement demobilization and deactivation procedures

Performance Measures

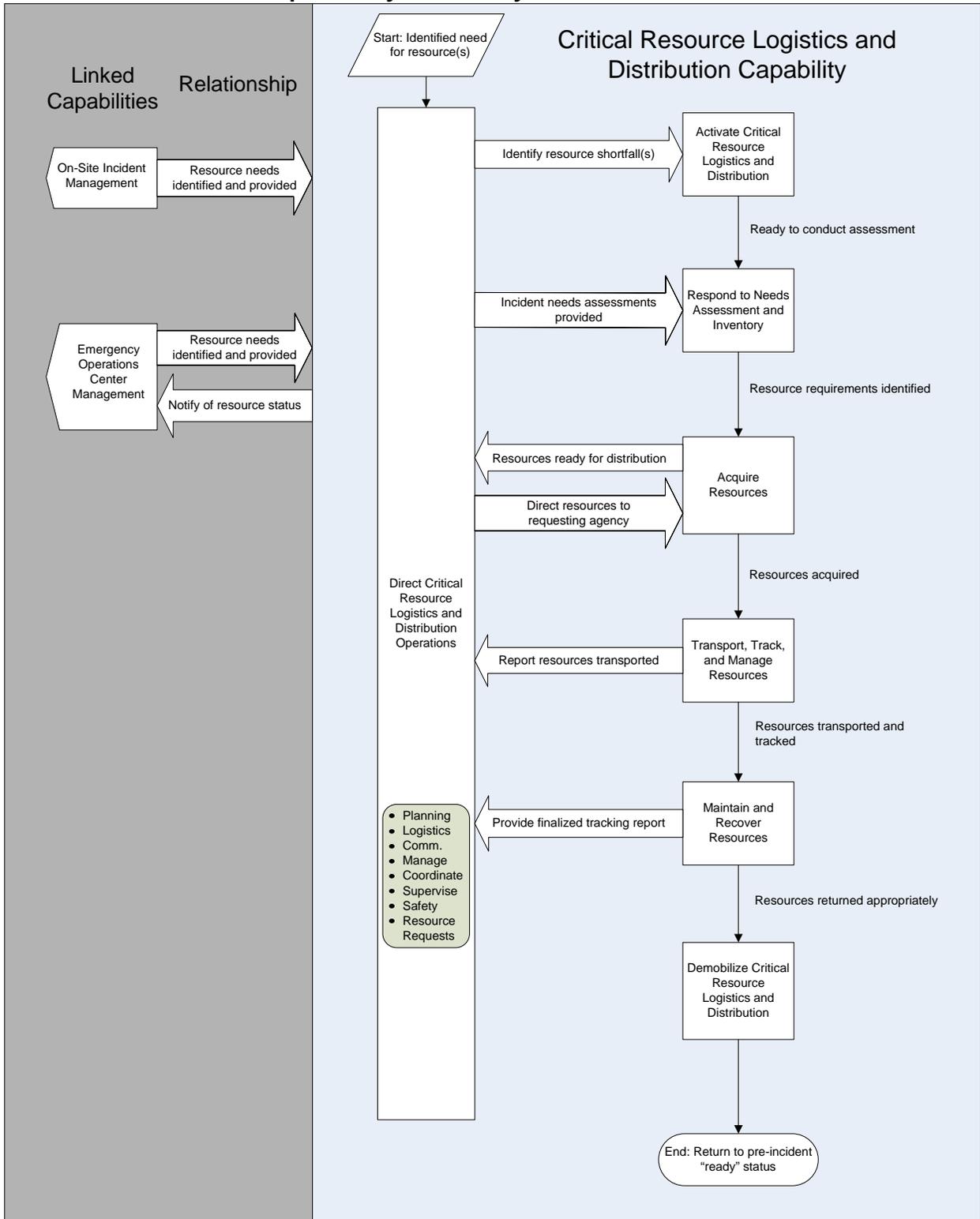
Metric

Time in which demobilization plan is fully implemented	Within 8 hours from decision to demobilize
Time in which deployed resources are recovered following the end of response/recovery operations	Within 72 hours from end of operations
Percent of requests for State and Federal reimbursement processed	100%
Percent of non-expendable resources fully accounted for at the incident site	100%
Percent of non-expendable resources fully accounted for upon return to the unit that issued them	100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	On-Site Incident Management typically identifies the critical resources required to support an incident response
Emergency Operations Center Management	A resource needs assessment to support incident response will be provided by the Incident Commander or Incident Management Team to the EOC, which will coordinate the acquisition of the required resources. The EOC will also coordinate with the logistical staging area.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Logistics Planning Manager	Type III or Type IV Planning Manager to create logistics management plans for area to assist operations during incident
National tracking system	National system that captures and tracks resource availability; includes locally managed tracking systems that feed into the larger system
Tracking system	Resource tracking systems or inventories maintained at the state and/or local level that feed into the national tracking system.
Rapid Needs Assessment Team (Type I)	NIMS Typed Resource. Per NIMS, provides a rapid assessment capability immediately following a major disaster or emergency. Team provides and collects information to determine requirements for critical resources needed to support emergency response activities.
Logistics response system	Per NIMS, part of the ICS logistics branch needed to manage critical resource logistics and distribution
Transportation Coordinator	Per NRP ESF#1, coordinates critical resource transportation needs between all organizations and among Federal, State, local, and private agencies and organizations.
Cargo Transportation Teams	Vehicles and staff necessary to move large amounts of critical resources (e.g. personnel and trucks, planes, boats, trains)
Evacuation Transportation Team	Vehicles (e.g. trucks, buses, planes, boats, trains) and staff to provide transportation to evacuees
Federal mobilization base camp	Locations at incident site to receive and house Federal assets
State staging area	Locations in base camps to house Federal assets transferred to the State.
Interagency warehouse	Location with appropriate material-handing equipment (e.g., fork lifts, pallet jacks) to receive and house critical resources transferred from the State and donated by nongovernmental organizations (NGOs) and the public
Evacuation Terminal	Location for affected evacuated personnel
Warehouse system for stockpiled resources	A system to track and house stockpiled resources.
Logistic staging area (LSA)	This term is used as a convenience to represent the reception area and staging/mobilization area defined in NIMS
Reception area	Per NIMS, a location separate from the staging areas where resources report in for processing and out-processing. This location also provides accountability, security, situational awareness briefings, safety awareness, and distribution of IAPs, supplies, equipment, feeding, and bed-down.
Staging area	Per NIMS, a temporary location established where available resources can be placed while awaiting a tactical assignment.
Incident base	Per NIMS, the location at which primary support activities are conducted. A single incident base is established to house all equipment and personnel support operations. The incident base should be designed to be able to support operations at multiple incident sites
Camps	Per NIMS, a location that is separate from the incident base and located in satellite fashion from the incident base where it can best support incident operations. Camps provide certain essential auxiliary forms of support, such as food, sleeping areas, and sanitation. It may also provide minor maintenance

Resource Elements	Components and Description
	and servicing of equipment. Camps may be relocated to meet changing operational requirements.
Mobilization and staging areas	Per NIMS, staging areas will be established by the Operations Section Chief to enable positioning of and accounting for resources not immediately assigned. A staging area can be any location in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment. Staging areas may include temporary feeding, fueling, and sanitation services. Personnel must check-in with the resources unit at the staging area, while supplies and equipment are checked in with the supply unit. If neither of these functions is activated, resources report to the Staging Area Manager for direction.
Critical Resources Unit Leader	Per NIMS, this position tracks and maintains the status and availability of critical resources assigned to each incident under the area command

Planning Assumptions

General

- The capability is constant across all 15 National Planning Scenarios; however, hazardous materials (HazMat) response incidents will require specialized, already established teams to assist with the incident. Regardless, this capability functions across all scenarios, adjusting to the needs of the incident.
- Significant, additional logistical support and coordination and public information systems will be required whenever a “shelter in place” or a “quarantine” order is implemented.
- The U.S. Department of Homeland Security (DHS) will likely raise the Homeland Security Advisory System (HSAS) to “red” status immediately following a terrorist attack for designated areas, if not the entire Nation. Depending on the location, scope, and magnitude of the event, this elevated status can prompt actions limiting the availability of air transportation within the United States. Such travel limitations can negatively impact the timely convergence at the disaster-affected area of needed personnel and material resources.
- Jurisdictions will identify where and how to replenish the depleted resources needed to further manage the incident.
- Development of plans, procedures, and protocols for resource management in accordance with the National Incident Management System (NIMS) will be outlined within the planning capability.
- Assistance from private contractors and voluntary agencies will be forthcoming to help the community during the incident. Pre-contracted services may be necessary and are encouraged through public and private sector organizations and partnerships.
- Resources are categorized by material or service provided. Per NIMS, resources are defined by the following status conditions:
 - Assigned resources -- the status condition where personnel, teams, equipment, or facilities are checked in or, in the case of equipment and facilities, receipted for and are assigned to support incident operations.
 - Available resources -- the status condition where personnel, teams, equipment, or facilities are checked in or, in the case of equipment and facilities, receipted for, assigned to an incident, and made ready for a specific work detail or function
 - Out of service resources -- the status condition where personnel, teams, equipment, or facilities are assigned to an incident but are unable to function for mechanical, rest, or personal reasons or because their condition makes them unusable

- Interstate and intrastate mutual aid agreements will be utilized (State, tribal, and local).
- Emergency Management Assistance Compact (EMAC) will be implemented based upon Federal declarations.
- Jurisdictions’ emergency response plans should include pre-contracted services with public and private entities.
- Most capability elements will be needed quickly; they must be available to respond in less than 1 hour from the initial incident to manage the scene. However, because this capability deals with critical resource logistics and distribution, the timeframe may be slightly longer (1-3 hours, depending on the resource) but still required locally.
- Warehouses will securely store and handle all stockpiled materials under appropriate conditions that will maintain their stability, integrity, and effectiveness while providing appropriate levels of physical security for all materials and facilities.

Scenario-Specific

- Based upon scenario conditions, a 7.2-magnitude earthquake with a subsequent 8.0 earthquake following occurs along a fault zone in a major metropolitan area, greatly affecting a 6-county region with a population of approximately 10 million people. Approximately 150,000 buildings are destroyed and 1 million buildings are damaged. All typed personnel are based on Federal Emergency Management Agency (FEMA) Typed Resource Definitions.
- Assume 300,000 people will need to evacuate area. Of this, 50 percent lack the capability to self-evacuate.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Logistics Planning Manager	1 plan per jurisdiction affected	1 area affected	1 Type III Planning Manager
National tracking system	1 national system can find resources to support multi-county/region earthquake response operations		1 national tracking system
Tracking system	One system is needed for each area involved		One per state and one per jurisdiction
Rapid Needs Assessment Team	1 team (with backup) can assess 6-county area	6-county affected area	2 teams (1 in affected region; 1 as backup)
Logistics response system		Incident will require full activation of logistics branch to manage critical resource logistics and distribution	1 logistics response system
Transportation	1 coordinator per EOC	Scenario will require	1 coordinator to sit in

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Coordinator		resources from multiple jurisdictions to help support the incident, requiring the coordinator to monitor and troubleshoot movement of resources	Emergency Operations Center (EOC); (can be component Emergency Support Function (ESF) #1)
Cargo transportation teams	Volume capacity of vehicles will vary	Scenario will require at least: 550,000 gallons of water per day (1 gallon/person/day) for displaced persons; 2,750,000 pounds of ice per day (1 5-pound bag/person/day); Other critical incident-specific resources	Total volume of resources divided by the volume capacity of vehicle multiplied by amount of resource needed
Evacuation transportation Team	Carrying capacity of vehicles will vary	150,000 people will require assistance with transportation for evacuation; transportation assets can be recycled and used multiple times during an evacuation	Total number of evacuees divided by passenger capacity of vehicle
Federal mobilization base camp		Scenario will require large amounts of critical resources immediately	2 base camps to receive Federal assets
State staging area		Two staging areas per base camp	4 staging areas
Interagency warehouse	Location capacity will vary	Incident will require one location for critical resources to be delivered	1 warehouse
Evacuation terminal	Location capacity will vary	As designated in jurisdictional response plans	A number should be outlined in emergency response plans
Warehouse system for stockpiled resources		Each entity of government needs a warehouse system to track stockpiled goods	1 Federal, 1 State, and 1 Local.

Approaches for Large-Scale Events

The capability is not dependent on specification of an incident and will remain constant among the 15 National Planning Scenarios.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
Logistics Planning Manager	Personnel	1	Per FEMA Region	Federal (DHS/FEMA)	Direct Critical Resource Logistics and Distribution
Logistics Planning Manager	Personnel	1	Per State and territory	States	Direct Critical Resource Logistics and Distribution
Type IV Logistics Planning Manager	Personnel	1	Per jurisdiction	Local	Direct Critical Resource Logistics and Distribution
National tracking system	Network	1	Nationally	Federal	Direct Critical Resource Logistics and Distribution
Tracking system	Network	1	Per state	State	Direct Critical Resource Logistics and Distribution
Tracking system	Network or data	1	Per jurisdiction	Local	Direct Critical Resource Logistics and Distribution
Rapid Needs Assessment Team	NIMS typed resource organization	1	Per FEMA Region	Federal (DHS/FEMA)	Direct Critical Resource Logistics and Distribution
Logistics response system	Resource Organization	1	Nationally	Federal	All Activities
Transportation Coordinator	Personnel	1	Per EOC	Federal/State/Local	Transport, Track, and Manage Resources
Cargo Transportation Team	Non-NIMS Resource Organization	1	Per jurisdiction	Local	Transport, Track, and Manage Resources
Federal mobilization base camp	Non-NIMS Resource Organization		Not pre-established	Federal	Acquire Resources Transport, Track, and Manage Resources
State staging area	Non-NIMS Resource Organization	2	Per State and territory	State	Acquire Resources Transport, Track, and Manage Resources
Interagency warehouse	Non- Resource Organization	1	Per incident	Local	Acquire Resources Transport, Track,

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
					and Manage Resources
Warehouse system for stockpiled resources	Non-Resource Organization	1	Nationally	Federal	Acquire Resources Transport, Track, and Manage Resources
Warehouse system for stockpiled resources	Non-Resource Organization	1	Per State and territory	State	Acquire Resources Transport, Track, and Manage Resources
Warehouse system for stockpiled resources	Non-Resource Organization	1	Per organization	NGO	Acquire Resources Transport, Track, and Manage Resources

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
5. Homeland Security: Information Sharing Responsibilities, Challenges, and Key Management Issues. GAO-03-1165T. U.S. General Accounting Office. September 2003. <http://www.gao.gov/new.items/d031165t.pdf>.
6. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
7. NFPA 30, Flammable and Combustible Liquids Code. National Fire Protection Association, 2003 Edition. <http://nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=30>
8. NFPA 58, Liquefied Petroleum Gas Code. National Fire Protection Association, 2004 Edition. <http://nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=58>

VOLUNTEER MANAGEMENT AND DONATIONS

Capability Definition

Volunteer Management and Donations is the capability to effectively coordinate the use of volunteers and donations in support of domestic incident management.

Outcome

The positive effect of using volunteers and donations is maximized to augment incident operations.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

The capability supports the following Emergency Support Functions (ESFs):

Volunteer and Donations Management Support Annex
 ESF #6: Mass Care, Housing and Human Services

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B1e 1.1	Develop NIMS-compatible plans, policies, and protocols for coordinating the management of volunteers
Res.B1e 1.3.1	Develop plans, policies, and protocols for coordinating the management of donated goods
Res.B1e 1.3.2	Develop plans, policies, and protocols for coordinating the referral of undesignated cash donations
Res.B1e 1.1.8	Develop plan to open and staff a donations call center to accept, match and process offers of goods and services
Res.B1e 1.2.1	Develop system/criteria for evaluating and/or vetting voluntary organizations and/or relief funds
Res.B1e 1.2.2	Develop a list of verified and/or vetted voluntary organizations and/or relief funds
Res.B1e 1.4.1	Develop plans for effective information management communicating with Public Information Officers (PIOs) at all levels
Res.B1e 1.4.2	Develop plans to coordinate with local/State/tribal/Federal government, nongovernmental organizations, and private entities to effectively use volunteers, donated goods and cash donations
Res.B1e 1.4.3	Develop outreach plan designed to educate the preparedness and response community about the functions of the volunteers and donations management capability

Res.B1e 6.2.2	Develop a strategic facilities management plan to identify, staff and operate all facilities including multi-agency warehouse, volunteer and donations coordination center, volunteer reception center(s) and emergency distribution centers	
Res.B1e 1.1.5	Research existing liability issues and laws that affect volunteer utilization.	
Res.B1e 1.1.5.1	Encourage agencies receiving volunteers to clarify their limits on liability protection	
Res.B1e 1.1.6	Determine priority needs and roles required from the volunteers for all-hazards	
Res.B1e 1.1.7	Identify potential volunteer opportunities to expedite community involvement	
Res.B1e 1.1.8.1	Assign toll free number for use at call center	
Res.B.1.e 1.1.9	Develop system or process for ensuring credentialing/accreditation of skilled volunteers	
Preparedness Measures		Metrics
A Volunteer Management and Donations plan that defines needs for and utilization of volunteers is in place		Yes/No
Plans specify the criteria for activating the Volunteer Management and Donations Emergency operations, including establishing a volunteer and donation coordination center (VDCC)		Yes/No
Volunteer Management and Donations plan address the management of material and cash donations (e.g. maintenance of appropriate documentation, referral of undesignated cash donations).		Yes/No
Volunteer Management and Donations plan includes communications requirements (e.g. provide information via website and toll free number for use at call center, advertise points of contact for receiving equipment and technical solutions).		Yes/No
Volunteer Management and Donations plan addresses the management of unaffiliated volunteers (e.g. identify potential volunteer opportunities, determine priority roles and needs for all hazards, research existing liability issues).		Yes/No
Volunteer Management and Donations plan addresses long-term recovery (e.g. allocate donations, assess need for volunteers, brief major donors on re-direction of donations).		Yes/No
Volunteer Management and Donations plan addresses facility management (e.g. identify, staff, operate multi-agency warehouses, volunteer and donations coordination centers, volunteer reception centers, emergency distribution centers).		Yes/No
Volunteer Management and Donations plan addresses the safety, security, and self-sufficiency of facilities and materials		Yes/No
National and State Volunteer Organizations Active in Disaster (VOAD) are established and coordinated with during disaster planning		Yes/No
Cooperative agreements and memoranda of understanding (MOUs) with volunteer management organizations are developed as appropriate		Yes/No
Norms and standards set regarding appropriate, fair and equal allocation of all donated resources to ensure 501 (c) 3 or other determined qualifiers are used		Yes/No
Points of contact for donations are shared with outside jurisdictions, the private sector,		Yes/No

non-government organizations, and the media, as appropriate	
A database is in place to track the status of resources (e.g. when supplies are requested, where supplies will be delivered, constant inventory updates.).	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.B1e 2.2.1	Exercise plans for volunteer management and donations
Res.B1e 2.1.1	Develop and implement awareness-training programs regarding the use of volunteers and donations
Res.B1e 2.2.1.1	Develop and implement exercise and training for the distribution of public information
Res.B1e 2.1.6	Develop just-in-time training program for volunteers to perform required tasks
Res.B1e 2.1.2	Develop and conduct training to improve all-hazard incident management capability
Res.B1e 2.2.2	Conduct an after action review to determine strengths and shortfalls and develop a corrective plan accordingly
Res.B1e 2.1.5	Participate in training exercises with government agencies and other nongovernmental organizations, as appropriate
Res.B1e 2.1.3	Complete relevant Incident Command System and/or National Incident Management System training for appropriate personnel and volunteers
Res.B1e 2.1.4	Conduct internal and external training about the activities and responsibilities of volunteers and donations capability
Preparedness Measures	Metric
Plans to coordinate exercise and training with local/State/tribal/Federal government and nongovernmental organizations are in place	Yes/No
Frequency with which volunteers and donations management plan is exercised	Every 12 months
External awareness training is provided for government and nongovernmental partners	Yes/No
Internal awareness training is provided for staff	Yes/No
Percent of personnel trained to manage required systems, materials and technology per their roles and responsibilities	100%
Percent of donation management team and warehouse personnel trained on distribution plan and procedures	100%

Performance Tasks and Measures/Metrics

Activity: *Coordinate Volunteer Management Operations and the Establishment of Warehouses and Materials Handling Equipment*

Definition: In response to citizens, businesses, and corporations spontaneously volunteering and or/donating goods or cash, provide program to manage response plans.

Critical Tasks	
Res.B1e 3.1	Review and activate State and local plans for donations and volunteers
Res.B1e 3.4.1	Coordinate voluntary support/activities with community/tribal leadership and liaise with local agencies
Res.B1e 6.2.1	Locate and establish warehouses and materials handling equipment
Res.B1e 6.2.2	Develop a strategic facilities management plan (multi-agency warehouse, emergency distribution centers)
Res.B1e 3.3.1	Establish a liaison with media outlets and other stakeholders (e.g., Congress, Federal agencies) to provide information about volunteers and donations
Res.B1e 3.3.2	Work closely with public information officers (PIOs) to disseminate critical information about appropriate ways to volunteer and donate
Res.B1e 6.2.2.1	Implement a strategic facilities management plan (multi-agency warehouse, emergency distribution centers)
Res.B1e 3.4.2	Coordinate and collaborate with State and national Voluntary Organizations Active in Disasters (VOAD) and its members
Res.B1e 3.5.3	Collaborate with other agencies/organizations/businesses regarding volunteers and donations
Res.B1e 6.1.2	Designate and advertise points of contact for receiving equipment and technical (i.e., communications, logistics, housing, medical) solutions from the private sector, outside jurisdictions, nongovernmental organizations, and volunteers
Res.B1e 4.1.3	Establish a volunteer and donations coordination center (VDCC)
Res.B1e 3.4	Coordinate with agencies offering and/or accepting donations
Res.B1e 3.5.4	Gather donations information about collections, distributions and other events concerning donations from the field to help manage the effect
Res.B1e 3.5.5	Manage large numbers of government and nongovernmental volunteers in disaster
Performance Measures	Metric
Time in which volunteer and donations coordination center is activated	Within 12 hours from incident
Time in which the media and other agencies are provided precise information about volunteer and donation needs and give guidance on appropriate ways to help	Within 24 hours from the end of a disaster or incident

Activity: *Activate Volunteer Management and Donations Emergency Plan*

Definition: In response to an incident, mobilize personnel and facilities to begin processing offers of assistance.

Critical Tasks	
Res.B1e 4.1.2	Activate pre-assigned toll-free numbers
Res.B1e 3.3.2	Work closely with a public information officer to disseminate critical information about appropriate ways to volunteer and donate
Res.B1e 4.2.2	Brief senior leadership and elected officials (government, Federal Coordinating Officer [FCO], Congress staff)
Res.B1e 4.2.3.1	Work with all affected local/State/tribal/Federal governments
Res.B1e 4.1.1	Activate donations/volunteer coordination teams (DVCT)
Res.B1e 4.1.3	Establish a volunteer and donations coordination center (VDCC)
Res.B1e 3.4.2	Coordinate and collaborate with Voluntary Organizations Active in Disaster (VOAD), its members and other vetted agencies/organizations/businesses
Res.B1e 3.1	Review and activate State and local plans for volunteers and donations
Res.B1e 4.1.4	Activate website for receiving monetary donations, and offers of other donations/volunteers
Performance Measures	Metric
Time in which volunteer/donations coordinators are deployed	Within 6 hours from the end of a disaster or incident
Time in which pre-assigned toll-free numbers are activated	Within 12 hours from incident
Points of contact for donations are advertised to outside jurisdictions, the private sector, non-governmental organizations, and the media	Yes/No
Senior leadership and elected officials are briefed	Within 12 hours from incident

Activity: *Organize Volunteers and Assign Them to Disaster Relief Efforts*

Definition: Gather and provide information to efficiently refer volunteers to assigned organizations and agencies per developed tactical plans.

Critical Tasks	
Res.B1e 5.2.1	Operate call centers and websites to gather information and register if possible, unaffiliated spontaneous volunteers
Res.B1e 5.2.4	Match individual volunteers with requests from agencies
Res.B1e 5.2.2	Conduct pre-deployment/pre-assignment briefing for volunteers
Res.B1e 5.3.1	Provide just-in-time training program for volunteers to perform required tasks
Res.B1e 5.5	Coordinate with voluntary agencies
Res.B1e 5.5.1	Coordinate solicitation of skilled volunteers and technical capabilities
Res.B1e 5.2.3	Implement system to check credentialing/accreditation of skilled volunteers if necessary
Res.B1e 5.6	Support response operations using volunteer resources and volunteered technical capabilities

Performance Measures	Metric
Time in which ability is in place to: receive, register and provide information to volunteers (via phone bank, web site virtual call center, etc.)	Within 24 hours from incident
Percent of volunteers who receive briefing	100%
Percent of volunteers who are briefed prior to start of assignment	100%
Percent of volunteers who are matched with assignments per their capabilities and the tactical plan	100%
Percent of volunteers who are referred	100%

Activity: *Collect and Manage Material Donations*

Definition: Once activated, receive and manage unsolicited in-kind donations.

Critical Tasks

Res.B1e 6.1.1	Operate call centers and websites to collect information on material donations
Res.B1e 6.2.1	Locate and establish warehouses and material handling equipment
Res.B1e 6.3	Gather material donations intelligence from the field

Performance Measures	Metric
Time in which a volunteer and donations staging area, including information management technology and communications equipment is established and operational	Within 48 hours from an incident
Time in which a strategic facility management plan is implemented	Within 24 hours from notification of a disaster or impending disaster
Time in which an operational donations management warehouse(s) with professional and volunteer staff is established	Within 24 hours from the establishment of the location of a warehouse

Activity: *Collect and Manage Cash Donations*

Definition: Once activated, refer cash donations to appropriate voluntary organizations.

Critical Tasks

Res.B1e 7.1	Educate the public through press releases on the benefits of cash donations to voluntary agencies
Res.B1e 7.4	Direct cash donations to voluntary agencies supporting the incident
Res.B1e 7.3.1	Coordinate with agencies collecting cash donations
Res.B1e 7.3.2	Collect cash donations
Res.B1e 7.2	Keep appropriate documentation from all undesignated cash/monetary donations
Res.B1e 7.3	Coordinate with verified and/or vetted agencies for the transfer of undesignated cash donations

Performance Measures	Metric
Accuracy in accountability records is established and maintained	Yes/No
Percent of personnel following policies and procedures concerning undesignated cash donations	100%
Percent of personnel following policies and procedures concerning referral of cash donations to appropriate voluntary agencies	100%

Activity: *Coordinate Distribution of Donations*

Definition: Process and disburse goods based on established plan.

Critical Tasks	
Res.B1e 8.2	Manage surge in unsolicited donations and in-kind materials
Res.B1e 8.3	Coordinate with local/State/tribal/Federal government, nongovernmental organizations, and private entities to effectively use unsolicited goods and undesignated cash donations
Res.B1e 8.4	Implement proper accounting policies and protocols to handle cash donations
Performance Measures	Metric
Percent of donated goods that are inventoried	100%
Percent of unneeded and unusable donated goods managed according to developed plans	100%

Activity: *Transition to Long-Term Recovery*

Definition: Period after the incident is determined to be under control and extended care/service plan by partner government agencies and NGOs becomes active

Critical Tasks	
Res.B1e 9.2	Allocate undesignated cash donations and in-kind material donations to long-term recovery effort
Res.B1e 9.3	Assess the long-term needs and requirements for volunteers and donations
Res.B1e 9.4	Coordinate appropriate messages with public information officers and media outlets
Res.B1e 9.5	Brief major donors on transition and redirection of donations
Performance Measures	Metric
Inventory of donations has been completed	Yes/No
Percent of donations re-designated/re-assigned in accordance with donors' intent and/or the donation management plan	100%
Needs and requirements for volunteers and donations for long-term recovery are assessed	Yes/No
Transition is accomplished between the Volunteer/Donations Coordination Center and mass care, EOC management and other agencies/organizations/businesses	Yes/No

Activity: Deactivate Volunteer Management and Donations

Definition: Based on need assessments, deactivate components of the plan (i.e. warehouse, phone bank) when appropriate

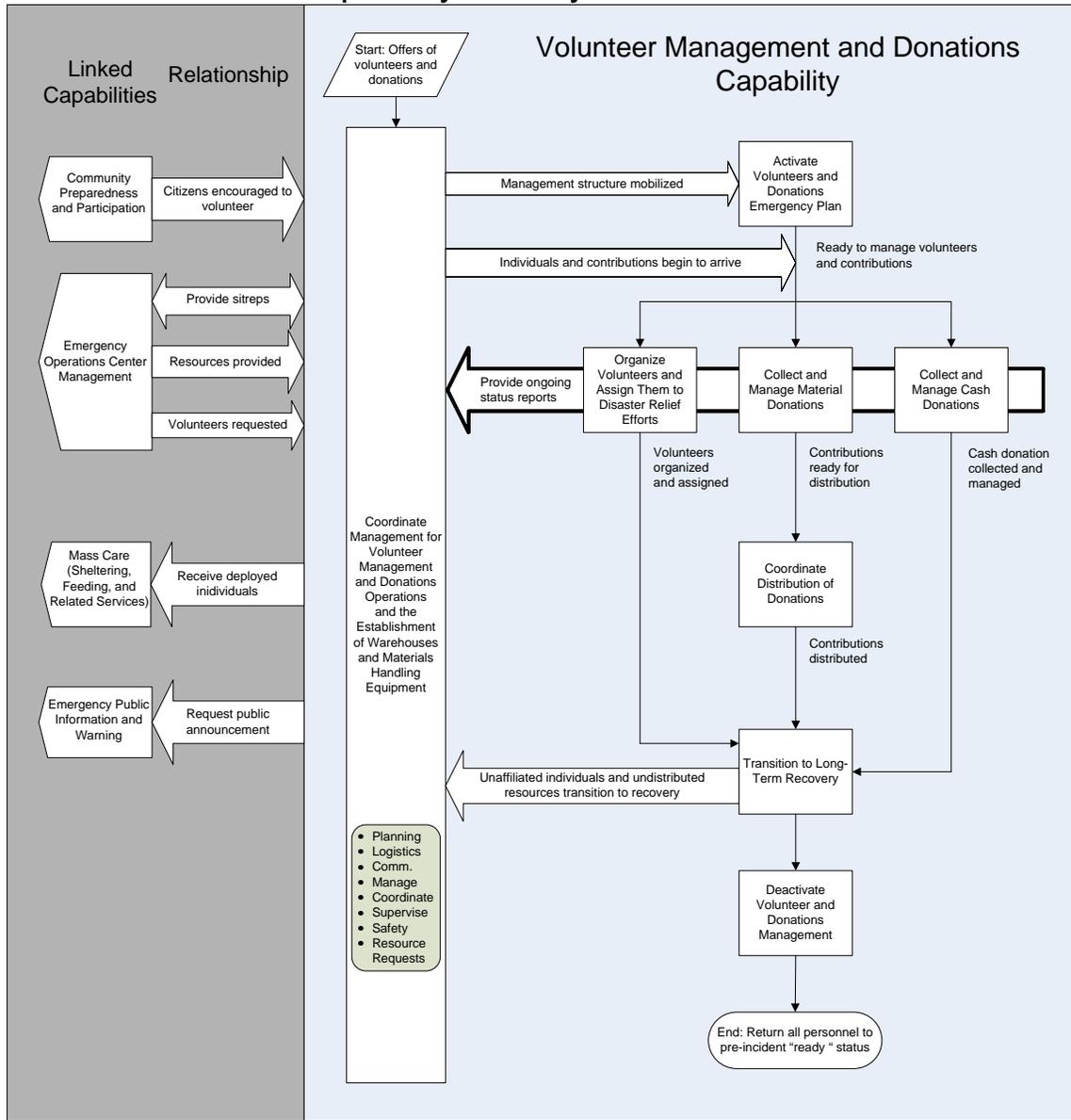
Critical Tasks

Res.B1e 10.3	Conduct appropriate salvage of remaining donated goods once response/recovery phase ends	
Res.B1e 10.1.2	Demobilize deployed volunteers	
Res.B1e 10.1.3	Demobilize volunteered technical capabilities	
Res.B1e 10.1	Close Volunteer/Donations Coordination Center and other facilities such as phone bank and warehouses	
Res.B1e 10.2	Conduct a debriefing of Volunteer Management and Donations personnel	
Performance Measures		Metric
Percent of donations re-designated/re-assigned in accordance with donors' intent and/or the donation management plan		100%
Percent of appropriate personnel debriefed		100%
Stakeholders are provided with information from lessons learned to improve future events		Yes/No

Linked Capabilities

Linked Capability	Relationship
Community Preparedness and Participation	Community Preparedness and Participation brings nongovernmental organizations and entities together with government emergency planners through Citizen Corps Councils to integrate resources from nongovernmental organizations and entities into emergency response operations plans through pre-disaster MOAs and MOUs for pro-bono NIMS-typed resources and NIMS-credentialed volunteers and to develop processes for coordinating unaffiliated volunteers registering into Volunteer Management and Donations. Community Preparedness and Participation provides all-hazards preparedness education and training to develop more resilient community organizations and individuals.
Emergency Operations Center Management	Emergency Operations Center Management provides resources and situation reports to Volunteer Management and Donations, which provides situation reports in return.
Mass Care (Sheltering, Feeding, and Related Services)	Mass Care receives donated goods and individuals referred by Volunteer Management and Donations.
Emergency Public Information and Warning	Volunteer Management and Donations requests public service announcements from Emergency Public Information and Warning.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Volunteer and Donations Coordinator Center (VDCC) and Phone Bank	<p>Capability established pre-incident and activated as needed to handle calls. Personnel: 60 operators (call takers) per shift; 6 supervisors per shift; 1 manager; 1 donation coordination team of 8–10 people with clerical support; 1 volunteer coordination team of 8–10 people to qualify offers of services and develop links to agencies needing volunteers</p> <p>Equipment: networked computer terminals for call takers; access to high-speed Internet; phone bank database on secure Web site with logon, passwords, and varying levels of access; an 800 telephone number with 20–60 line capability; 20+ additional lines for coordination teams; and computers for coordination teams</p>
Volunteer/Donations Coordinator	Per NIMS, there are Type I, II, III, and IV donations coordinators, who manage the VDCC and media relations. The Volunteer and Donations Coordinator possess an operational knowledge of all aspects of donations coordination, including management of volunteers, funds, and goods, from concerned citizens and private organizations following a catastrophic disaster situation.
Donation Coordination Team	Per NIMS, a Donation Coordination Team consists of persons trained and experienced in all aspects of donations management.
Donations Specialist	Per NIMS, an individual who possesses an overall knowledge of all aspects of donations management at all levels. Capable of assisting in the physical establishment of the Volunteer and Donations Coordination Center (VDCC) and the Phone Bank (if required). This includes facility, data management, and internal operations.
Transportation Team	Trucks and drivers to pick up and deliver donated goods
Warehousing Team	One warehouse manager, 4 personnel, and associated equipment

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the major earthquake scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Volunteer Management and Donations will require significant attention immediately following the event. If not promptly and appropriately managed, attention to this activity will demand the diversion of resources away from service delivery.
- Offers of assistance will come from other countries.
- Seasonal considerations include the dead of winter instead of summer.

Scenario-Specific

- Three million are affected, 2.5 million are displaced, 30,000 are killed, and 150,000 are injured.
- Infrastructure failure is pervasive in communications, energy, and water and sewer sectors.
- Resources are needed within 12–48 hours, which can be located regionally. The optimal location should be 15–20 miles from the event site (ground zero). However, damage to infrastructure may dictate otherwise. The Volunteer and Donations Coordination Center and Phone Bank should

generally be located close to the State’s Emergency Operation Center (EOC) for coordination purposes.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Earthquake)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Volunteer and Donations Coordination Center and Phone Bank	Handles 5,000 calls/day 60 operators for 14 hours/day	An average of 2,500 calls come in a day resulting from media blitz; each call averages 10 minutes	60 operators per shift 2 shifts = 120 operators = 2 Teams
Volunteer/Donations Coordinator	Manage centers and media relations.	Manage 2,500 calls per day and provide support to 1,000,000 displaced persons	4 per region
Transportation	1 26-ft. container holds 4 tons	1,000,000 persons are displaced; need 10 pounds of clothing and personal goods per day = 5000 tons per day	1,250 trucks and drivers to pick up and deliver goods
Warehousing Team	1 warehousing team (1 manager and 4 personnel can handle 100,000 tons of material	1,000,000 persons are displaced; need 10 pounds of clothing and personal goods per day = 5000 tons per day	100,000 tons of material for each warehouse

Approaches for Large-Scale Events

Due to the possibility of severely damaged roads, alternative methods of transportation (e.g., helicopters) will need to be considered.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Volunteer/ Donations Coordination Center (VDCC)	Resource organization	1	Per State	NGO	Organize and Assign Volunteers Collect and Manage Material Donations Collect and Manage Cash Donations
Volunteer/ Donations Coordinators	Personnel	4	Per region	NGO	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Transportation	Non-NIMS Resource Organization	As needed	Per incident	State/Local/NGO/Private Sector	Collect and Manage Material Donations
Warehousing Team	Non-NIMS Resource Organization	1 - 6	Per incident	NGO	Collect and Manage Material Donations

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
5. Citizen Corps. U.S. Department of Homeland Security. 2004. <http://www.citizencorps.gov>.
6. National Voluntary Organizations Active in Disaster. 2004. <http://www.nvoad.org>.

RESPONDER SAFETY AND HEALTH

Capability Definition

Responder Safety and Health is the capability that ensures adequate trained and equipped personnel and resources are available at the time of an incident to protect the safety and health of on scene first responders, hospital/medical facility personnel (first receivers), and skilled support personnel through the creation and maintenance of an effective safety and health program. This program needs to comply with the Occupational Safety and Health Administration's (OSHA) "HAZWOPER" standard (29 CFR 1910.120, as implemented by EPA or State authorities) and any other applicable Federal and State regulations. The program also needs to be integrated into the Incident Command System (ICS) and include training, exposure monitoring, personal protective equipment, health and safety planning, risk management practices, medical care, decontamination procedures, infection control, vaccinations for preventable diseases, adequate work-schedule relief, psychological support, and follow-up assessments.

This capability identifies the critical personnel, equipment, training, and other resources needed to ensure that all workers are protected from all hazards, including fire (heat and products of combustion), CBRNE (chemical, biological, radiological, nuclear, or explosive) materials, electrical hazards, collapsed structures, debris, acts of violence, and others.

The Responder Safety and Health capability is a critical component of safe overall emergency management. First responders include police, fire, emergency medical services (EMS), and other emergency personnel, as well as emergency management, public health, clinical care, public works, and other skilled support personnel (such as equipment operators). This extended definition includes a very broad set of workers and a wide range of likely response-related activities, resulting in an increased number of potential hazards and exposures. Building the ability to protect all responders from all hazards is a substantial undertaking that involves prevention, preparedness, response, and recovery efforts.

This capability supports both the Safety Officer position identified in the National Incident Management System (NIMS)/incident command system (ICS) and the Worker Safety and Health Support Annex to the National Response Plan (NRP). The Type 1 Safety Officer described in this capability has yet to be fully defined (to include managing all of the hazards that first responders are likely to face), but the concept used is the same as the "Disaster Safety Manager" described in *Protecting Emergency Responders: Safety Management in Disaster and Terrorism Response* (NIOSH, 2004). In addition, the list of services that are critical for this capability is consistent with the actions specified under the Worker Safety and Health Support Annex and in the *Guidelines for hazmat/WMD Response, Planning and Prevention Training* (FEMA, 2003).

During the response to any incident, employers are responsible primarily for the safety and health of their employees. However, the ICS creates a unified safety and health organization under the Safety Officer. In large-scale incidents, because of the number and varieties of hazards and workers, the Safety Officer would be used more as a Safety Manager. This technical capability therefore does not prescribe a certain level of preparedness for any particular organization; rather, it specifies the need for personal protective equipment (PPE), Safety Officers, and so forth and allows local entities to determine the best way to obtain the needed resources (e.g., through mutual aid, State resources, or Federal resources) for the first 72 hours from the "initial response" operations.

Outcome

No illnesses or injury to any first responder, first receiver, medical facility staff member, or other skilled support personnel as a result of preventable exposure to secondary trauma, chemical/radiological release,

Target Capabilities

infectious disease, or physical and emotional stress after the initial incident or during decontamination and incident follow-up.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs) and Annex:

ESF #3: Public Works and Engineering

ESF #5: Emergency Management

ESF #6: Mass Care, Housing, and Human Services

ESF #8: Public Health and Medical Services

ESF #9: Urban Search and Rescue

ESF #10: Oil and Hazardous Materials Response

ESF #11: Agricultural and Natural Resources

ESF #12: Energy

ESF #13: Public Safety and Security

Worker Safety and Health Support Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B1b 1.1	Develop and adopt agency/jurisdiction safety and health program(s)
Res.B1b 1.2	Conduct a detailed analysis of 15 planning scenarios to ensure that all workers are protected in performing the tasks from all hazards
Res.B1b 1.3	Establish plans and procedures for identifying sources of additional equipment and expertise if the safety and health program is overwhelmed
Preparedness Measures	Metrics
Safety and health program that includes a personal protective equipment (PPE) component that adequately addresses respiratory protection and exposure protection for initial response is in place	Yes/No
Safety and health program addresses acquisition of additional respiratory protection items for reinforced response or long term incidents	Yes/No
Safety and health program that ensures initial responders are equipped with properly maintained PPE in adequate supply is in place	Yes/No
Safety and health program ensures access to backup/cache equipment, when necessary for reinforced on long term incidents	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes procedures to identify and assess hazards	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes detection/exposure monitoring	Yes/No

An agency/jurisdiction safety and health program(s) is in place which includes selection/distribution of PPE	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes health and safety planning	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes risk management practices	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes medical care	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes decontamination procedures	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes infection control	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes vaccinations for preventable diseases	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes adequate work-schedule relief	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes psychological support	Yes/No
An agency/jurisdiction safety and health program(s) is in place which includes medical follow-up assessments	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B1b 2.1.1	Provide all required health and safety training, including pre-incident training , site/incident specific training, and exercises to develop and maintain appropriate knowledge and expertise for responders
ResB1b 2.2.1	Conduct health and safety exercises to develop and maintain appropriate knowledge and expertise for responders

Preparedness Measures

Metric

Percent of responders trained to respond to anticipated emergencies (e.g. 15 planning scenarios)	100%
Safety Officer(s) have the training and experience necessary to manage hazards associated with all 15 planning scenarios	Yes/No
Percent of responders capable of using PPE (e.g., responders are fitted and medically cleared to use necessary PPE) so that they have the necessary health and safety training to perform their anticipated tasks (e.g. awareness level, technician level, etc.) in response to an incident	100%
The pre-incident safety and health training program is evaluated through emergency response exercises (e.g., did each responder have the necessary health and safety training to perform his or her task in the exercise?)	Yes/No
An Incident Specific Health and Safety Plan is developed during exercises as a way to measure responder safety and health readiness. [These plans can include identifying and	Yes/No

assessing hazards, detection/exposure monitoring, selection/distribution of PPE, communication of hazards/protection among response organization, maximum exposure limits, applied engineering controls, incident specific training, medical surveillance/monitoring (including psychological first aid), etc.]	
---	--

Performance Tasks and Measures/Metrics

Activity: <i>Direct Responder Safety and Health Tactical Operations</i>	
Definition: Upon dispatch of responders, provide management and coordination of Responder Safety and Health capability, through demobilization.	
Critical Tasks	
Res.B1b 3.3.1	Monitor routine and emergency communications within the incident command structure at all times
Res.B1b 3.3.2	Maintain routine and emergency communications within the incident command structure at all times during the incident
Res.B1b 3.1	Maintain coordination and communication on safety and health issues between agencies and departments
Res.B1b 3.7	Contribute to development of the incident action plan (IAP) to establish priorities, procedures, and actions to be accomplished to meet the incident objectives
Res.B1b 3.7.1	Develop and review components (e.g., safety analysis, site safety and control plan, medical plan, safety message, etc.) of the IAP
Res.B1b 3.2.2	Contact and work with subject matter experts (SME) from the public/private agencies and academia who may be able to assist with safety issues at the incident
Res.B1b 3.4.2	Assess the availability of resources/assets provided by public, private, and volunteer organizations
Res.B1b 3.4.3	Request additional safety and health resources through mutual aid
Res.B1b 3.6	Coordinate and support decontamination activities
Res.B1b 3.4.5	Utilize ordering systems to obtain additional needed resources
Performance Measures	Metric
Percent of responders injured or falling ill in response to the incident	0%

Activity: <i>Activate Responder Safety and Health</i>	
Definition: In response to Incident Command (IC) recognition of the complexity of hazards in the incident, mobilize and designate Safety Officer to begin operations or continue IC-initiated operations	
Critical Tasks	
Res.B1b 4.1	Designate Safety Officer within the Incident Command System
Res.B1b 4.1.1	Assume responsibility for supervision and management of the Assistant Safety Officer(s) based

	on severity and complexity of the incident	
ResB1b 4.2	Deploy specialized response teams to provide technical assistance to Safety Officer	
Res.B1b 4.3	Ensure ongoing safety and health assessments of response operations	
Performance Measures		Metric
Time in which Safety Officer is designated within the ICS structure (separate from IC, who may hold this role for a period of time)		Within 1 hour from arrival of responders
Time in which deployment actions are initiated for Assistant Safety Officers or Safety SMEs to provide technical assistance to incident safety official		Within 1-3 hours from arrival of responders

Activity: Identify Safety/PPE Needs and Distribute PPE

Definition: Upon appointment as Safety Officer, assess safety and health hazards, inform IC of needs, and develop site-specific safety and health plan

Critical Tasks		
Res.B1b 5.1.2	Observe the scene and review/evaluate hazard and response information as it pertains to the safety of all persons at the location	
Res.B1b 5.4.1	Identify responder safety and health resources required	
Res.B1b 5.4.2	Provide command structure with observation-based recommendations for the safety of on-site personnel	
Res.B1b 5.1	Perform an incident safety analysis	
Res.B1b 5.1.1	Identify and prioritize the operations, hazards, and exposures of greatest risk to site personnel and coordinate with the IC to develop specific actions to address them and protect site personnel	
Res.B1b 5.2	Assist the incident commander (IC) in developing an incident safety and control plan to respond within the capabilities of available response personnel, taking into account available resources such as PPE, monitoring equipment, and control equipment	
Performance Measures		Metric
Percent of hazards detected/identified and characterized		100%
Time in which an initial incident safety analysis is completed		Within 1 hour from responder arrival

Activity: Site/Incident Specific Safety and Health Training

Definition: Site/Incident specific training provides necessary understanding of the hazards identified and assessed in the incident, and the necessary precautions. Site/Incident specific training builds upon pre-incident training, but tailors curriculum to the tasks/hazards of the incident. Site/Incident specific training should reflect policies and procedures specified in the incident specific health and safety plan. Site/Incident specific training needs to have a flexible approach (training may need to be conducted outside of a classroom setting) and should be conducted prior to commencing response activities.

Critical Tasks	
Res.B1b 6.1	Ensure the availability of incident/site-specific training

Res.B1b 6.2	Implement site-specific incident health and safety plan, including after-action care as needed for on-scene personnel	
Res.B1b 6.3	Ensure the provision of appropriate safety and health equipment	
Performance Measures		Metric
Percent of emergency workers responding to an incident who are provided on-site training prior to assignment to work at incident		100%

Activity: Ongoing Monitoring of Responder Safety and Health

Definition: Upon assignment of responders to the incident, maintain continuous monitoring of responder safety and health, proper functioning of PPE and equipment, and awareness of on-site hazards; oversee decontamination; document all actions and injuries/illnesses; and provide for emergency and psychological medical care

Critical Tasks		
Res.B1b 7.1.1	Ensure the availability of incident/site-specific training	
Res.B1b 7.4.3	Implement site-specific incident health and safety plan, including after-action care as needed for on-scene personnel	
Res.B1b 7.4.4	Ensure the provision of appropriate safety and health equipment	
Res.B1b 7.5.2	Assist the IC and ICS staff in implementing exposure monitoring and enforcing safety considerations	
Res.B1b 7.5	Identify and implement all corrective actions necessary to ensure the safety and health of all site personnel	
Res.B1b 7.3	Coordinate with Incident Management/Emergency Operations Center (EOC) to ensure that medical unit is established on site	
Res.B1b 7.5.5	Make recommendation to alter, suspend, or terminate any activity judged to be an imminent danger or immediately dangerous to life and health	
Res.B1b 7.4.1	Monitor hazardous site operations and ensure that personnel perform their tasks in a safe manner and follow the safety-related requirements identified in the IAP	
Res.B1b 7.6	Ensure recording and reporting of any and all injuries and illnesses	
Performance Measures		Metric
Time in which the medical unit is opened and operating within an ICS structure		Within 30 minutes from initial responder's arrival on-site
Percent of personnel wearing the required PPE for site entry and work		100%
Percent of workers who have their representative exposure to hazardous substances quantified and recorded		100%
Percent of personnel who have been decontaminated		100%
Percent of affected personnel treated for injuries and illnesses through a medical unit		100%

Activity: Demobilize Responder Safety and Health

Definition: Upon completion of assigned mission, evaluate responder safety and health status before demobilization and conduct follow-up analysis of health after responder returns to normal duty

Critical Tasks	
Res.B1b 8.1	Conduct post-incident analysis of responder health and safety
Res.B1b 8.2	Monitor psychological and medical status of exposed persons
Res.B1b 8.3	Coordinate with long-term health care to provide comprehensive stress management strategies, programs, worker crisis counseling, substance abuse services, and mental and behavioral health support
Res.B1b 8.1.4	Provide critical incident stress management (CISM) strategies, programs, and teams
Res.B1b 8.1.2	Debrief hazardous materials branch/group and all other exposed personnel on site-specific occupational safety and health issues involving hazardous materials/WMD releases
Res.B1b 8.1.3	Participate in the incident critique process and identify critical safety and health-related observations of incident activities
Performance Measures	Metric
Percent of emergency workers who develop physical symptoms or illness secondary to the incident	0%
Percent of workers with mental health or stress-related symptoms secondary to the incident who are treated	100%
Percent of behavioral hazards identified and mitigated (e.g., human/animal remains are covered)	100%

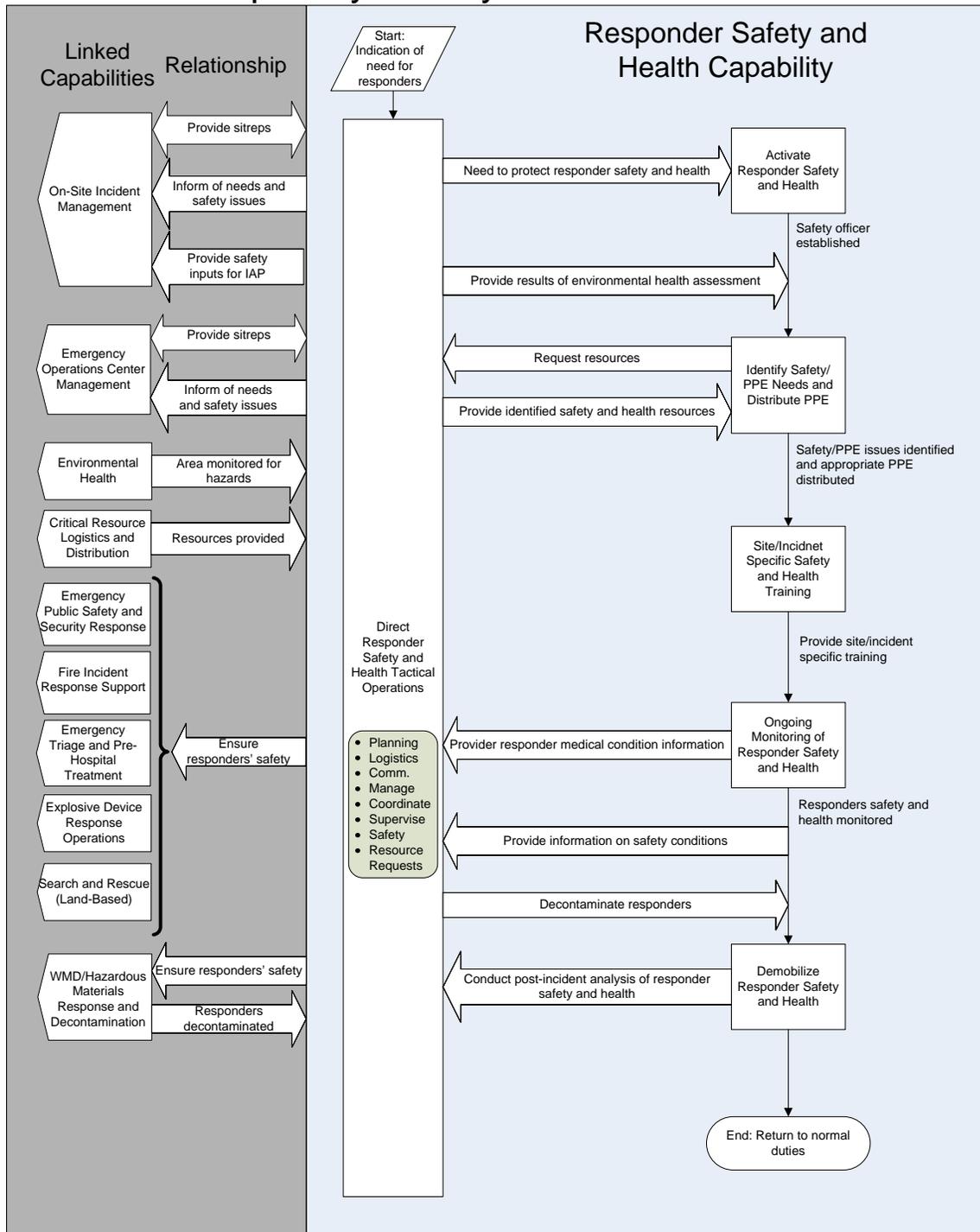
Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	The Incident Commander will be responsible for protecting the safety and health of on-site responders until the Safety Officer is appointed, at which time, the Incident Commander will receive guidance from the Safety Officer.
Emergency Operations Center Management	The EOC may house an Assistant Safety Officer or Safety Manager and serve to coordinate Responder Safety and Health among different entities both on-site and off-site.
Environmental Health	Environmental Health provides awareness training for safety and health hazards through a range of response activities and may also be exposed to on-site safety and health hazards.
Critical Resource Logistics and Distribution	Critical Resource Logistics and Distribution provides supply caches and/or agreements/contracts for the timely delivery of supplies, such as PPE, equipment, and trained personnel.
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides protection for responders, but may also be exposed to on-site safety and health hazards.

Target Capabilities

Linked Capability	Relationship
Fire Incident Response Support	Firefighters and support personnel will be exposed to safety and health hazards posed by the fires, as well as other on-site safety and health hazards.
Emergency Triage and Pre-Hospital Treatment	Responders performing triage and providing treatment will be exposed to safety and health hazards on-site.
Explosive Device Response Operations	Explosive Device Response Operations personnel will need protection from the safety and health hazards posed by the device, as well as from secondary safety and health hazards on-site.
Search and Rescue (Land-Based)	Search and Rescue personnel will be exposed to on-site safety and health hazards.
WMD and Hazardous Materials Response and Decontamination	Personnel responding to hazardous materials or WMD events and providing decontamination services will be exposed to on-site safety and health hazards.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Type I Safety Officer	As defined in the NIMS document, a member of the command staff responsible for monitoring and assessing safety hazards or unsafe conditions, and for developing measures for ensuring personnel safety. The Safety Officer monitors incident operations and advises the IC on all matters related to operational safety, including the health and safety of emergency responder personnel. May appoint Assistant Safety Officers as needed.
Specialized Safety Officer	Specialization needs determined by each Urban Area Security Initiative (UASI) region and county based on their own specialized hazards and risks (e.g., jurisdictions with nuclear reactors may need specialized Safety Officers trained in radiation/nuclear hazards.)
Specialized subject matter experts	To include Certified Industrial Hygienist, Public Health Service, radiological expert, biological expert, engineer, etc.
Analytical laboratories	Laboratory capability to analyze samples of any CBRNE agent per day and to provide supplemental field instruments for hazard detection/characterization
Equipment caches	To include PPE, monitoring/detection equipment
Respiratory Fit-test Mobile Units	Manufacturer approved mobile fit test units to allow for needed fit testing in the field
Medical Unit	See NIMS/FIRESCOPE for definitions
Training centers	Locations (including mobile units) to train (and maintain proficiency of) all responders up to minimum training requirements prior to an incident

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability factors were developed from an in-depth analysis of the aerosolized anthrax scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- The jurisdiction may have limited Safety Officers with high-level expertise and experience in a specialized subject area, such as radiation, hazardous materials (HazMat), building/structure collapse, biohazard, and so forth.
- Mental health services will be sought by victims and responders in and near the affected area, as well as (on a lesser scale) throughout the Nation.
- Standards, training, and certification are limited for high-level (national-State) Safety Officers.
- Various Federal and State safety and health laws and regulations and related national consensus standards may overlap with one another, conflict in their requirements, and have gaps in their requirements or coverage. This program assumes compliance with the Occupational Safety and Health Administration's (OSHA) "HAZWOPER" standard (29 CFR 1910.120, as implemented by EPA or State authorities) and any other applicable Federal and State regulations.
- The larger and/or more complex the incident, the more likely that the local initial first responders' safety and health programs will be unable to cope effectively and will need outside assistance from regions, State and Federal agencies.
- The more unusual or out of the ordinary the incident, the more likely the local initial first response safety and health programs will be less able to cope effectively and will need outside assistance from regions, State and Federal agencies.

- Limited funding, staffing and levels of equipment will negatively impact an agency/jurisdiction's ability to train and sustain appropriate levels of training.
- The larger and/or more complex the incident, the more likely that the designation of a Safety Officer and Assistant Safety Officers will be needed.
- The more unusual or out of the ordinary the incident, the more likely that the Safety Officer will need assistance Safety Officers and Safety SMEs and that outside assistance from private sector, academia, regions, State and Federal agencies will be needed.
- The larger and/or more complex the incident, the more likely there will be a significant need for safety and health management at the incident scene(s).
- With insufficient training or PPE, responders may become injured or ill. Responders cannot work due to lack of PPE or training.
- Additional training and/or PPE may be needed to address new hazards/new employees.
- The larger and/or more complex the incident, the more likely that there will be a significant need for safety and health management during demobilization.
- The more unusual or out of the ordinary the incident, the more likely the demobilization plan will need outside assistance from the private sector, academia, regions, State and Federal agencies.
- The affected jurisdiction may have limited, inappropriate, expired, or unserviceable PPE and training.
- Respirator-fit test documentation, fit tests with the variety of equipment available at the time of the incident, and the capability to conduct fit testing during a disaster will be limited. Even if persons are fit tested at their home agency, proof may not be available onsite at a disaster requiring additional fit testing.
- Cross-training in the use of dissimilar PPE is limited. Responders may not have appropriate training for the additional equipment available at the time of and issued at the scene of a major disaster to supplement their initial response cache; it may differ from their home agency equipment.
- Immediate response organizations will be required to support the incident in its entirety until Federal-State safety assets become available.
- Local, regional, and State response agencies will have access to specialized resources from public- and private-sector agencies and academia.
- Data enabling the recognition/characterization of hazards associated with the incident may not be immediately available. Field instrumentation and laboratory analysis may be necessary to fully characterize hazards.
- All safety and health plans should be in place and enforced for day-to-day operations. Catastrophic incidents will cause the readdressing of day-to-day safety and health policies and plans caused by the scope, complexity, or uniqueness of the incident(s).

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Aerosol Anthrax)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Type I Safety Officer	1 per shift	3 shifts per day	3 per day
Specialized Safety Officer(s)	1 per team deployed	20 teams deployed	20

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Specialized Subject Matter Experts	i.e., 1 biological expert		As required by incident
Analytical laboratories	100 samples per day per laboratory	500 samples per day	5 analytical labs
Equipment caches	1 SCBA, PAPR or P100 respirator per shift per responders	3 shifts/day 3 days 50 Responders @SCBA 500 Responders @PAPR 450 Responders @P100	450 SCBAs 4,500 PAPRs 4,050 P100s
Respiratory fit-test mobile units	1 per team deployed	20 teams deployed	20 respiratory mobile fit test units
Medical Unit	1 medical unit per 5 teams deployed	20 teams deployed	4 medical units

Approaches for Large-Scale Events

All response organizations would need to be included in a single incident command system (ICS). A single “all-hazards” Safety Officer is designated by the IC to manage all safety operations associated with the incident. Assistants (e.g. specialized Safety Officers, SMEs, employer representatives, employee representatives) to the Safety Officer are designated and made part of response teams. All employers whose personnel are involved in the response are represented in the safety management structure. Equipment caches are based on local quantities, regional quantities (through mutual aid), State caches (interstate mutual aid), and national caches (e.g., pre-positioned equipment program). Sources of equipment and notification/transportation of equipment have been addressed in advance. All responders need the specified training (e.g., technicians, operations, and specialists) prior to the incident. Federal responders would follow the *National Response Plan (NRP)*, including the Worker Safety and Health Support Annex. State and local response plans include worker safety and health coordination that is consistent with the actions specified under the Worker Safety and Health Support Annex.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Type I Safety Officer	NIMS Personnel	300	Nationally	Federal/State/Local	Activate Responder Health and Safety Identify Safety/PPE Needs and Distribute PPE to responders Ongoing monitoring of

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Responder Health and Safety Demobilize
Specialized Safety Officer	Non-NIMS Personnel	400	Nationally	Federal/State/Local	Identify Safety/PPE Needs and Distribute PPE to responders Ongoing monitoring of responder health and safety
Specialized Subject Matter Experts	Non-NIMS Personnel	800	Nationally	Federal/State/Local	Identify Safety/PPE Needs and Distribute PPE to responders Ongoing Monitoring of Responder Health and Safety
Analytical laboratories	Non- NIMS Resource Organization		Nationally	Federal/State/Local/Private Sector/Academia	Identify Safety/PPE Needs and Distribute PPE to responders Ongoing Monitoring of Responder Health and Safety
Equipment caches	Equipment			Federal/State/Local/Private Sector/Academia	Identify Safety/PPE Needs and Distribute PPE to responders
Medical Unit	NIMS Resource Organization	1	One per incident, increased by scope, complexity and uniqueness	Federal/State/Local/Private Sector	Ongoing Monitoring of Responder Health and Safety
Training Centers	Training	25	per State	Federal/State/Local/Private Sector/Academia	<i>Develop and Maintain Training and Exercise Programs</i>

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. Worker Safety and Health Support Annex. U.S. Department of Homeland Security. December 2004

3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
5. OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances. Occupational Safety and Health Administration. January 2005 http://www.osha.gov/dts/osta/bestpractices/firstreceivers_hospital.html.
6. Crisis Counseling and Assistance Training Program Guidance. Substance Abuse and Mental Health Services Administration, National Mental Health Information Center. 2004. <http://www.mentalhealth.samhsa.gov/cmhs/EmergencyServices/progguide.asp>.
7. Protecting Emergency Responders, Volume 3: Safety Management in Disaster and Terrorism Response. National Institute for Occupational Safety and Health/RAND. NIOSH Publication Number 2004-144. May 2004. <http://www.cdc.gov/niosh/docs/2004-144>.
8. NFPA 1500: Standard on Fire Department Occupational Safety and Health Program. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1500>.
9. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1500>.
10. NFPA 1521, Standard for Fire Department Safety Officer. National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1521>
11. NFPA 1581, Standard on Fire Department Infection Control Program. National Fire Protection Association, 2005 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1581>
12. NFPA 1582, Standard on Comprehensive Occupational Medical Program for Fire Departments. National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1582>
13. NFPA 1583, Standard on Health-Related Fitness Programs for Fire Fighters. National Fire Protection Association, 2000 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1582>
14. NFPA 1584, Recommended Practice on the Rehabilitation of Members Operating at Incident Scene Operations and Training Exercises. National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1584>
15. Guidelines for HazMat/WMD Response, Planning and Prevention Training. Federal Emergency Management Agency. April 2003. http://www.wetp.org/Wetp/public/dwloads/HASL_1465dnlfiler.PDF.
16. DHS, Office for Domestic Preparedness. Metropolitan Medical Response System (MMRS) Program. <http://fema.mmrs.gov>.

EMERGENCY PUBLIC SAFETY AND SECURITY RESPONSE

Capability Definition

Emergency Public Safety and Security Response is the capability to reduce the impact and consequences of an incident or major event by securing the affected area, including crime/incident scene preservation issues as appropriate, safely diverting the public from hazards, providing security support to other response operations and properties, and sustaining operations from response through recovery. Public Safety and Security Response requires coordination among officials from law enforcement, fire, and emergency medical services (EMS).

Outcome

The incident scene is assessed and secured; access is controlled; security support is provided to other response operations (and related critical locations, facilities, and resources); emergency public information is provided while protecting first responders and mitigating any further public risks; and any crime/incident scene preservation issues are addressed.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports Emergency Support Function (ESF) #13: Public Safety and Security.

Preparedness Tasks and Measures/Metrics

Activity: Plan for Public Safety and Security Response During Large-Scale, All-Hazards Events	
Definition: Review existing and/or develop new strategies, plans, procedures, programs, or systems to respond to large-scale, all-hazards events	
Critical Tasks	
Res.B3d 1.2	Review, revise, and develop public safety policies, protocols, and procedures to be implemented to effect a command and control structure, consistent with NIMS
Res.B3d 1.2.2	Develop plans and procedures to ensure interoperable communications during public safety and security response
Res.B3d 1.2.3.1	Enter into interagency agreements and memoranda of understanding with appropriate surrounding agencies and jurisdictions, with the legal authority of the jurisdiction, to ensure adequate response and access to supplemental personnel
Res.B3d 1.2.3.2	Identify required resources and enter into contracts, as appropriate, to access and provide required resources during a crisis response to shelter, feed, and maintain a significant cadre of public safety and other related first responders
Res.B3d 1.2.1	Review and improve, as appropriate, standard operating procedures for the notification and mobilization of public safety resources during a crisis response

Res.B.3d 1.2.4	Review and improve, as appropriate, standard operating procedures for information sharing to the public, to the media, and to support agencies	
Res.B3d 1.4.1	Review and improve existing planned evacuation routes and staging areas to determine sufficient public safety resources required to establish and maintain perimeters, safety zones, and public order as well as facilitate evacuations and/or sheltering-in-place activities	
Res.B3d 1.4.2	Review plans for decontamination sites and access to decontamination equipment, including personal protective equipment for responders	
Res.B3d 1.4.3	Ensure hospital and medical supply resources, as well as other key infrastructure, have been identified, and agreements exist or are drafted regarding the maintenance of security at these facilities during a crisis response	
Res.B3d 1.4.4	Review and develop as appropriate, in coordination with legal counsel, such as the city/county attorney’s and/or State Attorney General Office, policies regarding public safety enforcement actions required to maintain the public order during a crisis response, to include teams of enforcement officers for handling of persons disrupting the public order, violating laws, requiring quarantine, and so forth	
Res.B3d 1.4.1.1	Develop and document, in conjunction with correctional and jail officials, coordination strategies for managing and possibly relocating incarcerated persons during a crisis response	
Res.B3d 1.4.4.1	Identify and enter into agreements to secure the resources needed for the processing and temporary detention of law violators	
Res.B3d 1.4.2.1	Review existing and develop protocols as appropriate for the operation of decontamination sites, and out-processing areas	
Res.B3d 1.4.5	Establish a recovery strategy to access reimbursable opportunities, replenish supplies and equipment, re-assign personnel, and return to normal operation	
Preparedness Measures		Metrics
Multi-disciplinary law enforcement and public safety agency planning teams have been established, per NIMS compliance.		Yes/No
Interoperable communications plans with all necessary parties are in place		Yes/No
Plans for providing security for the public and properties on and around an incident site are in place		Yes/No
Plans incorporate the anticipated security demands of government, non-government, and private sector stakeholders		Yes/No
Plans for supporting public safety in and around an incident site are in place		Yes/No
Plans include establishment of staging areas for law enforcement prior to entering site		Yes/No
Systems are in place or available to maintain accountability of personnel, track hot zone locations, and track resources		Yes/No
Plans for sheltering, housing, and feeding law enforcement personnel are in place		Yes/No
Plans for the post-incident provision of temporary prisoner holding facilities and arrest processing documentation are in place		Yes/No
Plans identify and provide for the resources necessary to maintain operations in an “all hazards” environment (e.g., electrical generators, personal protective equipment, communications equipment, etc.)		Yes/No
Plans address demobilization of public safety operations (replenishing supplies, re-assigning personnel)		Yes/No

Activity: *Determine appropriate training and exercises necessary to address gaps*

Definition: Review existing training programs. Compare needs and gaps against available training assets.

Critical Tasks	
Res.B3d 2.1.1	Identify gaps in personnel training at the awareness and first response operational level, to include familiarity with the expectations of and demands on the public safety responders as set forth in agency plans, protocols, and procedures for a crisis response
Res.B3d 2.1.2	Identify existing training resources and opportunities available at the Federal, State, and local level
Res.B3d 2.1.3	Develop a training strategy for all personnel
Res.B3d 2.2.1	Develop a strategy, in coordination with area jurisdictions, to participate in and/or conduct exercises which incorporate all existing response requirements, identify gaps, develop improvement plans, and implement preparedness enhancements
Preparedness Measures	Metric
Percent of public safety and security personnel trained at the awareness level	100%
Percent of public safety and security personnel identified in the training strategy as requiring training at the operational level are trained	100%
Frequency with which exercises to test public safety and security operations are conducted	Every 12 months

Performance Tasks and Measures/Metrics

Activity: *Command and Control Public Safety and Security Response Operations*

Definition: In response to a notification for security assets, establish the management and coordination of the Public Safety and Security Response, from activation through to demobilization

Critical Tasks	
Res.B3d 3.1.1	Identify personnel needed to maintain security support and response
Res.B3d 3.1.3	Establish staging areas for law enforcement to conduct deputization, personnel assignment, and briefing prior to entering the impacted area.
Res.B3d 3.5	Communicate with other response agencies regarding public safety response
Res.B3d 3.1.2	Deploy appropriate personnel for public safety and security
Res.B3d 3.1.2	Deploy appropriate relief personnel for public safety and security
Res.B3d 3.2	Coordinate public safety and security operations with Incident Command/Unified Command
Res.B3d 3.3.3	Arrange for shelter, housing, and feeding for law enforcement responders
Res.B3d 3.3.2	Arrange for proper sheltering, care, and feeding of detainees
Res.B3d 3.3.4	Utilize available technologies to maintain accountability of personnel, track hot zone locations, and track resources

Performance Measures	Metric
Time in which safety and security plans and procedures are implemented	Within 1 hour from incident
Percent of first responders at the incident receiving communication about the site-safety plan	100%
Time in which sufficient relief personnel are deployed to maintain public safety throughout a long-term incident (relief needed is estimated at 50 percent of total uniformed (patrol) staffing of a jurisdiction having primary responsibility for the incident)	Within 12 to 15 hours from initial deployment
Accountability is maintained, hot zone locations are track, and resources are tracked	Yes/No

Activity: Activate Public Safety and Security Response

Definition: Upon notification, mobilize and deploy to begin operations

Critical Tasks

Res.B3d 4.1	Conduct a public safety and security response
Res.B3d 4.1.3	Establish or integrate into Incident Command/Unified Command (IC/UC)
Res.B3d 4.1.1	Coordinate and receive instructions from tactical operations
Res.B3d 4.1.2	Ensure that responders have the appropriate equipment to perform assigned tasks

Performance Measures	Metric
Time in which sufficient personnel to perform public safety and security duties are deployed <i>Small local incidents: use on-duty and mutual aid personnel</i> <i>Large-scale incidents: Target should be equal to 50 percent of total uniformed (patrol) staffing of jurisdiction having primary responsibility for the incident</i>	Within 12 hours from initial deployment
Percent of responding public safety personnel who are self-sufficient (bring their own sleeping/eating/ restocking supplies) for a period up to 7 days	100%

Activity: Assess the Incident Scene and Secure the Area

Definition: Upon arriving on scene, assess for immediate rescue needs, for remaining safety and security threats, and initiate security operations. Identify and implement protective actions for high priority key facilities or resources that may require heightened security.

Critical Tasks

Res.B3d 5.1	Secure the incident site
Res.B3d 5.2.2	Determine the appropriate emergency medical personnel to respond on-site for injuries and fatalities
Res.B3d 5.1.1	Identify and establish inner most incident/crime scene perimeters

Res.B3d 5.1.2	Document observations regarding the affected area	
Res.B3d 5.1.3	Report findings to IC/UC upon deployment of specialized LE teams	
Res.B3d 5.2.3	Develop and maintain a rapid intervention group to respond to unexpected occurrences	
Performance Measures		Metric
Time in which the incident site is secured		Within 30 minutes from initial units arrival on scene
Hot, warm, and cold zones are identified and segregated		Yes/No
On scene personnel accountability system is implemented		Yes/No

Activity: Control Traffic, Crowd, and Scene

Definition: Direct/redirect traffic and pedestrians out of the affected area(s). Assess, coordinate, and establish force protection and perimeter zones, maintain a visible and effective security presence to deter criminal conduct and maintain law and order

Critical Tasks		
Res.B3d 6.1	Identify and establish an incident perimeter and zones	
Res.B3d 6.1.1	Identify security zone requirements	
Res.B3d 6.2	Establish force protection capacity integrated within incident command system (ICS)	
Res.B3d 6.2.1	Provide force protection for emergency response personnel to allow them to operate safely	
Res.B3d 6.1.3	Provide and plan for access to the site for skilled support personnel	
Res.B3d 3.4	Implement and maintain an on-scene personnel identity management system	
Res.B3d 6.2.5	Secure animals during an animal health emergency	
Res.B3d 6.1.2	Identify and secure critical sites, including hospital, shelters, points of distribution (PODs) etc.	
Res.B3d 6.2.2	Plan and provide protection and security for unoccupied/evacuated properties within and around the incident site	
Res.B3d 6.3	Control traffic and crowds	
Performance Measures		Metric
Percent of incident site control zones/points that are clearly identified and staffed		100%
Perimeter zones are coordinated jointly by hazardous materials personnel, fire/rescue, and law enforcement		Yes/No
Time in which all traffic control and alternative ingress/egress routes are identified and staffed		Within 30 minutes from initial units arrival on scene
Percent of new or secondary injuries to the public and first responders at or around the incident site		0%
Percent of damaged buildings and debris blocking emergency response		100%

ingress/egress removed	
Time in which stoppage of all non-critical cargo and passenger rail, maritime, and highway transportation into incident area is coordinated	Within 1 hour from incident

Activity: <i>Maintain Public Order</i>	
Definition: Provide a visible law enforcement presence at key locations within the affected area. Protect people and property, and deter criminal activity	
Critical Tasks	
Res.B3d 7.1	Assess situation for public order related concerns
Res.B3d 7.3	Implement plans for Emergency proclamations, martial law, curfew declarations, and other legal issues
Res.B3d 7.1.1	Conduct an initial reconnaissance of the area
Res.B3d 7.2	Coordinate with appropriate unit and develop a plan of action
Res.B3d 7.4.1	Conduct tactical deployment
Res.B3d 7.4.2	Use tactical operations teams to conduct searches of high priority unsecured sites to establish security and detain lawbreakers as necessary
Res.B3d 7.5	Maintain security operations
Res.B3d 7.1.2	Request assets required to provide security
Res.B3d 7.5.1	Provide security for public officials and investigation teams
Res.B3d 7.5.2	Institute and conduct security operations controlling personnel who are allowed to enter damaged and condemned buildings and the contents that they are allowed to remove
Performance Measures	
Time in which search and/or apprehension procedures are initiated and conducted	Metric
	Within 30 minutes from the notification or witnessing of suspected criminal activity

Activity: <i>Conduct Law Enforcement Operations</i>	
Definition: Upon notification or suspicion of criminal activity, identify, and take appropriate enforcement action with lawbreakers at or around the incident site	
Critical Tasks	
Res.B3d 8.1	Coordinate with investigators to interview witnesses/bystanders in order to identify suspects
Res.B3d 7.4.2	Use tactical operations teams to conduct searches of high-priority unsecured sites to establish security and detain lawbreakers as necessary
Res.B3d 8.3	Make arrests as necessary
Performance Measures	
	Metric

Appropriate and timely enforcement action are taken	Yes/No
---	--------

Activity: Manage Criminal Justice Population	
Definition: Manage criminal justice population to include incarcerated persons, those under criminal justice supervision, and tactically arrested individuals in the affected area	
Critical Tasks	
Res.B3d 9.1	Establish mobile arrest and processing sites for arrestees
Res.B3d 9.1.1	Provide space in mobile arrest and processing site/area for: finger printing and photos, desk space, interview area, property storage, secure storage for valuables and/or evidence, isolation area for violent detainees, and secure area for vehicles
Res.B3d 9.2.1	Process those arrested (photos, fingerprinting) and document arrests
Res.B3d 9.2.2	Set up improvised holding cells to manage detainees
Res.B3d 9.2.3	Detain those arrested (in improvised holding cells)
Res.B3d 9.2.3.1	Provide detainee supervision 24/7 for the length of the incident
Res.B3d 9.2.3.2	Ensure holding facilities have provisions for food, access to drinking water and toilet facilities, and trash removal
Res.B3d 9.2.3.3	Establish system for documenting, securing, storing, transporting, and releasing detainee property
Res.B3d 9.2.3.4	Establish system to track detainee movement – in-coming, transfers, and releases
Res.B3d 9.2.3.5	Distribute notification of the destination holding facility
Res.B3d 9.2.3.6	Provide space for Prosecutors/Public Defenders to meet with operations staff and/or detainees
Res.B3d 9.2.4	Transport detainees to secure lock-up facility
Res.B3d 9.2.5	Ensure that established procedures for transfer of detainees during major emergencies are followed
Res.B3d 9.3.1	Designate alternate facilities to ensure continued operations by local, tribal, State, and Federal prosecutors/public defenders
Res.B3d 9.3.2	Set up improvised court facilities to ensure local, tribal, State, and Federal court services continue
Res.B3d 9.3.3	Implement protocols for contacting appropriate parole/probation agencies of any changes in residency status
Res.B3d 9.3.4	Establish protocols for alternate housing facilities for local, State, and Federally incarcerated prisoners
Res.B3d 9.3.5	Establish equipment lists and mobile booking kits and store at strategic locations
Res.B3d 9.3.5.1	Inventory mobile booking kits on a regular basis to ensure that equipment and materials have not been removed or damaged and remain in working order
Res.B3d 9.3.6	Ensure the capacity to run records checks for warrants, holds on detainees, and terrorist lists

Performance Measures	Metric
Time in which an arrest processing team is identified and equipped to intake, process, and document a large number of arrests	Within 1 hour from initial deployment
Time in which temporary holding cells for those arrested are coordinated and established	Within 2 hours from initial deployment
Time in which prisoner transport is coordinated and established	Within 2-4 hours from initial deployment
Time in which alternate facilities for prosecutor/public defenders are coordinated and established	Within 2 hours from initial deployment
Time in which alternate facilities for court services are coordinated and established	Within 2 hours from initial deployment
Time in which alternate housing facilities for local, State, Federally incarcerated prisoners are coordinated and established	Within 1 hour from initial deployment

Activity: Demobilize Public Safety and Security Response Operations	
Definition: Return to normal operations	
Critical Tasks	
Res.B3d 10.1.1	Clear the incident scene upon completion of assigned temporary duties, or as directed by superiors
Res.B3d 10.1.2	Return local forces to regular service
Res.B3d 10.1.3	Recall temporary assistance resources to staging areas for out processing
Res.B3d 10.3	Conduct decontamination of all out processing personnel and equipment
Res.B3d 10.3.1	Identify public safety and security assets required for decontamination activities
Res.B3d 10.3.2	Coordinate with hazmat personnel to establish decontamination sites
Res.B3d 10.3.3	Coordinate with hazmat personnel to decontaminate affected public safety facilities and equipment
Res.B3d 10.2.1	Debrief all out processing personnel
Res.B3d 10.4.1	Activate reimbursement process for public safety and security resources
Res.B3d 10.4.2	Receive and process reimbursement requests
Res.B3d 10.4.3	Process compensation claims and related administrative activities
Res.B3d 10.5.1	Rehabilitate and replenish public safety and security resources
Res.B3d 10.5	Reconstitute personnel and equipment
Res.B3d 10.2.2	Participate in incident debriefing
Res.B3d 10.1.4	Identify staff needs dependant upon their upon their level of involvement and/or hours committed to the incident

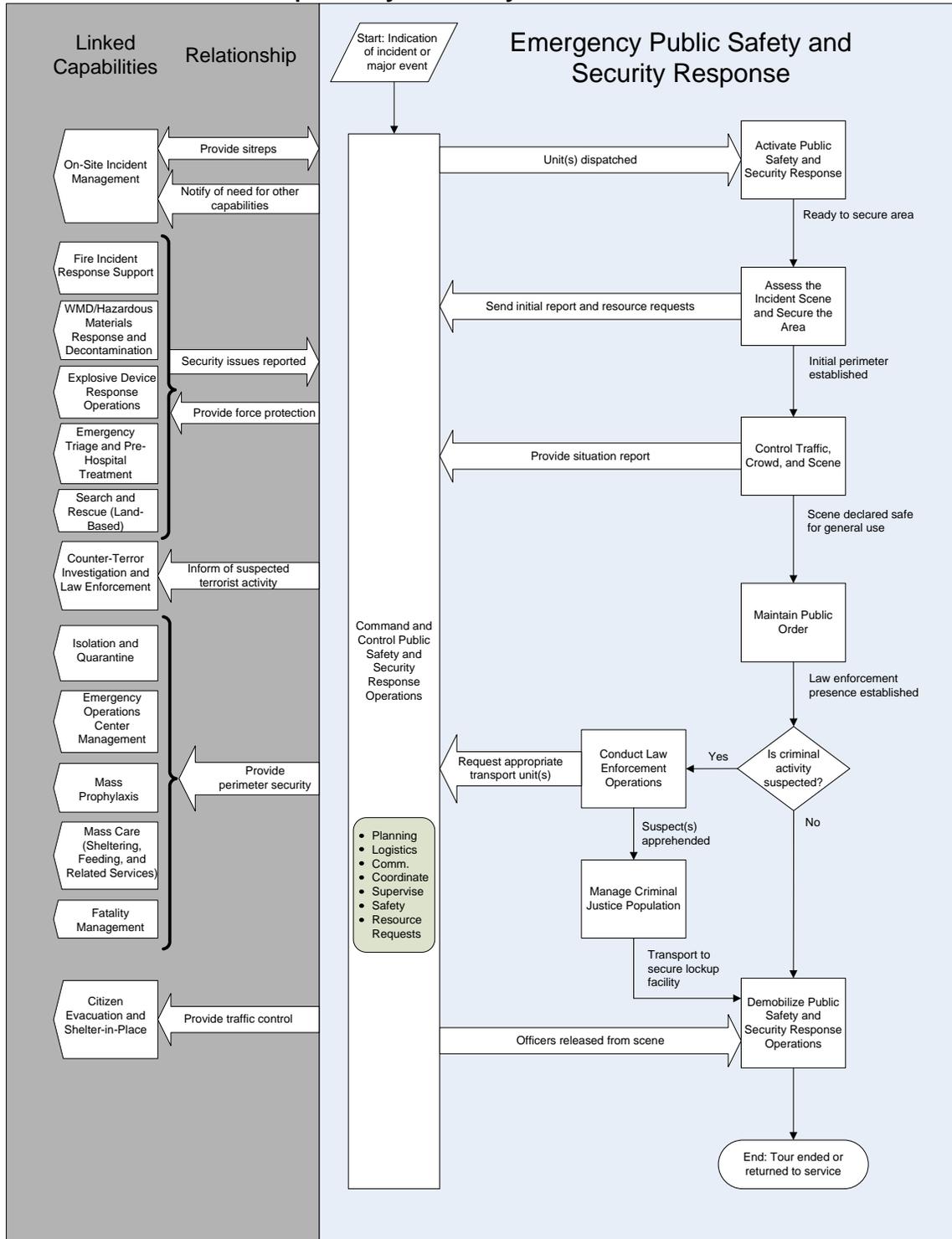
Res.B3d 10.2	Decontaminate, debrief, and out-process law enforcement personnel prior to leaving the impacted area	
Performance Measures		Metric
Time in which public safety personnel are restored to normal or original operations		Within 12 hours from start of demobilization
Percent of public safety and security response personnel debriefed		100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Emergency Public Safety and Security Response provides the notification of the need for other capabilities to On-Site Incident Management, and they both provide situation reports to each other
Fire Incident Response Support	Emergency Public Safety and Security Response provides force protection to Fire Incident Response Support, while Fire Incident Response Support reports security issues to Emergency Public Safety and Security Response
WMD and Hazardous Materials Response and Decontamination	Emergency Public Safety and Security Response provides force protection to WMD and Hazardous Materials Response and Decontamination, while WMD and Hazardous Materials Response and Decontamination reports security issues to Emergency Public Safety and Security Response
Explosive Device Response Operations	Emergency Public Safety and Security Response provides force protection to Explosive Device Response Operations, while Explosive Device Response Operations reports security issues to Emergency Public Safety and Security Response
Emergency Triage and Pre-Hospital Treatment	Emergency Public Safety and Security Response provides force protection to Emergency Triage and Pre-Hospital Treatment, while Emergency Triage and Pre-Hospital Treatment reports security issues to Emergency Public Safety and Security Response.
Search and Rescue (Land-Based)	Emergency Public Safety and Security Response provides force protection to Search and Rescue (Land-Based), while Search and Rescue (Land-Based) reports security issues to Emergency Public Safety and Security Response.
Counter-Terror Investigation and Law Enforcement	Emergency Public Safety and Security Response provides information on suspected terrorist activity to Counter-Terror Investigation and Law Enforcement
Isolation and Quarantine	Emergency Public Safety and Security Response provides perimeter security to Isolation and Quarantine
Emergency Operations Center Management	Emergency Public Safety and Security Response provides perimeter security to EOC Management
Mass Prophylaxis	Emergency Public Safety and Security Response provides perimeter security to Mass Prophylaxis
Mass Care (Sheltering, Feeding, and Related Services)	Emergency Public Safety and Security Response provides perimeter security to Mass Care
Fatality Management	Emergency Public Safety and Security Response provides perimeter security to

Linked Capability	Relationship
	Fatality Management
Citizen Evacuation and Shelter-In-Place	Emergency Public Safety and Security Response provides traffic control to Citizen Evacuation and Shelter-In-Place, and coordinates the evacuation of incarcerated populations

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Law Enforcement officers for crowd control	Uniformed/sworn, reserve, volunteer, and in-training officers to control a large crowd in a high-density area
Law Enforcement officers for traffic control	Uniformed/sworn, reserve, volunteer, and in-training officers to control traffic from entering and leaving the affected areas.
National Guard	To augment crowd control, traffic control, and hard target security.
Private security company personnel	Supplement personnel to allow local law enforcement to perform law enforcement duties

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Radiological Dispersal Device scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including accidental or deliberate disease outbreaks, natural disasters, and nuclear and conventional events.
- If the catastrophic incident results from terrorism, the Homeland Security Advisory System (HSAS) level will likely be raised regionally, and perhaps nationally. Elevation of the HSAS level requires additional local, State, and Federal security enhancements that may affect the availability of certain response resources.
- Police will be needed to direct traffic away from the contaminated area, prevent access to the contaminated area, and support movement of the population out of the contaminated area.
- Looting and/or damaging to unattended properties, especially shops and stores by armed hooligans and criminals should be considered.
- Public safety personnel will need to support the evacuation, sheltering, and protection of downwind populations.
- Public safety personnel will support the movement of approximately 35,000 people to shelters. Temporary housing will be needed.
- A decontamination process must be set up. Public safety personnel will be needed to support movement of the population in and out of the decontamination area.

Scenario-Specific

- The use of a radiological dispersion device (RDD) would have local implications on the public safety and security response teams. The assumption is that an RDD would be dispersed within a downtown or highly populated areas. With Washington, D.C., as an example, there are approximately 200–250 people in a single block. If this RDD were to affect an area of 36 blocks or more, 7,500–9,000 people would be affected. It is likely that local, State, and Federal law enforcement agencies would share resources to help contain the area and aid in crowd control for a high population such as this. Yet the States would have to balance the resources between preventing affected personnel from entering into other portions of the State by leaving the site.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Law enforcement officers for crowd control	Capacity to control a large crowd within a downtown area	Sufficient numbers to regulate approximately 200 people per 36 blocks	Sufficient uniformed/sworn, reserve, volunteer, and in-training officers to accomplish the task 80% of officers will come from local sources and 20% will come from State sources.
Law enforcement officers for traffic control	Capacity to control traffic from both entering and leaving the affected areas	Sufficient numbers to regulate approximately 7,000 people, depending on automobile traffic or mass transit numbers	Sufficient uniformed/sworn, reserve, volunteer, and in-training officers to accomplish the task
National Guard	Capacity to supplement local and regional law enforcement agencies	Sufficient to allow local law enforcement to perform law enforcement duties	Appropriate guards to augment law enforcement personnel for crowd control, traffic control, and hard target security (at the World Trade Center, 8,500 were deployed within 24 hours from the attacks)
Private security company personnel	Capacity to supplement local and regional law enforcement agencies	Sufficient to allow local law enforcement to perform law enforcement duties	Appropriate numbers to supplement law enforcement personnel for limited traffic control and provide target security for private sector sites

Approaches for Large-Scale Events

To avoid duplication of resources, chemical, biological, radiological, nuclear, or explosive (CBRNE) and law enforcement resource organizations should cross-train with other capabilities and foster cross-border cooperation.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Law Enforcement Officers for Crowd Control	Personnel	As Needed	Per Incident	State/Local	Secure Area Control traffic, crowd and scene

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Law enforcement officers for traffic control	Personnel	As Needed	Per Incident	State/Local/NGO	Secure Area Control traffic, crowd and scene
National Guard	Federal Resource Organization	As Needed	Per State	State	Secure Area Control traffic, crowd and scene
Private security company personnel	Personnel	As Needed	Per Incident	State/Local	Control traffic, crowd and scene

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. The Office for Domestic Preparedness Guidelines for Homeland Security: Prevention and Deterrence. U.S. Department of Homeland Security, Office for Domestic Preparedness. June 2003. <http://www.ojp.usdoj.gov/odp/docs/ODPPrev1.pdf>.
5. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
6. Compendium of Federal Terrorism Training for State and Local Audiences. Federal Emergency Management Agency and U.S. Department of Homeland Security. 2004. <http://www.fema.gov/compendium/index.jsp>.
7. 2004 Emergency Response Guidebook: A Guidebook for First Responders during the Initial Phase of a Dangerous Goods/Hazardous Materials Incident. U.S. Department of Transportation. <http://HazMat.dot.gov/pubs/erg/erg2004.pdf>.
8. Catalog of Training Programs, 2005-2006. U.S. Department of Homeland Security, Federal Law Enforcement Training Center (FLETC). 2003-2004. <http://www.fletc.gov/cotp.pdf>.
9. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
10. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) Program, <http://mmrs.fema.gov>.

ANIMAL DISEASE EMERGENCY SUPPORT

Capability Definition

Animal Disease Emergency Support is the capability to protect, prevent, detect, respond to, and recover from threats and incidents that would result in the disruption of industries related to U.S. livestock, other domestic animals (including companion animals) and wildlife and/or endanger the food supply, public health, and domestic and international trade. It includes the ability to respond to large-scale national and regional emergencies as well as to smaller-scale incidents through rapid determination of the nature of the event, initiation of the appropriate response, containment of the disrupting effects, and facilitation of recovery.

Outcome

Foreign animal disease is prevented from entering the United States by protecting the related critical infrastructure and key assets. In the event of an incident, animal disease is detected as early as possible, exposure of livestock to foreign diseases is reduced, immediate and humane actions to eradicate the outbreak are implemented, public and animal health and the environment are protected, continuity of agriculture and related business is safely maintained and/or restored, and economic damage is minimized. Trade in agricultural products and domestic and international confidence in the U.S. food supply are safely maintained or restored.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs) and Annexes:

- ESF #1: Transportation (movement of supplies, equipment and carcasses)
- ESF #2: Communications
- ESF #3: Public Works (debris removal)
- ESF #5: Emergency Management
- ESF #6: Mass Care (animal housing)
- ESF #7: Resource Support
- ESF #8: Public Health and Medical Services
- ESF #10: Oil and Hazardous Materials Response (Environmental Protection)
- ESF #11: Agriculture and Natural Resources
- ESF #13: Public Safety and Security
- ESF #14: Long-Term Community Recovery and Mitigation
- ESF #15: External Affairs

Biological Incident Annex

Terrorism Incident Law Enforcement and Investigation Annex

Interim/Draft: Food and Agriculture Incident Annex

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Res.B2d 1.1	Plan and prepare to safeguard animal health
Res.B2d 1.1.1	Develop animal safety and security plans, programs, and agreements
Res.B2d 1.5	Develop plans, procedures, protocols, and systems for control of large scale animal disease events
Res.B2d 1.6	Develop plans, procedures, and protocols for long-term animal health care
Res.B2d 1.5.7	Develop protocols for disposing of infectious agricultural waste
Res.B2d 1.5.5	Develop plans to collect and dispose of infected material to reduce the spread of animal disease
Res.B2d 6.1	Implement programs to safeguard animal health
Res.B2d 1.3	Develop plans, procedures, and policies for coordinating, managing, and disseminating public information
Pre.B2c 1.1	Facilitate the development of processes to improve security at key points and at access points of critical infrastructure
Pre.B2a 1.2	Facilitate the development of processes to improve cargo security and screening capabilities
Rec.A2b 3.2	Manage community assistance programs
Rec.C3b 1.1	Develop community recovery, mitigation, and economic stabilization plans, programs, and procedures
Pre.A1a 5.4	Collect information about threats to the Nation's food supply
Pro.A1a 5.3.2	Conduct vulnerability assessments to assess vulnerability of potential targets to identified threats
Pro.B1b 4	Conduct surveillance for food and agriculture safety and defense
Pre.A1a 3.5.7	Evaluate intelligence and surveillance activities
Pre.A2a 5.2	Prioritize threats
Pre.A1a 3.5.6	Conduct surveillance and information collection and produce intelligence
Pre.B3a 4	Conduct border control operations
Pre.A1e 3.2.1.4	Inspect materials for potential Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) weapons or precursors
Pre.B3a 3.1	Use advanced information, targeting and technology on the ground, on the water, and in the air to prevent the entry of terrorists, terrorist weapons, and other high-risk people and goods between and among States, Tribes, and international trade partners
Pro.A1a 4	Identify critical infrastructure and key assets within the Nation, region, State, or local area
Pro.A1a 5.5.2	Map threat analysis against critical infrastructure to identify and analyze infrastructure asset vulnerabilities and critical risk

Pro.A1a 5.2	Conduct consequence analysis of critical assets and key resources	
Pro.A2a 4.7	Implement deterrence and defense protection measures	
Pro.A3a 4.1.1	Implement detection measures such as inspection surveillance, employee monitoring, and security counterintelligence	
Preparedness Measures		Metrics
Animal disease emergency support plans include a formal process for activating support resources	Yes/No	
Animal welfare organizations (e.g. ASPCA, Humane Society) and other related stakeholders are involved in animal disease emergency planning process.	Yes/No	
Animal disease emergency plans include provisions for animal welfare	Yes/No	
Animal disease emergency plans address transportation of live animals, carcasses, people, pharmaceuticals, and equipment while ensuring bio-security.	Yes/No	
Animal disease emergency plans address procedures for the reduction of the spread of animal diseases (e.g. disposal of contaminated waste, euthanasia of infected animals).	Yes/No	
State Veterinary Service is capable of and authorized to record biological, physical, and chemical agents that can adversely affect animals and their related products	Yes/No	
State Veterinary Service is capable of and authorized to rapidly respond to unexpected pest or disease incursion or other situations that put at immediate risk the sanitary status of the animal populations	Yes/No	
State Veterinary Service is capable of and authorized to prevent the entrance and spread of unwanted pests and diseases in the State	Yes/No	
State Veterinary Service is capable of and authorized to determine, monitor, and verify the sanitary status of the populations covered under its mandate	Yes/No	
State Veterinary Service is capable of and authorized to identify in advance those sanitary problems covered under its mandate, including animal and public health, the environment, or the trade of animals or their related products	Yes/No	
State Veterinary Service is capable of and authorized to update overall service in accordance with the latest scientific advances and based on the sanitary norms and measures of USDA-APHIS, OIE, Codex Alimentarius and the WTO/SPS agreement	Yes/No	
State Veterinary Service is capable of and authorized to inform, in an effective and timely fashion, its users of activities, programs, and sanitary developments	Yes/No	
State Veterinary Service is capable of and authorized to ensure that users are in compliance with the regulatory norms covered under its mandate	Yes/No	
State Veterinary Service is capable of and authorized to formulate and adopt regulatory norms for processes and products covered under its mandate	Yes/No	
State Veterinary Service is capable of and authorized to ensure national regulatory norms covered under its mandate in line with national and international norms, guidelines, and recommendations	Yes/No	
State Veterinary Service is capable of and authorized to negotiate, implement, and maintain equivalency agreements with other States and USDA on veterinary norms and processes under its mandate	Yes/No	
State Veterinary Service is capable of and authorized to track history, location, and distribution of animals and their related products covered under its mandate	Yes/No	

State Veterinary Service is capable of and authorized to notify USDA of its State regulations and sanitary status, in accordance with the procedures established by USDA	Yes/No
National Veterinary Services Laboratory (NVSL), all National Animal Health Laboratory Network (NAHLN) laboratories, and all State veterinary diagnostic laboratories have capacity to process diagnostic samples	Yes/No
Plans address the processes for investigating animal disease emergency threats (e.g. tracing affected animals to determine source, destination, and disposition,; obtaining samples for lab testing)	Yes/No
Mechanisms for ensuring an early report on suspicious cases (as economic incentives) are in place	Yes/No
National animal, plant, and health surveillance plan is in place	Yes/No
Animal disease emergency plans address the dissemination of accurate, timely, accessible information to public, media, support agencies and vendors	Yes/No
Communications messages and methods and a plan for dissemination were developed before the outbreak	Yes/No
Processes are in place to obtain information for tracking the history, location, distribution of animals and their related products.	Yes/No
Animal disease emergency plans address demobilization (e.g. return personnel and equipment to normal operations, complete documentation, coordinate long-term support).	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.B2d 2.1.4	Conduct training and exercise programs for distribution of prophylaxis for animal health
Res.B2d 2.1.2	Develop and implement training and procedures to enable local veterinary communities to recognize exposure to CBRNE materials, and to use tools and equipment to detect the presence of CBRNE materials
ComF 3.2.1	Train the public to be aware and to report suspicious items and behavior
Preparedness Measures	Metric
Personnel are proficient in delivering just-in-time training at the Federal, State, and local levels	Yes/No
Plan has been developed for supplies and/or equipment to be available for an FMD outbreak in order to enter, store, and retrieve information from the field and at the coordination center	Yes/No
Plan has been developed for supplies and/or equipment to be available for an FMD outbreak in order to euthanize animals while meeting optimal humane standards to level described in performance objectives	Yes/No
Plan has been developed for supplies and/or equipment to be available for an FMD outbreak in order to move live animals, carcasses, people, pharmaceuticals, and equipment within, between, and among quarantine zones while ensuring biosecurity	Yes/No
Supplies distribution plan is developed before an incident	Yes/No
HSEEP-compliant exercises to test animal disease emergency support operations have been conducted	Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct Animal Disease Emergency Support Tactical Operations	
Definition: In response to a notification of an animal disease, provide the overall management and coordination of the epidemiological investigations and animal control measures to eradicate the disease	
Critical Tasks	
Res.B2d 3.2	Implement plans and procedures for animal health response
Res.B2d 3.3.1	Coordinate animal-health emergency response operations
Res.B2d 3.3.3	Coordinate and provide regional and State resources and procedures for the response to an outbreak of highly contagious animal and plant diseases
Res.B2d 3.5.1	Conduct internal communications for animal health response
Res.B2d 3.3.2	Coordinate animal safety and biosecurity response
Res.B2d 3.3	Provide coordination and support for animal health care through the Incident Command System (ICS)
Res.B2d 3.3.4	Coordinate animal health disease outbreak assessment activities
Res.B2d 3.6	Provide coordination and support for implementation of a local, regional, or national distribution system for mass animal therapeutics and vaccination program
Res.B2d 3.5.3	Coordinate emergency public information regarding animal health issues through the Joint Information System (JIS)
Res.B2d 3.5.2	Exchange and disseminate data as necessary for appropriate animal treatment
Res.B2d 3.5.5	Coordinate site clean-up
Res.B2d 3.8	Provide personal protective equipment (PPE) to personnel involved in animal health response site operations and clean-up
Res.B2d 3.3.4.1	Coordinate epidemiological investigations and lab testing for disease outbreaks
Res.B2d 3.5	Establish and maintain information systems across animal-health related response entities
Pro.B1b 3.4.1	Coordinate food and agriculture emergency management plans at the local, State, and national levels
Pro.B1b 3	Direct and coordinate food and agricultural safety and defense operations
Res.B1c 8.4	Coordinate transportation response
Res.B2d 3.6.1	Allocate, mobilize, and manage resources for animal health operations
Res.B2d 3.6.2	Track and report resources for animal health operations
Performance Measures	
	Metric
Time in which cleaning and disinfection is carried out on premises on which FMD is presumed or confirmed to exist	Within 48 hours from being so identified

Time in which wildlife management plan is developed	Within 48 hours from the identification of the first presumptive positive premises
Time in which a dedicated communications network outside the incident command system (ICS) is established	Within 7 days from the outbreak
Time in which an assessment of the risk wildlife poses to the transmission of a foreign animal disease is conducted	Within 7 days from confirmation of the first positive premises
Time in which research into alternative disease control strategies is initiated	Within 7 days from confirmed diagnosis
Time in which a fair market value indemnity is provided to owners of destroyed animals and materials	Within 72 hours from destruction

Activity: <i>Activate Animal Disease Emergency Support</i>	
Definition: In response to a notification of animal disease, respond, mobilize, and arrive on scene to begin emergency veterinary operations	
Critical Tasks	
Res.B2d 4.1	Activate animal health operations
Res.B2d 4.2	Establish and maintain animal health response communication systems across responsible entities
Res.B2d 4.3	Monitor and coordinate response team’s possessions and deliveries of needed supplies
Performance Measures	
	Metric
Time in which plans are implemented in accordance with the National Response Plan (NRP/NIMS)	Within 24 hours from establishing an incident command
Time in which communications plan is implemented	Within 24 hours from presumptive diagnosis
Time in which sufficient veterinary medical field staff and other resources (veterinarians, animal health technicians, disease specialists, and veterinary diagnostic labs) are deployed for 3 weeks at a time	Within 24 hours from confirmed diagnosis
Time in which need for logistical support to aid the operation is identified	Within 48 hours from presumptive diagnosis

Activity: <i>Conduct Animal Health Epidemiological Investigation & Surveillance</i>	
Definition: Conduct investigations and surveillance of animal populations to determine the sources of an animal disease outbreak, the potentially infected animal populations, and verify the elimination of the disease.	
Critical Tasks	
Res.B2d 5.2	Conduct ongoing monitoring and surveillance of agricultural and animal health safety and security
Res.B2d 5.1	Conduct epidemiological investigation as surveillance reports warrant and coordinate Federal,

	State, and local veterinary assets/services
Res.B2d 5.3	Coordinate Federal, State, and local veterinary assets/services
Res.B2d 5.1.7	Determine whether foreign animal disease agent is intentional or accidental
Res.B2d 5.1.6	Conduct animal tracing to determine source, destination, and disposition of affected animals
Res.B2d 5.1.3	Determine whether an emerging infectious animal disease agent or a biological threat agent consists of single or multiple strains
Res.B2d 5.2.3	Coordinate with vector control experts to conduct surveillance and monitoring of animal infections until population densities and infection rates return to pre-event levels
Res.B2d 5.1.2.1	Obtain samples for lab testing
Pre.C.2a 5	Search for materials
Pre.C.2a 5.2.1	Dispose of materials suspected of being, or known to be, dangerous
Performance Measures	
	Metric
Time in which status and priority of investigation is assigned to premises	Within 6 hours from identifying them through traces
Time in which a foreign animal disease investigation, as verified by the veterinarian in charge (AVIC), is initiated	Within 8 hours from receiving the initial report
Single laboratory samples are analyzed within 12–72 hours (depending on type of analysis)	Yes/No
Number of laboratory samples processed by 90 people and 30 high-throughput PCR machines per day	10,000
Number of serum samples processed by 15 people with 1 liquid handling robotic system per day	15,000
Number of laboratory serology samples processed by one technician (nonrobotics) per day	450
Time in which logistical support is delivered to aid the operation	Within 72 hours from arriving at the laboratory
Time in which case definition using effective epidemiology is completed	Within 24 hours from presumptive or confirmed diagnosis
Time in which an investigation of suspected wildlife cases is initiated by a qualified veterinarian	Within 24 hours from confirmed diagnosis
Time in which joint USDA-DOJ investigation into source of introduction is initiated	Within 24 hours from confirmed diagnosis
Time in which a surveillance plan is implemented to define the present extent of outbreak and detect new cases	Within 48 hours from confirmed diagnosis
Inspection for surveillance of susceptible animals at contact premises and suspect premises is conducted a minimum of three times per average incubation period of Foot and Mouth Disease (FMD)	Yes/No
Inspection for surveillance of susceptible animals at at-risk premises is conducted a minimum two times per average incubation period	Yes/No

Time in which trace-forwards and trace-backs to determine primary and secondary animal exposure to disease and additional contact premises are conducted	Within 48 hours from time of confirmed diagnosis in laboratory
Trace-back analysis is conducted for a minimum of two average incubation periods before the onset of clinical signs of infected animals	Yes/No
Trace-forward analysis is conducted up to the time that quarantine is imposed	Yes/No
Number of herds per day at which surveys for trace-out and epidemiology reporting can be conducted at potentially affected premises (assuming 670 animals per herd)	400
Time in which the disease is characterized, risk factors are identified, and mitigation strategies are developed	Within 96 hours from confirmed diagnosis
Time in which disease-free zones are identified using a surveillance plan	Within 7 days from confirmed diagnosis
Time in which absence of diseases is confirmed through monitoring and surveillance	Within 6 months from last diagnosis
All responders were monitored for exposure to hazardous materials	Yes/No
Screening of affected personnel was conducted	Yes/No

Activity: *Implement Disease Containment Measures*

Definition: Establish isolation and quarantine zones, issue stop movement orders, and initiate animal vaccination and treatment programs, euthanasia efforts, or other protective measures designed to control the spread of the disease

Critical Tasks

Res.B2d 6.2	Implement plans, procedures, protocols, and systems for distribution of mass prophylaxis from the National Veterinary Stockpile (NVS)
Res.B2d 6.3.6	Implement animal control measures, i.e. for infected animals threatening the public’s health (also includes stray pets/domestic animals and communal wild animals)
Res.B2d 6.1.1	Coordinate and support implementation of protective actions to stop the spread of disease
Res.B2d 6.2.2	Provide human vaccination during animal health emergency if needed
Res.B2d 6.2.1	Conduct strategic vaccinations or treatments of animals
Res.B2d 6.4	Implement plans to collect and dispose of infected material to reduce the spread of animal disease
Pro.B1b 3.5.2.1	Coordinate cleaning and decontamination of affected food facilities
Res.B2d 5.2.5	Determine wildlife exposure and disposition
Res.B2d 6.6	Conduct hazardous materials response for disinfectants used in animal health response
Res.B2d 6.5	Coordinate and conduct environmental decontamination for animal health response
Res.B2d 8.2.1	Implement protocols for disposing of infectious agricultural waste

Performance Measures	Metric
Time in which a control area is established to ensure effective implementation of quarantine and movement control (Federal quarantine is maintained until the disease is either eradicated or a smaller control area is implemented)	Within 12 hours from a presumptive positive or confirmed positive premises
Time in which bio-security measures are implemented	Within 24 hours from the identification of the first presumptive positive premise
Time in which security is implemented at processing facilities	Within 24 hours from confirmation of diagnosis
Time in which zoning plan is implemented	Within 7 days from the outbreak
All entities shared and acted upon intelligence information to protective measures	Yes/No
Time in which an emergency ring-vaccination program (assuming vaccination is the selected strategy) is completed	Within 7 days from confirmation of diagnosis
Time in which a foreign animal disease is eradicated during the event or exercise (assuming a single-point introduction, and optimal response conditions)	Within 100 days from first diagnosis
Time in which a foreign animal disease is eradicated during the event or exercise (assuming a multiple-point introduction, and optimal response conditions)	Within 12 months from first diagnosis
Last case is diagnosed within 3-12 months depending on circumstances and methods used (Office International des Epizooties (OIE) standards) until trade restrictions no longer apply	Yes/No
Percent of exposed individuals who contract the disease during the epidemic	0%
On-site education for producers, farmers, and responders is provided at the time of diagnosis and/or euthanasia	Yes/No
Percent of remaining animals affected by the foreign animal disease upon resumption of normal trade	0%
Market demand for commodities remains stable throughout outbreak	Yes/No
Percent of appropriate personnel who are issued personal protective equipment (PPE)	100%
Percent of responders who are monitored for exposure to hazardous materials	100%
Contamination source and affected areas are secured	Yes/No
Decontamination sites are established	Yes/No
Decontamination is conducted in accordance with local protocol for all contaminated personnel, equipment, and animals	Yes/No
Percent of affected personnel screened	100%
Number of herds vaccinated per day for disease control (assuming 670 cloven-hoofed animals per herd)	400

Activity: <i>Provide Animal Welfare</i>	
Definition: Provide affected animals with veterinarian care, husbandry services, food, and sheltering to minimize suffering while being isolated, quarantined, or undergoing treatment	
Critical Tasks	
Res.B2d 7.1	Conduct an animal safety and biosecurity response
Res.B2d 7.2	Provide husbandry services
Performance Measures	Metric
Number of animals provided with water, feed, protection from the elements daily	268,000

Activity: <i>Conduct Euthanasia/Disposal</i>	
Definition: Provide humane methods to euthanize affected animals to stop the spread of the disease or alleviate suffering and properly dispose of animal remains	
Critical Tasks	
Res.B2d 8.1	Euthanize animals to prevent spread of disease
Res.B2d 8.2	Collect and dispose of animal-health response materials
Res.B2d 8.2.1	Coordinate with appropriate agencies to implement disposal methods for agricultural waste, including carcasses, that reduce the spread of animal disease
Performance Measures	Metric
Number of herds per day euthanized and disposed of for disease control using a 10-person team (assuming 670 animals per herd)	1
Number of herds per day at which appraisal, euthanasia, and/or disposal are carried out at affected locations for 100 days (assuming 670 animals per herd)	20
Time in which a plan for euthanasia and disposal of infected and susceptible animals is implemented	Within 24 hours from a premises being classified as an infected or contact remises
Time in which infected animals are disposed of	Within 24 hours from destruction (whenever possible)

Activity: <i>Demobilize Animal Disease Emergency Support Operations</i>	
Definition: Account for all assets utilized and safely return them to their original location and functions	
Critical Tasks	
Res.B2d 9.1	Develop an animal health response operation demobilization plan

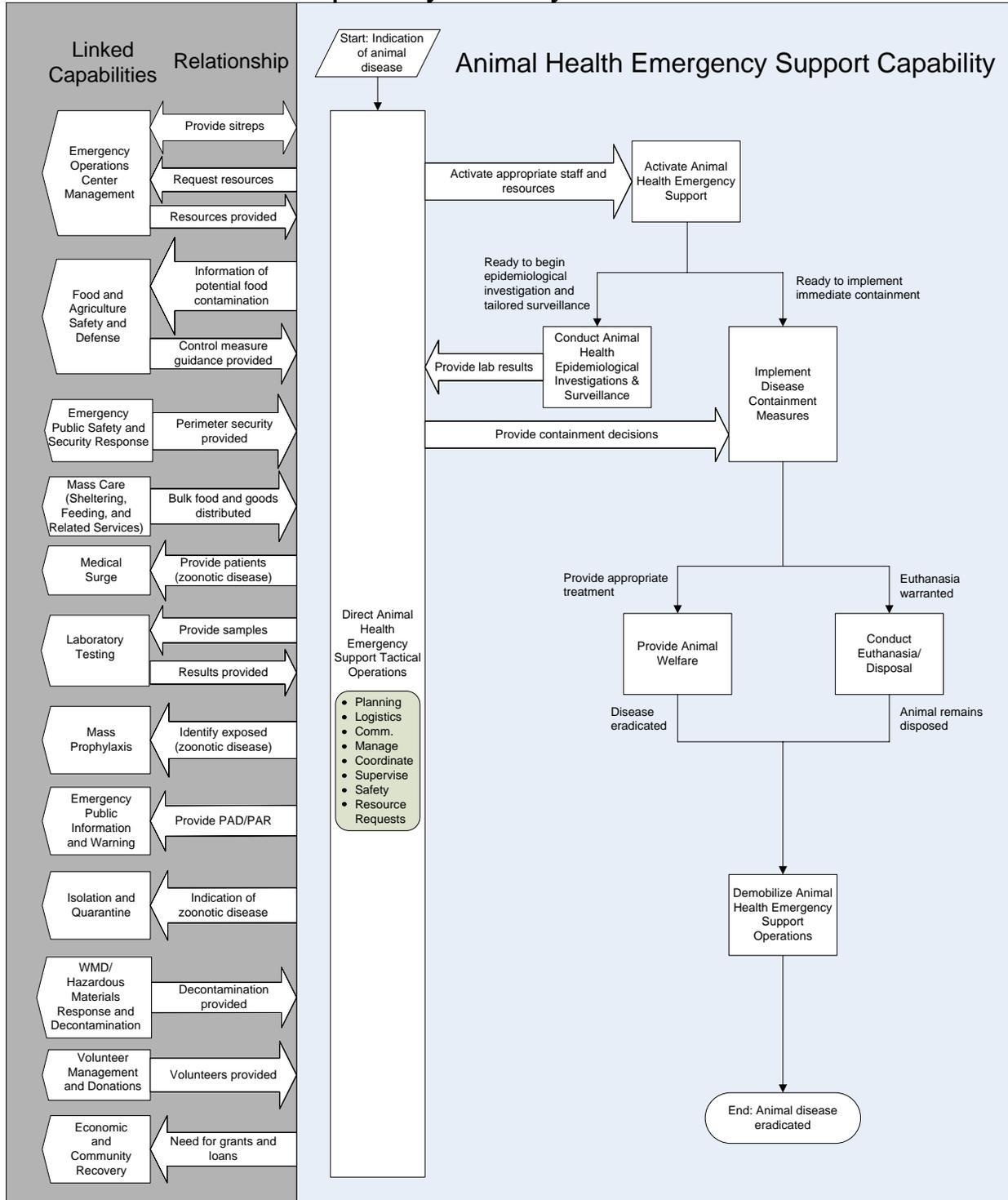
Res.B2d 9.2	Implement the animal health response operation demobilization plan	
Res.B2d 9.2.1	Restore animal health response personnel and equipment to normal operations	
Res.B2d 9.2.3	Complete appropriate documentation for demobilization of animal health operations	
Rec.C2a 3.1	Coordinate recovery operations	
Rec.B3a 3.2	Coordinate establishment of long-term monitoring of the environment	
Rec.B.3a 5.1	Conduct long-term environmental impact assessments	
Rec.C3a 6.1.3	Provide engineering and other support for structures, public works, and infrastructure systems	
Rec.C3a 6.2	Provide economic stabilization, community recovery, and mitigation support and/or financial restitution to key service sectors (e.g., medical, financial, public health and safety)	
Rec.C4a 7.1.1.1	Provide financial management and reimbursement to affected agriculture entities	
Rec.C4a 3.3	Coordinate economic stabilization	
Performance Measures		Metric
Quarantine is lifted following diagnosis of last case within 3-6 months depending on circumstances and methods used		Yes/No
Percent of personnel and equipment returned to normal operations		100%
Percent of appropriate documentation completed		100%

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Animal Disease Emergency Support requests resources from Emergency Operations Center Management, who then in turn provides the requested resources. Emergency Operations Center Management and Animal Disease Emergency Support both provide situational reports to each other.
Food and Agriculture Safety and Defense	Animal Disease Emergency Support provides information on potential food contamination to Food and Agriculture Safety and Defense. Food and Agriculture Safety and Defense provide control measure guidance to Animal Disease Emergency Support.
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides perimeter security to Animal Disease Emergency Support
Mass Care (Sheltering, Feeding, and Related Services)	Mass Care provides bulk distribution items upon request to Animal Disease Emergency Support
Laboratory Testing	Animal Disease Emergency Support provides samples for testing to Laboratory Testing. Laboratory Testing provides test results to Animal Disease Emergency Support
Mass Prophylaxis	Animal Disease Emergency Support identifies individuals needing prophylaxis from zoonotic disease
Emergency Public Information and Warning	Animal Disease Emergency Support provides protective action decisions and recommendations to Emergency Public Information and Warning.

Linked Capability	Relationship
Isolation and Quarantine	Animal Disease Emergency Support provides an indication of zoonotic disease(s) to Isolation and Quarantine.
WMD and Hazardous Materials Response and Decontamination	WMD and Hazardous Materials Response and Decontamination provides technical decontamination to Animal Disease Emergency Support
Volunteer Management and Donations	Volunteer Management and Donations provides volunteers to Animal Disease Emergency Support
Economic and Community Recovery	Animal Disease Emergency Support identifies the need for grants and loans to Economic and Community Recovery
Responder Safety and Health	Responder Safety and Health assures the safety of Animal Disease Emergency Support's personnel
Environmental Health	Environmental Health provides Animal Disease Emergency Support with updates on environmental hazards

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
USDA Headquarters Emergency Operations Center (EOC)	Fully staffed Federal EOCs to support vaccination and/or euthanasia process. Each Federal EOC includes 21 staff to manage the EOC (7 per shift, 3 shifts per 24-hour period).
USDA Regional Emergency Operations Center (EOC)	Each Federal EOC includes 21 staff to manage the EOC (7 per shift, 3 shifts per 24-hour period).
APHIS Headquarters Emergency Operations Center	Fully staffed Federal EOCs to support vaccination and/or euthanasia process. Each Federal EOC includes 21 staff to manage the EOC (7 per shift, 3 shifts per 24-hour period).
APHIS Regional Emergency Operations Center (EOC)	Each Federal EOC includes 21 staff to manage the EOC (7 per shift, 3 shifts per 24-hour period).
Homeland Security Operations Center (HSOC)	
State and County EOCs	Fully staffed State and county EOCs to support vaccination and/or euthanasia process.
Agriculture EOC	Consists of 2 policy administrators, 2 State animal health SMEs, 1 USDA cooperative extension specialist, 3 industry representatives, 1 market representative, 1 grain industry representative, 1 crop representative, 2 support personnel
Incident Command Post	Fully expanded incident command posts (ICPs) to support vaccination and/or euthanasia process.
National Response Coordination Center (NRCC)	Personnel: 3 staff per shift; 3 shifts per 24-hour period per center.
Regional Response Coordination Center (RRCC)	Personnel: 3 staff per shift; 3 shifts per 24-hour period per center.
Emergency Response Teams (ERT-A)	Personnel: 3 staff per shift; 3 shifts per 24-hour period per center.
Multiple Area Command	Personnel: 3 staff per shift; 3 shifts per 24-hour period per center.
Multi-agency coordinating group	
Technical specialist position	Federal, State, tribal, local, or private resources assigned as needed based on their area of expertise
Veterinary Medical Assistance Team	Per NIMS, volunteer teams of 60+ veterinarians, technicians, and support personnel who can be dispatched for 2-week assignments
Animal Health Technician	Personnel to perform a variety of animal healthcare duties to assist veterinarians in settings
Veterinary Epidemiologist	Specialized personnel (requires Doctor of Veterinary Medicine) to analyze factors influencing the existence and spread of diseases among humans and animals, particularly those diseases transmissible from animals to humans. Personnel hold the degree of Doctor of Veterinary Medicine

Resource Elements	Components and Description
Communications Technicians	Interoperable communications coordinated among local, State, national, private, and international stakeholders
Trade support personnel	Reporting to Office International des Épizooties (OIE) and information trade partners
Quarantine personnel	Personnel to implement quarantine and restriction of movement of animals and related products
Biosecurity personnel	Personnel to limit the introduction and spread of diseases
Decontamination personnel	Personnel to render an environment free of diseases and with no adverse impact on the environment. 1 supervisor needed per 10 staff.
Euthanasia personnel	Personnel to euthanize livestock
Euthanasia personnel supervisors	Personnel to supervise euthanasia process
Animal Welfare Specialist	Personnel to oversee animal welfare during quarantine, housing, euthanasia, and treatment of animals
Disposal personnel	Personnel to dispose of euthanized livestock. 1 supervisor needed per 10 staff.
Livestock appraisal personnel	Personnel to appraise livestock prior to euthanasia
Surveillance personnel	Personnel to conduct surveillance activities to find exposed and susceptible animals; consists of numerators (phone contact) and examiners (ranch visitors)
CBRNE personnel	Specialized personnel (including public health veterinarians and technicians) to assess and address zoonotic and chemical, biological, radiological, nuclear, or explosive (CBRNE) issues, with the capacity to identify risk factors for the spread and prevent the spread of zoonotic disease
Foreign animal disease personnel	Personnel (animal disease diagnosticians and accredited veterinarians) with the training to identify and diagnose relevant foreign animal diseases
Specialty Laboratory Technicians	Personnel to process samples located in National Animal Health Laboratory Network (NAHLN) laboratories and State animal diagnostic laboratories
Highly Skilled Laboratory Technicians	located in National Animal Health Laboratory Network (NAHLN) laboratories and State animal diagnostic laboratories
Administrative Laboratory Support Personnel	Administrative and laboratory support personnel located in National Animal Health Laboratory Network (NAHLN) laboratories and State animal diagnostic laboratories
Personnel trained in risk communication	Personnel to communicate risk options
Data entry supervisor	1 per 3 staff for data entry into Emergency Management Reporting System (EMRS);
Data entry	For date entry into Emergency Management Reporting System (EMRS)
Equipment for trace-back investigations	Equipment in which to enter, store, and retrieve information from field and coordination center; includes cellular phones, barcoding, and global positioning system (GPS)/geospatial information system (GIS)

Resource Elements	Components and Description
Animal Identification systems	Systems to identify infected, susceptible, exposed, and at-risk herds and animals; includes tags and/or microchips, paint sticks, brandings, and associated equipment
Identification officer (recorder)	Personnel to document and record infected, susceptible, exposed, and at-risk herds and animals
Euthanasia systems	Equipment (e.g., euthanasia solution base, tranquilizers) that enables animal euthanization while meeting optimal humane standards
Therapeutics	Equipment used to treat animals under quarantine
Dispensing personnel supervisors	Supervisors for personnel dispensing therapeutics
Vaccines	Equipment (medicine) needed to vaccinate animals at risk
Vaccinators	Personnel (supervisors and staff) to vaccinate animals; 1 supervisor per 20 vaccinators
Warehousing and distribution systems	Location to store and distribute pharmaceuticals and related supplies
Trucks/busses/minivans (Transportation systems and methods)	Equipment and staff to move live animals, carcasses, people, pharmaceuticals, and equipment within, between, and among quarantine zones while ensuring biosecurity
Law enforcement agent	FBI agent
Law enforcement officers	Personnel to enforce quarantine, incident security, and personal safety for field personnel
Wildlife specialists	Trained personnel with the ability and equipment to survey, identify, diagnose, and control disease in wildlife
Wildlife specialist supervisors	Supervisors for wildlife specialists
Wildlife specialists (sample collectors)	Trained personnel with the ability and equipment to collect samples to identify, diagnose, and control disease in wildlife
Veterinary Response Team—livestock	State-credentialed personnel with the ability and equipment to respond to the needs of livestock in all-hazards incidents
Veterinary Response Team—companion animals	State-credentialed personnel with the ability and equipment to respond to the needs of companion animals in response to all-hazards incidents
Information technology support staff	Personnel, equipment, and supplies to support ICPs
Administrative support personnel	Personnel to provide procurement, contracts, logistics, etc.
Trainers	

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the “foreign animal disease” scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including accidental or deliberate disease outbreaks, natural disasters, and nuclear and conventional events.
- Any event that would adversely affect the supply of electric utilities, access to water and feed, or access to premises such as large scale natural disasters (hurricanes, floods, blizzards) would impede communications, surveillance, operations, humane care of animals and delivery of services. If the roads are non-passable due to a natural disaster, this will affect our ability to get to the affected area, conduct operations, surveillance and other activities.

Scenario-Specific

- Herd size, rate of spread, and risk factors for an epidemic are based on a median herd size of 670 susceptible animals, derived from research models of the spread of FMD.
- In the event of a single point of introduction and immediate response, 2,000 herds are expected to be infected over a 100-day period.
- In the event of three points of intentional introduction, up to 60 percent of States may be affected within 10 days of the attack. This would result in most of the States being quarantined within 2 weeks.
- Forty-five percent of the cattle inventory (beef and dairy) is affected = 45 million animals.
- Fifty percent of the swine population is affected = 60 million animals.
- Twenty percent of small ruminants are affected = 1.8 million animals.
- A decision whether to vaccinate will be made and implemented at the beginning of the outbreak.
- Quarantine/movement control strategies will have a negative impact on the marketability of nonsusceptible species (e.g., poultry).
- Annual losses will include \$20 billion in meat exports and \$20 billion in domestic meat production, plus a 50 percent decline in milk production, with a prolonged period of depression due to lack of replacement stock and the time it takes to reach lactation age. Income will be lost from hunting restrictions and concerns over the disease in wildlife.
- Wildlife: All cloven-hoofed wildlife species, including zoological collections, are at risk of exposure, infection, and spread of disease, including deer, feral swine, wild sheep, and goats. This includes 200,000 farmed elk, 65,000 deer, and 350,000 farmed bison.
- Distribution will be widespread due to extensive livestock transportation.
- Extensive labor costs for surveillance, monitoring, euthanasia, vaccination, animal removal and husbandry will accrue.
- Increased human morbidity and mortality would occur, including adverse impacts on mental health.
- High unemployment will occur due to both direct and indirect economic losses of the outbreak, as well as lost opportunity costs, leading to a prolonged economic depression and loss of global market share.
- Consumer confidence in meat and meat products will plummet and will take time to be restored.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Foreign Animal Disease)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
USDA Emergency Operations Center (EOC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	1 USDA EOC
APHIS Emergency Operations Center (EOC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	1 APHIS Headquarters Operations Center 2 regional APHIS emergency operations centers (EOCs)
Homeland Security Operations Center (HSOC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	1 Homeland Security Operations Center (HSOC)
State Emergency Operations Center (EOC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	50 State emergency operations centers (EOCs) County emergency operations centers (EOCs) as needed
Agriculture Emergency Operations Center (EOC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	100 agriculture emergency operations centers (EOCs) nationally
Incident Command Post	1 command post for every 100 herds to be euthanized and/or vaccinated	2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period Geographic distribution of herds will determine the number of incident command posts (ICPs)	20 incident command posts (ICPs) for herds to be euthanized 400 incident command posts (ICPs) for herds to be vaccinated
National Response Coordination Center (NRCC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	1 National Response Coordination Centers (NRCCs)
Regional Response Coordination Center (RRCC)		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	2 Regional Response Coordination Centers (RRCCs)
ERT-A Team		2,000 herds to be euthanized and 40,000 herds to be vaccinated over a 100-day period	50 Emergency Response Teams (ERT-A)
Multiple Area		2,000 herds to be euthanized	50 Multiple Area Commands

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Command		and 40,000 herds to be vaccinated over a 100-day period	(MACs)
Technical specialist position		Estimates for a single incident are based on requirements for a 3-month period	Technical specialists could be assigned in their areas of expertise on an as-needed basis and could be tasked for the entire duration of the incident
Veterinary Medical Assistance Team	One Team per 2-week assignments	Estimates for a single incident are based on requirements for a 3-month period	3 teams deployed for 2 weeks on and 4 weeks off
Animal Health Technician		Estimates for a single incident are based on requirements for a 3-month period	Animal health technicians could be assigned in their areas of expertise on an as-needed basis and could be tasked for the entire duration of the incident The number required depends on required tasks (see below)
Veterinary Epidemiologist		Estimates for a single incident are based on requirements for a 3-month period	500 veterinary epidemiologists could be assigned in their areas of expertise on an as-needed basis and could be tasked for the entire duration of the incident
Communications Technicians		Estimates for a single incident are based on requirements for a 3-month period	100 people to manage communications for 3-week periods
Trade support personnel		Single incident	APHIS Veterinary Services and International Services; U.S. Department of State will be available as needed
Quarantine personnel		Estimates for a single incident are based on requirements for a 3-month period	APHIS and State personnel required for issues related to quarantine will be available on an as-needed basis To enforce quarantine, 6,000 people are needed
Biosecurity personnel		Estimates for a single incident are based on requirements for a 3-month period	Biosecurity specialists could be assigned in their areas of expertise on an as-needed basis and could be tasked for the entire duration of the incident:

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
			500 on-farm personnel 50 outreach personnel
Decontamination personnel		2,000 herds during a 100-day period	120 supervisors 1,200 staff
Euthanasia personnel supervisors		2,000 herds during a 100-day period	60 supervisors for animal care
Euthanasia personnel		2,000 herds during a 100-day period	600 animal handlers
Animal Welfare Specialist	1 animal welfare specialist per ICP	42,000 herds during a 100-day period; 420 ICPs	420 specialists
Disposal personnel		2,000 herds during a 100-day period	60 supervisors 600 staff
Livestock appraisal personnel		2,000-herds during a 100-day period	840 persons
Surveillance personnel		40,000 herds during a 100-day period	500 persons
CBRNE Personnel		2,000 herds during a 100-day period	50 specialists, including State public health veterinarians 100 technicians
Foreign animal disease personnel		40,000 herds during a 100-day period	500 foreign animal disease diagnosticians 500 accredited veterinarians
Specialty Laboratory Technicians		40,000 herds during a 100-day period; up to 82,000 serum samples and 24,000 PCR samples per day	300 specialty technicians
Highly Skilled Laboratory Technicians		40,000 herds during a 100-day period; up to 82,000 serum samples and 24,000 PCR samples per day	300 highly skilled technicians
Administrative Laboratory support personnel		40,000 herds during a 100-day period; up to 82,000 serum samples and 24,000 PCR samples per day	200 administrative and laboratory support
Personnel trained in risk communication		42,000 herds during a 100-day period	100 persons nationwide or 2 per State
Data entry supervisors	1 per 3 data entry staff	42,000 herds during a 100-day period	50 supervisors nationally

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Data entry staff		42,000 herds during a 100-day period	500 data entry staff
Equipment for trace-back investigations		42,000 herds during a 100-day period	5,000 personal digital assistant (PDAs) Computer and internet capability
Animal Identification systems		42,000 herds during a 100-day period	27,000,000 systems
Identification officer (recorder)		42,000 herds during a 100-day period	600 officers
Euthanasia systems		2,000 herds during a 100-day period	
Therapeutics		40,000 herds during a 100-day period	
Dispensing personnel supervisors		2,000 herds during a 100-day period	10 supervisors
Vaccines		40,000 herds during a 100-day period	27 million doses of vaccine
Vaccinators		40,000 herds during a 100-day period	100 supervisors 2,000 vaccinators
Warehousing and distribution systems		42,000 herds during a 100-day period	
Trucks/buses/minivans		2,000 herds during a 100-day period	200 trucks 100 buses 100 minivans
Law enforcement officer		2,000 herds during a 100-day period	600 persons
Wildlife specialists		2,000 herds and their surrounding environs during a 100-day period	500 survey designers
Wildlife specialists (sample collectors)		2,000 herds and their surrounding environs during a 100-day period	3,000 sample collectors
Veterinary Response Team—livestock		2,000 herds during a 100-day period	60 persons
Veterinary Response Team—companion animals		2,000 herds during a 100-day period	60 persons

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Information technology support staff	1 person per Incident Command Post	420 Command posts	420 persons
Administrative support personnel			
Trainers			

Approaches for Large-Scale Events

- To avoid duplication of resources, CBRNE weapons or devices and hazardous materials (hazmat) resource organizations should cross-train with other capabilities
- To increase throughput in handling samples, laboratory resource organizations should develop new diagnostic technologies and pursue technology enhancements
- For efficient use of national resources in emergencies with finite geographic distribution, animal treatment teams (livestock) should pursue cross-State border cooperation
- For efficient use of personal and economic support to affected communities, personal resource organizations should use on-farm labor and develop just-in-time training
- To simplify the indemnity process and provide a cost-effective alternative to euthanasia and disposal, indemnity plan resource organizations should pursue the final indemnity rule and consider the sale of vaccinated animals for slaughter

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
USDA Headquarters EOC	Federal Resource Organization	1	Nationally	Federal (USDA)	Direct Tactical Operations
USDA Regional EOC	Federal Resource Organization	100	Nationally	Federal (USDA)	Direct Tactical Operations
APHIS Headquarters EOC	Federal Resource Organization	1	Nationally	Federal (APHIS)	Direct Tactical Operations
APHIS Regional EOC	Federal Resource Organization	2	Nationally	Federal (APHIS)	Direct Tactical Operations
APHIS Regional EOC	Federal Resource Organization	2	Nationally	Federal (APHIS)	Direct Tactical Operations
State EOC	Resource Organization	1	Per State	State	Direct Tactical Operations
Agriculture EOC	Resource	2	Per State	State	Direct Tactical

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
	Organization				Operations
Incident Command Post (ICP)	Resource Organization	420	Nationally	Federal/State/Local	Direct Tactical Operations
National Response Coordination Center	Federal Resource Organization	3	Nationally	Federal (USDA)	Direct Tactical Operations
Regional Response Coordination Center	Federal Resource Organization	6	Nationally	Federal (USDA)	Direct Tactical Operations
Emergency Response Team (ERT-A)	Resource Organization	1	Per State	State	Direct Tactical Operations
Multiple Area Command (MAC)	Resource Organization	15	Nationally	Federal/State/Local	Direct Tactical Operations
Multi-agency coordinating group	Resource Organization	9	Per State	State	Direct Tactical Operations
Technical specialist position	Personnel	As needed	Per incident	Federal (USDA/APHIS)/ State	Direct Tactical Operations
Veterinary medical assistance team	NIMS typed Resource Organization	12	Nationally	Federal (DHS/FEMA)	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Veterinary epidemiologist	Personnel	750	Nationally	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Veterinary epidemiologist	Personnel	15	Per State (average)	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Communications technicians	Personnel	200	Nationally	Federal (USDA/APHIS)/ Federal (DHS/FEMA)	All Activities
Communications technicians	Personnel	4	Per State (average)	State	All Activities
Communications technicians	Personnel	4	Per State (average)	Private Sector	All Activities
Trade support personnel	Personnel	As needed	Per incident	Federal (USDA/APHIS)	Implement Disease Containment

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Quarantine personnel	Personnel	1	Per Incident Command Post	Federal (USDA/APHIS)	Implement Disease Containment Measures Provide Animal Welfare
Quarantine personnel	Personnel	3	Per Incident Command Post	State	Implement Disease Containment Measures Provide Animal Welfare
Quarantine personnel	Personnel	12,270	Nationally	Local/Private Sector	Implement Disease Containment Measures Provide Animal Welfare
Biosecurity personnel	Personnel	2	Per State	Federal (USDA/APHIS, DOJ)	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Biosecurity personnel	Personnel	4	Per State	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Biosecurity personnel	Personnel	30	Per State	Local/Private Sector	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Decontamination personnel	Personnel	1	Per Euthanasia Incident Command Post	Federal (USDA/APHIS)	Conduct Euthanasia/Disposal
Decontamination personnel	Personnel	60	Per State	State	Conduct Euthanasia/Disposal

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Decontamination personnel	Personnel	7,200	Nationally, through just-in-time training	Local/Private Sector	Conduct Euthanasia/Disposal
Euthanasia personnel supervisors	Personnel	3	Per State (average)	State	Conduct Euthanasia/Disposal
Euthanasia personnel	Personnel	1,800	Nationally, through just-in-time training	Local/Private Sector	Conduct Euthanasia/Disposal
Animal welfare specialist	Personnel	1	Per Incident Command Post	Federal (USDA/APHIS)	Provide Animal Welfare
Disposal personnel	Personnel	1	Per State	Federal (USDA/APHIS)	Conduct Euthanasia/Disposal
Disposal personnel	Personnel	2	Per State	State	Conduct Euthanasia/Disposal
Disposal personnel	Personnel	90	Per State	Local/Private Sector	Conduct Euthanasia/Disposal
Livestock appraisal personnel	Personnel	3	Per State	Federal (USDA/APHIS)	Implement Disease Containment Measures
Livestock appraisal personnel	Personnel	9	Per State	State	Implement Disease Containment Measures
Surveillance personnel	Personnel	1	Per Incident Command Post	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Surveillance personnel	Personnel	25	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance
CBRNE Personnel	Personnel	1	Per State	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
CBRNE Personnel	Personnel	2	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
CBRNE Personnel	Personnel	12	Per State	Local/Private Sector	Conduct Animal Health Epidemiological Investigations and Surveillance
Foreign animal disease personnel	Personnel	30	Per State	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Foreign animal disease personnel	Personnel	30	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Foreign animal disease personnel	Personnel	60	Per State	Local/Private Sector	Conduct Animal Health Epidemiological Investigations and Surveillance
Specialty Laboratory Technicians	Personnel	25	Nationally	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Specialty Laboratory Technicians	Personnel	18	Per State (average)	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Highly Skilled Laboratory Technicians	Personnel	50	Nationally	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Highly Skilled Laboratory Technicians	Personnel	18	Per State (average)	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Admin Laboratory Support	Personnel	25	Nationally	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Admin Laboratory Support	Personnel	12	Per State (average)	State	Conduct Animal Health Epidemiological Investigations and Surveillance

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Risk Communication Personnel	Personnel	2	Per State	Federal (USDA/APHIS)	Implement Disease Containment Measures
Risk Communication Personnel	Personnel	5	Per State	State	Implement Disease Containment Measures
Risk Communication personnel	Personnel	5	Per State	Local/Private Sector	Implement Disease Containment Measures
Data Entry supervisor	Personnel	1	Per State	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Data Entry Supervisor	Personnel	1	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Data Entry Technicians	Personnel	3	Per State	Federal (USDA/APHIS)	Conduct Animal Health Epidemiological Investigations and Surveillance
Data entry Technicians	Personnel	3	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Data Entry Technicians	Personnel	43	Per State	Local/Private Sector	Conduct Animal Health Epidemiological Investigations and Surveillance
Equipment for trace-back and trace-forward investigations	Equipment	30,000	Nationally	Federal (USDA/APHIS, DHS/FEMA)/ State/ Local	Conduct Animal Health Epidemiological Investigations and Surveillance
Animal identification system (individual tagging element)	Equipment	85 million		Federal (USDA/APHIS)/ State/ Local	Conduct Animal Health Epidemiological Investigations and Surveillance
Identification Officer	Personnel	1	Per State	Federal (USDA/APHIS)	Implement Disease Containment

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Measures Provide Animal Welfare Conduct Euthanasia/ Disposal
Identification Officer	Personnel	1	Per Incident Command Post	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/ Disposal
Identification Officer	Personnel	47	Per State	Local/Private Sector	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/ Disposal
Euthanasia systems	Equipment	As needed		Federal (USDA/APHIS)/ State/ Local	Conduct Euthanasia/Disposal
Therapeutics	Equipment	As needed		Federal (USDA/APHIS)/ State/ Local	Implement Disease Containment Measures Provide Animal Welfare
Dispensing personnel supervisors	Personnel	60	Nationally	Federal (USDA)	Conduct Euthanasia/Disposal
Vaccine dosages	Equipment	Up to 85 million	Nationally	Federal (USDA)	Implement Disease Containment Measures
Vaccinators	Personnel	1	Per State	Federal (USDA)	Implement Disease Containment Measures
Vaccinators	Personnel	1	Per Incident Command Post	State	Implement Disease Containment Measures
Vaccinators	Personnel	720	Per State	Local/Private Sector	Implement Disease Containment Measures

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Warehousing and distribution systems	Resource Organization	As needed	Per incident	Federal (USDA/APHIS, DHS/FEMA)/ State/ Local	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Trucks/buses/ minivans	Transportation Equipment	2400	Nationally	Federal (DHS/FEMA, DOT)/ State/Local	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Law Enforcement Agent	Personnel	1	Per State	Federal (DOJ/FBI)	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Law Enforcement Officer	Personnel	1	Per Incident Command Post	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Law Enforcement Officer	Personnel	45	Per State	Local	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Wildlife Specialist	Personnel	4	Per State	Federal (USDA, DOI)	Conduct Animal Health Epidemiological Investigations and Surveillance
Wildlife Specialist Supervisors	Personnel	4	Per State	State	Conduct Animal Health Epidemiological Investigations and Surveillance
Wildlife Specialist (sample collectors)	Personnel	180	Per State	Local/Private Sector	Conduct Animal Health

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Epidemiological Investigations and Surveillance
Veterinary Response Team—livestock	Resource Organization	6	Per State affected (1 in-State and 5 out of State)	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Veterinary Response Team—livestock	Resource Organization	6	Per county affected (1 county team and 5 out-of-county teams)	Local	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Veterinary Response Team—companion animals	Resource Organization	6	Per State affected (1 in-State and 5 out of State)	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Veterinary Response Team—companion animals	Resource Organization	1	Per county affected (1 county team and 5 out-of-county teams)	Local	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Information technology support	Personnel	50	Nationally	Federal (USDA/APHIS, DHS/FEMA)	All Activities
Information technology support	Personnel	4	Per State	State	All Activities
Information technology support	Personnel	20	Per State	Local/Private Sector	All Activities
Administrative support personnel	Personnel	4	Per State	Federal (DHS/FEMA)	All Activities
Administrative support personnel	Personnel	20	Per State	State	All Activities
Administrative support personnel	Personnel	50	Per State	Local/Private Sector	All Activities
Trainers	Personnel	1	Per State	Federal (USDA/APHIS)	Implement Disease Containment

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Trainers	Personnel	4	Per State	State	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal
Trainers	Personnel	20	Per State	Local/Private Sector	Implement Disease Containment Measures Provide Animal Welfare Conduct Euthanasia/Disposal

References

1. Administrative Procedures Guidelines: Resource Typing, Qualifications, Training and Certification Systems, United States Department of Agriculture, Animal and Plant Health Inspection Service, 2005.
2. Farm Bill 2002. Title 10, Subtitle E: Animal Health Protection Act. CFR42. PL 107-293
3. American Veterinary Medical Association (AVMA) Guidelines for Euthanasia of Animals. AVMA, Schaumburg, Illinois. 2000.
4. Catastrophic Incident Supplement to the NRP; Department of Homeland Security, 2005.
5. National Mutual Aid Resource Aid and Resource Management. Federal Emergency Management Agency (FEMA), 2004.
6. National Agriculture Statistics Service (NASS). United States Department of Agriculture, 2005. <http://www.usda.gov/nass/>.
7. Schoenbaum, M.A. & Disney, W.T. "Modeling alternative mitigation strategies for a hypothetical outbreak of foot-and-mouth disease in the United States." Preventative Veterinary Medicine. 58, 25–52. 2003.
8. Universal Task List, Department of Homeland Security, 2005.
9. Interim Final Rule: Foot and Mouth Disease: Payment of Indemnity (Reg. Plan Seq.No.4) [RIN: 057-AB34]. United States Department of Agriculture, Animal and Plant Health Inspection Service, 2005.
10. Veterinary Services Memo 580.4: Procedures for Investigating a Suspected Foreign Animal Disease / Emerging Disease Incident. United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services, 2004.

This page intentionally left blank

ENVIRONMENTAL HEALTH

Capability Definition

Environmental Health is the capability to protect the public from environmental hazards and manage the health effects of an environmental health emergency on the public. The capability minimizes human exposures to environmental public health hazards (e.g., contaminated food, air, water, solid waste/debris, hazardous waste, vegetation, sediments, and vectors). The capability provides the expertise to run fate and transport models; design, implement, and interpret the results of environmental field surveys and laboratory sample analyses; develop protective guidance where none exists; and use available data and judgment to recommend appropriate actions for protecting the public and environment. Environmental Health identifies environmental hazards in the affected area through rapid needs assessments and comprehensive environmental health and risk assessments. It works closely with the health community and environmental agencies to link exposures with predicted disease outcomes, provides input in the development of Crisis and Emergency Risk Communication (CERC) messages, provides guidance on personal protective measures, and advises on environmental health guidelines.

Outcome

After the primary event, disease and injury are prevented through the quick identification of associated environmental hazards, including exposure to infectious diseases that are secondary to the primary event as well as secondary transmission modes. The at-risk population (i.e., exposed or potentially exposed) receives the appropriate countermeasures, including treatment or protection, in a timely manner. The rebuilding of the public health infrastructure, removal of environmental hazards, and appropriate decontamination of the environment enable the safe re-entry and re-occupancy of the impacted area. Continued monitoring occurs throughout the recovery process in order to identify hazards and reduce exposure.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports:

- ESF #1: Transportation
- ESF #3: Public Works and Engineering
- ESF #5: Information and Planning
- ESF #6: Mass Care, Housing and Human Services
- ESF #8: Public Health and Medical Services
- ESF #10: Oil and Hazardous Materials Response
- ESF #11: Agriculture and Natural Resources
- ESF #14: Long Term Community Recovery and Mitigation
- Worker Safety and Health Support Annex
- Nuclear/Radiological Incident Annex
- Catastrophic Incident Annex
- Oil and Hazardous Materials Incident Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
General Environmental Health	
Res.B3c 1.1.1	Provide environmental health input to the development of plans or the jurisdictional planning process (evaluation and revision)
Res.B3c 1.1.1.1	Develop plans and protocols for coordinating the environmental health function into response activities (evaluation and revision)
Res.B3c 1.1.2	Identify the appropriate environmental health official and insure their inclusion in the incident command staff
Res.B3c 1.1.2.1	Identify an 'Environmental Health Coordination Unit' and develop a mechanism for their inclusion in the appropriate coordination organization (e.g., ICP, EOC, JFO)
Res.B3c 1.1.3	Integrate and supervise a plan for environmental monitoring
Res.B3c 1.1.4.1	Develop capacity for the personnel and resources necessary to create and maintain geo-coded databases of key environmental health infrastructure and to effectively share information during emergency response
Res.B3c 1.1.6	Develop a plan to coordinate the various elements of environmental health among Federal, State, and local response
Res.B3c 1.1.5	Identify appropriate expertise needed for all aspects of environmental health response
Res.B3c 1.1.7	Develop inputs into the Crisis and Emergency Risk Communication (CERC) plan
Res.B3c 1.1.4	Coordinate to insure interoperable and redundant communication equipment
Res.B3c 1.1.3.1	Coordinate environmental health efforts (e.g., response work, database management of environmental sample results, interpretation of results, and risk communication)
Res.B3c 1.1.3.2	Coordinate with the appropriate agencies for the analysis and database management of environmental samples and for the interpretation of results and risk communication
Res.B3c 1.1.3.3	Coordinate with public and private laboratories to ensure redundancies of capability
Res.B3c 1.1.3.4	Resolve confidentiality issues for sharing of information from laboratory results
Potable Water Supplies	
Res.B3c 1.2.2	Develop and maintain all-hazards emergency response procedures and protocols for assessment of Public Water Utility, Alternative Water Supplies (Hauled Water, Bulk Water, Bottled Water), Unregulated systems (individual wells), and Temporary or mobile treatment systems (Reverse Osmosis Purification Unit, Portable onsite treatment)
Res.B3c 1.2.3	Develop standard operating procedures (SOPs) for prioritizing the provision of potable water to affected populations and key facilities.
Res.B3c 1.2.4	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety and integrity of potable water supply and delivery system
Res.B3c 1.2.1.1	Develop emergency guidelines and operation criteria for limited operations (boil water or do not drink order) and plan for dissemination to public and policyholders in cooperation with water utilities

Res.B3c 1.2.4.1	Develop and maintain intrastate mutual aid agreements with water providers and relevant health and environment entities for assistance in disaster response/emergency events (WARN, mutual aid)
Res.B3c 1.2.4.2	Develop and maintain interstate agreements with water providers and relevant health and environment entities for assistance in disaster response/emergency events (EMAC)
Res.B3c 1.2.5	Develop and maintain a geo-coded database of all Safe Drinking Water Act (SDWA) drinking water facilities
Food Supplies	
Res.B3c 1.3.1	Develop capacity for the personnel and resources necessary to create and maintain a geo-coded database of the food supply and delivery system
Res.B3c 1.3.2	Ensure the existence of MOUs or other contractual agreements needed to share resources such as food inspection personnel, equipment, and databases
Res.B3c 1.3.3	Address mechanisms to recommend the closing of facilities or operations, and address non-compliance with recommendations in environmental health plans
Res.B3c 1.3.4	Address mechanisms to re-open food supply and delivery operations and facilities in environmental health plans
Res.B3c 1.3.2.1	Conduct hazard needs assessment and staffing surge requirements in the area of food supply and delivery
Res.B3c 1.3.2.2	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety and integrity of food supply and delivery system
Res.B3c 1.3.2.3	Develop materials and personnel to conduct just-in-time training for food protection
Res.B3c 1.3.2.4	Coordinate with public and private laboratories to develop plans for the lab testing necessary to ensure safety of the food supply and delivery system
Res.B3c 1.3.5	Ensure that environmental COOP planning addresses personnel and resources necessary to ensure the safety of the food supply and delivery system and mechanisms to prioritize response actions
Res.B3c 1.3.6	Develop capacity for rapid communications and data sharing (including geo-coded data) during emergency response
Wastewater Management	
Res.B3c 1.4.1	Develop and maintain all-hazard emergency response plans, procedures, and programs for the collection, treatment, and disposal of waste water (liquid waste and sewage) during emergency events to include Public Waste Water Utility, Alternative Waste Water (portable toilets, temporary lagoons, waste hauling), Unregulated systems (individual septic tanks), and Land applications
Res.B3c 1.4.2	Develop and maintain all-hazards emergency response procedures and protocols for assessment of the following types of facilities: Public Waste Water Utility, Alternative Waste Water, (portable toilets, temporary lagoons, waste hauling), Unregulated systems (individual septic tanks) and Land applications
Res.B3c 1.4.1.1	Develop standard operating procedures (SOPs) for the prioritization of the collection, treatment, and disposal of waste water (liquid waste and sewage) for affected populations and priority facilities (e.g., shelters, hospitals, etc).
Res.B3c 1.4.3.1	Develop and maintain intrastate mutual aid agreements with waste water collection, treatment, and disposal organizations and relevant health and environment entities for assistance in disaster response/emergency events (WARN, mutual aid)

Res.B3c 1.4.3.3	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety and integrity of wastewater systems
Res.B3c 1.4.3.2	Develop and maintain interstate agreements with waste water collection, treatment, and disposal organizations and relevant health and environment entities for assistance in disaster response/emergency events (EMAC)
Res.B3c 1.4.4	Develop and maintain a geo-coded database of all waste water facilities (e.g., treatment plants, lift stations, etc.)
Vector Surveillance	
Res.B3c 1.5.1	Develop plans, procedures, and programs for vector control
Res.B3c 1.5.2	Develop plan for assessing local vector control infrastructure prior to event and how it has been damaged during the event
Res.B3c 1.5.3	Develop plan to assist local vector control while they rebuild capabilities
Res.B3c 1.5.1.1	Develop disease specific emergency response plan for vector control including; insect, arthropod and rodent vectors
Res.B3c 1.5.1.2	Compile and review existing emergency vector control guidelines to include surveillance and control of insect, arthropod and rodent vectors.
Res.B3c 1.5.1.3	Develop new emergency vector control guidelines where none currently exist that include surveillance and control of insect, arthropod and rodent vectors.
Res.B3c 1.5.1.4	Develop communications plan for vector control to include control measures for the public and public agencies
Res.B3c 1.5.4	Develop, at the local level, the capability to create a geo-coded data base of all geographic locations assessed for vectors including locations that were treated, e.g., larvicides, spraying, etc.
Res.B3c 1.5.3.1	Develop Environmental Health Strike Team of appropriately trained personnel to perform vector control operations
Res.B3c 1.5.2.1	Assemble an assessment and inventory of current capacity, both public and private, to perform vector control
Building Environment	
Res.B3c 1.6.1	Develop plans, procedures, and protocols for providing environmental health support during re-entry operations
Res.B3c 1.6.1.1	Develop procedures and guidelines for building re-entry
Res.B3c 1.6.2	Assess power supply and generators for priority structures and identify alternative power sources
Res.B3c 1.6.1.2	Develop a plan with checklist for evaluating re-entry and re-occupancy of facilities (e.g., homes, educational, institution and health care facilities) that establishes evaluation process, assessment criteria, and indicators of safe re-occupation
Res.B3c 1.6.3	Develop communications plan for safety and environmental related hazards associated with re-entry and re-occupation of homes and facilities
Res.B3c 1.6.4	Develop and implement a monitoring system to determine status of rehabilitation efforts and health and safety issues associated with re-entry and re-occupancy
Res.B3c 1.6.4.1	Develop capacity to assess community structures and determine safe operations
Res.B3c 1.6.5	Develop Environmental Health Strike Team of appropriately trained personnel to ensure

	safety of building environments
Outdoor Environment	
Res.B3c 1.7.1	Conduct research and establish health-risk based tolerance thresholds for key contaminants; including updating existing methods and developing new ones where none exist
Res.B3c 1.7.2.1	Identify susceptible and vulnerable populations
Res.B3c 1.7.3	Develop and maintain a geo-coded database of potential hazards (e.g., refineries, chemical plants, mines, medical waste depositories, etc.)
Res.B3c 1.7.4	Inventory monitoring and sampling capabilities
Res.B3c 1.7.5	Develop an all-hazards communications plan
Res.B3c 1.7.6.1	Develop MOUs between and among public and private laboratories to provide redundant capabilities
Res.B3c 1.7.3.1	Conduct geo-coded baseline monitoring for all environmental media
Res.B3c 1.7.2	Conduct environmental vulnerability assessments
Res.B3c 1.7.6.2	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety of outdoor environments
Res.B3c 1.7.7	Coordinate with appropriate remediation teams for all contingencies
Support for Mass Care	
Res.B3c 1.8.1	Develop plans, procedures, and programs for environmental health support of mass care and sheltering facilities
Res.B3c 1.8.1.1	Develop mass care and sheltering guidelines that include safety/ food/air/water/wastewater sanitation/solid and biomedical waste requirements for all mass care facilities to include: shelters, housing, ice/food distribution, feeding sites, and other care facilities
Res.B3c 1.8.1.2	Develop mass care and sheltering guidelines that include food safety and sanitation requirements
Res.B3c 1.8.2	Develop shelter guidelines that include requirements for provision of safe drinking water from all sources and that include recommendations for alternate sources
Res.B3c 1.8.3	Develop shelter guidelines that include requirements for sanitation and number of portable toilets (e.g., toilets, porta-potties, and hand washing facilities)
Res.B3c 1.8.3.1	Identify sources and pre-arrange for delivery and emptying of toilets, porta-potties, and hand washing facilities
Res.B3c 1.8.4	Provide input into plans, procedures, and protocols to ensure individual/gross decontamination of persons and pets prior to admittance to shelters and other mass care facilities, medical and alternate care facilities, reception centers, animal shelters and other places as needed
Res.B3c 1.8.3.2	Conduct building/facility inspections in advance to identify food/sanitation capability and suitability of structures identified as mass care and shelter facilities (e.g., housing, shelters, feeding and care facilities)
Res.B3c 1.8.5	Develop a geo-coded database of all pre-designated mass care and shelter operations
Res.B3c 1.8.5.1	Update geo-coded database of all mass care and shelter operations
Res.B3c 1.8.6	In coordination with Mass Care and shelter operations, ensure that field communication plan includes environmental health personnel

Res.B3c 1.8.7	Develop Environmental Health Strike Team of appropriately trained personnel to ensure environmental health support to mass care and shelter response
Support for Solid Waste/Debris Disposal	
Res.B3c 1.9.1	Develop plans, procedures, programs, and guidance for environmental health support of waste management and debris removal
Res.B3c 1.9.2	Develop and provide technical inputs for waste management and debris removal guidelines
Res.B3c 1.9.2.1	Participate in the emergency response planning process for managing the type and quantities of waste generated by the incident and cleanup efforts
Res.B3c 1.9.2.2	Participate in the emergency response planning process for the safe removal and disposition of waste and debris
Res.B3c 1.9.3	Participate in the development of communications plans, procedures, and guidance for waste management and debris removal
Res.B3c 1.9.4	Develop a geo-coded database of all waste management facilities
Res.B3c 1.9.5	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety of solid waste/debris disposal
Support for Hazardous Waste Response	
Res.B3c 1.10.3	Participate in the communications planning process for hazardous materials incidents
Res.B3c 1.10.1	Provide technical assistance, consultation, and support in the development of plans for transporting hazardous materials
Res.B3c 1.10.1.1	Participate in the identification of facilities for the management of hazardous materials
Res.B3c 1.10.1.2	Participate in the determination of environmental health issues and concerns for transporting hazardous materials
Res.B3c 1.10.2	Participate in the development of a geo-coded database of hazardous materials facilities
Res.B3c 1.10.4	Develop Environmental Health Strike Team of appropriately trained personnel to ensure safety of hazardous materials management and decontamination
Preparedness Measures	
Metrics	
Drinking water safety is addressed in the comprehensive environmental health emergency response plan	Yes/No
Emergency plans to assess emergency water supply for impacted populations and key facilities are in place to ensure: <ul style="list-style-type: none"> ▪ Two liters per person per day ▪ Bathing/washing/cooking 20 liters per person per day 	Yes/No
Waste water disposal is addressed in the comprehensive environmental health emergency response plan	Yes/No
Emergency plans to assess emergency waste water disposal for impacted populations and key facilities are in place to ensure: <ul style="list-style-type: none"> ▪ One portable toilet per 25 people ▪ Gray water disposal 	Yes/No
Food safety is addressed in the comprehensive environmental health emergency response plan	Yes/No

Environmental health aspects of waste management and debris removal are addressed in the comprehensive emergency response plan	Yes/No
Vector control is addressed in the comprehensive environmental health emergency response plan	Yes/No
Environmental health issues and concerns during hazardous materials incidents are addressed in the comprehensive emergency response plan	Yes/No
Safe solid waste disposal/debris management is addressed in the comprehensive environmental health emergency response plan	Yes/No
Safe re-entry and re-occupation is addressed in the comprehensive environmental health emergency response plan	Yes/No
Sanitation/hygiene/safety issues for mass care facilities are addressed in the comprehensive environmental health emergency response plan	Yes/No
Risk communication is addressed in the comprehensive environmental health emergency response plan and pre-event messages are developed	Yes/No
Priority structures have been identified and assessed	Yes/No
Percent of Safe Drinking Water Act (SDWA) drinking facilities included in geo-coded database	100%
Geo-coded database includes non- Safe Drinking Water Act (SDWA) systems	Yes/No
Geo-coded database includes community wastewater facilities	Yes/No
Geo-coded database includes food operations	Yes/No
Percent of waste water facilities (e.g., treatment plants lift stations, etc.) included in geo-coded database	100%
Geo-coded database includes mass care and shelter operations	Yes/No
Geo-coded database includes vector control	Yes/No
Geo-coded database includes educational and institutional facilities (including associated chemical, biological, and radiological hazards)	Yes/No
Geo-coded database includes hazardous materials facilities (including associated chemical, biological, and radiological hazards)	Yes/No
Percent of waste management facilities included in geo-coded database	100%
Geo-coded database includes environmental laboratories	Yes/No
Geo-coded database is distributed to State and local emergency operations	Yes/No
Geo-coded environmental samples database is capable of cataloging results by collection medium (such as water, drinking water, soil, air, animal vectors)	Yes/No
Frequency with which geo-coded database of potential hazards is updated	Every 12 months
Frequency with which baseline monitoring database is updated	Every 12 months
Frequency with which environmental vulnerability assessments are updated	Every 3 months
Frequency with which plans, procedures, programs, and guidance for environmental health support of waste management and debris removal are reviewed, exercised, and updated	Every 12 months

Contamination survey instrumentation is available	Yes/No
Comprehensive environmental health assessment is completed for pre-selected facilities and structures	Yes/No
Percent of States that include emergency vector control training in their public health pesticide certification program	100%
Percent of local vector control programs, both public and private, able to provide geo-coded data	50%
Frequency with which geo-coded vector control database is updated	Every month
Frequency with which vector control geo-coded database and updates are distributed to State and local emergency operations	Every month
Geo-coded environmental samples database is capable of cataloging results by collection medium (e.g., water, drinking water, soil, air, animal vectors)	Yes/No
Comprehensive environmental health assessment is completed for pre-selected facilities and structures	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B3c 2.1	Develop training programs for providing environmental health support
Res.B3c 2.5	Identify and train personnel to develop and maintain geo-coded environmental health databases
Res.B3c 2.3	Ensure that environmental health emergency planning is fully integrated and exercised with the jurisdictional emergency plan
Res.B3c 2.2.10	Provide training to ensure environmental health support to hazardous materials responders
Res.B3c 2.2.2	Develop and conduct emergency response training relevant to environmental health in drinking water systems to field staff and managers of State/local drinking water programs and drinking water utilities
Res.B3c 2.2.4	Develop and conduct emergency response training relevant to all waste water systems including field staff and managers of State/local waste water programs, waste water utilities, public health, and emergency management
Res.B3c 2.2.5	Include emergency vector control response training to field staff and managers of State/local programs having responsibility for vector control in public health pesticide applicators' certification
Res.B3c 2.2.3	Develop and deliver environmental health emergency food safety response training to field staff and managers of food programs
Res.B3c 2.2.8	Develop and conduct emergency response training to field staff and managers of State/local programs having responsibility for safety/food/air/water/wastewater sanitation assessments of mass care operations
Res.B3c 2.2.8.1	Develop and conduct environmental health training to pre-designated managers, responders and volunteers of mass care operations
Res.B3c 2.2.10.1	Provide appropriate hazardous materials response training to field staff and managers of State/local programs having involvement in hazardous materials response
Res.B3c 2.2.3.1	Identify and train volunteers in emergency food safety
Res.B3c 2.2.3.2	Provide training to regulated entities within the food delivery system

Res.B3c 2.2.3.4	Develop materials and personnel to conduct just-in-time training for food protection	
Res.B3c 2.2.2.1	Develop and conduct emergency response training relevant to all drinking water systems including field staff and managers of State/local drinking water programs, drinking water utilities, public health, and emergency management	
Res.B3c 2.4	Develop exercise programs for providing environmental health support	
Preparedness Measures		Metric
Frequency with which emergency response training is provided to field staff and managers of State and local environmental health programs		Every 12 months
Training addresses the range of environmental health issues		Yes/No
Training has been provided to ensure environmental health support to hazardous materials responders		Yes/No
Training on food safety is provided to responders and volunteers		Yes/No
Training on environmental health is provided to pre-designated managers, responders, and volunteers of mass-care operations		Yes/No
Percent of solid waste and debris and disposal workers adequately trained and protected (PPE)		100%

Performance Tasks and Measures/Metrics

Activity: Direct Environmental Health Operations (Command and Control)	
Definition: In response to notification of environmental hazards, provide overall mobilization, management of assessment, and coordination and support of Environmental Health activities through demobilization	
Critical Tasks	
Res.B3c 3.1	Coordinate the environmental health function into response activities
Res.B3c 3.1.1	Develop an incident-specific plan to coordinate the various elements of environmental health among Federal, State, and local response
Res.B3c 3.1.3	Determine and ensure the coordination for the analysis and database management of environmental samples, including those for which other agencies are responsible for the interpretation of results and risk communication
Res.B3c 3.1.4	Provide environmental health support and coordination for Crisis and Emergency Risk Communication
Res.B3c 3.1.4.1	Develop Crisis and Emergency Risk Communication information for dissemination through the Joint Information Center to media, public, partners and stakeholders
Res.B3c 3.1.4.2	Identify and communicate environmental health risk issues to the affected population
Res.Bc3 3.1.5	Provide input on forecasting and planning aspects as part of the Incident Command System (ICS) for environmental health needs in the subsequent operation period
Res.Bc3 3.2	Provide support and coordinate environmental health resources to address potable water supply issues
Res.Bc3 3.3	Provide support and coordinate environmental health resources to address waste water issues
Res.Bc3 3.4	Provide support and coordinate environmental health resources to address mass care issues

Res.Bc3 3.5	Provide support and coordinate environmental health resources to address debris and waste management issues	
Res.Bc3 3.6	Provide support and coordinate environmental health resources to address responder safety and health (link to capability)	
Res.Bc3 3.7	Provide support and coordinate environmental health resources to address hazardous materials (CBRNE) issues	
Res.Bc3 3.8	Provide support and coordinate environmental health resources to address vector control response issues	
Res.Bc3 3.10	Provide support and coordinate environmental health resources to address medical care issues to include exposure assessment, toxicological consultation, dose assessment, secondary exposure, medical waste management	
Res.Bc3 3.11	Provide support and coordinate environmental health resources to address food and agricultural safety and defense	
Res.Bc3 3.12	Provide support and coordinate environmental health resources to address animal-health emergency support issues	
Res.Bc3 3.13	Provide support and coordinate environmental health resources to address food supply issues	
Res.Bc3 3.14	Provide support and coordinate environmental health resources to address safe re-entry and re-occupancy of community, homes, and facilities	
Res.Bc3 3.15	Provide support and coordinate environmental health resources to address outdoor environmental issues	
Performance Measures		Metric
Time in which technical information, support and consultation is provided for the creation of Crisis and Emergency Risk Communication messages		Within 60 minutes from request
Percent of time that environmental health technical information, support and coordination is provided in response to a request or an identified need		100%
Percent of time that environmental health resources are deployed in response to a request or an identified need		100%
Time in which environmental health input is provided for the forecasting and planning aspects of the Incident Action Plan (IAP)		Within 60 minutes from request

Activity: <i>Activate Environment Health</i>		
Definition: Identify required experts and mobilizes personnel to begin environmental health assessments and response activities		
Critical Tasks		
Res.B3c 4.1	Identify environmental health specialties required to assess and support response	
Res.B3c 4.2	Mobilize environmental health personnel	
Res.B3c 4.3	Mobilize environment health resources	
Performance Measures		Metric

Appropriate environmental health specialties have been identified or put on stand-by	Yes/No
Time in which environmental health personnel are mobilized	Within 24 hours from incident

Activity: <i>Ensure Safety of Potable Water Supplies</i>	
Definition: Conduct health assessments and take actions necessary to ensure that the public has sufficient access to safe potable water for drinking, washing, and ice	
Critical Tasks	
Res.B3c 5.1	Provide initial damage assessment of drinking water infrastructure
Res.B3c 5.2	Request needs for equipment and personnel through emergency operations, Emergency Management Assistance Compact, federal assistance, or mutual aid agreements
Res.B3c 5.2.1	Deploy personnel and equipment to repair, conduct assessments, provide technical assistance and conduct monitoring of drinking water supplies and systems
Res.B3c 5.1.1	Develop prioritization list of activities to provide potable water to affected populations and key facilities
Res.B3c 5.1.2	Conduct ongoing and follow-up assessment of systems to include facility assessments, equipment needs assessments, water sampling, and laboratory analysis and personnel needs
Res.B3c 5.3	Conduct ongoing repairs, technical assistance, and monitoring for all water systems
Res.B3c 5.4	Disseminate water communication messages to appropriate groups considering population and cultural differences
Performance Measures	Metric
Time in which initial assessments for water system needs for affected populations and priority facilities are conducted	Within 12 hours from establishment of communications
Time in which all public water facilities are assessed	Within 14 days from incident
Percent of time that State and local drinking water regulations are met for drinking water at point of use or entry into the distribution system to include the following systems: (1) Public Water Utility; (2) Alternative Water Supplies (Hauled Water, Bulk Water, Bottled Water); (3) Unregulated systems (individual wells); (4) Temporary or mobile treatment systems (ROPU, Portable onsite treatment)	100%

Activity: <i>Ensure Safety of Food Supplies</i>	
Definition: Conduct health assessments and take actions necessary to ensure that the food supply meets the health and safety codes of local jurisdiction	
Critical Tasks	
Res.B3c 6.1	Identify high risk foods, food supplies and systems, facilities, and transport mechanism (temporary providers) that may pose hygiene or safety issues because of the event
Res.B3c 6.2	Conduct initial assessments of food facilities using Emergency Guidelines and Operation Criteria or applicable code
Res.B3c 6.2.1	Conduct field surveys to assess damage to food facilities

Res.B3c 6.2.2	Assess safety and integrity of food supply delivery and transport mechanisms	
Res.B3c 6.2.3	Ensure that the safety and integrity of food supply and delivery is considered when conducting community infrastructure assessments	
Res.B3c 6.2.4	Record and report assessments through automated systems (e.g., scanned forms or handhelds) to develop reports for follow-ups and tracking of common and related issues	
Res.B3c 6.3	Determine safety of response activities	
Res.B3c 6.4	Establish priorities for response activities	
Res.B3c 6.5	Activate COOP/COG plans	
Res.B3c 6.6	Address compromised safety and integrity issues of the food supply an delivery system	
Res.B3c 6.7.1	Provide just-in-time training for volunteers	
Res.B3c 6.7	Activate volunteers	
Res.B3c 6.8	Ensure proper food handling in non-traditional operations activated during emergency response, and ensure best practices	
Res.B3c 6.8.1	Ensure proper food salvage of at risk foods and beverages or potentially exposed food products	
Res.B3c 6.8.2	Recommend the closing of facilities or operations when appropriate and address non-compliance with recommendations	
Res.B3c 6.9	Provide Crisis and Emergency Risk Communication to public entities on topics such as the safe disposal of damaged or contaminated food in coordination with Emergency Public Information and Warning	
Res.B3c 6.9.1	Ensure Crisis and Emergency Risk Communication to regulated entities	
Res.B3c 6.10	Conduct environmental investigations of disease outbreaks possibly related to food-borne exposure supported by information systems that comply with the Public Health Information Network Functional Area Outbreak Management	
Res.B3c 6.10.1	Clear facilities or operations for resumption of services when appropriate	
Performance Measures		Metric
Time in which assessment of priority food facilities is initiated using emergency guidelines and operation criteria applicable to the affected area		Within 24 hours from incident
Food safety personnel participate in infrastructure assessment		Yes/No

Activity: <i>Ensure Safety of Wastewater Management</i>	
Definition: Conduct health assessments and take actions necessary to ensure that waste water is properly managed and disposed	
Critical Tasks	
Res.B3c 7.1	Provide initial damage assessment of waste water collection, treatment and disposal facilities
Res.B3c 7.2	Request needed equipment and personnel through emergency operations, Emergency Management Assistance Compact, Federal assistance, or mutual aid agreements
Res.B3c 7.2.1	Deploy personnel and equipment to repair, conduct assessments, provide technical assistance and conduct monitoring of waste water systems

Res.B3c 7.1.1	Develop prioritization list of activities to provide waste water collection, treatment and disposal facilities to affected populations and priority facilities (e.g., shelters, hospitals, etc.)	
Res.B3c 7.1.2	Conduct ongoing and follow-up assessment of systems to include facility assessments, equipment needs assessments, waste water sampling, and laboratory analysis and personnel needs	
Res.B3c 7.3	Conduct ongoing repairs, technical assistance, and monitoring for all waste water systems	
Res.B3c 7.4	Disseminate waste water communication messages to appropriate groups considering population and cultural differences	
Performance Measures		Metric
Time in which initial assessments are conducted for waste water system needs for affected populations and priority facilities (e.g., shelters, hospitals, etc.)		Within 12 hours from establishment of communications
Time in which all public waste water facilities are assessed		Within 14 days from incident
Percent of time that State and local waste water regulations are met for waste water to include the following systems: (1) Public Waste Water Utility; (2) Alternative Waste Water (portable toilets, temporary lagoons, waste hauling); (3) Unregulated systems (individual septic tanks); (4) Land application		100%
Percent of affected populations provided with adequate temporary sewage disposal alternatives (1 portable toilet per 20 persons or access to pit latrines provided to all personnel according to The Sphere Project Minimum Standards in Disaster Response guidelines)		100%

Activity: *Provide Vector Surveillance*

Definition: After vector is identified, mobilize and equip control personnel with appropriate personal protective equipment and direct control strategies and application of vector control substances

Critical Tasks

Res.B3c 8.1	Provide vector control	
Res.B3c 8.1.1	Assist in the coordination of vector control response	
Res.B3c 8.2	Establish a vector control technical expertise team for surveillance and monitoring of animal infections until population densities and infection rates return to pre-event levels	
Res.B3c 8.3	Conduct assessment of insect, animal and rodent vectors to include population densities, infectivity rates, and human risk potential	
Res.B3c 8.4	Coordinate emergency vector control measures to the extent needed to supplement local capacity and reduce risk to pre-event levels	
Res.B3c 8.3.1	Monitor vectors	
Res.B3c 8.4.1	Develop plan to work with local vector control to assist while they rebuild capabilities	
Performance Measures		Metric
Time in which initial assessment of insect, animal, and rodent vectors is completed		Within 72 hours from incident confirmation

Percent of vectors mitigated	85%
Time in which animal control measures are initiated	Within 96 hours from incident
Frequency with which database with areas treated for vector control is updated	Every 48 hours
Frequency with which geo-coded database is updated with all locations assessed or treated for vectors during incident	Every 48 hours

Activity: <i>Ensure Safety of Building Environments</i>	
Definition: Conduct health assessments and take actions necessary to ensure that buildings can be safety re-entered	
Critical Tasks	
Res.B3c 9.1	Provide environmental health support on assessing buildings for re-entry
Res.B3c 9.1.1	Assist assessments to collect and analyze data needed to determine safe re-entry and re-occupancy of community, homes and facilities
Res.B3c 9.2	Coordinate with NIOSH/OSHA/Hazmat to identify facilities that are safe for re-entry
Res.B3c 9.1.2	Assess community structures and issue recommendations for safe operations
Res.B3c 9.3	Provide geo-coded status report of community, homes, facilities, and structures identified as safe or unsafe to re-enter and re-occupy
Res.B3c 9.1.3	Assess rehabilitation of community, homes, facilities, and structures
Res.B3c 9.4	Monitor re-entry operations
Performance Measures	Metric
Percent of affected communities, homes, educational, institutional and health care facilities monitored in accordance with established evaluation processes and criteria	100%
Frequency with which data is analyzed during the incident to determine status of safe re-entry and re-occupancy of community, homes, and facilities	Every 12 hours
Time in which a geo-coded system is implemented to determine status of rehabilitation efforts and health and safety issues associated with reentry and re-occupancy	Within 72 hours from the incident
Documentation is maintained for assessments conducted	Yes/No
Frequency with which geo-coded status report of community, homes and facilities identified as safe or unsafe to re-enter and re-occupy are updated	Every 12 hours

Activity: <i>Ensure Safety of Outdoor Environments</i>	
Definition: Conduct health assessments and take actions necessary to ensure that areas can be safety re-entered	
Critical Tasks	
Res.B3c 10.1	Design and conduct appropriate environmental sampling programs
Res.B3c 10.2	Geo-code all environmental samples and make them publicly available in a timely manner where appropriate

Res.B3c 10.1.1	Provide health impact assessment of sampling results from various environmental sources to include: water, air, surfaces and soil via comparison to baseline results and/or preexisting standards and make them publicly available in a timely manner where appropriate	
Res.B3c 10.3	Recommend and/or lead remediation efforts for individual property owners and communities	
Res.B3c 10.4	Establish a sampling plan relevant to the event	
Performance Measures		Metric
Time in which the sampling plan is developed		Within 24 hours from incident
Time in which the sampling plan is initiated		Within 72 hours from incident
Time in which the initial findings and response recommendations are summarized and disseminated		Within 96 hours from incident
Time in which a full characterization and recommendations based upon the initial assessments are developed		Within 14 days from incident

Activity: Provide Environmental Health Support to Mass Care Response

Definition: Conduct health assessments and take actions necessary to ensure that mass care facilities provide safe food, water, sanitation, and environment

Critical Tasks

Res.B3c 11.1	Coordinate environmental health assessments of mass care and shelter operations	
Res.B3c 11.1.1	Monitor the environmental health impact of changing population levels and circumstances in mass care and shelter operations	
Res.B3c 11.2	Conduct initial comprehensive environmental assessments (safety/food/water/wastewater sanitation) of mass care and shelter operations to ensure compliance with guidelines	
Res.B3c 11.2.2	Assess safety of potable water at mass care facilities-shelters, feeding centers, and sources of ice	
Res.B3c 11.2.3	Assess safety of food supply at mass care facilities-shelters, feeding centers, food/ice distribution centers	
Res.B3c 11.2.4	Assess safety of wastewater management (including toilets, on-site systems and hand washing facilities) at mass care facilities	
Res.B3c 11.3	Provide vector control to mass care and shelter facilities	
Res.B3c 11.4	Assess building safety for mass care and shelter facilities	
Res.B3c 11.5	Provide environmental health support to solid waste/debris removal at mass care and shelter facilities	
Res.B3c 11.6	Conduct follow-up environmental health assessments (safety/food/air/water/wastewater sanitation) of mass care operations	
Performance Measures		Metric
Time in which a sanitation assessment of drinking water at mass care facilities, shelters, and feeding centers is completed to ensure the water quality meets EPA standards		Within 48 hours from onset of shelter operation
Time in which comprehensive environmental assessments (water, air, sanitation, food, and safety) at mass care facilities, shelters, feeding centers, and food/ice distribution centers are		Within 48 hours from onset of shelter

completed to ensure: (1) Safe water – 7.7-15 liters/day; (2) Cot spacing (overcrowding)– 3.5 m ² ; (3) Minimum 1 toilet/20 persons, etc.	operation
Frequency with which geo-coded database is updated with all mass care operations	Every 12 hours

Activity: *Provide Environmental Health Support to Solid Waste/Debris Removal*

Definition: Conduct health assessments and take actions necessary to ensure that solid waste management and debris removal activities are conducted in a manner that protects public and environmental safety

Critical Tasks

Res.B3c 12.1	Provide environmental health assessment of waste management and debris removal practices
Res.B3c 12.1.1	Provide environmental health assessment of waste and debris in impacted areas
Res.B3c 12.2	Monitor waste management and debris removal operations
Res.B3c 12.2.1	Ensure the appropriate collection and management of waste and debris
Res.B3c 12.3	Provide technical assistance and consultation for the environmental health aspects of waste management and debris removal

Performance Measures	Metric
Time in which assessment of waste management and debris removal operations for environmental health concerns is initiated	Within 24 hours from incident
Time in which monitoring of waste management and debris removal operations and practices is initiated	Within 24 hours from incident
Frequency with which geo-coded database is reviewed and updated after the collection and disposal process begins	Every 24 hours

Activity: *Provide Environmental Health Support to Hazardous Materials Management/Decontamination*

Definition: Conduct health assessments and take actions necessary to ensure that hazardous materials management and decontamination activities are conducted in a manner that protects public and environmental safety

Critical Tasks

Res.B3c 13.1	Participate in response to hazardous materials incidents by providing environmental health technical assistance, consultation, and support
Res.B3c 13.2	Ensure that initial and follow-up assessments of environmental media impacted by hazardous materials incidents are conducted
Res.B3c 13.3	Provide technical assistance, consultation, and support in the investigation of hazardous materials incident
Res.B3c 13.4	Provide geo-coded locations and results for environmental samples following hazardous materials incidents
Res.B3c 13.3.1	Provide technical assistance, consultation, and support during damage assessments following hazardous materials incidents

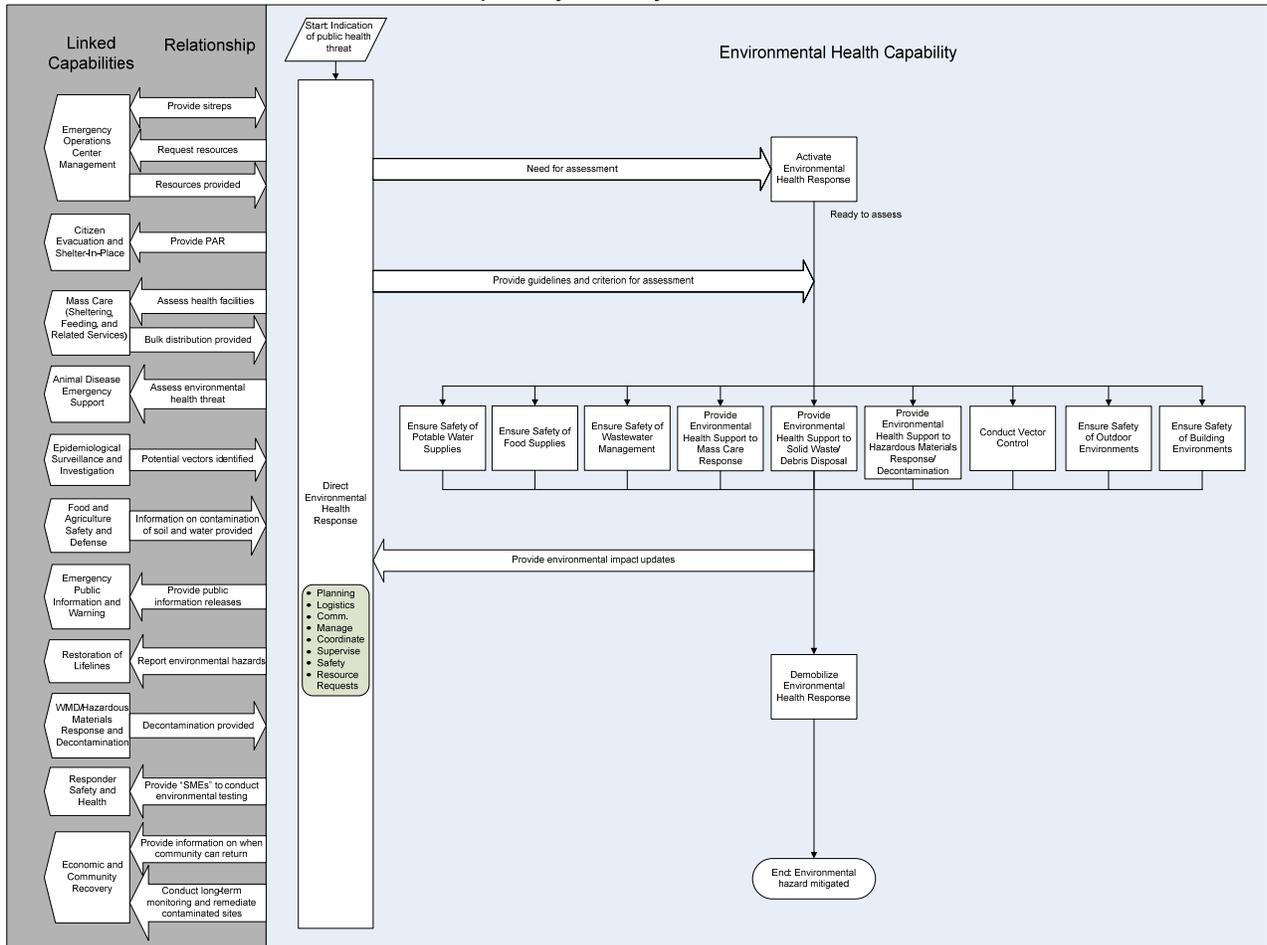
Res.B3c 13.2.2	Assist in conducting assessments to identify environmental health hazards, threats, vulnerabilities and risks to facilities involved in the production, storage or distribution of hazardous materials	
Res.B3c 13.5	Provide environmental health technical assistance, consultation, and support and coordination in the management of environmental contaminants associated with hazardous materials incidents	
Res.B3c 13.6	Provide technical assistance, consultation, and support in establishing and monitoring access restrictions/quarantine to contaminated areas during hazardous materials incidents	
Res.B3c 13.7	Provide technical assistance, consultation, and support regarding decontamination procedures	
Res.B3c 13.8	Provide technical assistance, consultation, and support for plume modeling and evacuation	
Res.B3c 13.7.1	Provide technical assistance, consultation, and support for decontamination operations	
Performance Measures		Metric
Time in which technical assistance, consultation, and support to hazardous materials responders is initiated		Within 24 hours from incident
Time in which technical assistance, consultation, and support for damage assessments during hazardous materials incidents is initiated		Within 48 hours from incident

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Environmental Health provides information to EOC Management for situational awareness about environmental hazards that require response (clean-up, evacuation, etc) and/or that impact responder health and safety. Environmental Health makes recommendations on mitigation to decision makers in the EOC. Environmental Health also requests resources from the logistics section within the EOC.
Citizen Evacuation and Shelter-In-Place	Environmental Health provides protective action recommendations to Citizen Evacuation and Shelter-In-Place
Mass Care (Sheltering, Feeding, and Related Services)	Environmental Health provides oversight to Mass Care (Sheltering, Feeding, and Related Services) operations to ensure safe food, clean air and water, and necessary waste disposal and other sanitation requirements.
Animal Disease Emergency Support	Environmental Health provides an environmental health threat assessment to Animal Disease Emergency Support.
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation identifies potential vectors to Environmental Health. Environmental Health findings inform epidemiological investigations and targeted surveillance.
Food and Agriculture Safety and Defense	Environmental Health provides information on potential contaminated soil and water to be monitored. Environmental Health tasks related to eradication of crop diseases/pests, integrity of the food producing industry, and removal and disposal of potentially compromised food are listed in Food and Agriculture Safety and Defense
Emergency Public Information and Warning	Environmental Health provides information and recommends protection and mitigation strategies to be included in public releases to Emergency Public Information and Warning.
Restoration of Lifelines	Environmental Health provides information on environmental hazards to Restoration of Lifelines.

Linked Capability	Relationship
WMD and Hazardous Materials Response and Decontamination	Environmental Health cooperates with WMD and Hazardous Materials Response and Decontamination on when and how to perform decontamination, after appropriate samples have been taken and returned for lab analysis.
Responder Safety and Health	Environmental Health comprises many of the “SMEs” referenced in Responder Safety and Health who will do environmental testing to inform what types of PPE are needed and what hazards exist for responders entering an environment.
Economic and Community Recovery	Environmental Health provides information regarding safe return to previously dangerous areas. Environmental Health also conducts long-term monitoring and remediation of contaminated sites.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Environmental Health Task Force (General)	A Federal, State, Regional or Local task force comprising personnel with expertise in environmental health functional elements (e.g., water, food, debris and waste management, vector control, air) trained and equipped to address environmental health issues. Task force is capable of collecting general indoor and outdoor samples, conducting rapid needs assessments, coordinate environmental health risk-based advice to the emergency response community. Task force will identify and address environmental health issues of concern to the impacted populations. Support the public health planning and forecasting team. The size of the task force may be scaled for the particular response. Local officials are responsible for identifying all personnel even though the task force is composed of personnel from all levels of government. Personnel: 6 members, 1 lead
Environmental Health Strike Team (Radiological)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on radiological environmental health issues; and consult with environmental health subject matter expert(s) as needed. Team includes a health physicist to advise on a wide range of radiation exposure and relevant actual or potential health effect issues. Team includes trained radiological monitoring personnel to monitor the exposed population for radiation contamination and assist with decontamination. Personnel: 6 members, 1 lead; includes health physicist and trained radiological monitoring personnel
Environmental Health Strike Team (Food)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on food environmental health issues; and consult with environmental health subject matter expert(s) as needed. Local officials are responsible for identifying all personnel even though the strike team is composed of personnel from all levels of government. Personnel: 6 members, 1 lead
Environmental Health Strike Team (Potable Water)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on potable water environmental health issues; and consult with environmental health subject matter expert(s) as needed. Personnel: 14 members, 1 lead;
Environmental Health Strike Team (Potable Water) – Technical Assistance	Provides technical assistance and message to private homeowners with wells. Personnel: 6 members, 1 lead
Environmental Health Strike Team (Debris and Waste Management)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on debris and waste management environmental health issues; and consult with environmental health subject matter expert(s) as needed. Personnel: 6 members, 1 lead;
Environmental Health Strike Team	A team trained and equipped to conduct environmental health assessments;

Resource Elements	Components and Description
(Vector Control)	address environmental health issues; compile, geo-code, and interpret data; provide public health advice on vector control environmental health issues; and consult with environmental health subject matter expert(s) as needed. Team has experience and training in trapping, identification and control measures and is knowledgeable of notifications that need to be done before control can commence (e.g., beekeepers, no spray registries etc.). Local officials are responsible for identifying all personnel even though the strike team is composed of personnel from all levels of government. Personnel: 6 members, 1 lead;
Environmental Health Strike Team (Hazardous Materials)	
Environmental Health Strike Team (Air) – outdoor	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on outdoor air environmental health issues; and consult with environmental health subject matter expert(s) as needed. Personnel: 8 members, 1 lead
Environmental Health Strike Team (Air) – indoor air	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on indoor air environmental health issues; and consult with environmental health subject matter expert(s) as needed. Personnel: 6 members, 1 lead
Environmental Health Strike Team (Wastewater)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on wastewater environmental health issues; and consult with environmental health subject matter expert(s) as needed. Personnel: 14 members, 1 lead;
Environmental Health Strike Team (Shelter)	A team trained and equipped to conduct environmental health assessments; address environmental health issues; compile, geo-code, and interpret data; provide public health advice on mass shelter environmental health issues; and consult with environmental health subject matter expert(s) as needed. Local officials are responsible for identifying all personnel even though the strike team is composed of personnel from all levels of government. Personnel: 6 members, 1 lead;
Environmental Health Lead Coordinator	An environmental health professional trained and equipped to assume the environmental command component of incident response, or in applicable situations, assume incident command responsibilities. The coordinator will also supervise the activities of the environmental health task force and request strike team assets as needed. Local officials are responsible for identifying the coordinator even though the coordinator may be Federal, State, or local.
Environmental Health Liaison	An environmental health professional trained and equipped to represent environmental health concerns within the incident command structure.

Planning Assumptions

- This capability applies to a wide range of incidents and emergencies including accidental or deliberate disease outbreaks, natural disasters, nuclear and conventional events. Specific assumptions on consequences are based on the Natural Disaster – Major Earthquake Scenario.

- The capacity estimates and staffing formulas used in this capability are based on broad assumptions that may or may not reflect conditions in an actual emergency.
- Members of response organizations are on a reserve/volunteer call-up status. They will require some time to assemble and must be relieved after some reasonable amount of time.
- A progress rate of at least 10% improvement is expected in deriving capability requirements.
- Power restoration will not occur immediate but will begin to increase after 2 weeks.
- Funding and resources are abundantly available.

Potable Water:

- Environmental Health Strike Team – Potable Water – Team consist of 15 members, 1 Team Lead and 14 members, 14 members make up 7 Units (2 person per Unit).
- All potable water systems initially inoperable.
- Team size and make up will vary given the complexity of operations assessed.
- Mobile laboratories will be requested to match the number of samples taken. Note: The Laboratory Target Capability function should contain this requirement.
- Primary function of Teams is to assess damage, make recommendations, provide technical assistance and maintain the safety of potable water.
- Initial Damage Assessments: 49 large regulated water supply systems (prioritized from large municipal to smaller systems); strike team is 7 Units of 2 people, each Unit can do 1 assessments per day; each strike team can do 7 systems per day; Need 1 team to accomplish all assessments in 1 week.
- Initial Damage Assessments: 1,960 smaller regulated water supply systems; strike team is 7 Units of 2 people, each Unit can do 5 assessments per day; each strike team can do 35 per day; Need 4 teams to complete all assessments in 2 weeks.
- Temporary bulk water distribution site assessments: 504 distribution sites, strike team is 7 Units of 2 people; each Unit can do 6 site assessments per day; each strike team can do 42 sites per day; Need 2 teams to accomplish all assessments in 2 days.
- Individual homeowner wells will not be an initial priority but will be require technical assistance. Assistance needs will increase water teams after 2 weeks when broader community power is restored. One small team of SMEs will be needed to develop public service messages and provide technical assistance. 7 person team consisting of 1 team lead and 6 team members.
- Mobile water treatment unit assessments will be needed for 294 priority facilities, strike team is 7 Units of 2 people, each Unit can do 6 site assessments per day; each strike team can do 42 sites per day; Need 2 teams to accomplish all assessments in 2 days. Sites will need to be evaluated before beginning operation therefore immediate assessments are required. Need 1 team to complete all assessments over 1 week.

Waste Water:

- Environmental Health Strike Team – Waste Water – Team consist of 15 members, 1 Team Lead and 14 members, 14 members make up 7 Units (2 person per Unit).
- All waste water systems initially inoperable.
- Team size and make up will vary given the complexity of operations assessed.
- Mobile laboratories will be requested to match the number of samples taken. Note: The Laboratory Target Capability function should contain this requirement.
- 49 large regulated waste water systems , strike team is 7 Units of 2 people, each Unit can do 1 assessments per day; each strike team can do 7 per day; Need 1 teams to accomplish all assessments in 1 week.
- 1,960 smaller regulated waste water supply systems. 7 Units of 2 people, each Unit can do 5 site assessments per day; each strike team can do 35 sites per day; Need 2 teams to accomplish all assessments in 2 weeks.

- 588 temporary lagoons and holding facilities assessed , 7 Units of 2 people, each Unit can do 6 site assessments per day; each strike team can do 42 sites per day; Need 2 teams to accomplish all assessments in 2 weeks.
- 196 land application sites are established and assessed, strike team is 7 Units of 2 people, each Unit can do 4 site assessments per day; each strike team can do 28 sites per day; Need 1 teams to accomplish all assessments in 1 week.

Food

- 12 hour operational period (work shift).
- 1.5 million meals per day needed.
- Food for shelters will be prepared off site in 45 centralized kitchen facilities/commissary, 3 strike teams (consisting of 6 people) doing 45 inspections a day.
- 575 field kitchens and 1,875 mobile kitchens. These will require 30 strike teams (consisting of six people each) at a frequency of every other day for a total of 7560 inspections (1 hour inspection) to be completed in one week.
- Restaurants will not be allowed to reopen for an extended period of time (2 weeks).
- Assume 10,000 preexisting regulated food facilities (including restaurants) (per 1 million people) . There will be a need for eh strike team (food) to perform initial assessment and/or ensure closure of these facilities. 40 EH strike teams (consisting of 6 people) can do 10,080 inspections (1 hour inspection time) in 2 weeks.
- In order to maintain span of control of teams, 12 team leaders and two lead coordinators would be need to be identified.

Shelters

- Shelters will mostly be of temporary facilities (tent cities) assuming previously identified structures have been damaged due to earthquake, located close to affected population.
- 1,152 shelters, each capable of caring for 250 people – the average population per shelter will rise with a catastrophic event (estimated 1000 residents per shelter vs 250) because fewer facilities (400 shelters) will be available than the preplanning estimation. It is assumed that shelters are located in Host communities and that each shelter has existing basic sanitation (water/wastewater) and will not require environmental support for water/wastewater.
- A team of 6 emergency health strike team (shelter) members can assess 2 shelters in one day. Frequency of inspections should be every other day.
- Planning for needs of EH strike teams (shelter) is based on first 30 days. There will be continued need for additional teams for displaced populations in FEMA trailer parks, ongoing shelters, etc.
- 100 of the 400 shelters are special needs. Companion animal needs should be addressed.
- In order to maintain span of control of teams, 100 team leaders and ~16 lead coordinators would be need to be identified
- After the acute response period, the need for temporary living quarters (FEMA temporary housing) will require further environmental health services
- Some previously identified structures will not be able to be shelters due to actual or potential damage.
- Timely logistical support to shelters and feeding sites will be essential and required for a sustained period of time.
- An immediate and sustained need for bulk distribution of relief supplies will be required. Requirements will depend on the nature of the human needs produced by the incident.
- Populations likely to require mass care services include the following: 1) Primary victims (with damaged or destroyed homes) 2) Secondary and tertiary victims (denied access to homes) 3) Transients (visitors and travelers within the affected area) 4) Emergency workers (seeking feeding support, respite shelter(s), and lodging).

Vector Surveillance:

- 6 counties affected
- Prior indication of West Nile in the area
- 3 of 6 counties have pre-existing mosquito and rodent control programs, currently non-operational.
- **Vector surveillance:** Senior public health entomologist responsible for receiving surveillance data and updating surveillance daily; 1 five-person field team per county for combination mosquito and rodent surveillance, consisting of 2 medical entomologists, 1 rodent control specialist and 2 general field technicians with equipment to collect and identify mosquitoes and rodents and with access to back-up labs at state or federal levels to test mosquitoes for West Nile and other arboviruses; each field team needs 2 vehicles (SUV or pick-up) for access to sampling sites in field and transport of samples back to labs at least twice a day; for access to remote sampling sites, one ATV per pick-up may be needed.
- **Shelter vector surveillance:** One public health entomologist will liaison with the generalist task forces stationed at each shelter to advise on vector surveillance and receive surveillance data
- **Vector control:** Recommendations are made to Incident Command for specific requirements to mitigate any vector issues; control measures will be contracted out to an operational unit with that capability

Indoor and Outdoor Air Quality:

- While 1,000,000 buildings will be damaged, re-entry will only be attempted at 1% of the buildings within the first month
- **Outdoor air quality monitoring:** Four two-person units per county equipped with appropriate PPE and mobile air monitors for all outdoor air quality concerns (including, but not limited to PM, VOCs, PAHs, asbestos, and mold spores). Units will consist of 2 environmental health scientists with training in outdoor air quality monitoring. Units will have the capability to respond to acute point source events as well as general air quality concerns over the affected region. Units will have access to back-up labs at state or federal levels to process samples. Counties will be surveyed daily or every other day throughout the first 30-60 days, and then regularly (weekly or biweekly) throughout the recovery period to monitor for long-term events or problems. Where roads are passable, the EPA's TAGA can be used for supplemental large-scale air monitoring efforts.
- **Indoor air quality monitoring:** Two three-person Units per county equipped with appropriate PPE and indoor air monitors to perform air quality assessments and make recommendations for re-entry into 1,000 damaged buildings within the first month. Units will consist of three environmental health scientists with training in indoor air monitoring. Units will have access to back-up labs at state or federal levels to process samples.
- **Air quality modeling and assessments:** Two environmental health risk assessors with experience in air pollutant risk assessment will receive data as compiled by the air monitoring strike teams and make recommendations on exposure guidelines and health risks presented by indoor and outdoor air quality. For circumstances where air contamination must be modeled to forecast future hazards and vulnerabilities (e.g., the potential distribution of a plume), a team of three mathematical modelers with the appropriate training and modeling software should be available for this forecasting function

Building Environments (Utilizes EH General Task Force):

- Assessments occur after building is deemed structurally sound
- Performed by the EH General Task Force, a multi-disciplinary team composed of seven environmental health scientists with a variety of specialties including but not limited to, food safety, industrial hygiene, engineering, environmental health and safety, environmental health specialist, sanitarian, etc. One member of the Task Force is designated a team leader. The six working personnel of the Task Force will be subdivided into three teams of two that will conduct field assessments.

- The Task Force assists in the assessment of building environments, e.g., educational facilities, hospitals, institutions, and homes, for the presence of critical components affecting health, as appropriate to each structure. These components include sanitation, wastewater conveyance, vector control, indoor air quality, potable water, absence of hazards, etc.
- Residences, schools (500 students), hospitals (500 beds), institutions (100 person occupancy, e.g., jails) are representative buildings that vary in complexity of operation.
- Each team of two should be able to assess 16 homes per day; 2 schools per day; 1 hospital per day; or 3 institutions per day. These assessments will scale up by a factor of three for the whole Task Force.
- This team also possesses the multi-disciplinary ability to assist in the assessment of buildings for emergency sheltering needs, and should be able to be used in this capacity.
- Assume that of the 1,000,000 buildings damaged, only 1% will be re-occupied within the first 30 days. The Task Force will assess 1,000 buildings in this time frame, of which 10 are jails, 5 hospitals, 4 schools and the rest are homes (981).

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Natural Disaster – Major Earthquake Scenario)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Environmental Health Task Force (General)	Task force can assess: <ul style="list-style-type: none"> • Homes: 48 per day • Schools: 6 per day • Hospitals: 3 per day • Institutions: 9 per day 	In 30 days, need to assess: <ul style="list-style-type: none"> • 10 institutions • 5 hospitals • 4 schools • 981 homes 	1 Task Force
Environmental Health Strike Team (Food)	Strike Team can inspect: <ul style="list-style-type: none"> • 45 centralized kitchen facilities/commissary per daily • 7,560 field and mobile kitchens per week • 10,080 regulated facilities in two weeks 	Need to inspect: <ul style="list-style-type: none"> • 45 centralized kitchen facilities/commissary • 575 Field kitchens and 1,875 mobile kitchens every 48 hours • 10,000 preexisting regulated facilities (per one million people) 	3 teams for centralized kitchens 30 teams for field kitchens 40 teams for regulated facilities
Environmental Health Strike Team (Potable Water)	Strike Team can inspect: <ul style="list-style-type: none"> • 7 large regulated water supply systems per day per team • 35 small regulated water supply systems per day per team • 42 mobile water treatment units per day per team • 42 temporary bulk water distribution sites per day per team 	Need to inspect: <ul style="list-style-type: none"> • 49 large regulated water supply systems in 1 week • 1,960 smaller regulated water supply systems in 2 weeks • 294 Mobile water treatment units assessed as opened over 1 week • 504 temporary bulk water distribution sites within 2 days 	1 team for large systems 4 teams for smaller systems 1 team for mobile units 2 teams for bulk sites

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Environmental Health Strike Team (Potable Water) – Technical Assistance	Team of 7 provides private homeowners with wells with technical assistance and messaging,	Provides messaging and technical assistance over a 2 week period	1 team
Environmental Health Strike Team (Debris and Waste Management)	Team can assess 45 square miles per day for general waste and debris assessment	900 square miles to be assessed within 10 days	2 teams
Environmental Health Strike Team (Vector Control)	One county can be surveyed throughout a 30 day period	Six counties surveyed throughout a 30 day period	6 teams
Environmental Health Strike Team (Hazardous Materials)	Strike Team can inspect: <ul style="list-style-type: none"> • 45 hazardous materials facilities per day, and • 3 hazardous materials release incident per team 	Need to inspect: <ul style="list-style-type: none"> • 30,000 hazardous materials facilities within 20 days, and • 50 hazardous materials release incidents at peak 	34 teams 17 teams
Environmental Health Strike Team (Air) – outdoor air	One-fourth of the geographic area of a county can be surveyed throughout a 30 day period for outdoor air quality by a unit of 2 members	Six counties surveyed throughout a 30-day period	6 teams of 8 members (4 units) for outdoor air monitoring
Environmental Health Strike Team (Air) – indoor air	80 buildings can be surveyed for re-entry air quality over a 30-day period by a unit of 3 members	1,000 buildings surveyed in a 30-day period	6 teams of 6 members (2 units) for indoor air monitoring
Environmental Health Strike Team (Wastewater)	Strike Team can inspect: <ul style="list-style-type: none"> • 7 large regulated waste water supply systems per day • 35 small regulated waste water supply systems per day • 42 temporary waste water lagoons per day • 196 land application sites per day 	Need to inspect: <ul style="list-style-type: none"> • 49 large regulated water supply systems in 1 week • 1,960 smaller regulated waste water supply systems in 2 weeks • 588 temporary lagoons assessed in 2 weeks • 28 land application sites are established and inspected in 1 weeks 	1 team for large systems 2 teams for smaller systems 2 teams for lagoons 1 team for land sites
Environmental Health Strike Team (Shelter)	1 strike team per average 1000 shelter residents	400,000 affected population	100 teams
Environmental Health Lead Coordinator	1 Lead Coordinator per 12 Strike Teams	260 Strike Teams	22 Lead Coordinators
Environmental Health Liaison	1 per EOC		1 per EOC

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Environmental Health Task Force (General)	Personnel, Training & Equipment	1	Per 250,000 population or per county/jurisdiction	Local	All Activities
Environmental Health Strike Team (Radiological)	Personnel, Training & Equipment				Direct Environmental Health Operations; Activate Environmental Health; Provide Environmental Health Support to Hazardous Materials Management and Decontamination
Environmental Health Strike Team (Food)	Personnel, Training & Equipment	1	1 per 125,000 population	Local	Direct Environmental Health Operations; Activate Environmental Health; Ensure Safety of Food Supplies
Environmental Health Strike Team (Potable Water)	Personnel, Training & Equipment	1	1 per 500,000 population	State (environmental protection department, public health department)	Direct Environmental Health Operations; Activate Environmental Health; Ensure Safety of Potable Water Supplies
Environmental Health Strike Team (Debris and Waste Management)	Personnel, Training & Equipment	1	Per 45 square miles	Local (environmental health department)	Direct Environmental Health Operations; Activate Environmental Health; Provide Environmental Health Support to Solid Waste/Debris Removal
Environmental Health Strike Team (Vector Control)	Personnel, Training & Equipment	1	1 per county or jurisdiction	Local	Direct Environmental Health Operations; Activate Environmental Health; Provide

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Vector Control
Environmental Health Strike Team (Hazardous Materials)	Personnel, Training and Equipment	1	1 per 200,000 population	Local (environmental protection department)	Direct Environmental Health Operations; Activate Environmental Health; Provide Environmental Health Support to Hazardous Materials Facilities Surveillance and Hazardous Materials Incident Response
Environmental Health Strike Team (Air) – Outdoor air	Personnel, Training & Equipment	1	1 per county or jurisdiction	Federal (EPA)	Direct Environmental Health Operations; Activate Environmental Health; Ensure Safety of Outdoor Environments
Environmental Health Strike Team (Air) – indoor air	Personnel, Training & Equipment	1	1 per county or jurisdiction	Federal (EPA)	Direct Environmental Health Operations; Activate Environmental Health; Ensure Safety of Building Environments;
Environmental Health Strike Team (Wastewater)	Personnel, Training & Equipment	1	1 per 500,000 population	State (environmental protection department, public health department)	Direct Environmental Health Operations; Activate Environmental Health; Ensure Safety of Wastewater Management
Environmental Health Strike Team (Shelter)	Personnel, Training & Equipment	1	Per 1000 sheltered persons	Local	Direct Environmental Health Operations; Activate Environmental Health; Provide Environmental Health Support to Mass Care

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Response
Environmental Health Lead Coordinator	Personnel & Training	1	Per 12 Strike Teams	Local	All Activities
Environmental Health Liaison	Personnel & Training	1	Per EOC or jurisdiction		All Activities

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan (NRP). Department of Homeland Security. December 2004.
3. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
4. National Mutual Aid and Resource Management Initiative, Resource Typing Definitions - I, Federal Emergency Management Agency. January 2004.
5. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002.
6. Medical Personnel Exposed to Patients Contaminated with Hazardous Waste. Occupational Safety and Health Administration standard interpretation. March 1992.
7. Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies. Food and Drug Administration.
8. CDC Interim Plague Response Plans and Guidelines. Version 7. Centers for Disease Control and Prevention Epidemic/Epizootic West Nile Virus in the US: Guidelines for Surveillance Prevention and Control. August 1998.2003. <http://www.cdc.gov/ncidod/dvbid/westnile/resources/wnv-guidelines-aug-2003.pdf/11/2002>.
9. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. EPA 400R9200, US Environmental Protection Agency. 1991. (Revised guidance due to be issued late 2005/early 2006 will include Protective Action Guides for water)
10. CDC Interim Tularemia Response Plans and Guidelines. Version 6/24/2002.

EXPLOSIVE DEVICE RESPONSE OPERATIONS

Capability Definition

Explosive Device Response Operations is the capability to coordinate, direct, and conduct improvised explosive device (IED) response after initial alert and notification. Coordinate intelligence fusion and analysis, information collection, and threat recognition, assess the situation and conduct appropriate Render Safe Procedures (RSP). Conduct searches for additional devices and coordinate overall efforts to mitigate chemical, biological, radiological, nuclear, and explosive (CBRNE) threat to the incident site.

Outcome

Threat assessments are conducted, the explosive and/or hazardous devices are rendered safe, and the area is cleared of hazards. Measures are implemented in the following priority order: ensure public safety; safeguard the officers on the scene (including the bomb technician); collect and preserve evidence; protect and preserve public and private property; and restore public services.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

Terrorism Incident Law Enforcement and Investigation Annex

ESF #10: Oil and Hazardous Materials Response

ESF #13: Public Safety and Security

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B2c 1.1	Develop, distribute, and maintain National Guidelines for Bomb Technicians
Res.B2c 1.2	Develop effective procedures and programs including standardized training to counter terrorist events, employing weapons of mass destruction (WMD), suicide bombers, Vehicle Borne Improvised Explosive Devices (VBIED), and Radio Controlled Improvised Explosive Devices (RCIED)
Res.B2c 1.1.1	Maintain programs to ensure public safety bomb technicians are certified, and re-certified by FBI Hazardous Devices School (HDS)
Res.B2c 1.1.2	Maintain programs to ensure all public safety bomb squads remain accredited by the FBI according to National Guidelines for Bomb Technicians
Res.B2c 1.3	Develop and maintain plans that coordinate explosive device response in multi-jurisdictional areas which protect critical infrastructure and key resources from terrorist threats
Res.B2c 1.4	Develop and maintain programs to measure gaps in explosive device response capability
Res.B2c 1.5	Develop and maintain programs to share explosive device response information, effective practices, and lessons learned

Res.B2c 1.6	Assist public safety bomb squads and teams in achieving increased capability to counter terrorist events with goal of a Type I rating	
Preparedness Measures		Metrics
Percent of bomb squads accredited by the FBI to standards set by the National Bomb Squad Commanders Advisory Board (NBSCAB)		100%
Effective plans for Explosive Device Response Operations are in place		Yes/No
Plans address standardized education to certify bomb technicians (e.g. FBI Hazardous Devices School, National Bomb Squad Commanders Advisory Board).		Yes/No
Plans address onsite treatment of devices (e.g. deactivation, disruption, disabling, containerizing for transport).		Yes/No
Plans address communications requirements (e.g. establish onsite command, control, communications and intelligence operations).		Yes/No
Effective plans, tactics, techniques, and procedures to respond to suicide bombers are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to vehicle borne improvised explosive devices are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to radio controlled improvised explosive devices are in place		Yes/No
Effective plans, tactics, techniques, and procedures to respond to improvised devices that contain chemical, biological, and radiological components (Weapons of Mass Destruction) are in place		Yes/No
Current mutual aid agreement that permits sharing of personnel and/or equipment is in place (if necessary)		Yes/No
Squads obtain the equipment and training to receive a Type I or II rating		Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks	
Res.B2c 2.1.6	Train public safety personnel to recognize explosive hazards, device components and precursors and take appropriate action to maintain public safety
Res.B2c 2.1.8	Train public safety personnel and private sector security to effectively operate during explosive device incidents
Res.B2c 2.3	Provide bomb threat awareness training and information to general public and private sector
Res.B2c 2.1.1	Establish in-service training programs for bomb squads that meet or exceed minimum recommendations set in the National Guidelines for Bomb Technicians
Res.B2c 2.1.2	Initially train, certify, and re-certify public safety bomb technicians using curriculum designed, developed and delivered by the NBSCAB and the FBI Hazardous Devices School (HDS)
Res.B2c 2.1.3	Initially accredit, and re-accredit public safety bomb squads using the curriculum developed by the NBSCAB and the FBI Hazardous Devices School (HDS)
Res.B2c 2.1.4	Design, develop and deliver specialized training for public safety bomb squads and bomb technicians in cooperation with FBI Hazardous Devices School (HDS)

Res.B2c 2.1.5	Design, develop and deliver explosive device response capability enhancement training and technical assistance for public safety bomb squads and bomb technicians to coordinate national prevention and protection efforts in cooperation with the DHS	
Res.B2c 2.1.9	Design, develop, and deliver training in post-blast investigation consistent with the Bomb Scene Investigation Concept that includes a qualified bomb technician as part of the post-blast investigation team	
Res.B2c 2.1.7	Obtain DHS certification and approval for use of Homeland Security Grant funds for selected training and technical assistance	
Res.B2c 2.2.1	Validate effectiveness of plans, procedures, and programs through realistic practical exercises	
Preparedness Measures		Metrics
Effective training and exercise programs for responding to suicide bombers are in place		Yes/No
Effective training and exercise programs for responding to Vehicle Borne Improvised Explosive Devices (VBIED) are in place		Yes/No
Effective training and exercise programs for responding to Radio Controlled Improvised Explosive Devices (RCIED) are in place		Yes/No
Effective training and exercise programs for responding to improvised devices that contain chemical, biological, and radiological components (Weapons of Mass Destruction) are in place		Yes/No
Percent of certified bomb technicians trained and exercised in all required areas		100%
Effective tactics, techniques, procedures, and training are standardized and shared within the bomb squad community		Yes/No
Effective practices and training are reinforced as needed during practical exercises that accurately replicate threats and operating conditions		Yes/No
Percent of public safety personnel trained in explosive device awareness		100%
Percent of squads that meet or exceed the continuing minimum training set in the National Guidelines for Bomb Squad Technicians		100%
General public and private sector are provided with bomb threat awareness training as needed		Yes/No
All bomb squad training (including techniques, tactics, and procedures) is consistent with and enhances training delivered by the FBI Hazardous Devices School (HDS)		Yes/No

Performance Measures and Metrics and Critical Tasks

Activity: Direct Explosive Device Response Operations

Definition: In response to notification of a potential exploding device, provide management and coordination of Explosive Device Response Operations capability, through demobilization

Critical Tasks

Res.B2c 3.1	Establish onsite command, control, communications, and intelligence (C3I) operations for explosive device response operations
Res.B2c 3.2	Coordinate with Incident Command (IC) to establish perimeter control (hot, warm, cold zones)

	commensurate with hazard magnitude	
Res.B2c 3.3	Coordinate with appropriate unit and develop a plan of action	
Res.B2c 3.3.1	Utilize canine, physical, and technical search techniques to secure inner perimeter	
Performance Measures		Metrics
Time in which onsite command and control communications (C3) is established and real time tactical information is shared <i>Note: If C3 and info-share are established, bomb squad will demonstrate ability to “join” rather than establish the network</i>		Within 15 minutes from arrival onsite

Activity: Activate Public Safety Bomb Squad		
Definition: In response to activation, mobilize and arrive at the incident scene to begin operations		
Critical Tasks		
Res.B2c 4.2	Notify and activate Public Safety Bomb Squad Personnel	
Res.B2c 4.3	Determine needed personnel and equipment based on information provided	
Res.B2c 4.4.1	Assemble properly equipped bomb squad team at designated location	
Res.B2c 4.5	Reassess personnel and equipment needs upon arrival	
Performance Measures		Metric
Time in which Bomb Squad personnel is notified by dispatch		Within 15 minutes from time of recognition of explosive device threat by on-scene first responders
Time in which determination is made as to personnel and equipment that needs to be dispatched		Within 15 minutes from notification
Time in which required personnel and equipment are enroute to the scene		Within 30 minutes from initial notification

Activity: Search and Assess Site		
Definition: Once on scene and equipped, provide rapid assessment of assigned Bomb Squad work areas, recommend search priorities/tactics to management, and begin search operations utilizing canine, physical, and technical (e.g. electronic, robotic) search techniques		
Critical Tasks		
Res.B2c 5.1.1	Interview on-scene commander and any witnesses with direct observation of the device	
Res.B2c 5.1	Conduct an initial reconnaissance of the area	
Res.B2c 5.2	Implement emergency assessment procedures	
Res.B2c 5.3	Conduct improvised explosive device threat analysis	
Res.B2c 5.3.1	Determine appropriate operational procedures based on reconnaissance and initial assessments	
Res.B2c 5.4	Provide positive explosive identification and safety guidance	

Res.B2c 5.5	Notify proper Federal agencies if device is a suspected WMD	
Performance Measures		Metric
Time in which initial cordon is verified		Within 1 hour from arrival at incident scene
Time in which Operational Threat Assessment is complete		Within 1 hour from arrival at incident scene

Activity: Render Safe Onsite

Definition: Once on scene, establish site perimeters based on Standard Operating Procedures (SOP) and threat, conduct IED onsite response and isolate device(s) from potential remote detonation commands, clear the onsite area for render safe operations, and ensure compliance with Radiological Assistance Program, Federal Radiological Emergency Response Plan, National Response Plan for radiological IEDs

Critical Tasks:

Res.B2c 6.3	Conduct improvised explosives device (IED) onsite response	
Res.B2c 6.1	Isolate device(s) from remote detonation commands	
Res.B2c 6	Render device safe	
Res.B2c 6.5	Identify appropriate off-site location if off-site render safe operations are necessary	
Res.B2c 6.5.1	Prepare device to be transported to secondary location if off-site render safe operations are necessary	
Res.B2c 6.3.1	Ensure compliance with Radiological Assistance Program plan (RAP), Federal Radiological Emergency Response Plan (FRERP) and National Response Plan for radiological IEDs	
Res.B2c 7.4	Document and preserve evidence	
Res.B2c 7.4.2	Initiate and advise crime scene investigative/forensic team	
Performance Measures		Metric
Time in which public Safety Bomb Squad verifies and assesses site perimeters based on standard operating procedures (SOP) and threat <i>Note: If perimeters were previously established Bomb Squad will verify</i>		Within 1 hour from arrival onsite
Diagnostics and render safe procedures are conducted as appropriate for threat and device type by function		Yes/No

Activity: Conduct Recovery, Removal, and Transport Operations

Definition: Collect and transport device and/or components for further processing of hazardous elements

Critical Tasks

Res.B2c 7.1	Conduct onsite processing of device components and containerize for transportation
Res.B2c 7.2	Transport and escort components to a secure site
Res.B2c 7.3	Conduct off-site render safe and/or emergency destruction of device/explosives

Res.B2c 7.4.1	Document and preserve evidence	
Res.B2c 7.5	Assess further the functional characteristics of the device as they relate to response safety considerations (i.e. serial bomber)	
Res.B2c 6.3.1	Ensure compliance with Radiological Assistance Program plan (RAP), Federal Radiological Emergency Response Plan (FRERP) and National Response Plan for radiological IEDs	
Res.B2c 7.4	Document and preserve evidence	
Performance Measures		Metric
Device and/or components are prepared for transport to a safe and secure site for processing and/or disposal within time period determined by bomb technicians on the scene, in accordance with public safety considerations		Yes/No

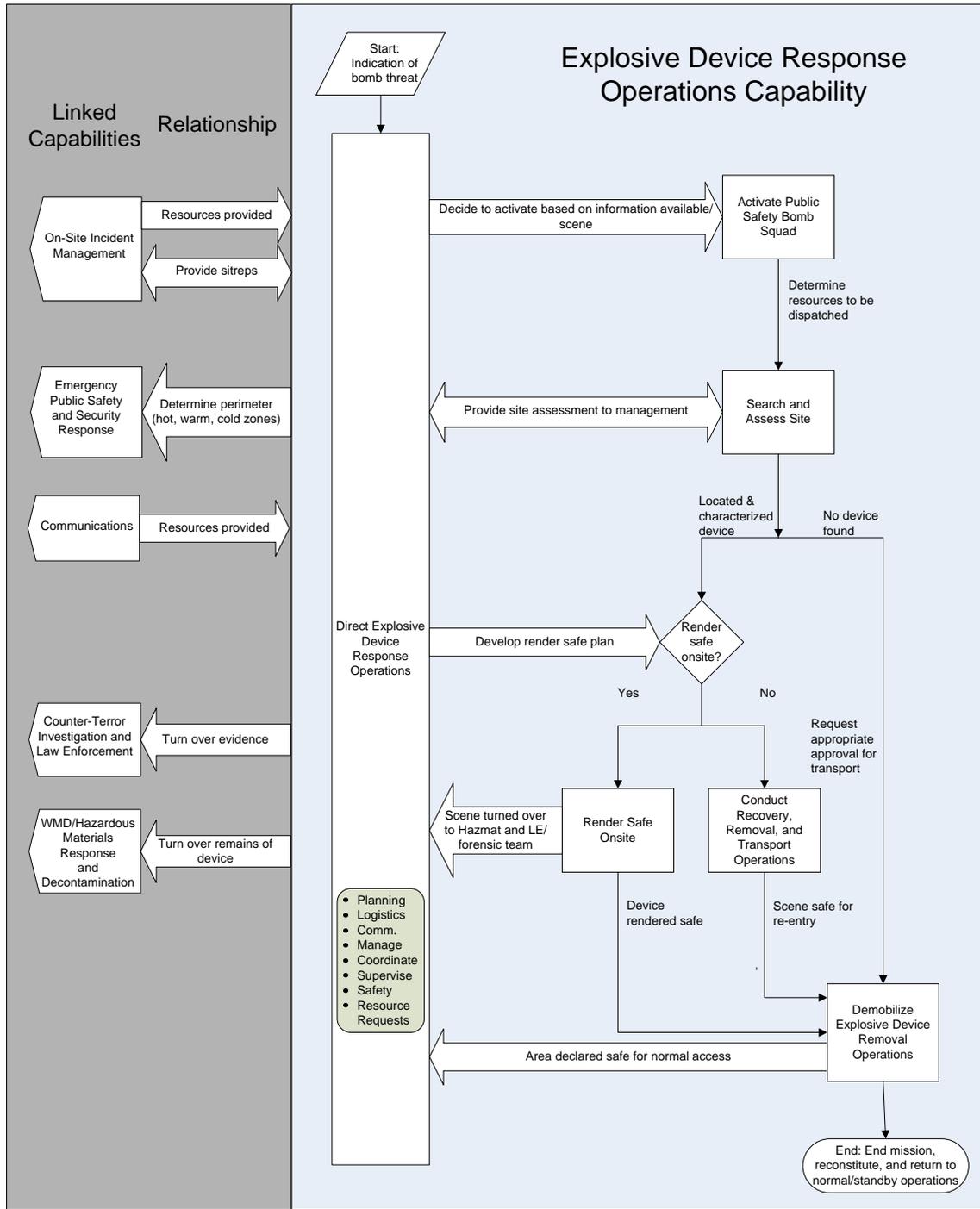
Activity: Demobilize Explosive Device Removal Operations		
Definition: Upon completion of assigned mission, conduct 100% accountability of personnel and equipment, reconstitute as required and disengage from incident site, and either be placed on standby or redeploy to headquarters and stand-down		
Critical Tasks		
Res.B2c 8.1	Conduct 100% accountability of personnel and equipment	
Res.B2c 8.2	Coordinate with Incident Command (IC) and Emergency Operations Center (EOC) to redeploy Public Safety Bomb Squad	
Res.B2c 8.3	Conduct debriefing for Bomb Squad personnel	
Res.B2c 8.4	Conduct debriefing, when necessary, for all on-scene emergency personnel	
Performance Measures		Metric
Percent of on-scene Bomb Squad personnel provided a debriefing after every incident		100%
Other responders are debriefed		Yes/No
Additional Bomb Squad personnel who were not at the scene are briefed		Yes/No

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Explosive Device Response Operations integrates itself into the local Incident Command/Unified Command system. Explosive Device Response Operations provides Incident Command/Unified Command with situation status reports and threat/consequence information from which Incident Command determines, coordinates, and controls response actions. On-Site Incident Management also provides additional resources as requested by Explosive Device Response Operations.
Emergency Public Safety and Security Response	Explosive Device Response Operations determines and provides Emergency Public Safety and Security Response with threat information and safe distance recommendations for establishing a safety perimeter to include hot, warm, and

Linked Capability	Relationship
	cold zones and any safety corridors that need to be established for movement of explosive devices.
Counter-Terror Investigation and Law Enforcement	Explosive Device Response Operations follows procedures for preservation of evidence and chain of custody of evidence. Explosive Device Response Operations turns site over to Counter-Terror Investigation and Law Enforcement after neutralizing the threat.
WMD and Hazardous Materials Response and Decontamination	Explosive Device Response Operations turns over remains of device to WMD and Hazardous Materials Response and Decontamination for further treatment, as necessary.
Communications	Explosive Device Response Operations must have the ability to transmit/receive secure voice, data and images between inter-agency law enforcement community

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Bomb Squads Type I	Per NIMS, a Type I level accredited bomb squad is capable of handling multiple incidents. Type I teams from these squads must have render safe capabilities including a remote (robotic) vehicle capable of handling a vehicle borne IED. Squads trained and equipped to work in a CBRN environment.
Bomb Squads Type II	Per NIMS, a Type II level accredited bomb squad is capable of handling multiple incidents. Type II teams from these squads must have render safe capabilities including a remote (robotic) vehicle which may not be capable of handling a vehicle borne IED. Squads trained and equipped to work in a CBRN environment.
Bomb Squads Type III	Per NIMS, a Type III level accredited bomb squad is capable of handling a single incident. Type III teams from these squads must have basic render safe capabilities without a remote (robotic) vehicle. Squads may be trained, but not equipped to work in a CBRN environment.
FBI Special Agent Bomb Technician	
ATF Explosive Enforcement Officers	
DHS Office for Bombing Prevention	
DHS/TSA Explosives Unit	
National Guard EOD	
DoD/Military EOD	

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability factors were developed from an in-depth analysis of the Improvised Explosives Device scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- It is noted that the specific placement of existing bomb squads has been driven by bombing activity levels in the past, and the issue of adding new bomb squads or the rapid expansion of existing bomb squads is currently managed through a “Needs Survey” process by the FBI, based on standards set by the National Bomb Squad Commanders Advisory Board (NBSCAB) for the purpose of maintaining the optimum levels of qualified and experienced bomb squad personnel. The Needs Survey is further defined in the National Guidelines for Bomb Technicians.
- General guidance -- Coverage of high density population and critical infrastructure/key resources (CI/KR) locations by Type I level bomb squad teams is being added as a factor in the “Needs Survey” process, detailed in the National Guidelines for Bomb Technicians. Other Locations – Type I, II, or III based on population, population density, critical infrastructure requirements, and additional factors as defined in the “Needs Survey” process
- All situations must be assessed by the bomb technician on the scene as to time sensitive considerations. Safety issues take precedence over time considerations.

- In catastrophic level Vehicle Borne Improvised Explosive Device (VBIED) situation where full remote capabilities are available, it is desired to have the technological potential for diagnostics and execution of the disruption tools within one hour from time of arrival on the scene.
- Large Vehicle Bombs require Type I teams minimum
- Radio Controlled Improvised Explosive Device (RCIED) require Type II team minimum, plus Electronic Countermeasures (ECM) training and equipment meeting standards set by NBSCAB
- Suicide Bomber(s) require Type III team minimum
- Effective response times are directly related to threat identification and communicative chain to dispatch.
- Response timelines are dependent on location of event relative to placement of capability.
- A system is in place to ensure the timely receipt of intelligence or device information to assist those responding to the threat.
- Bomb Squad – A bomb response organization consists of at least one bomb response team (see the definition of a “bomb response team”), accredited by the FBI Hazardous Devices School to standards set by the National Bomb Squad Commanders Advisory Board.
- Bomb Response Team – A sub-unit within a bomb squad, consisting of at least two certified bomb technicians and a full set of equipment meeting minimum standards for bomb squad operations.
- Military EOD units are not currently resource typed within NIMS but are available to respond to incidents in the community either to assist the “accredited” bomb squad, or respond to the incident in an area without State/local bomb squad presence.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Bomb Squads (Type I, II, and III)	NIMS Typed Resource Organization	458	Nationally	State/Local	All activities
FBI Special Agent Bomb Technician	Personnel	140	Nationally, across 56 Field Offices	Federal (DOJ/FBI)	All activities
ATF Explosive Enforcement Officers	Personnel	30	Nationally	Federal (DOT/ATF)	All activities
DHS Office for Bombing Prevention	Federal Resource Organization	1	Nationally	Federal (DHS)	<i>Develop and Maintain Plans, Procedures, Programs, and Systems</i> <i>Develop and Maintain Training and Exercise Programs</i>
DHS/TSA Explosives Unit	Personnel	32	Nationally	Federal (DHS)	All activities (Airline/

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Airport support)
National Guard EOD	Federal Resource Organization			Federal (DoD/U.S. National Guard)	All activities
DoD/Military EOD	Federal Resource Organization			Federal (DoD)	All activities

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. Homeland Security Presidential Directive/HSPD-19, "Combating Terrorist Use of Explosives in the United States". February 12, 2007.
3. National Bomb Squad Commander's Advisory Board (NBSCAB). <http://www.nbscab.org>
4. Hazardous Devices School (HDS), Federal Bureau of Investigation, Redstone Arsenal, Alabama.
5. National Guidelines for Bomb Technicians, FBI Bomb Data Center Special Technicians Bulletin 87-4, Revised 6/01.
6. National Strategic Plan for U.S. Bomb Squads, November 2005.
7. NFPA 471: Recommended Practice for Responding to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=471>.
8. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>.
9. NFPA 1561: Standard on Emergency Services Incident Management System, National Fire Protection Association, 2005 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.
10. National Response Plan (NRP). Department of Homeland Security. December 2004.
11. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
12. National Mutual Aid and Resource Management Initiative, Resource Typing Definitions- I. Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf
13. Standardized Equipment List. The Interagency Board. 20. <http://www.iab.gov/downloads/IAB%202004%20SEL.pdf>
14. Homeland Security Exercise and Evaluation Program (HSEEP), Volume II: Exercise Evaluation and Improvement. Office for Domestic Preparedness, Department of Homeland Security. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>
15. 2004 Emergency Response Guidebook: A Guidebook for First Responders during the Initial Phase of a Dangerous Goods/Hazardous Materials Incident. Department of Transportation. 2004. <http://HazMat.dot.gov/erg2004/erg2004.pdf>
16. Energetic Materials Research and Training Center (EMRTC). New Mexico. <http://www.emrtc.nmt.edu>
17. Emergency Response to Terrorism: Basic Concepts. U.S. Department of Justice and Federal Emergency Management Agency. 2004

18. Bomb Squad Response to Suicide Bombers and Vehicle Borne Improvised Explosive Devices-Categories and Strategies, NBSCAB, January 2006.
19. Bureau of Alcohol, Tobacco, Firearms and Explosives, Federal Explosives Law and Regulations, ATF P 5400.7 (09/00).

FIRE INCIDENT RESPONSE SUPPORT

Capability Definition

This capability provides coordination and implementation of fire suppression operations, which include the following tasks: assessing the scene, assigning resources, establishing an incident command system (ICS) consistent with the National Incident Management System (NIMS), communicating the status of the situation, requesting additional resources, establishing a safe perimeter, evacuating persons in danger, rescuing trapped victims, conducting fire suppression, determining the cause of the fire(s), and ensuring the area is left in a safe condition. This capability further includes support necessary to prepare the community and reduce vulnerabilities in the event of a major event.

Outcome

Dispatch and safe arrival of the initial fire suppression resources occur within jurisdictional response time objectives. The first unit to arrive initiates the Incident Command System (ICS), assesses the incident scene, communicates the situation, and requests appropriate resources including any necessary mutual aid or cross-discipline support. Firefighting activities are conducted safely and fire hazards are contained, controlled, extinguished, and investigated, and the incident is managed in accordance with emergency response plans and procedures.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

The capability supports Emergency Support Function (ESF) #4: Firefighting.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B2a 1.1	Develop plans, programs, and agreements on fire-related public safety protection activities, including region-wide or interstate automatic and mutual aid response protocols
Res.B2a 1.2.5	Develop firefighting capability needed based on risk and threat assessment
Res.B2a 1.2.2	Develop procedures and protocols for coordinating protective action communications with at-risk population on-scene
Res.B2a 1.2.6	Conduct fire code inspections and coordinate with appropriate personnel for building inspections and compliance strategies
Res.B2a 1.1.1	Conduct fire education and life safety training and education programs
Res.B2a 1	Develop plans, procedures, and equipment guidelines to support firefighting response operations
Res.B2a 1.1.3	Conduct building plan reviews to reduce or eliminate hazards
Res.B2a 1.2.3	Develop plans for establishing alternative water supply
Preparedness Measures	Metrics

Firefighting plans and procedures address ICS and are integrated with onsite incident management	Yes/No
Plans include special risk requirements (e.g., alternative water supply)	Yes/No
Regional and interstate mutual and automatic aid agreements are in place	Yes/No
Specialized equipment needed for high-rise firefighting (e.g., 1-hr. bottles, high-rise packs, litters for evacuating injured, high-rise communication systems) is available	Yes/No
Specialized equipment for subway firefighting and search and rescue is available	Yes/No
Preplans and maps for subway system and standard operating procedure (SOP) for dispatching companies to subway egress points to assist in search and rescue and evacuation (departments with subway systems) are in place	Yes/No
Access to aerial units for deployment to roofs or high-rises (departments with high-rises) is available	Yes/No
Stocked and garaged spare apparatus to surge total number of companies by 25 percent over normal first-line staffing (large cities) are available	Yes/No
Procedures and protocols for coordinating protective action communications with at-risk population on-scene are in place	Yes/No
Procedures to ensure safety of operating personnel are in place	Yes/No
Procedures addressing demobilization are in place	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B2a 2.1	Develop and implement firefighting training program
Res.B2a 2.1.3	Develop and implement training to enable fire rescue and emergency medical services to recognize the presence of chemical, biological, radiological, nuclear, or explosive (CBRNE) materials
ResB2a 2.2	Develop and implement firefighting exercise program

Preparedness Measures

Metric

Frequency with which training is provided in strategies for large-scale incidents	Every 12 months
Frequency with which training is provided in flammable liquid/bulk fuel storage firefighting (for jurisdictions with ports, refineries, storage, and shipment facilities for flammable liquids and gases)	Every 12 months
Frequency with which training is provided in high-rise fires (for jurisdictions with high-rises)	Every 12 months
Frequency with which training is provided in mass transit fires (for jurisdictions with subways and/or commuter rail or light rail)	Every 12 months
Frequency with which training is provided in shipboard firefighting (for jurisdictions with deep-water ports)	Every 12 months
Frequency with which training is provided in wilderness/urban interface firefighting	Every 12 months

Performance Tasks and Measures/Metrics

Activity: Activate Fire Incident Response Support

Definition: Receive alarm signal and respond to incident site

Critical Tasks

Res.B2a 4.2.1	Establish and implement on-scene management for firefighting (utilizing ICS)
Res.B2a 4.1	Receive notification of incident
Res.B2a 4.3	Respond to scene with initial fire suppression resource assignment
Res.B2a 4.4	Arrive on scene

Performance Measures

Metric

Time in which first fire suppression resource arrives on scene (at least 90% of the time)	Within 4 minutes from call
Initial resource assignment is assembled in accordance with NFPA 1710 and NFPA 1720 (National Fire Protection Association Standards)	Yes/No
Personnel accountability system is implemented upon arrival	Yes/No
Time in which tactical operations are initiated	Within 2 minutes from arrival on scene

Activity: Size Up (Assess Site)

Definition: Observe scene and provide situation report

Critical Tasks

Res.B2a 5.1.1	Observe incident site upon arrival and conduct initial size-up (site assessment)
Res.B2a 5.1.4	Provide verbal situation report
Res.B2a 5.2.1	Communicate need for additional resources

Performance Measures

Metric

Time in which situation report is provided to additional responding personnel/units	Within 2 minutes from arrival on scene
---	--

Activity: Direct Fire Incident Response Support Tactical Operations

Definition: In response to indication of fire, provide coordination and management of Fire Incident Response Support through demobilization

Critical Tasks

Res.B2a 3.2.1	Coordinate with On-Site Incident Management
Res.B2a 3.3.1	Assign a Safety Officer to oversee firefighting operations

Res.B2a 3.2.5	Establish initial Rapid Intervention Company (iRIC)	
Res.B2a 3.2.2	Establish objectives for conducting firefighting operations at incident scene	
Res.B2a 3.4.2	Assess resource requirements	
Res.B2a 3.4.2.1	Coordinate fire attack, victim rescue, and ventilation operations	
Res.B2a 3.2.3	Coordinate fire suppression operations	
Res.B2a 3.5.1	Notify other agencies as required by law	
Res.B2a 3.5.2	Communicate internal incident response information	
Res.B2a 3.2.4	Develop a water supply plan	
Res.B2a 3.3.4	Maintain personnel accountability system	
Res.B2a 3.3.2	Provide for responder safety, in coordination with Safety Officer, including responder rehabilitation	
Performance Measures		Metric
Time in which incident command for firefighting operations is established		Within 5 minutes from arrival on scene
Rapid Intervention Crew is established prior to start of interior structural firefighting operations		Yes/No
Time in which to request local mutual aid		Within 60 minutes from arrival on scene
Time in which other agencies are notified of incident as required by law		Within 30 minutes from arrival on scene
Time in which responder rehabilitation is established		Within 30 minutes from arrival on scene

Activity: Search Scene and Rescue

Definition: Upon arrival on scene, initiate search for trapped or endangered victims, remove victims to safe area, and request or provide medical treatment appropriate to the injuries/burns they might have received

Critical Tasks

Res.B2a 6.5.1	Initiate search for endangered, trapped, or injured victims
Res.B2a 6.5.2	Remove endangered, trapped, or injured victims to safe area
Res.B2a 6.5.5	Initiate or request treatment for victims

Performance Measures	Metrics
Primary and secondary search is completed within appropriate time give the size of structure, available resources, and incident conditions	Yes/No

Activity: Contain and Control

Definition: Upon arrival on scene, engage in fire suppression operations to contain, control, and extinguish fire, initiate search for trapped or endangered victims, remove victims to safe area, and request or provide appropriate medical treatment.

Critical Tasks	
Res.B2a 6.1.1	Deploy primary and back-up fire attack lines
Res.B2a 6.1	Implement fire attack plan
Res.B2a 6.2	Conduct firefighting operations
Res.B2a 6.2.2	Establish large master stream to contain spread of fire
Res.B2a 6.2.5	Establish collapse zones and protect critical infrastructure
Res.B2a 6.5.3	Incorporate additional resources to contain, control, and extinguish fire
Res.B2a 6.3	Establish plan and alternate water supply
Res.B2a 6.3.1	Implement plan and alternate water supply if needed
Res.B2a 6.5.4	Assist in removal of affected individuals from the incident site
Res.B2a 6.5.5	Initiate or request treatment for victims
Res.B2a 6.6	Provide ongoing situation reports
Performance Measures	Metric
Tactics employed were commensurate with incident	Yes/No
Fire is contained and extinguished within time appropriate for size of structure, available resources, and incident conditions	Yes/No
Sufficient size and quantity of hand lines are deployed for type and size of structure and volume of fire present	Yes/No
Time in which sufficient volume of alternate water supply in the event of loss of domestic water supply is established	Within 30 minutes from loss of supply

Activity: *Conduct Overhaul Operations*

Definition: Locate and extinguish hot spots and hidden fire in void spaces

Critical Tasks	
Res.B2a 7.2	Locate hot spots and hidden fire in void spaces
Res.B2a 7.3	Preserve incident scene for fire investigators and/or law enforcement
Res.B2a 7.1	Conduct fire overhaul operations
Performance Measures	Metric
Percent of hot spots located and extinguished	100%
Percent of heavily involved areas opened up, from which materials are removed from the structure, and are thoroughly soaked, as appropriate	100%

Activity: *Conduct Cause and Origin*

Definition: Conduct on-site investigation to determine origin of fire and possible cause

Critical Tasks	
Res.B2a 8.2	Collect and preserve non-contaminated evidence
Res.B2a 8.3	Collect and preserve contaminated evidence
Res.B2a 8.4	Investigate fires
Performance Measures	Metric
Time in which other agencies are notified of incident in compliance with applicable laws	Within 30 minutes from size-up
Time in which qualified Fire Investigator arrives on-site	Within 60 minutes from notification
Cause of fire is determined	Yes/No

Activity: Demobilize Fire Incident Response Support

Definition: Upon completion of activities, prepare apparatus and personnel to leave incident site and return to service

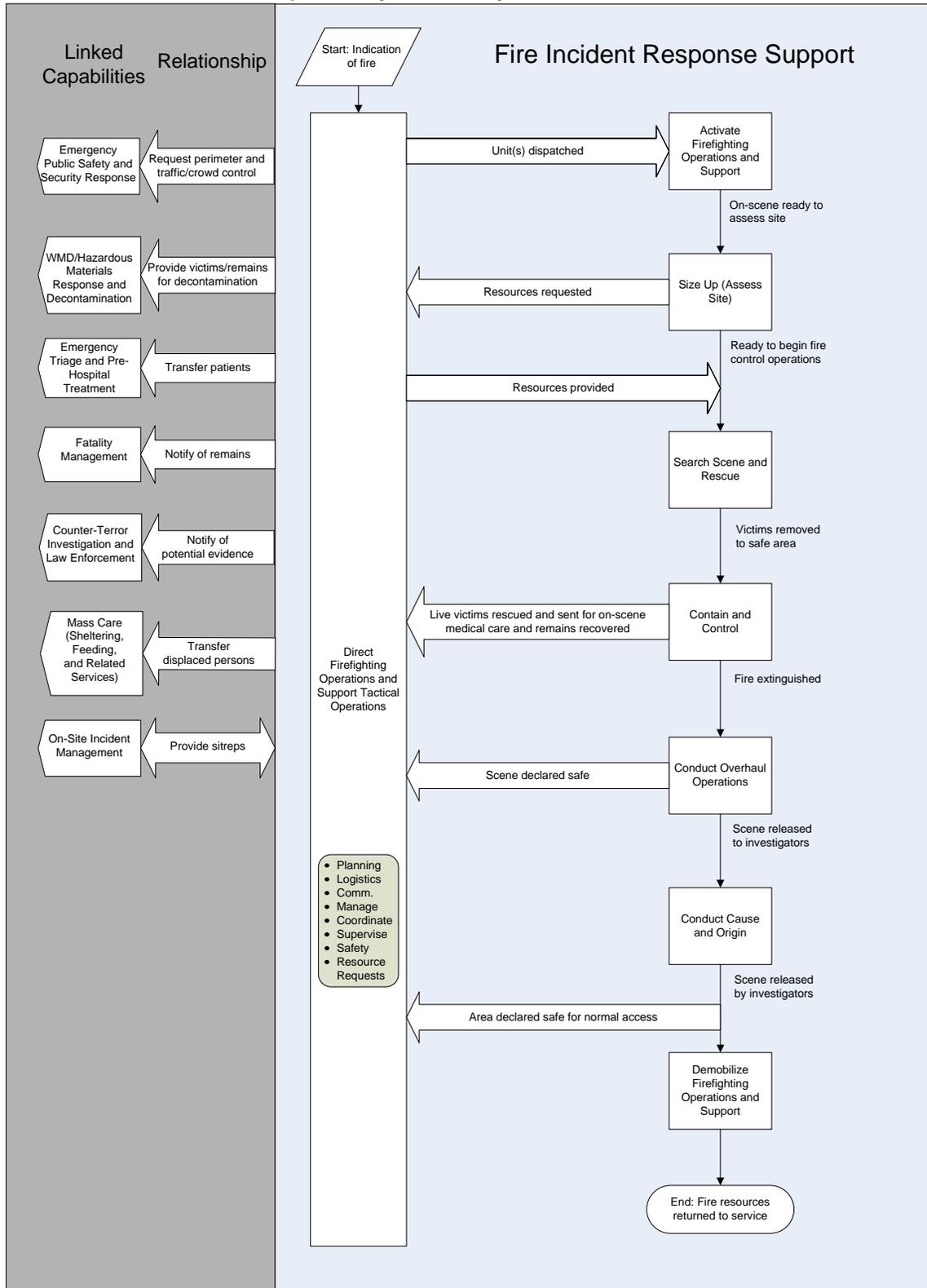
Critical Tasks	
Res.B2a 9.1	Inventory equipment and apparatus
Res.B2a 9.2	Clean and repair equipment and apparatus prior to return to service
Res.B2a 9.3	Participate in incident debriefing
Performance Measures	Metric
Capability is demobilized as specified in demobilization plan	Yes/No
Time in which equipment and apparatus are inventoried	Within 30 minutes from start of demobilization
Time in which equipment and apparatus are cleaned and prepared to return to service	Within than 60 minutes from start of demobilization

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Fire Incident Response Support receives and provides situation reports from/to On-Site Incident Management to communicate immediate protective actions with at-risk population
Emergency Public Safety and Security Response	Fire Incident Response Support requests Emergency Public Safety and Security Response to establish perimeter and crowd control
WMD and Hazardous Materials Response and Decontamination	Fire Incident Response Support provides victims to WMD and Hazardous Materials Response and Decontamination for decontamination

Linked Capability	Relationship
Emergency Triage and Pre-Hospital Treatment	Fire Incident Response Support transfers patients to Emergency Triage and Pre-Hospital Treatment for medical care and transport.
Fatality Management	Fire Incident Response Support provides notification of fatalities to Fatality Management for tracking and processing.
Counter-Terror Investigation and Law Enforcement	Fire Incident Response Support requests Counter-Terror Investigation and Law Enforcement investigate evidence
Mass Care (Sheltering, Feeding, and Related Services)	Fire Incident Response Support requests Mass Care and provide assistance and services to displaced victims.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Type 1 Engine Strike Team	Per NIMS. Includes fire engines, staff, and Strike Team Leader.
Type 1 Fire Truck-Aerial Strike Team	To assist with delivering foam solution for bulk tank fires or provide elevated streams to assist in controlling moored shipboard fire and assist boarding efforts
Type 1 Foam Tender	To supply foam concentrate for 65-minute application (8,000 gallons assuming 2 120-foot diameter tanks) NFPA 11
Type 1 Fire Boat Strike Team	Supplies ship fire-fighting capability and augments water supply to land-based units
U.S. Coast Guard (USCG) National Strike Team (NST)	Per NIMS. There are three 40-member NST Teams in the Nation: the Atlantic Strike Team in Fort Dix, NJ; the Gulf Strike Team in Mobile, AL; and the Pacific Strike Team in Novato, CA.
Type 1 Mobile Communications Unit	Per NIMS
Type 1 breathing apparatus support	Self-contained breathing apparatus (SCBA) filling capability with compressor support
Field mobile mechanic	Provides repair capacity

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Toxic Chemical Event scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- The capability must perform in conjunction with hazardous materials (HazMat) operations, public safety jurisdictions, emergency medical services (EMS), on-scene incident management, search and rescue, and emergency management functions across all 15 scenarios.
- The majority of response assets will be used during the response.
- Fixed fire suppression systems are destroyed by explosions.
- Several operational response areas are in effect at the same time: port, refinery, and downwind.
- Water-based oil release may extend beyond the 96-hour time allotment.
- Victims must be rescued within 4 hours and recovered within 4 days.
- All fires are extinguished within 4 days.
- The response phase is 96 hours.
- Local response time is 0–2 hours.
- Regional response time is 2–12 hours.
- State response time is 12–24 hours.
- Federal response time is 24+ hours.
- “Zero hour” (incident clock) is the time of incident occurrence.
- Domestic water supply is not affected; the water supply is adequate to deliver 50,000 gallons per minute (GPM) in affected areas.

Target Capabilities List

- Fire suppression operations are conducted separately from EMS, HazMat, search and rescue, and so forth.
- Distribution of resources for fire operations and support should be compliant, at a minimum, with the requirements of NFPA 1710, 1720, and 1201.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Toxic Industrial Chemical)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Fire Incident Response Support for a major event would be addressed with an appropriate combination of existing resources from multiple jurisdictions and levels of government sufficient to meet risk and threat assessment based needs			

Approaches for Large-Scale Events

Strategies listed will accomplish objectives for large-scale events.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Fire Incident Response Support for a major event would be addressed with an appropriate combination of existing resources from multiple jurisdictions and levels of government sufficient to meet risk and threat assessment based needs					

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>
5. NFPA 422: Guide for Aircraft Accident/Incident Response Assessment. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=422>.
6. NFPA 471: Recommended Practice for Responding to Hazardous Materials Incidents. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=471>.
7. NFPA 1001: Standard for Fire Fighter Professional Qualifications. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1001>.
8. NFPA 1021: Standard for Fire Officer Professional Qualifications. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1021>.

9. NFPA 1561: Standard on Emergency Services Incident Management System. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.
10. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1600>.
11. NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1710>.
12. NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1720>.
13. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>.
14. NFPA 1201: Standard for Providing Emergency Services to the Public, National Fire Protection Association, 2004 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1201>.
15. NFPA 1403: Standard on Live Fire Training Evolutions, National Fire Protection Association, 2002 edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1403>.
16. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, National Fire Protection Association, 2002 edition.
17. NFPA 1901: Standard for Automotive Fire Apparatus, National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1901>.

This page intentionally left blank

WMD AND HAZARDOUS MATERIALS RESPONSE AND DECONTAMINATION

Capability Definition

Weapons of Mass Destruction (WMD) and Hazardous Materials Response and Decontamination is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources or contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures.

Outcome

Hazardous materials release is rapidly identified and mitigated; victims exposed to the hazard are rescued, decontaminated, and treated; the impact of the release is limited; and responders and at-risk populations are effectively protected.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports Emergency Support Function (ESF) #10: Oil and Hazardous Materials Response.

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Res.B2b 1.1	Develop plans, programs, agreements, and requirements for responding to hazardous material incidents
Res.B2b 1.2	Develop plans, programs, criteria, and protocols for conducting decontamination
Res.B2b 1.3.1	Pre-identify resources (personnel and equipment) to provide rapid initial size-up of hazardous materials incident
ResB2b 1.4	Assist in developing a communications plan for hazardous materials in emergencies, related to specific hazards, health guidance, educational materials, etc.
Res.B2b 1.5	Ensure plans are in place for self-presenting contaminated victims off-site (e.g., hospitals)
Preparedness Measures	
Metrics	
WMD/HazMat Response and Decontamination plans are based on a formal assessment of risks and vulnerabilities.	Yes/No
Risk analysis is completed for potential hazmat vulnerabilities, including fixed facilities	Yes/No

and transportation-related emergencies	
Frequency with which Emergency Response Plan is reviewed	Every 12 months
Local Emergency Planning Commission is functional	Yes/No
Frequency with which pre-planned hazards and targets are reviewed and updated	Every 12 months
Plans for pre-identified and equipped hazmat personnel to respond to hazmat incident and provide initial rapid hazmat incident size-up within 30 minutes from notification (< 2hrs if regional resource) are in place	Yes/No
Hazmat personnel are equipped and trained for weather prediction and hazard pluming	Yes/No
Redundant hazmat response teams and equipment are available (or accessible through mutual aid agreements) to provide resiliency in the event of a large-scale incident	Yes/No
WMD/HazMat plans address substance identification equipment (e.g. bases, vapors, liquids, solids, biologicals like white powder).	Yes/No
WMD/HazMat plans address personnel needs (e.g. work/rest cycles, medical, psychological, financial assistance, etc).	Yes/No
WMD/HazMat plans address demobilization (e.g. debrief personnel, repackage equipment).	Yes/No
Jurisdiction's hazmat team(s) has current protocol to coordinate with emergency medical services (EMS) on victim care post-decontamination (identification of substance, administration of antidotes, etc.)	Yes/No
Jurisdiction's hazmat team(s) has current protocol to coordinate with law enforcement for evidence collection and crime scene control	Yes/No
Emergency response and command vehicles and Incident Command Posts are equipped with Emergency Response Guidebook, NIOSH pocket guidebook, and discipline-related references relevant to the region	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.B2b 2.1.1	Develop and implement training related to detection and reporting of hazardous material
Res.B2b 2.1.2	Provide appropriate hazmat response training to field staff and managers of State/local programs having involvement in hazmat response
ResB2b 2.2	Develop and implement exercise programs for WMD/hazardous materials response and decontamination
Preparedness Measures	Metric
Percent of police, fire, EMS , first responders (other than those assigned to hazmat responses) that are trained to hazmat awareness level	100%
Percent of first responders assigned to hazmat operations that are trained to hazmat operations level (in accordance with 1910.120 (g) or NFPA 472)	100%
Percent of personnel assigned to hazmat technician responsibilities who are trained to the hazmat technician level (in accordance with 1910.120 (g) or NFPA 472)	100%
Percent of personnel assigned to hazmat specialist responsibilities who are trained to the	100%

hazmat specialist level (in accordance with 1910.120 (g) or NFPA 472)	
Percent of personnel assigned to manage hazmat who are trained to hazmat management level (in accordance with 1910.120 (g), NFPA 471 and NFPA 472) for detection equipment, including flammability, toxicity, radiations, chemical warfare agents (CWAs) and biologicals	100%
Percent of personnel assigned to manage hazmat who are trained to hazmat management level (in accordance with 1910.120 (g), NFPA 471 and NFPA 472) for substance identification equipment, for bases and vapors, liquids, solids and biologicals (white powder)	100%
Hazmat personnel are equipped and trained for weather prediction and hazard pluming	Yes/No
Jurisdiction's hazmat team(s) trains regularly with EMS to ensure proper coordination of victim care post-decontamination (identification of substance, administration of antidotes, etc.)	Yes/No
Jurisdiction's hazmat team(s) trains regularly with law enforcement to ensure proper coordination for evidence collection and crime scene control	Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct WMD and Hazardous Material Response and Decontamination Tactical Operations

Definition: In response to notification of WMD/hazmat event or contamination, provide management and coordination of hazmat response and decontamination operations through demobilization and/or transition to recovery operations.

Critical Tasks

Res.B2b 3.1	Receive alert/activation order for WMD and Hazardous Materials Response and Decontamination
Res.B2b 3.2	Establish and implement on-scene management for hazmat material response
Res.B2b 3.2.4	Provide a hazmat technical expertise team for emergency operations for both industry and public
Res.B2b 3.4.7	Implement a hazmat response (e.g., implement plans, programs, agreements, and requirements)
Res.B2b 3.2.7	Coordinate technical, administrative support, personnel, facilities, communications, and information
Res.B2b 3.2.6.2	Provide required Personal Protection Equipment to WMD/hazmat responders in coordination with safety officer
Res.B2b 3.2.5.4	Develop a site safety plan
Res.B2b 3.2.6.1	Observe the scene and review/evaluate hazard and response information as it pertains to the safety of all persons on the scene and responding
Res.B2b 3.2.6	Coordinate with safety officer to ensure the safety of on-scene WMD/hazmat responders
Res.B2b 3.4.7	Coordinate and support decontamination activities on-site
Res.B2b 3.4.7.4	Coordinate with and provide technical guidance to entities performing off-site decontamination
Res.B2b 3.4.7.5	Coordinate with hospitals to develop plans for managing/decontaminating self-presenting contaminated victims

Res.B2b 3.2.8	Coordinate resource management of hazmat equipment, supplies, and personnel
Res.B2b 3.4.7.6	Request decontamination technical assistance resources
Res.B2b 3.2.6.3	Coordinate with safety officer to brief hazmat branch/group personnel on-site-specific occupational safety and health issues involving hazmat/WMD releases
Res.B2b 3.4.7.7	Issue instructions for self-decontamination, where appropriate, expedient and possible
Performance Measures	
Number of loss-time injuries (per deployment) of WMD/hazmat Response and Decontamination personnel during rescue efforts	<1
Time in which tactical plan is developed, based on the incident action plan (IAP), and for implementation by the State, region, and/or local WMD/hazmat Response and Decontamination	Within 2 hours from arrival on scene

Activity: *Activate WMD and Hazardous Material Response and Decontamination*
Definition: In response to activation, mobilize and arrive at the incident scene to begin operations.

Critical Tasks	
Res.B2b 4.1	Initiate WMD/hazmat procedures
Res.B2b 4.2	Assemble personnel and equipment at designated location
Res.B2b 4.3	Transport team (personnel and equipment) to scene
Res.B2b 4.3.1	Conduct initial approach and positioning of responders
Res.B2b 4.3.2	Implement/integrate WMD/hazmat resources into ICS organization
Res.B2b 3.2.5.5	Initiate initial public protective actions (PPA)
Performance Measures	
Team is coordinated/incorporated into ICS upon arrival	Yes/No
Time in which initial hazmat size-up is completed	Within 30 minutes from notification of incident
Time in which regional assets (e.g., Type I hazmat Team or Type III or IV Incident Management team) arrive on scene, if requested by IC	Within 2 hours from asset request
Time in which State assets (e.g., Type I hazmat Team or Type II or III Incident Management team) arrive on scene, if requested by IC	Within 12 hours from asset request
Time in which Federal assets (e.g., Type I hazmat Team or Type I or II Incident Management team) arrive on scene, if requested by IC	Within 24 hours from asset request
Time in which Radiological Emergency Preparedness Program (REPP) Response Teams appropriate for the incident size involving a radiological hazard are deployed	Within 24 hours from asset request
Time in which Radiological Assistance Program (RAP) Teams are deployed	Within 2 hours from asset request

Activity: Identify the Hazard

Definition: Upon arriving on scene, begin to assess site, sample, identify, and characterize WMD/hazmat and contamination situation, conduct hazard analysis to determine potential consequence and risk, develop plans for safety and hazmat/decontamination operations, and set up hazmat zones.

Critical Tasks

Res.B2b 5.1.1	Notify law enforcement for guidance on collection and management of evidence from potential crime scenes	
Res.B2b 5.1	Initiate hazmat response	
Res.B2b 5.2	Survey the incident scene	
Res.B2b 5.2.1	Identify hazmat and the extent/scope of the incident	
Res.B2b 5.5.3	Analyze weather forecast to conduct hazard zone prediction	
Res.B2b 5.2.2	Conduct contamination surveys	
Res.B2b 5.2.3	Assess hazmat release situation	
Res.B2b 5.2.3.1	Conduct oil and hazmat assessment	
Res.B2b 5.5.2	Monitor movement of hazardous releases and formulate predictions on dispersion and characteristics over time	
Res.B2b 5.5	Characterize consequences and risk	
Res.B2b 5.3	Identify and establish perimeter and hazmat zones (hot, warm, cold)	
Res.B2b 5.4	Conduct ongoing assessments and predictions	
Performance Measures		Metric
Time in which area is isolated and public access is controlled		Within 15 minutes from arrival on scene
Time in which hazardous materials or category involved are identified		Within 30 minutes from arrival on scene

Activity: Assess Hazard and Evaluate Risk

Definition: Assess the hazards present, evaluate the level of risk to both responders and the public, and develop and Incident Action Plan (IAP) to address the response problem

Critical Tasks

Res.B2b 5.5.1	Collect, prioritize, and manage data and information from all sources
Res.B2b 5.5.1.1	Develop incident monitoring and sampling strategy based upon a realistic assessment of operational hazards
Res.B2b 5.5.1.2	Conduct sampling operations
Res.B2b 5.5.1.3	Identify, classify, and verify suspected non-biological WMD/hazmat samples through the use of at least two (preferably three) different instrument technologies
Res.B2b 5.5.2	Use plume dispersion models and other analytical tools to generate ongoing WMD/hazmat dispersion assessments

Res.B2b 5.5	Implement risk evaluation process that adequately addresses the risk of various actions to both responders and the public
Res.B2b 3.2.5.1	Develop and implement an Incident Action Plan (IAP) specific to WMD/hazmat issues based upon the risk evaluation process
Res.B2b 5.3	Establish and identify visually an isolation perimeter (outer perimeter) to isolate the area and deny entry
Res.B2b 5.3.1	Establish a hot zone (inner perimeter) to identify high hazard area(s) where responders will operate
Res.B2b 5.3.2	Establish other hazard control zones, based upon scope and nature of the event
Res.B2b 5.3.3	Make offensive or defensive reconnaissance operations, as necessary, to gather intelligence on the situation
Res.B2b 5.4	Conduct ongoing assessments and predictions
Performance Measures	
Time in which preliminary estimate of number of victims exposed to toxic/hazardous material and source identification is obtained	Within 2 hours from arrival on scene
Time in which the at-risk population is identified and protective action recommendations are made	Within 1 hour from arrival on scene
Time in which the WMD/hazmat elements of the overall IAP are developed	Within 1 hour from arrival on scene

Activity: <i>Conduct Rescue Operations</i>	
Definition: Once on-scene and equipped with protective and response equipment, implement rescue operations.	
Critical Tasks	
Res.B2b 6.1	Determine the nature and priority of rescue operations and the numbers involved
Res.B2b 6.1.1	Identify personnel and equipment requirements to initiate rescue operations
Res.B2b 6.2	Implement safe and effective tactics to accomplish rescue operation objectives
Res.B2b 6.2.1	Extricate and rescue victims within the hot zone
Res.B2b 6.2.2	Coordinate rescue efforts with law enforcement to ensure safety of rescuers
Res.B2b 6.3	Implement secondary public protective actions (PPAs)
Res.B2b 6.3.1	Identify personnel and equipment requirements to initiate product/agent control operations
Res.B2b 6.3.2	Implement safe and effective tactics to accomplish product/agent control objectives
Res.B2b 6.3.3	Implement safe and effective tactics to support product/agent control objectives
Performance Measures	
Time in which contaminated victims are rescued from contaminated area	Within 2 hours from arrival on scene

Activity: Conduct Mitigation Activities

Definition: Once on scene and equipped with protective and response equipment, implement operations plan to minimize contamination.

Critical Tasks	
Res.B2b 7.1.3	Identify appropriate PPE based on suspected hazardous material
Res.B2b 7.1.1	Coordinate with safety officer to monitor responders for exposure to hazmat
Res.B2b 7.1.2	Coordinate with safety officer to monitor and control the operating time of rescuers assigned to the hot zone to minimize rescuer exposure
Res.B2b 7.1	Secure the contamination source and affected areas
Res.B2b 7.2	Monitor and track compliance with containment requirements
Performance Measures	Metric
Time in which implementation of initial action plan and objectives is initiated	Within 4 hours from arrival on scene
Time in which hazmat/WMD contamination is contained	Within 12 hours from arrival on scene

Activity: Conduct Decontamination and Clean-up /Recovery Operations

Definition: Upon arrival on scene and with the requisite equipment, initiate response operations to reduce the level of on-scene contamination, minimize the potential for secondary contamination beyond the incident scene, and ensure an effective transition to clean-up and recovery operations.

Critical Tasks	
Res.B2b 8.1	Identify assets required for decontamination activities
Res.B2b 8.2	Identify the type of contaminants, nature of response operations, and the required type/level of decontamination operations
Res.B2b 8.4.5	Implement plans, procedures, and protocols to ensure on-site individual gross decontamination of persons and household pets affected by the incident
Res.B2b 8.4.6	Provide a means to allow medical treatment facilities and shelter managers to readily identify people who have received gross decontamination
Res.B2b 8.3.1	Establish decontamination sites for victims
Res.B2b 8.4.1	Screen affected persons
Res.B2b 8.4	Implement emergency decontamination operations
Res.B2b 8.4.2	Decontaminate victims exposed to chemical, biological, radiological, nuclear, or explosive (CBRNE) materials
Res.B2b 8.4.7	Implement technical decontamination operations for injured, contaminated victims
Res.B2b 8.4.7.1	Implement technical decontamination of human remains
Res.B2b 8.4.8	Implement technical decontamination operations in support of WMD/hazmat entry and response activities
Res.B2b 8.4.9	Implement decontamination operations to address incident-specific scenarios and requirements

Res.B2b 8.4.9.1	Decontaminate pets, if resources are available
Res.B2b 8.5.1	Coordinate livestock decontamination
Res.B2b 9.2.3	Monitor clean areas within the contamination control line
Res.B2b 9.2.2	Monitor the exit points for hazmat contaminate movement outside the isolation zone
Res.B2b 9.2.4	Coordinate with environmental authorities to ensure the appropriate decontamination area clean-up and disposal of waste materials
Res.B2b 9.2	Decontaminate affected facilities and equipment used for technical decontamination
Res.B2b 9.4.1	Perform clean-up operations
Res.B2b 9.4.2	Implement hazmat disposal plan
Performance Measures	
Performance Measures	Metric
Victims are provided maximum amount of privacy within site and situational constraints	Yes/No
Percent of victims provided clothing, blankets, and protection from the elements as needed	100%
Time in which technical decontamination of first responders on-site is performed (depending on substance)	Within 2 hours from end of work period
Time in which technical decontamination of off-site victims (e.g., at hospitals and designated decontamination stations) is performed (depending on substance)	Within 2 hours from arrival
Time in which technical decontamination of household pets off-site (e.g., at designated decontamination stations) is performed (depending on substance)	Within 2 hours from arrival
Time in which technical decontamination of human remains is performed	Within 24 hours from end of work period
Time in which technical decontamination of facilities and equipment is performed	Within 24 hours from end of work period

Activity: Demobilize WMD and Hazmat Response and Decontamination

Definition: Upon completion of response phase transition to recovery operations, inventory equipment, complete paperwork, pursue rehabilitation, and conduct post-event analysis (e.g., lessons learned) in accordance with incident demobilization plan.

Critical Tasks

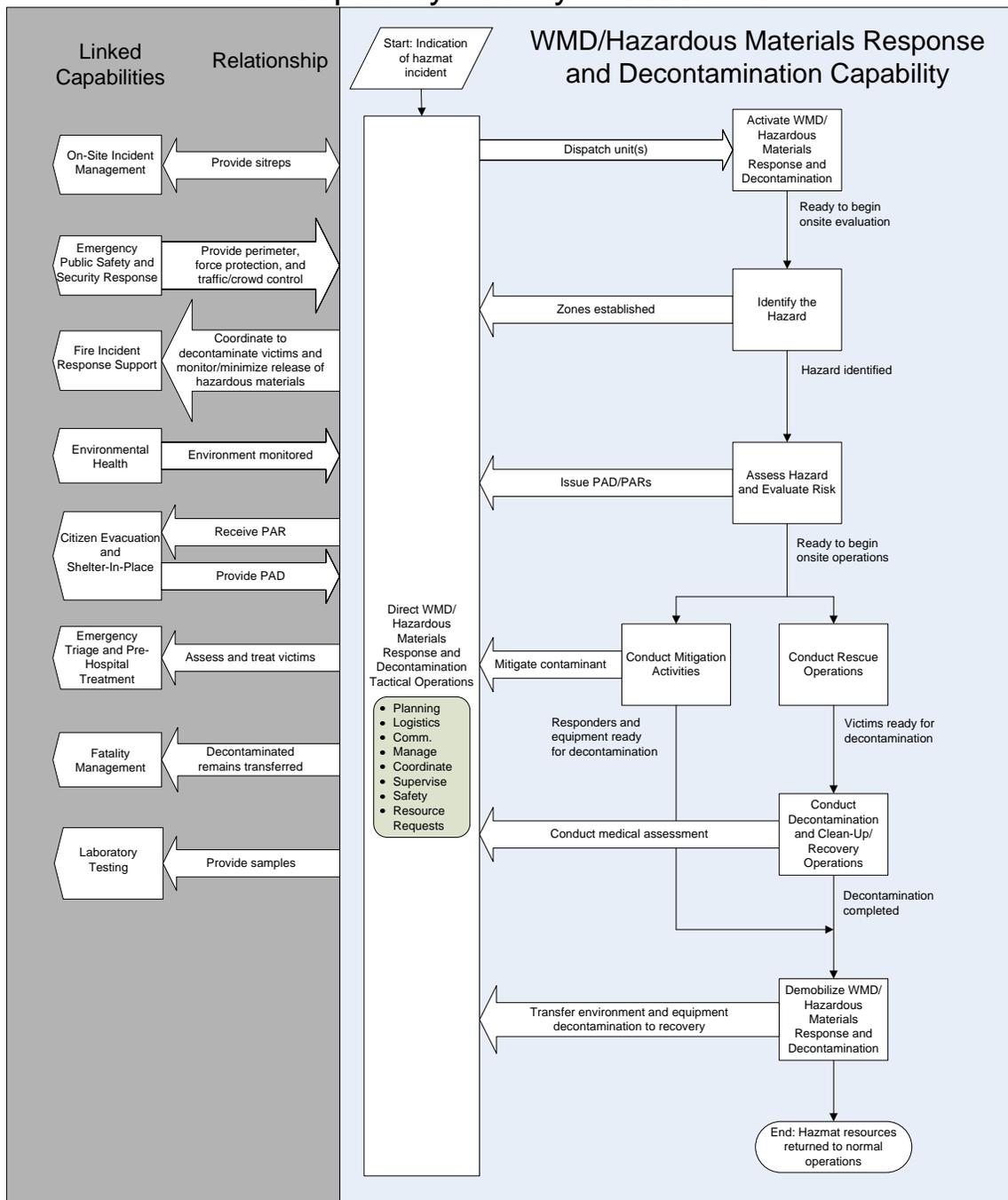
Res.B2b 10.1.1	Transfer command for emergency response phase to authority having jurisdiction (AHJ) for post-emergency clean-up and recovery operations
Res.B2b 10.1.2	Work through IC/UC to ensure that incident-specific evidence collection and investigation protocols are clearly understood and communicated to all responders
Res.B2b 10.1	Inventory WMD/hazmat equipment cache and restore to service
Res.B2b 10.2	Demobilize WMD/hazmat base of operations
Res.B2b 10.3	Arrange transportation for demobilized WMD/hazmat personnel and equipment
Res.B2b 10.4.1	Implement a formal post-incident analysis process (based upon local procedures)

Res.B2b 10.4	Debrief WMD/hazmat capability personnel
Res.B2b 10.4.2	Conduct and incident critique for incident responders
Performance Measures	Metric
Time in which equipment cache is re-inventoried and packaged for transport	Within 12 hours from start of demobilization process
Time in which base of operations is returned to original conditions	Within 12 hours from start of demobilization process
Percent of WMD/hazmat Response and Decontamination task force debriefed	100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	WMD and Hazmat Response and Decontamination integrates itself into the local Incident Command/Unified Command system.
Emergency Public Safety and Security Response	WMD and Hazmat Response and Decontamination relies upon Emergency Public Safety and Security Response assistance to secure WMD/hazmat and decontamination sites, safely divert public from the area, and to provide security support for the WMD/hazmat and decontamination base of operations.
Fire Incident Response Support	WMD and Hazmat Response and Decontamination coordinates with Fire Incident Response Support to decontaminate on-site victims and coordinates with hazmat on tactics to monitor and minimize release of hazardous materials during firefighting operations.
Environmental Health	WMD and Hazmat Response and Decontamination relies upon Environmental Health to monitor environmental public safety from decontamination and other hazmat response operations.
Citizen Evacuation and Shelter-In-Place	WMD and Hazmat Response and Decontamination relies upon Citizen Evacuation assistance to help plan for and implement the protective actions recommended by the IC in consultation with the WMD/hazmat team to both protect and decontaminate evacuees.
Emergency Triage and Pre-Hospital Treatment	WMD and Hazmat Response and Decontamination relies upon Emergency Triage and Pre-Hospital Treatment to transfer care of victims that have been decontaminated from WMD/hazmat.
Fatality Management	WMD and Hazmat Response and Decontamination notifies Fatality Management of location of decontaminated remains encountered from WMD/hazmat exposure.
Laboratory Testing	WMD and Hazmat Response and Decontamination provides Laboratory and Testing with samples for testing.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Type III Hazmat Entry Team	Per NIMS
Type II Hazmat Entry Team	Per NIMS
Type I Hazmat Entry Team (extrication)	Per NIMS, with capabilities for extrication
Type I Hazmat Entry Team (decontamination)	Per NIMS, with capabilities for decontamination
EPA Radiological Emergency Response Team (RERT)	The (RERT), based in EPA's Office of Radiation and Indoor Air and regional offices, responds to emergencies involving releases of radioactive materials by providing environmental measurement and guidance activities; monitoring, sampling, and laboratory activities; and providing State and local authorities with advice on protecting local residents from exposure to harmful radiation levels.
Federal Radiological Monitoring and Assessment Center (FRMAC)	The Department of Energy (DOE) FRMAC coordinates Federal radiological monitoring and assessment activities with those of State and local agencies.
Hazmat Information/Research Group/Team	Reference/research function performs the compiling and interpretation of technical information related to products, agents, containers, excreta and provides relevant information to the hazmat Branch Director or Group Supervisor.
Hazmat Medical Group/Team	Part of the logistics section for the provision of medical services for response personnel
Hazmat Resources Group/Team	The "resources group" technically would be within the planning section and be termed the resources unit and would reside outside of the hazmat structure. Resources on the scene would be assigned to the staging area manager.
Hazmat Liaison Officer	
Hazmat Specialists	Single resources that will be assigned as needed and defined in 29CFR1910.120

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Toxic Industrial Chemical scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including those caused by an improvised nuclear device, aerosol anthrax, a blister agent, a nerve agent, and a radiological dispersal device. Additional measures and metrics need to be developed for a nuclear incident.
- If decontamination is ongoing during the early stages of a catastrophic incident, persons undergoing decontamination will have logistical, medical, and mental health needs that will need to be addressed quickly.

- Decontamination priorities will be set up using the following priorities, in order of importance: life safety, incident stabilization, and property conservation.
- All fires are extinguished in 4-day response phase.
- Water-based oil release may extend beyond the 96-hour limit. Assets will be on scene, but containment operations may not be able to begin immediately on arrival.
- Three operational response areas: port, refinery, and downwind
- The response phase is 96 hours.
- Local response time: 0–2 hours
- Regional response time: 2–12 hours
- State response time: 12–24 hours
- Federal response time: 24+ hours
- “Zero hour” (incident clock) = time incident occurred
- Unconstrained need: consider all assets required for response, do not factor response time or asset availability into planning.
- Planning factors are based on scenario and planning assumptions for a level III hazardous materials (hazmat) incident, where there are 1,000 injuries, 350 deaths, 25,000 sheltered, 10,000 evacuated, and 100,000 self-evacuated. About half of equipment and facilities are damaged (of three refineries). Two ships sank, the port was damaged near improvised explosive device (IED) sites, and property was damaged in the downwind area.
- A significant number of individuals exposed to a plume cloud or contaminant agent will flee the scene before first responders arrive. It may prove difficult to determine which of those individuals require decontamination, and to ensure such individuals present themselves for decontamination.
- The United States has approximately 64 nuclear stations supported by the Radiological Emergency Preparedness Program (REPP). No less than 30 REPP response teams should be able to respond to an “improvised nuclear device” scenario within 24 hours.
- Quantity of resources is achievable through mutual aid.
- Each jurisdiction is expected to sponsor and support community emergency response teams (CERTs).
- The projected effects of contamination resulting from a catastrophic incident are generally based on an estimated population density of 2,000 people per square mile, but may increase for major urban areas.
- Large-gathering situations (e.g. National Security special events, sporting events, conventions, etc.) create higher localized population densities.
- Biological agents typically have delayed symptoms. As such there will rarely be an on-site incident requiring response when a biological agent is released.
- Health care facilities are the most likely locations for managing a biological incident.
- Secondary contamination will be a major concern. Hospital emergency rooms may close if patients are admitted without proper decontamination. Other secondary contamination issues include control of runoff of fluids used in decontamination, and the handling of contaminated clothing and personal effects. In addition, the secondary contamination of first responders, even those wearing personal protective equipment, can occur during the removal of patients from a hazardous area, during the performance of basic life support functions, or when initial responders are unaware that a hazardous material is involved.
- The psychological dimensions of being exposed to a contaminant, and subsequent decontamination may present social management challenges and concerns. Of greatest concern are the short- and long-term psychological consequences resulting from actual exposure to chemical, biological, and radiological substances, and which subsequently produce negative health effects. Short-term stress symptoms may be a prelude to long-term, debilitating, post-traumatic stress disorder.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Toxic Industrial Chemical)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Type 1 Hazmat Entry Team (extrication)	Can conduct: 3 victim extrications per hour per team 12 victim extrications over a 4-hour period per team	1,000 injuries (downwind area) 350 deaths 2 response areas: port and downwind. <i>Note: cannot respond in level A in a fire environment (this excludes refinery response area).</i> 4-hour rescue phase	Type 1 hazmat Entry Team (extrication)
Type 1 hazmat Entry Team (decontamination)	Can conduct: 10 victims decontaminated/ per hour per team (5-man team) 40 victims decontaminated per team in a 4-hour rescue phase	1,000 injuries (downwind area) 350 deaths Two response areas: port and downwind. <i>Note: cannot respond in level A in a fire environment (excludes refinery response area).</i> 4-hour rescue phase	Type 1 hazmat Entry Team (decontamination)
EPA Radiological Emergency Response Team (RERT)	Phase I CMRT Phase II CMRT	4-hour readiness posture (6-10 hour response time) Up to 500 members, round-the-clock operations capacity, 24-36 hour response time	
Federal Radiological Monitoring and Assessment Center (FRMAC)		2-hour call-up (working hours), 4-hour call-up (non-working hours)	27 teams in 8 DOE regions
Hazmat Information/Research Group/Team	1 team per 12-hour shift for all response areas	96-hour response phase (8 shifts)	1 Hazmat Information/Research Group/Team
Hazmat Medical Group/Team	1 team per 12-hour shift per response area	96-hour response phase (8 shifts) 2 response areas: port and downwind	1 Hazmat Medical Group/Team
Hazmat Resources Group/Team	1 team per 12-hour shift per response area	96-hour response phase (8 shifts) 2 response areas: port and downwind	1 Hazmat Resources Group/Team
Hazmat Liaison Officer	1 officer per 12-hour shift per response area	96-hour response phase (8 shifts) 2 response areas: port and downwind	hazmat Liaison Officer
Hazmat Specialists	1 specialist per response area per 12-hour shift	96-hour response phase (8 shifts) 2 response areas: port and downwind	Hazmat Specialists

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Type I Hazmat Entry Team (extrication)	NIMS-Typed Resource Organization	20	Per UASI Area, based on risk	Local (City)	Identify and Evaluate On Scene Conduct Rescue Operations
Type I Hazmat Entry Team (extrication)	NIMS-Typed Resource Organization	1	Per county	Local (County)	Identify and Evaluate On Scene Conduct Rescue Operations
Type I Hazmat Entry Team (decontamination)	NIMS-Typed Resource Organization	20	Per UASI Area	Local (City)	Identify and Evaluate On Scene Conduct On-site Gross Decontamination Conduct On-site Technical Decontamination
Type I Hazmat Entry Team (decontamination)	NIMS-Typed Resource Organization	1	Per county	Local (County)	Identify and Evaluate On Scene Conduct On-site Gross Decontamination Conduct On-site Technical Decontamination
EPA Radiological Emergency Response Team (RERP)	Federal Team	1	Nationally	Federal (EPA)	Identify and Evaluate On Scene Conduct Mitigation Activities
Federal Radiological Monitoring and Assessment Center (FRMAC)	Federal Organization	27	Nationally	Federal (DOE)	Identify and Evaluate On Scene Conduct Mitigation Activities
Hazmat information/research group/team	Non-NIMS Resource Organization	2	Per UASI Area	Local (City)	Direct Tactical Operations
Hazmat medical group/team	Non-NIMS Resource Organization	2	Per UASI Area	Local (City)	Conduct Rescue Operations
Hazmat resources group/team	Non-NIMS Resource	2	Per UASI Area	Local (City)	Direct Tactical Operations

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
	Organization				
Hazmat liaison officer	Personnel	2	Per UASI Area	Local (City)	Direct Tactical Operations
Hazmat specialist	Personnel	1	Per county	Local (County)	Identify and Evaluate On Scene Conduct Mitigation Activities

References

- Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002.
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
- National Response Plan. U.S. Department of Homeland Security. December 2004.
- National Incident Management System. U.S. Department of Homeland Security. March 2004.
<http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
- Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003.
<http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
- Hazardous Materials Emergency Planning Guide. National Response Team. 2001.
http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
- NFPA 471: Recommended Practice for Responding to Hazardous Materials Incidents. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=471>.
- NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. National Fire Protection Association. 2002. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>.
- NFPA 473: Standard for Competencies for EMS Personnel Responding to Hazardous Materials Incidents. National Fire Protection Association. 2002.
<http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=473>.
- NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, National Fire Protection Association, 2004 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1710>.
- NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments, National Fire Protection Association, 2004 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1720>.
- NFPA 1561: Standard on Emergency Services Incident Management System, National Fire Protection Association, 2005 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.
- NFPA 1500: Standard on Fire Department Occupational Safety and Health Programs, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1500>.
- Homeland Security Presidential Directive/HSPD-8: National Preparedness.. December 2003.
<http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
- National Oil and Hazardous Substances Pollution Contingency Plan. Environmental Protection Agency. 1994.
<http://www.epa.gov/oilspill/pdfs/40cfr300.pdf>.
- 2004 Emergency Response Guidebook: A Guidebook for First Responders during the Initial Phase of a Dangerous Goods/Hazardous Materials Incident. U.S. Department of Transportation.
<http://hazmat.dot.gov/pubs/erg/gydebook.htm>.

16. Superfund Amendments and Reauthorization Act, Title III, The Emergency Planning and Community Right-to-Know Act. Environmental Protection Agency. 1986.
17. The 2004 Standardized Equipment List. The Interagency Board for Equipment Standardization and Interoperability. 2004. <http://www.iab.gov/downloads/AnnualReport2003.pdf>.
18. Resource Typing Definitions–I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
19. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) Program, <http://mmrs.fema.gov>.
18. NFPA 1021: Standard for Fire Officer Professional Qualifications. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1021>.
19. NFPA 1561: Standard on Emergency Services Incident Management System. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>.
20. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1600>.
21. NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1710>.
22. NFPA 1720: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments. National Fire Protection Association. 2004. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1720>.
23. NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=472>.
24. NFPA 1201: Standard for Providing Emergency Services to the Public, National Fire Protection Association, 2004 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1201>.
25. NFPA 1403: Standard on Live Fire Training Evolutions, National Fire Protection Association, 2002 edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1403>.
26. NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, National Fire Protection Association, 2002 edition.
27. NFPA 1901: Standard for Automotive Fire Apparatus, National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1901>

CITIZEN EVACUATION AND SHELTER-IN-PLACE

Capability Definition

Citizen evacuation and shelter-in-place is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population (and companion animals), and/or the organized and managed evacuation of the at-risk population (and companion animals) to areas of safe refuge in response to a potentially or actually dangerous environment. In addition, this capability involves the safe reentry of the population where feasible.

Outcome

Affected and at-risk populations (and companion animals to the extent necessary to save human lives) are safely sheltered-in-place or evacuated to safe refuge areas.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability is supported by the following Emergency Support Functions (ESFs):

- ESF #1: Transportation
- ESF #5: Emergency Management
- ESF #6: Mass Care, Housing, and Human Services
- ESF #8: Public Health and Medical Services
- ESF #14: Public Safety
- ESF #15: External Affairs

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B.3a 1	Develop plans, procedures, and protocols to manage evacuations and sheltering-in-place
Res.B.3a 1.2.1	Develop evacuation procedures for populations and locations at risk (including high density areas, neighborhoods, high-rise buildings, subways, airports, special events venues, etc.), and institutions that should begin evacuations early (e.g., hospitals, nursing homes, long-term care facilities, and correctional facilities)
Res.B3a 1.1.1.1	Develop and distribute public education materials on evacuation/shelter-in-place preparation, plans, and procedures
Res.B3a 1.1.1.2	Participate in citizen preparedness activities to ensure that public information on evacuation/shelter-in-place preparation and processes is effectively communicated
ResB3a 1.1.1.3	Develop and implement programs to train local citizens on evacuation, reentry and shelter-in-place processes

Res.B3a 1.1.3	Participate in establishment of public information announcements to be issued as part of evacuation/shelter-in-place orders	
Res.B3a 1.3.1	Develop and implement plans and procedures to identify in advance populations requiring assistance during evacuation/shelter-in-place	
Res.B3a 1.3.1.1	Establish registry of populations requiring assistance during evacuation/sheltering-in-place	
Res.B3a 1.3.1.2	Develop and implement procedures to identify and arrange for transportation to accommodate immobilized individuals or others requiring special assistance during transport	
Res.B3a 1.3.2	Develop plans and procedures for identifying during an incident those populations requiring assistance with evacuation, including identification of type of assistance required	
Res.B3a 1.3.3	Establish processes to ensure that immobilized and other individuals require special assistance can be moved to collection points for evacuation	
Res.B3a 1.3.4	Establish processes for identifying and collecting individuals who do not go to collection points	
Res.B3a 1.4.1	Pre-identify evacuee collection points and staging/reception areas (for immediate sheltering/processing)	
Res.B3a 1.4.3.1	Pre-arrange contracts and agreements to ensure provision of transportation vehicle and drivers during an incident	
Res.B3a 1.4.4	Identify and arrange for the staging and use of resources from outside the planning area	
Res.B3a 1.4.5	Develop plans and procedures to get resources to those who have sheltered in place (long term—3 days or more)	
Res.B3a 1.4.6	Develop plans and procedures for coordinating with other agencies to meet basic needs during evacuation	
Res.B3a 1.4.7	Develop agreements with neighboring areas regarding the movement and receipt of evacuees from the affected area	
Res.B3a 1.2.4	Develop plans and procedures for evacuation/shelter-in place of companion animals	
Preparedness Measures		Metrics
Evacuation and shelter-in-place plans address the development and dissemination of accurate, timely, accessible information to public, media, support agencies		Yes/No
Informational materials for use in citizen preparedness for evacuation and shelter-in-place have been developed and coordinated with public education/citizen preparedness programs on procedures and guidance for radiological and nuclear hazards		Yes/No
Informational materials for use in citizen preparedness for evacuation and shelter-in-place have been developed and coordinated with public education/citizen preparedness programs on procedures and guidance for biological and chemical hazards		Yes/No
Informational materials for use in citizen preparedness for evacuation and shelter-in-place have been developed and coordinated with public education/citizen preparedness programs on procedures and guidance for explosive hazards		Yes/No
Informational materials for use in citizen preparedness for evacuation and shelter-in-place have been developed and coordinated with public education/citizen preparedness programs on citizen responsibilities		Yes/No
Informational materials for use in citizen preparedness for evacuation and shelter-in-place have been developed and coordinated with public education/citizen preparedness programs on options and guidance for the handling of companion animals		Yes/No
Planning and informational materials to be released to the public for evacuation or sheltering in		Yes/No

place have been shared with the servicing public safety communication centers and Public Service Answering Points (PSAPs)	
Plans addressing authority and decision-making processes for shelter-in-place and/or evacuations are in place	Yes/No
Nonprofit organizations/NGOs (e.g. the American Red Cross, Salvation Army, faith-based organizations) were actively engaged in plan development	Yes/No
Plans addressing authority and procedures to declare and enforce a mandatory evacuation are in place	Yes/No
Plans are in place for the evacuation of neighborhoods	Yes/No
Plans are in place for the evacuation of high-rise buildings	Yes/No
Plans are in place for the evacuation of subways	Yes/No
Plans are in place for the evacuation of airports	Yes/No
Plans are in place for the evacuation of correctional facilities	Yes/No
Plans are in place for the evacuation of hospitals/nursing homes/assisted-living/elder care facilities	Yes/No
Plans are in place for the evacuation of special events venues	Yes/No
Plans are in place for the evacuation of other high-risk areas in response to a threat or attack	Yes/No
Plans are in place for the evacuation of animal shelters and zoos	Yes/No
Processes for identifying populations that may need assistance with evacuation/shelter-in-place, prior to an incident are in place	Yes/No
Processes for identifying, during an incident, populations that may need assistance with evacuation/shelter-in-place are in place	Yes/No
Processes for identifying and addressing the different types of assistance needed (e.g., physical movement, transportation assistance, language translation, etc.) are in place	Yes/No
Populations that may need assistance with evacuation/shelter-in-place have been identified	Yes/No
Evacuation plan(s) are in place to provide transportation and other evacuation assistance to all persons who need evacuation assistance; plans, at a minimum, address assistance for non-institutionalized populations requiring assistance to be moved (e.g., the elderly, disabled, etc.)	Yes/No
Evacuation plan(s) are in place to provide transportation and other evacuation assistance to all persons who need evacuation assistance; plans, at a minimum, address assistance for transient populations (e.g., the homeless; tourists and visitors)	Yes/No
Evacuation plan(s) are in place to provide transportation and other evacuation assistance to all persons who need evacuation assistance; plans, at a minimum, address assistance for institutionalized populations (e.g., nursing homes, hospitals, psychiatric institutions, boarding schools)	Yes/No
Evacuation plan(s) are in place to provide transportation and other evacuation assistance to all persons who need evacuation assistance; plans, at a minimum, address assistance for populations out of the home (e.g., students, those in public venues) and the work force during a surprise incident	Yes/No
Evacuation plan(s) are in place to provide transportation and other evacuation assistance to all persons who need evacuation assistance; plans, at a minimum, address assistance for companion animals	Yes/No
Plans for coordinating with law enforcement (e.g. to identify risk to transportation infrastructure	Yes/No

from potential terrorist attack, identify security and survival vulnerabilities to evacuated population, identify protective countermeasures) are in place	
Plans to coordinate with public safety agencies in evacuating incarcerated populations are in place	Yes/No
Evacuation plan(s) identifying evacuation routes and traffic flow and control measures are in place	Yes/No
Evacuation routes are marked	Yes/No
Plans identifying measures to ensure adequate services (e.g., gas, food, water, tow trucks, medical emergencies, etc.) along the evacuation route(s) are in place	Yes/No
Plans to provide for leadership at evacuation staging points and/or at temporary evacuation shelters for up to 72 hours are in place	Yes/No
Plans to coordinate with mass care agencies to provide required services at evacuation staging points and/or at temporary evacuation shelters for at least 72 hours are in place	Yes/No
Arrangements with agencies to be involved in evacuations/sheltering, staffing of shelters, logistical supply, security, and support of shelters are in place	Yes/No
Plans to coordinate with medical care agencies to provide medical support, supervision, and symptom surveillance of evacuees during a prolonged evacuation (e.g., monitoring and caring for people with pre-existing medical conditions or disabilities and those who may become ill during the evacuation) are in place	Yes/No
Plans to address decontamination of evacuees (e.g., coordination with HazMat) are in place	Yes/No
An information tracking system is in place to support evacuation and shelter-in-place operations	Yes/No
memoranda of understanding (MOU) with jurisdictions to serve as host communities for evacuees during an incident have been developed	Yes/No
Plans to address re-entry of the general population are in place	Yes/No
Plans to address re-entry support for populations requiring assistance to return are in place	Yes/No
Plans to coordinate with utility companies regarding safety instructions for returning homeowners are in place	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B3a 2.1	Develop and implement training programs for staff involved in evacuation/shelter-in-place implementation
Res.B3a 2.2.1	Develop and implement exercises involving evacuation of various types of locations to local shelters as well as more distant cities
Res.B3a 2.2.2	Assess the training and exercise gaps
Res.B3a 2.2.3	Review existing training and exercise resources available for participation and/or inclusion in comprehensive training and exercise strategy

Preparedness Measures

Metric

Staff of agencies to be involved in evacuations/sheltering, staffing of shelters, logistical supply, and support of shelters have been trained	Yes/No
--	--------

Pre-event exercises of the notification and activation of evacuation and shelter-in-place plans are conducted with citizen participation	Yes/No
Local emergency response agencies/staff including public safety answering points, are trained on local evacuation/shelter-in-place strategies	Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct Evacuation and/or In-Place Protection Tactical Operations	
Definition: In response to a hazardous condition for a locality, direct, manage, and coordinate evacuation and/or in-place sheltering procedures for both the general population and those requiring evacuation assistance throughout incident	
Critical Tasks	
Res.B3a 3.1.2	Identify populations, institutions (e.g., hospitals, nursing homes, correctional facilities) and locations to be evacuated or sheltered-in-place
Res.B3a 3.1.3	Coordinate with law enforcement to identify risk (e.g., from a potential terrorist attack) to transportation infrastructure that may be used for evacuation
Res.B3a 3.1.4	Coordinate with law enforcement to anticipate secondary attack, and identify security and survival vulnerabilities of the evacuated or sheltered population and protective countermeasures
Res.B3a 3.2.1	Identify appropriate decision making authority responsible for deciding a course of action to address the incident
Res.B3a 3.2	Determine appropriate course of action to address the incident
Res.B3a 3.4.4	Coordinate with serving Public Service Answering Points regarding communication of the evacuation and/or shelter-in-place decision
Res.B3a 3.3	Re-assess evacuation/shelter-in-place plans and begin implementation
Res.B3a 3.3.2	Re-assess location of evacuation collection points and staging areas identified in plans and adjust as needed
Res.B3a 3.3.1	Re-assess evacuation traffic management plan and adjust as needed
Res.B3a 3.4.2	Coordinate with mass care, medical, and other services to set up evacuation staging areas
Res.B3a 3.3.1.1	Re-assess emergency evacuation routes and adjust as needed
Res.B3a 3.4.1	Coordinate with transportation agencies to implement evacuation plans
Res.B3a 3.3.4	Coordinate with mass care services to identify location of shelter facilities and other mass care services for evacuees
Res.B3a 3.3.3	Coordinate with mass care agencies to assess the need for emergency feeding and sheltering activities
Res.B3a 3.4.5	Coordinate with appropriate agencies regarding caring for companion animals in transit
Res.B3a 3.5.3	Coordinate medical assistance for special need evacuees in transit
Res.B3a 3.5.4	Notify appropriate agencies of anticipated medical assistance required upon arrival at temporary locations (staging area, shelters, etc)
Res.B3a 3.6	Coordinate with HazMat to conduct decontamination of evacuees, including those with disabilities and medical needs (including their equipment)

Res.B3a 3.7	Coordinate with environmental health to monitor progress of affected area to determine when re-entry is deemed appropriate	
Performance Measures		Metric
Individual(s) with authority to select protective strategy is identified		Yes/No
Individual(s) with authority identifies the information needed to make decision(s)		Yes/No
Necessary information is gathered		Yes/No
Appropriate and available strategies are identified		Yes/No
An appropriate strategy is selected and communicated		Yes/No
Appropriate protective strategy to meet the potential risk/danger to the various populations is selected within appropriate timeframe		Yes/No
Citizen protection decision is coordinated with surrounding jurisdictions to support evacuation routes, and activate reception facilities and shelters		Yes/No
Re-entry planning is conducted during the course of response to the event		Yes/No

Activity: Activate Evacuation and/or In-Place Protection

Definition: In response to activation, identify and ensure notification of at-risk populations, and identify populations requiring assistance in evacuation and/or in-place protection

Critical Tasks

Res.B3a 4.1	Identify and mobilize appropriate personnel
Res.B3a 4.2.1	Issue shelter-in-place order
Res.B3a 4.2.3	Issue evacuation order
Res.B3a 4.2.4	Coordinate with agencies providing emergency public information and warning to ensure effective communication of evacuation/shelter-in-place order and procedures
Res.B3a 4.4.1	Determine locations of populations who may need assistance with evacuation from affected area (e.g., using pre-established registry of populations in facilities)
Res.B3a 4.4.2	Implement plan to capture self-reporting by those requiring assistance with evacuation (e.g., via hot-line)
Res.B3a 4.4.3	Conduct triage upon identification to determine type of assistance required
Res.B3a 4.5	Implement systems for tracking evacuees and those who shelter in place
Res.B3a 4.3	Implement notification protocols for communication to Public Service Answering Points (911 centers)

Performance Measures	Metric
Time in which affected population is notified of shelter-in-place order	Within 15 minutes from order to shelter-in-place
The most affected populations for evacuation are notified first (e.g., ring evacuations)	Yes/No
Percent of population appropriately notified of evacuation procedures, routes, locations, and sources of evacuation information throughout the incident	100%

Percent of population requiring assistance that has been identified	100%
---	------

Activity: <i>Implement Evacuation Orders for General Population</i>	
Definition: Assist the self-evacuation of affected population by providing public information and instructions, traffic control, and support services to evacuees along evacuation routes	
Critical Tasks	
Res.B3a 5.1	Provide public notification agencies with information to provide instructions for evacuation
Res.B3a 5.2	Activate approved traffic control plan
Res.B3a 5.2.1	Coordinate with appropriate agencies regarding support for traffic control
Res.B3a 5.1.2	Provide information regarding evacuation staging area location
Res.B3a 5.4.3	Implement procedures for allowing voluntary tracking of evacuees who participate voluntarily
Res.B3a 5.3	Monitor evacuation traffic flow/demand and adjust evacuation traffic management plan and measures as appropriate
Res.B3a 5.4.1	Provide services (e.g., gas, food, water, tow trucks, etc.) along the evacuation route(s)
Res.B3a 5.4.2	Monitor evacuation traffic to identify those no longer able to self-evacuate and requiring specialized assistance
Performance Measures	
	Metric
Frequency with which public is initially notified of evacuation procedures, routes, locations, or sources of evacuation information	Every 30 minutes
Frequency with which public is notified of evacuation procedures, routes, locations, or sources of evacuation information throughout the incident.	Every 2 hours
Time in which the traffic and transportation plan is implemented to enable evacuation within the incident timeframe	Within 3 hours from evacuation order
Time in which the evacuation of the affected general population for an event with advanced warning is completed	Within 72 hours from the order to evacuate

Activity: <i>Collect and Evacuate Population Requiring Assistance</i>	
Definition: Upon identification of individuals requiring assistance and type of assistance required, collect and move individuals to established evacuation staging/reception area for further services	
Critical Tasks	
Res.B3a 6.1	Order transportation services for evacuation
Res.B3a 6.1.1	Coordinate with supporting agencies and pre-arranged providers to obtain appropriate means of transportation for those requiring transportation assistance (e.g., buses, ambulances, handicap-assisted vans)
Res.B3a 6.1.2	Implement plans for providing alternative means of transport for immobilized individuals or those needing other special assistance in transit
Res.B3a 6.2.3	Provide appropriate specialized transportation services for those requiring additional support during evacuation

Res.B3a 6.2.4	Coordinate provision of medical support services for evacuating special needs populations	
Res.B3a 6.3.1	Collect individuals at pre-established collection points and transfer to staging/reception area	
Res.B3a 6.3.2	Collect individuals at non-specified locations and transfer to staging/reception area	
Performance Measures		Metric
Percent of requests for evacuation assistance for those in need that are met in accordance with established procedures		100%
Procedures for obtaining evacuation assistance are publicized to general public		Yes/No
Percent of service organizations following established procedures to provide evacuation assistance		100%
Sources of surge transportation assistance for evacuations are contacted and provided information on their role		Yes/No
Sources of assistance to evacuated persons with special needs are contacted and provided information on their role		Yes/No
Specific arrangements for medical support services for evacuation of those requiring it are implemented		Yes/No
Transportation assistance is provided for/by hospitals, nursing homes and other institutions that will need to evacuate or help/evacuate those in their care		Yes/No
Collection points for individuals needing special evacuation assistance are established and publicized		Yes/No

Activity: Operate Evacuation Staging/Reception Area

Definition: In coordination with mass care, medical, and other service agencies, provide immediate basic needs and processing of evacuated individuals en route to other destinations (e.g., to shelters, hospitals, etc.)

Critical Tasks

Res.B3a 7.1	Establish evacuation staging/reception area	
Res.B3a 7.1.1	Conduct security sweeps of evacuation staging/reception areas prior to occupancy, if incident is a terrorist attack or suspected terrorist attack	
Res.B3a 7.2.1	Provide, in coordination with mass care, for basic needs support and processing of evacuated individuals and companion animals in preparation for further movement	
Res.B3a 7.2.2	Provide, in coordination with medical care, access to medical services for evacuated individuals in staging/reception area	
Res.B3a 7.2.3	Provide, in coordination with WMD and Hazardous Materials Response capability, for decontamination of evacuated individuals if necessary (including those with medical needs)	
Res.B3a 7.2.4	Coordinate with appropriate agencies to address needs of those requiring assistance	
Res.B3a 7.3.1	Provide tracking of people needing evacuation assistance	
Res.B3a 7.3.2	Provide voluntary registration/tracking system for general population to support reunification	
Performance Measures		Metric

Percent of evacuation staging/reception areas in the affected area that are coordinated with necessary sites and assisting agencies	100%
Public information messages regarding evacuation staging/reception areas are prepared and disseminated	Yes/No
Percent of evacuees whose basic needs are addressed at the staging area	100%

Activity: *Manage Incoming Evacuees*

Definition: In coordination with other service agencies, provide short-term and long-term support to evacuees arriving from affected areas

Critical Tasks

Res.B3a 8.1	Establish reception areas/centers for evacuees in the host jurisdiction
Res.B3a 8.2	Monitor traffic movement of self-evacuees into/through area, and redirect as necessary
Res.B3a 8.3	Coordinate with support agencies to provide short-term needs for evacuees, such as directions, information, shelter, medical care, and other assistance
Res.B3a 8.4	Plan, in coordination with social service agencies, for long-term support for evacuees (e.g., temporary housing, schools, job searches, etc.)

Performance Measures

Metric

Percent of evacuation staging/reception areas in the host jurisdiction that are coordinated with necessary authorities and assisting agencies	100%
Public information messages to publicize evacuation staging/reception areas in the host jurisdiction are prepared and disseminated	Yes/No
Processing, registration and tracking systems are established with procedures, necessary forms and materials, and trained staff	Yes/No
Plans are completed and arrangements established to provide necessary care, shelter, lodging and short term needs of evacuees	Yes/No

Activity: *Implement In-Place Protection Procedures*

Definition: Upon in-place protection activation, assist at-risk population in sheltering in homes or designated in-place sheltering locations

Critical Tasks

Res.B3a 9.2	Identify steps to reduce infiltration of hazard(s)
Res.B3a 9.3.1	Ensure access to emergency communications while sheltered-in-place
Res.B3a 9.3.2	Use emergency alerts system and Public Service Answering Points (PSAPs) to advise and update information of incident

Performance Measures

Metric

Percent of affected population immediately notified of initial in-place protection procedures, using standing emergency instructions	100%
--	------

Time in which the affected general population is sheltered in place	Within 30 minutes from notification
Frequency with which follow-on instructions are provided to sheltered-in-place populations (e.g., hazard mitigation recommendations)	Continuous

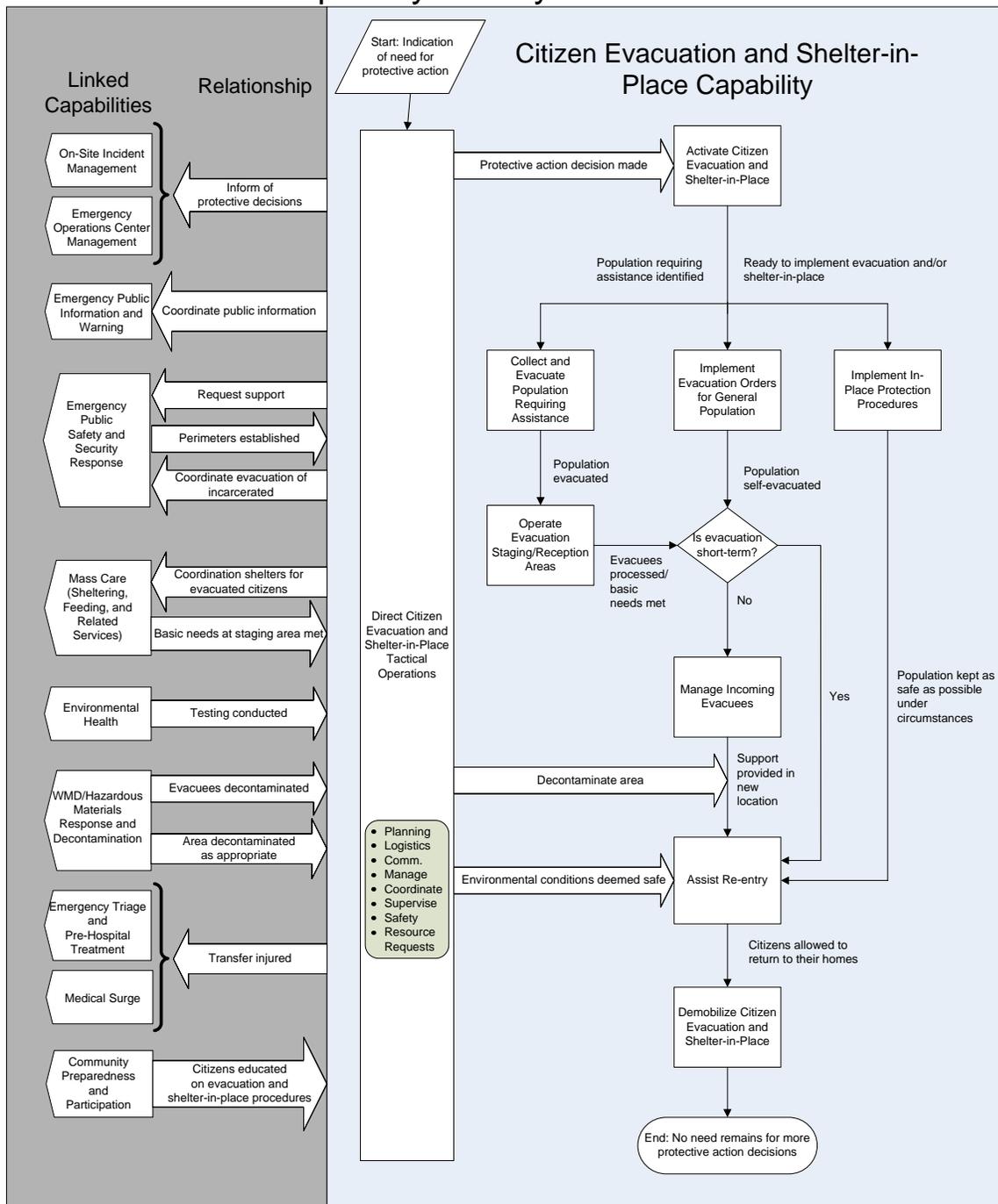
Activity: Assist Re-Entry	
Definition: Upon notification of the affected area being safe, assist in-shelter population and/or evacuees in re-entering area	
Critical Tasks	
Res.B3a 10.1	Adapt and implement reentry plans as officials announce areas within the region to be approved for reentry
Res.B3a 10.2	Assist in the re-entry of people and pets into evacuated areas when appropriate and safe
Res.B3a 10.3	Provide re-entry information to the public on a timely and on-going basis
Res.B3a 10.4	Coordinate with appropriate agencies to provide instructions and information if re-entry is not feasible
Performance Measures	
	Metric
Re-entry planning is conducted during the course of response to the event	Yes/No
Percent of affected evacuees notified of temporary re-entry procedures	100%
Percent of affected evacuees instructed of permanent re-entry procedures, including safety precautions	100%

Activity: Demobilize Citizen Evacuation and Shelter-In-Place Operations	
Definition: Upon completion of assigned duties, decontaminate equipment, supplies, and personnel if appropriate, and demobilize	
Critical Tasks	
Res.B3a 11.1	Arrange for decontamination of equipment, supplies, and personnel used in evacuation/in-place protection
Res.B3a 11.2	Participate in incident debriefing on evacuation/in-place protection implementation
Res.B3a 11.3	Release personnel supporting evacuation/in-place protection
Performance Measures	
	Metric
Percent of Citizen Evacuation and/or Shelter-In-Place personnel debriefed	100%
Lessons learned are identified	Yes/No
Lessons learned are addressed	Yes/No

Linked Capabilities

Linked Capability	Relationship
Community Preparedness and Participation	Citizen Evacuation and Shelter-In-Place coordinates with Community Preparedness and Participation to ensure that citizens are educated on how to prepare for and conduct evacuation and sheltering-in-place.
On-Site Incident Management	Citizen Evacuation and Shelter-In-Place management integrates itself into the local Incident Command/Unified Command system to coordinate protective action decisions.
WMD and Hazardous Materials Response and Decontamination	Citizen Evacuation and Shelter-In-Place coordinates with WMD and Hazardous Materials Response and Decontamination to ensure evacuation and/or in-place protection personnel and equipment are appropriately decontaminated. WMD and Hazardous Materials Response and Decontamination also supports decontamination of evacuees when necessary.
Emergency Operations Center Management	Citizen Evacuation and Shelter-In-Place management works through the EOC Management to notify affected and general population of protective action decisions.
Emergency Public Safety and Security Response	Citizen Evacuation and Shelter-In-Place relies upon Emergency Public Safety and Security Response assistance to safely maneuver affected populations through evacuation routes and provide assistance for traffic and crowd control. Emergency Public Safety and Security Response also handles the evacuation of the incarcerated populations at risk.
Emergency Triage and Pre-Hospital Treatment	Citizen Evacuation and Shelter-In-Place coordinates with Emergency Triage and Pre-Hospital Treatment to obtain immediate medical treatment for evacuees in need, either en-route or at evacuee staging area.
Medical Surge	Citizen Evacuation and Shelter-In-Place coordinates with Medical Surge to obtain immediate medical treatment for evacuees in need, either en-route or at evacuee staging area.
Mass Care (Sheltering, Feeding, and Related Services)	Citizen Evacuation and Shelter-In-Place coordinates with Mass Care to provide basic services to evacuees and assists in transferring evacuees to Mass Care shelters for at-risk populations.
Emergency Public Information and Warning	Citizen Evacuation and Shelter-In-Place coordinates with emergency public information and warning to provide accurate, timely and continuous information to the affected and general populations regarding evacuation and/or shelter-in-place orders and procedures, and subsequent reentry information and instructions.
Environmental Health	Citizen Evacuation and Shelter-In-Place relies on Environmental Health for assessment of hazards to determine whether areas are safe for re-entry.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Emergency Alert System (EAS)	Established by the FCC in 1994 to provide the President with access to thousands of broadcast stations, cable systems and participating satellite programmers to transmit a message to the public.
Public Warning Systems	Other notification systems including sirens, call-out systems, television captioning system, and any system capable of reaching 100% of the at-risk population, including a redundant capability
Traffic control packages	Teams of law enforcement personnel and traffic control equipment (barriers, cones, directional signals)
Transportation vehicles	Buses and other mass transit vehicles, including drivers, able to provide transportation to evacuees, including for re-entry
Security and law enforcement officers	To provide traffic control, using legal authority alter traffic flow and use of highways
Non-law enforcement traffic controllers	Other persons, (non-law enforcement types, such as Volunteers in Police Service) assigned traffic control duties at other intersections directing traffic flow
Small Animal Transport Teams	Per NIMS
DOT Evacuation Coordination Team (Type I, II, and III)	Per NIMS, facilitates the rapid, efficient, and safe evacuation of threatened populations
DOT Evacuation Liaison Team	Per NIMS, provides support in State and local emergency response efforts by compiling, analyzing, and disseminating traffic-related information that can be used to facilitate the rapid, efficient, and safe evacuation and reentry of threatened populations.

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability factors were developed from an in-depth analysis of the Chlorine Tank Explosion scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including accidental or deliberate disease outbreaks, natural disasters, and nuclear and conventional events.
- Large-scale evacuations, organized or self-directed, may occur. More people are initially likely to flee and seek shelter for attacks involving chemical, biological, radiological or nuclear agents than for natural events.
- Evacuation times and the frequency with which the public is notified of evacuation procedures are both incident driven. The times may change depending on whether it is an immediate or long term evacuation.
- The time it takes to complete an evacuation is also incident driven depending on the type of hazard.
- Transportation and traffic routes will be severely and negatively affected by the evacuation
- Many evacuees will require provision of transportation.
- The health-related implications of an incident may aggravate or impair attempts to implement a coordinated evacuation management strategy.

- Public anxiety and stress will result from evacuations, requiring mental health services, appropriate risk communications, and public education/instruction.
- Local jurisdictional resources will be quickly overwhelmed and will require mutual aid from other jurisdictions and support from Federal, State, and regional agencies.
- Through memoranda of understanding (MOUs) incorporated into planning, adjacent communities will be prepared to handle significant numbers of evacuees from affected areas. These host communities also will identify resources, personnel, and equipment to shelter and support evacuees.
- Pre-event identification of shelter sites has been planned for by emergency management agencies and MOUs are in place for use of the facilities.
- Although shelters will require a minimum time for setup and activation, populations will require services immediately on evacuation, notably those for special needs populations and containment.
- For shelter-in-place, evacuation, sheltering, and reentry planning, each jurisdiction has unique hazards and unique resources. Capabilities for at-risk populations are based on jurisdictional hazard vulnerability analysis. Plans (including emergency operations plans), procedures, mutual aid agreement, and so forth must be in place to support effective evacuation and sheltering, dependent on the hazard/risk analysis and the resources available for the at-risk population. The measurement for this capability is: Can the jurisdiction evacuate and/or shelter the at-risk population and, if they cannot, what actions will procure/garner adequate resources for them?

Scenario-Specific

- A large amount of the chemical chlorine has been released into the atmosphere (a plume) and is disbursed in a widely populated area. Decontamination of evacuees will require additional resources and triage areas before citizens can be sheltered; therefore, fire/emergency medical services (EMS), hospitals, and HazMat teams will be required to decontaminate evacuees.
- Local and regional resources will be quickly overwhelmed and require State and Federal assistance.
- Long-term sheltering and decontamination will be required.
- City/jurisdiction is a large urban area with a network of streets and highways. Within the affected area, the evacuation and reentry routes and zones encompass 25 major intersections in a 25-mile evacuation radius.
- Approximately 25 percent of the evacuated population will require shelter. The remaining populations will self-evacuate and arrange own shelter.
- Approximately one percent of the 25 percent of the evacuated populations are special need populations and will require medical shelters and appropriate transportation.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Chlorine Tank Explosion)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Emergency Alert Systems	1 system that will alert 100% of the at-risk population	Warning and notification of 700,000 people	1 system nationally
Public warning system	1 system that will alert 100% of the at-risk population	Warning and notification of 700,000 people	1 system within the jurisdiction to reach the at-risk population with redundant capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Traffic control packages	Provision of traffic control equipment and towing of vehicles/obstacles	70,000 people will self-evacuate and reenter the affected areas when safe, leading to traffic congestion and delaying response assets	Within high-risk evacuation area (distributed to predetermined locations): 1,000 barriers 1,000 traffic cones 50 directional signs
Transportation vehicles	Each bus can hold 50 people and can be recycled and used multiple times during an evacuation Federal resources are not timely for immediate evacuation, but can be used for reentry	630,000 people will require assistance with evacuation through buses; 630,000 people will need reentry assistance	Local and regional (combined): 100 buses, including school and mass transit buses and other vehicles of mass transportation State and unaffected areas: 100 buses Federal: 100 buses or other mass transit vehicles
Security and law enforcement officers	1 law enforcement officer at major intersections	The event occurs in a large urban area with extensive network of streets and traffic flows. 25 major intersections in the evacuation route	Local: 25 law enforcement officers Regional/State: 150–175 officers working outside the affected area restricting access and diverting highway traffic Regional/State: resources for reentry would be needed to augment local resources: 300 persons
Non-law enforcement traffic controllers			Local: 200 non-law enforcement persons to direct traffic along the evacuation/reentry routes
Small Animal Transport Teams	60% of households have companion animals (CAs) and most people will not evacuate if they believe there is no facility to support them and their animals (general population shelters generally do not accept CAs)	Average: 2 pets/household	10 Small Animal Transport Teams (per NIMS typing)

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Emergency Alert System (EAS)	Federal Resource	1	Nationally	Federal	Activate Evacuation and Shelter-In-Place Re-Entry
Public warning system	Non-NIMS Resource Organization	1	Per State	State	Activate Evacuation and Shelter-In-Place Re-Entry
Public Warning System	Non-NIMS Resource Organization	1	Per jurisdiction	Local	Activate Evacuation and Shelter-In-Place Re-Entry
Traffic control package	Resource Organization	1	In accordance with Evacuation Plans	Local	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
Transportation Vehicles	Equipment	17	Per 100,000 population	Local	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
Transportation Vehicles	Equipment	17	Per 100,000 population	State	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
Transportation vehicles	Equipment	17	Per 100,000 population	Federal	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
Law Enforcement and Security officers	Personnel		As required per incident	State	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
Small Animal Transport Teams	NIMS-typed resource organization		As required per incident	Federal	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures
DOT Evacuation Coordination Team (Type I, II, and III)	NIMS-typed resource organization		As required per incident	Federal	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
DOT Evacuation Liaison Team	NIMS-typed resource organization		As required per incident	Federal	Implement Evacuation Orders for General Population Implement In-Place Protection Procedures

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets. Office of Homeland Security. February 2003. http://www.dhs.gov/interweb/assetlibrary/Physical_Strategy.pdf.
5. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
6. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
7. Guide for All-Hazard Emergency Operations Planning: State and Local Guide 101. Federal Emergency Management Agency. September 1996. <http://www.fema.gov/pdf/rrr/slg101.pdf>.
8. Emergency Management Accreditation Program Standards. September 2003. <http://www.emaponline.org/index.cfm>.
9. National Strategy for Homeland Security. Office of Homeland Security. July 2002. http://www.dhs.gov/interweb/assetlibrary/nat_strat_hls.pdf.
10. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>
11. NFPA 5000, Building Construction and Safety Code™, National Fire Protection Association, 2006 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=5000>
12. NFPA 130, Standard for Fixed Guideway Transit and Passenger Rail Systems, National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=130>
13. NFPA 101: Life Safety Code. National Fire Protection Association. 2003. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=101>
14. NFPA 1221: Standard for the Installation, Maintenance, and Use of Public Fire Service Communications Systems. National Fire Protection Association. 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1221>.
15. NFPA 1561: Standard on Emergency Services Incident Management System. National Fire Protection Association. 2005. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1561>
16. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) Program, <http://mmrs.fema.gov>.
17. Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency. CDC. 2006. <http://www.bt.cdc.gov/workbook>

This page intentionally left blank

ISOLATION AND QUARANTINE

Capability Definition

Isolation and Quarantine is the capability to protect the health of the population through the use of isolation and/or quarantine measures in order to contain the spread of disease. Isolation of ill individuals may occur in homes, hospitals, designated health care facilities, or alternate facilities. Quarantine refers to the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and may become infectious. Successful implementation will require that sufficient legal, logistical, and informational support exists to maintain these measures. Most experts feel that isolation and quarantine will not stop the outbreak and that if used, the focus will be on cases that might introduce the disease into the State or other geographic area.

Outcome

Individuals who are ill, exposed, or likely to be exposed are separated, movement is restricted, basic necessities of life are available, and their health is monitored in order to limit the spread of a newly introduced contagious disease (e.g., pandemic influenza). Legal authority for those measures is clearly defined and communicated to all responding agencies and the public. Logistical support is provided to maintain measures until danger of contagion has elapsed.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the Emergency Support Function (ESF) #8: Public Health and Medical Services.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B3b 1.1	Develop plans, policies, and procedures for implementing isolation and quarantine
Res.B3b 1.1.1	Introduce legislation authorizing isolation and quarantine (including quarantine of groups)
ResB3b 1.1.2	Develop plans for coordinating quarantine activation and enforcement with public safety and law enforcement
Res.B3b 1.3.1	Stand up isolation and quarantine units (including defining procedures/protocols) in all 83 of the target cities and as needed in foreign countries
ResB3b 1.2	Develop plans, procedures, and protocols to monitor long-term health effects across community interests
ResB3b 1.3	Establish systems, programs, and resources for implementing isolation and quarantine
Res.C1a 6.2.3	Improve monitoring of adverse treatment reactions among those people who have received medical countermeasures and have been isolated or quarantined
RecA2b 1.1	Create and implement policies to deal with the financial impact to individuals who are placed in isolation or quarantine and to the public health system

Preparedness Measures	Metrics
Legislation has been enacted authorizing appropriate isolation and quarantine measures (including quarantine of groups)	Yes/No
Plan for conducting isolation and quarantine operations is in place	Yes/No
Plan specifies the criteria for activating Isolation and Quarantine procedures	Yes/No
Plan addresses coordinating with Mass Care (e.g. for provision of water, food, bulk supplies to isolated and quarantined individuals).	Yes/No
Plan addresses cultural characteristics of populations to be isolated and/or quarantined (e.g. religious needs, language barriers).	Yes/No
Plan addresses the financial impact to individuals who are placed in isolation and quarantine.	Yes/No
Plan addresses coordinating quarantine activation and enforcement with public safety and law enforcement	Yes/No
Plan addresses tracking details of individuals placed in Isolation or Quarantine using Personal Health Identification Number (PHIN)	Yes/No
Plan addresses implementation of infection control precautions	Yes/No
Legal authority to isolate and/or quarantine individuals, groups, facilities, animals, and food products is defined	Yes/No
Plan addresses how to ensure adequate stockpiles of appropriate personal protective equipment (PPE)	Yes/No
Plan addresses having or having access to information systems to support tracking adherence to isolation and quarantine measures that comply with the PHIN functional requirements for <i>Countermeasure and Response Administration</i>	Yes/No
System is in place for monitoring people who have been isolated or quarantined (e.g., for evidence of infection, progression of illness)	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
ResB3b 2.1	Develop and implement training for isolation and quarantine
ResB3b 2.2	Develop and implement exercises for isolation and quarantine
Preparedness Measures	Metrics
Staff have been trained in isolation and quarantine operations and plans	Yes/No
Exercises to test plans for implementing isolation and quarantine have been conducted	Yes/No

Performance Tasks and Measures/Metrics

Activity: *Direct Isolation and Quarantine Tactical Operations*

Definition: In response to a need for isolation and quarantine orders, direct, manage, and coordinate isolation and quarantine operations

Critical Tasks	
Res.B3b 3.1.1	Identify decision-makers to oversee isolation and quarantine conduct
Res.B3b 3.1.3	Develop disease-specific isolation and quarantine plan
Res.B3b 3.1.2	Identify applicable isolation and quarantine laws, policies, and implementation procedures
Res.B3b 3.2	Provide isolation and quarantine information to emergency public information for release
Res.B3b 3.2.4	Coordinate with public information agencies to disseminate health and safety information to the public
Res.B3b 3.2.5	Coordinate public information releases about those people who have been isolated or quarantined
Res.B3b 3.2.1	Coordinate with public information agencies regarding notification of quarantine or isolation to ensure compliance of the general public (e.g., doors are locked and may be opened only by public health official or designated persons)
Res.B3b 3.2.3	Promote the public acceptance of isolation and quarantine as necessary control measures
Res.B3b 3.2.2	Coordinate with public information agencies to provide timely dissemination of health and safety information to the public regarding risk and protective actions
Res.B3b 3.3.1	Coordinate with Law Enforcement to monitor and enforce restrictions, if necessary
Res.B3b 3.1.4	Ensure appropriate judicial review of isolation and quarantine orders
Res.B3b 3.3.2	Coordinate with public health and medical services to ensure appropriate care for those individuals who have been isolated or quarantined
Res.B3b 3.3.2.1	Ensure critical medical care for any ill individuals (related to the epidemic or not)
Res.B3b 3.3.2.2	Coordinate comprehensive stress management strategies, programs, and crisis response teams for isolation and quarantine operations
Res.B3b 3.3.5	Assist public health in disease control, quarantine, containment, and eradication
Res.B3b 3.3.3	Coordinate with Mass Care to provide water, food, and bulk supplies to isolated and quarantined individuals
Res.B3b 3.3.3.1	Ensure that adequate food, water, and medication are provided to quarantined or isolated persons (through public health officials; oversight by case manager) (Note: Not only public health officials, all appropriate sectors are involved in this)
Res.B3b 3.3.4	Coordinate with Public Works for retrieval and disposal of contaminated articles from homes or other locations where individuals are isolated or quarantined
Res.B3b 3.3.6	Coordinate with the agriculture community regarding potential animal influence on need for isolation/quarantine
Res.B3b 3.4.2	Report health status data on isolated and quarantined populations
Res.B3b 6.3.1.1	Monitor for fever or evidence of infection (quarantine) or progression of illness requiring hospitalization (isolation) by epidemic agent
Res.B3b 6.3.1.2	Identify and respond to adverse events (epidemic treatment or prophylaxis)

Pro.B1e 3.2.1	Maintain communication channels (Centers for Disease Control (CDC) Coordinating Office for LRN)	
Res.B3b 6.6	Have or have access to information systems to support monitoring adherence to isolation and quarantine measures that comply with the PHIN functional requirements for Countermeasure and Response Administration.	
Performance Measures		Metric
Public health official with legal authority to issue isolation and quarantine orders is identified		Yes/No
Time in which isolation and quarantine order is issued		Within 4 hours from notification of need to implement isolation and quarantine
Time in which educational information is provided for release		Within 1 hour from issuance of order
Time in which medical resource personnel are notified and assembled at isolation and quarantine areas		Within 12 hours from need to implement isolation and quarantine
Time in which communications with public health officials and CDC are established		Within 30 minutes from need to implement isolation and quarantine

Activity: *Activate Isolation and Quarantine*

Definition: Initiate plan and mobilize healthcare and security personnel and resources to contain a communicable disease outbreak

Critical Tasks

Res.B3b 4.1	Identify community sites suitable for quarantine	
Res.B3b 4.3	Issue isolation and quarantine order or an agreement for voluntary isolation	
Res.B3b 4.3.1	Issue an order that closes public venues based on the recommendation of an epidemiologist	
Res.B3b 4.4	Disseminate guidelines for isolation and quarantine restrictions	
Res.B3b 4.4.1	Disseminate protocols for isolation and care giver treatment of isolated individuals	
Res.B3b 4.2	Stand up isolation and quarantine units	
Res.B3b 4.4.2	Ensure mental health care and access to religious practices	
Res.B3b 4.4.3	Ensure access to communication with family and friends to reduce unnecessary stress	
Res.B3b 4.4.4	Provide PPE and culturally and linguistically appropriate instruction on its use for household members and caregivers	
Performance Measures		Metric
Time in which isolation and quarantine units are stood up		Within 24 hours from notification of need to implement isolation and quarantine
Time in which personnel are deployed to traveler screening locations		Within 2 hours from identifying screening locations
Time in which restriction guidelines and treatment protocols are disseminated to medical care providers		Within 2 hours from order being issued

Activity: Implement Travel Restrictions

Definition: Screen travelers from outbreak or pandemic areas and implement travel restrictions consistent with disease specific precautions

Critical Tasks	
Res.B3b 5.1	Establish traveler screening locations
Res.B3b 5.2.1	Screen inbound/outbound travelers from outbreak or pandemic areas for illness or exposure
Res.B3b 5.2.2	Prevent boarding of potentially infected passengers in foreign countries with endemic disease
Res.B3b 5.2.3	Educate international travelers on health risks and symptoms
Res.B3b 5.2.4	Screen and educate all staff of outbound flights to exclude potentially infected passengers
Res.B3b 5.2.5	Isolate and quarantine potentially infected travelers
Performance Measures	Metric
Time in which screening locations are established	Within 30 minutes from screener arrival onsite
Percent of inbound/outbound travelers screened while isolation and quarantine order is in effect	100%
Percent of screened positive persons isolated and quarantined	100%

Activity: Implement Voluntary Isolation and Quarantine

Definition: Within an identified geographic area, implement separation and restriction of movement of potentially exposed asymptomatic individuals and isolate symptomatic individuals on a voluntary basis

Critical Tasks	
Res.B3b 6.1	Acquire identification information of affected individuals under voluntary isolation and quarantine
Res.B3b 6.2	Provide medical and supportive care guidance to community under voluntary isolation and quarantine
Res.B3b 6.5	Provide infection control education materials to community under voluntary isolation and quarantine and hospitals
Res.B3b 6.3.1	Monitor health status of voluntarily isolated and quarantined individuals and caregivers in the community and hospitals
Res.B3b 6.4	Arrange for transportation to designated healthcare facilities of critically ill individuals under voluntary isolation and quarantine
Res.B3b 6.3.2	Monitor compliance in whatever way is necessary (e.g., direct communication with the person under order via land line)
Performance Measures	Metric
Percent of caregivers for isolated patients who become infected while under voluntary isolation and quarantine	0%

Frequency with which updates are provided to tracking system from voluntarily isolated or quarantined individuals while under voluntary isolation and quarantine	Every 24 hours
Percent of persons receiving care and prevention instruction while under voluntary isolation and quarantine	100%
Percent of caregivers using infection control precautions while under voluntary isolation and quarantine	100%

Activity: *Implement Mandatory Isolation and Quarantine*

Definition: Ensure compliance with orders for separation and restriction of movement of potentially exposed asymptomatic individuals and isolation of symptomatic individuals within an identified geographic area

Critical Tasks

Res.B3b 7.1	Acquire identification information of affected individuals under mandatory isolation and quarantine
Res.B3b 7.2	Provide medical and supportive care guidance to affected population under mandatory isolation and quarantine
Res.B3b 7.3	Monitor compliance with infection control and mandatory restrictions of movement
Res.B3b 7.4	Monitor health status of individuals and caregivers under mandatory isolation and quarantine and hospital staff
Res.B3b 7.5	Arrange for transportation to designated healthcare facilities of critically ill individuals under mandatory isolation and quarantine

Performance Measures	Metric
Percent of caregivers for isolated patients who become infected while under mandatory isolation and quarantine	0%
Frequency with which updates to tracking system are provided from isolated or quarantined individuals while under mandatory isolation and quarantine	Every 24 hours
Percent of persons receiving care and prevention instruction while under mandatory isolation and quarantine	100%
Percent of caregivers using infection control precautions while under mandatory isolation and quarantine	100%
Percent of isolated or quarantined persons receiving daily monitoring and compliance contact	100%

Activity: *Demobilize Isolation and Quarantine*

Definition: Upon isolation and quarantine order being lifted, decontaminate equipment, supplies, and personnel if appropriate and demobilize

Critical Tasks

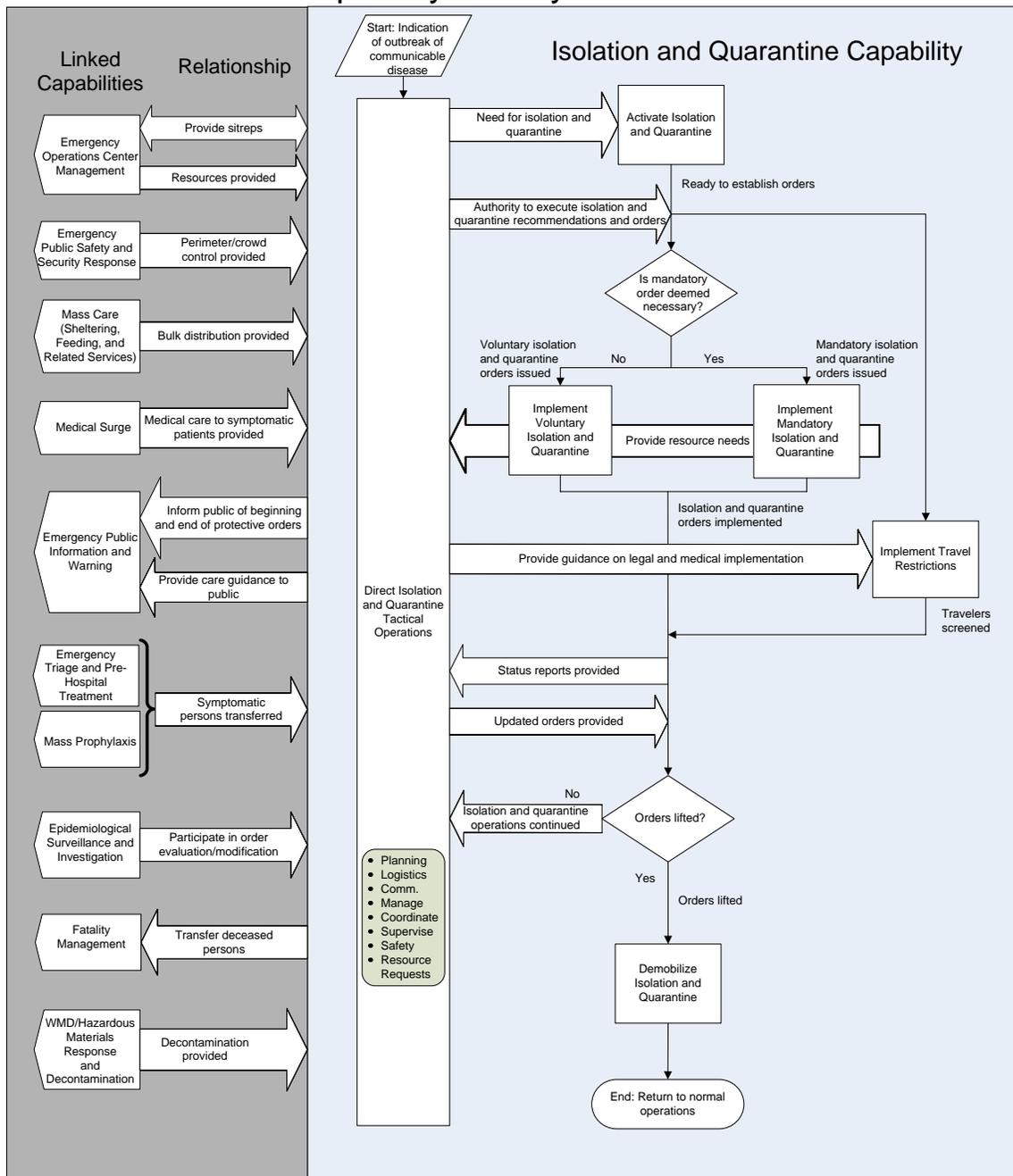
Res.B3b 8.2	Participate in incident debriefing on isolation and quarantine implementation
Res.B3b 8.3	Release personnel supporting isolation and quarantine operations

Res.B3b 8.4	Reconstitute resources and facilities supporting isolation and quarantine operations	
Performance Measures	Metric	
Time in which isolation and quarantine facilities are restored to pre-incident operations	Within 7 days from isolation and quarantine order being lifted	
Isolation and quarantine personnel are debriefed	Yes/No	

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Emergency Operations Center Management provides resources to Isolation and Quarantine. Emergency Operations Center Management and Isolation and Quarantine provide each other with situation reports.
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides perimeter and crowd control to Isolation and Quarantine.
Mass Care (Sheltering, Feeding, and Related Services)	Mass Care provides bulk distribution items to Isolation and Quarantine.
Medical Surge	Medical Surge treats symptomatic patients in Isolation and Quarantine.
Emergency Public Information and Warning	Isolation and Quarantine provides care guidance to public and protective order information to Emergency Public Information and Warning for release to the public.
Emergency Triage and Pre-Hospital Treatment	Emergency Triage and Pre-Hospital Treatment transfers symptomatic persons to Isolation and Quarantine.
Mass Prophylaxis	Mass Prophylaxis transfers symptomatic persons to Isolation and Quarantine.
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation participates in order modification/evaluation with Isolation and Quarantine.
Fatality Management	Isolation and Quarantine transfers deceased persons to Fatality Management.
WMD and Hazardous Materials Response and Decontamination	WMD and Hazardous Materials Response and Decontamination provides decontamination to Isolation and Quarantine.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Community Isolation and Quarantine Teams	Teams located in district, county, and municipal office that comprise 6 officers per district or county team and 4 officers per municipal team
Quarantine Stations	CDC Quarantine Stations provide advanced emergency response capabilities, including isolation and communications facilities. They include regional health officers to provide clinical, epidemiologic, and programmatic support, and quarantine public health officers to conduct surveillance, response, and communicable disease prevention activities. WHO also provides quarantine stations.

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the pandemic influenza and plague scenarios. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Isolation and quarantine deals specifically with infectious diseases.
- Isolation and quarantine deals specifically with separation of individuals rather than prohibition on structures.
- This capability refinement addresses community separation and not hospitalized patients.
- Recognition and assessment of exposure to an illness is an epidemiological function.
- 50 percent of infected persons are asymptomatic shedders of the influenza virus.
- Shedding of the virus occurs 24 hours before the development of symptoms.
- Cases are occurring in a single wave over 8 weeks. The response is an evolving process – it has a phased approach.
- Number of days in quarantine are 10 to 14 days (epidemiological evidence may allow for a reduction in this time).
- Number of days in isolation varies by age (7 days for adults; 14 days for children).
- World Health Organization (WHO) pandemic influenza phase: Phases 1 and 2 are interpandemic; 3, 4, and 5 are pandemic alert; 6 is pandemic period. General preparedness activities have occurred in WHO Phases 1 – 3.
- WHO Phase 1 – 3: General Preparedness activities.
- In WHO Phase 4, cases are occurring outside of the USA.
- WHO Phase 4, if there is extensive trade or travel links with the affected country, and WHO Phase 5, are the most important when considering isolation and quarantine.
- WHO Phase 5 is larger clusters, more transmission, suggesting that the virus is becoming more adoptive to human transmission.
- WHO Phase 5 is most important when considering Isolation and Quarantine.
- Set up isolation/quarantine stations in each foreign country that is a source of the infection.
- Under the Department of Health and Human Services (HHS), there are 83 tier 1 cities in the United States (i.e. airports with more than 1 million travelers, seaports with more than 100k travelers, or land borders with more than 5 million crossings); currently there are isolation/quarantine stations in 18 of these cities.
- Screening for inbound/outbound flights will be needed.

Target Capabilities List

- WHO Phase 6: try and isolate 10 cases per million population. Sustained community transmission is assumed to be occurring when cases exceed 10 per million population.
- Attempt to quarantine 30 contacts per case (300 contacts per 1 million population).
- This will be community based rather than hospitalized patients.
- Closing of public venues may be retained here.
- There is a high Percent of absenteeism related to medical, traditional first responder, and public health personnel.
- Isolation orders will be based on a case definition, not strictly on laboratory test results.
- At least eight other countries are affected.
- Resources for provision of mental health services are not defined in this capability.
- Resources for provision of law enforcement are not defined in this capability.
- Resources for public information are not defined in this capability.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Pandemic Influenza and Plague)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Community Isolation/and Quarantine Team	One per 20 persons isolated or quarantined	Isolate 10 per million population; quarantine 300 per million population. Current population of the USA is 297 million. Need to isolate 2970 persons and quarantine 89,100 persons.	Total 92,070, divided by 20 =4,604. Could be reduced by number of hospital isolations — need to cross-reference with Health Resources and Services Administration.
Quarantine Station	Two per city can provide isolation and quarantine services to inbound and outbound passengers	83 Tier One cities	Two per 83 Tier One Cities, plus one per affected overseas country.

Approaches for Large-Scale Events

- Community Isolation/Quarantine Teams need to be situated locally.
- Federal Quarantine Stations need to be located in tier 1 cities (those that have airports with more than 1 million travelers, seaports with more than 100,000 travelers, or land borders with more than 5 million crossings). Note that 18 Federal Quarantine Stations currently exist in tier 1 cities.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
Community Isolation & Quarantine Team	Resource Organization	1	Per jurisdiction affected	Local (City)	All Activities

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity Supported by Element
Community Isolation & Quarantine Team	Resource Organization	1	Per district/county affected	Local (County)	All Activities
Quarantine station	Resource Organization	1	Per Tier 1 City	Federal (HHS/CDC)	Implement Travel Restrictions
Quarantine Station	Resource Organization	1	Per pandemic agent source country	Private Sector (World Health Organization)	Implement Travel Restrictions

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Fact Sheet on Isolation and Quarantine. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. January 2004.
5. Modular Emergency Medical System: Concept of Operations for the Acute Care Center U.S. Army Soldier and Biological Chemical Command, Biological Weapons Improved Response Program. Maryland. May 2003.
6. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004.
7. Emergency Response Training Necessary for Hospital Physicians/Nurses That May Treat Contaminated Patients. Standard interpretation. Occupational Safety and Health Administration. March 1999.
8. Emergency Response Training Requirements for Hospital Staff. Standard interpretation. Occupational Safety and Health Administration. April 1997.
9. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
10. Medical Personnel Exposed to Patients Contaminated with Hazardous Waste. Standard interpretation. Occupational Safety and Health Administration. March 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20609.
11. Training Requirements for Hospital Personnel Involved in an Emergency Response of a Hazardous Substance. Standard interpretation. Occupational Safety and Health Administration. October 1992.
12. DHS, Office for Domestic Preparedness. Metropolitan Medical Response System (MMRS) Program, <http://fema.mmrs.gov>.
13. Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency. CDC. 2006. <http://www.bt.cdc.gov/workbook>.

This page intentionally left blank

SEARCH AND RESCUE (LAND-BASED)

Capability Definition

Search and Rescue (Land-based) is the capability to coordinate and conduct search and rescue (SAR) response efforts for all hazards, including searching affected areas for victims (human and, to the extent no humans remain endangered, animal) and locating, accessing, medically stabilizing, and extricating victims from the damaged area.

Outcome

The greatest numbers of victims (human and, to the extent that no humans remain endangered, animal) are rescued and transferred to medical or mass care capabilities, in the shortest amount of time, while maintaining rescuer safety.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the Emergency Support Function (ESF) #9: Urban Search and Rescue.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Preparedness Tasks	
Res.B4a 1.1.1	Incorporate Search and Rescue (SAR) plans and procedures for urban, civil, and other search and rescue into jurisdiction’s Emergency Operations Plan (EOP) or EOP Annexes
Res.B4a 1.3.2	Pre-identify typed SAR resources
Res.B4a 1.3.3	Develop resource allocation processes and procedures for SAR capable resources that also support other capabilities/functions
Res.B4a 1.3.4	Identify resources from other agencies or capabilities that may assist with SAR, and plan to integrate such additional resources as necessary
Res.B4a 1.2.1	Develop plan to incorporate nationally certified SAR volunteers
Res.B4a 1.2.2	Develop management plan to address uncertified volunteers
Res.B4a 1.1.2	Develop plan for SAR teams that will be deployed out-of-region to be self-sustaining for 72 hours
ResB4a 1.2	Establish plans, procedures and protocols for logistical support for search and rescue assets.

Preparedness Measures	Metrics
Scale of jurisdiction's urban search and rescue capability is related to risk/threat analysis	Yes/No
Team is equipped in accordance with the National Incident Management System (NIMS) Resource Typing System	Yes/No
Federal, State, regional, and local SAR Capabilities are NIMS Compliant	Yes/No
SAR plans address logistical support (e.g. directing resources, re-assigning tech-specialists, managing uncertified volunteers).	Yes/No
Plans address demobilization of SAR operations (e.g. replenishing supplies and equipment, re-assigning personnel).	Yes/No
Plans address SAR personnel needs (e.g. physical, psychological, financial assistance).	Yes/No
SAR plans are integrated with the incident management structure (e.g. USAR teams coordinated with fatality management and EMS resources).	Yes/No
SAR plans address information sharing requirements	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Preparedness Tasks

Res.B4a 2.1.1	Establish training and exercise program for SAR personnel as per EOP
Res.B4a 2.1.2	Train and equip SAR personnel to the appropriate standards commensurate with their mission
Preparedness Measures	Metric
Training program has been established	Yes/No
Training and exercises programs address both urban and civil search and rescue	Yes/No
SAR personnel trained and equipped as per EOP and SOPs	Yes/No
Frequency with which SAR activities are exercised in large and complex exercises	Every 12 months

Performance Measures and Metrics and Critical Tasks

Activity: *Direct Search & Rescue Tactical Operations*

Definition: In response to notification of entrapment, provide management and coordination of SAR capability, through demobilization for single or multiple teams

Critical Tasks

Res.B4a 3.1	Receive and accept SAR request/activation order
Res.B4a 3.2	Participate in SAR planning process and operational briefings
Res.B4a 3	Plan and coordinate SAR operations at incident site
Res.B4a 3.4.1	Direct SAR resources according to the National Incident Management System (NIMS), the Incident Command System (ICS), and consensus-level technical rescue standards

Res.B4a 3.4.3	Determine need for deployment of additional SAR assets	
Res.B4a 3.6.1	Provide timely situational awareness and response information	
Res.B4a 3.6.1.1	Establish and maintain a chronological log of events in the field	
Res.B4a 3.6.2	Document and collect SAR operations information, including chronological log of events in the field for use in after action review	
Res.B4a 3.7.3	Re-assign/rotate technical specialists, as needed	
ResB4a 3.3.3	Maintain accountability of all SAR personnel	
Res.B4a 3.2.1	Identify logistics capability of incident site to determine whether deployed SAR teams must be self-sustaining	
Res.B4a 3.7	Develop SAR team reassignment/demobilization plan	
Performance Measures		Metric
SAR teams are incorporated into the incident command structure		Yes/No
Frequency with which situation and resource status information are received (and also after a significant change)		Every 30 minutes
Number of loss-time injuries per deployment of SAR personnel during SAR efforts		<1
Time in which tactical plan is developed and implemented by State, regional, and/or local SAR, based on the Incident Action Plan (IAP)		Within 2 hrs from arrival on-scene
Time in which tactical plan is developed and implemented by Federal SAR resource(s) based on the (IAP)		Within 4 hrs from arrival on-scene
Demobilization/reassignment plan is developed and takes into account long-term personnel follow-up		Yes/No

Activity: <i>Activate Search & Rescue</i>		
Definition: In response to notification, mobilize and arrive at the incident scene to begin operations		
Critical Tasks		
Res. B4a 3.1	Receive Search and Rescue (SAR) alert/activation order	
Res.B4a 4.3	Participate in Search and Rescue (SAR) planning process and operational briefings	
Res.B4a 4.2	Initiate mobilization procedure	
Res.B4a 4.2.1	Assemble personnel and equipment at designated location	
Res.B4a 4.1.2	Deploy Federal, State, regional or local SAR resources commensurate with request	
Res.B4a 4.2.2	Transport team (personnel and equipment) to incident scene	
Res.B4a 4.2.3	Collect and analyze incident information to assist SAR capability deployment decisions	
Performance Measures		Metric
Time in which local SAR capability arrives on-scene		Within 2 hours from notification
Time in which regional SAR capability arrives on-scene		Within 12 hours from

	notification
Time in which federally designated SAR capable resources are deployed	Within 6 hours from task force notification of request
Time in which first activated Federal SAR resources arrive on-scene	Within 24 hours from activation

Activity: *Provide Materiel and Other Support*

Definition: Upon arriving on scene, provide, track, and maintain equipment and supplies as well as support base of operations

Critical Tasks

Res.B4a 4.3	Participate in SAR planning process and operational briefings
Res.B4a 5.1	Establish base of operations
Res.B4a 5.2	Maintain accountability of team equipment/supplies
Res.B4a 5.1.1	Provide medical care for SAR personnel, including the K-9 first responders

Performance Measures

Metric

Time in which functional Base of Operation is established and ready to support initial SAR operations	Within 60 minutes from arrival at incident site
Percent of accountability for team equipment/supplies maintained	100%
Percent of deployable SAR capability that can sustain its own operations for up to 72 hours without additional resources	100%
Percent of SAR personnel and service animals whose health is monitored at least once per work cycle	100%

Activity: *Conduct Search and Rescue Reconnaissance*

Definition: Once on scene and equipped, provide rapid assessment of assigned SAR work areas and recommend search priorities/tactics to management

Critical Tasks

Res.B4a 6.1.1	Assess incident site to determine search and rescue course of action
Res.B4a 6.1.2	Assess the incident site for hazardous materials (hazmat) or other environmental conditions
Res.B4a 6.1.3	Develop map of search area to be used in SAR tactical operations
Res.B4a 6.3	Communicate findings and recommend priorities to Team Management

Performance Measures

Metric

Time in which reconnaissance team provides preliminary recommendation on search priorities and strategy	Within 1 hour
---	---------------

Activity: Search	
Definition: Upon being assigned search area, begins search operations	
Critical Tasks	
Res.B4a 4.3	Participate in SAR planning process and operational briefings
Res.B4a 7.1	Ensure scene/site safety (security, shoring, debris)
Res.B4a 7.2	Conduct area search for victims
Res.B4a 7.2.1	Search for victims using canine, physical, and electronic search capabilities
Res.B4a 7.2.2	Identify and record potential/actual victim locations (live and dead)
Res.B4a 7.3	Direct ambulatory victims to safe assembly point
Res.B4a 7.4	Report progress of search efforts on a regular basis to SAR lead
Res.B4a 7.5	Maintain accountability for search personnel, equipment, and supplies
Performance Measures	Metric
Percent of assigned area searched	100%
Time in which systematic search of an area affected by a large-scale emergency is initiated	Within 30 minutes from operations briefing
Percent of ambulatory victims directed to safe assembly point	100%
Frequency with which updated situation and resource status report is provided (including after major change in conditions)	Every 30 minutes

Activity: Extricate	
Definition: Upon notification of location of victim, perform extrication	
Critical Tasks	
Res.B4a 4.3	Participate in SAR planning process and operational briefings
Res.B4a 7.1	Ensure scene/site safety (security, shoring, debris)
Res.B4a 8.1.1	Coordinate extrication strategy with medical personnel
Res.B4a 8.1	Extricate trapped victims
Res.B4a 8.2	Provide periodic progress reports while rescuing
Res.B4a 8.3	Maintain accountability of extrication personnel, equipment, and supplies
Performance Measures	Metric
Percent of dangerous conditions affecting extrication mitigated to allow worker and victim safety in accordance with SOP	100%
Frequency with which updated situation and resource status report is provided (including after major change in conditions)	Every 30 minutes
Percent of located victims extricated	100%

Activity: Provide Medical Treatment

Definition: Upon access to victim, coordinate with medical personnel to treat and transfer victim to more definitive medical care

Critical Tasks

Res.B4a 4.3	Participate in SAR planning process and operational briefings	
Res.B4a 9.1.1	Coordinate medical treatment with extrication and medical personnel	
Res.B4a 9.2	Transfer victims to more definitive medical care	
Res.B4a 9.1.2	Medically stabilize trapped victims according to Task Force Operations Manual and Medical Protocols	
Res.B4a 9.1.2.1	Ensure victims are medically stabilized according to Task Force Operations Manual and Medical Protocols throughout packaging and extrication	
Res.B4a 9.3	Maintain accountability of medical personnel, equipment, and supplies	
Performance Measures		Metric
Percent of victims whose standard of care is maintained according to local medical protocols		100%
Percent of time resources were identified to transfer patient to more definitive medical care		100%

Activity: Demobilize/Redeploy

Definition: Upon completion of assigned mission, disengage from incident site, and debrief personnel.

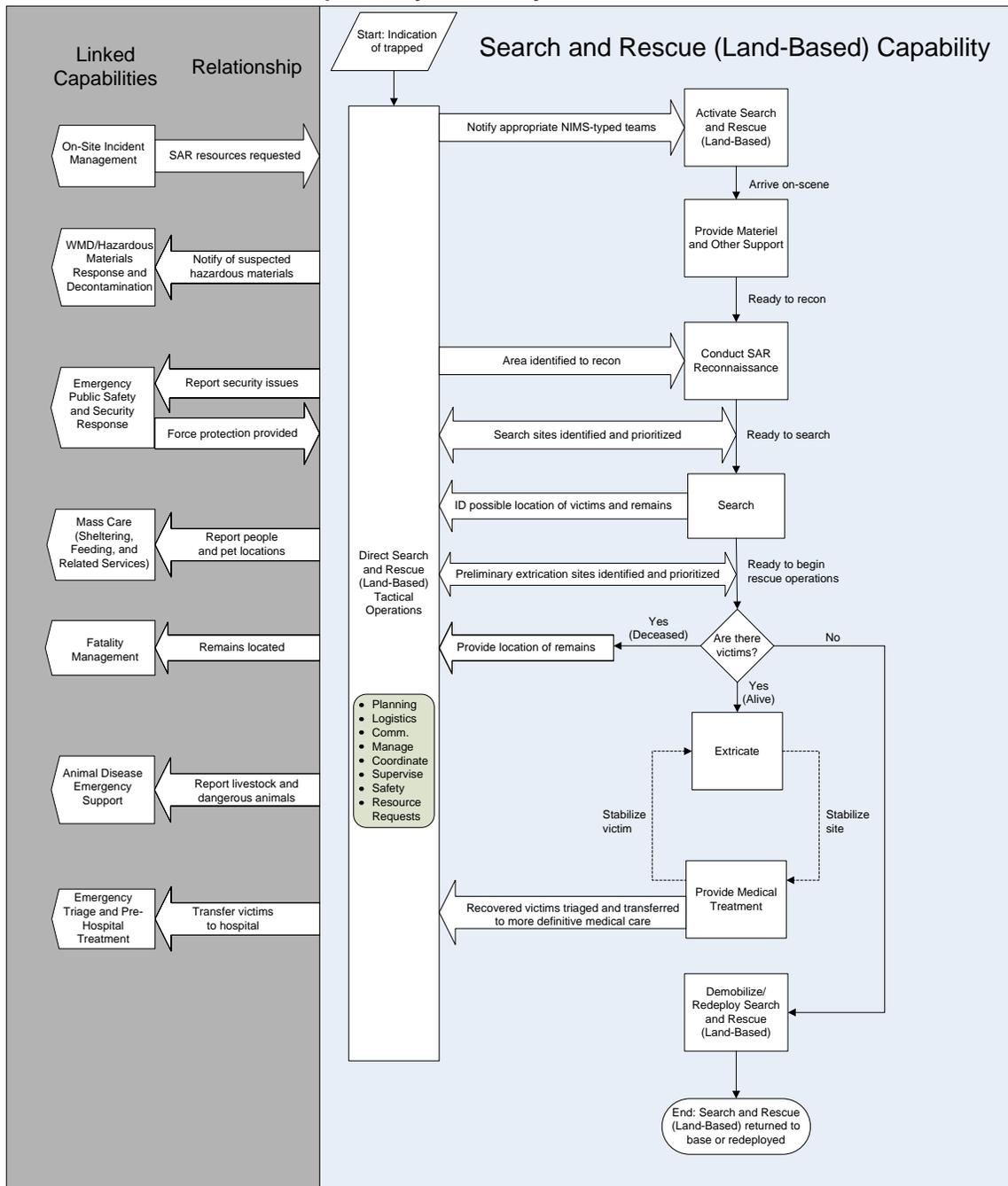
Critical Tasks

Res.B4a 10.2.1	Repackage equipment cache	
Res.B4a 10.2	Demobilize base of operations	
Res.B4a 10.1.1	Arrange transportation for personnel and equipment	
Res.B4a 10.1.2	Debrief SAR capability personnel	
Performance Measures		Metric
Time in which equipment cache is re-inventoried and packaged for transport		Within 12 hours from start of demobilization
Time in which base of operations is returned to original conditions		Within 12 hours from start of demobilization process
Percent of Search and Rescue task force personnel debriefed before leaving the scene		100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Search and Rescue (Land-Based) integrates itself into the local Incident Command/Unified Command system.
WMD and Hazardous Materials Response and Decontamination	Search and Rescue (Land-Based) coordinates with WMD and Hazardous Materials Response and Decontamination to identify hazardous conditions, ensure SAR members have appropriate protective clothing and equipment, and ensure SAR personnel and equipment are appropriately decontaminated.
Emergency Triage and Pre-Hospital Treatment	Search and Rescue (Land-Based) coordinates with Emergency Triage and Pre-Hospital Treatment to ensure medical care of victims during and after extricated.
Emergency Public Safety and Security Response	Search and Rescue (Land-Based) relies upon Emergency Public Safety and Security Response assistance to secure search and rescue sites, safely divert public from the area, and to provide security support for the SAR Base of Operations.
Mass Care (Sheltering, Feeding, and Related Services)	Search and Rescue (Land-Based) notifies Mass Care of location of people and companion animals encountered during course of search and rescue operations
Animal Disease Emergency Support	Search and Rescue (Land-Based) notifies Animal Disease Emergency Support of location of livestock, dangerous animals, and injured wildlife encountered during course of search and rescue operations.
Fatality Management	Search and Rescue (Land-Based) notifies Fatality Management of location of remains encountered during search and rescue operations.
Responder Safety and Health	Search and Rescue (Land-Based) relies upon responder health and safety for site hazards to help ensure that appropriate precautions are identified and that personal protective equipment/supplies are available to protect SAR personnel.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Type I US&R Task Force (TF)	Per NIMS
Type II Collapse Search and Rescue Team	Per NIMS
Type II Heavy Rescue Strike Team	Per NIMS
Type II Heavy Rescue Squad	Per NIMS
Type I Large Animal Rescue Strike Team	Per NIMS
Type I Small Animal Rescue Strike Team	Per NIMS

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Toxic Industrial Chemical scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including improvised nuclear devices, toxic industrial chemical scenarios, major earthquakes or hurricanes, and radiological dispersal devices. The primary condition affecting the performance of the capability is whether the incident requires an urban search and rescue or water search and rescue. For urban search and rescue, conditions affecting the performance include the number and size of collapsed structures, number of trapped persons in collapsed structures, and any risks involved for the rescuers (including fire and potential hazardous materials (hazmat) exposure).
- Local response time: 0–2 hours
- Regional response time: 2–17 hours
- State response time: 12–24 hours
- Federal response time: 24+ hours
- Given that SAR is extremely time-sensitive, initial operations will be undertaken by State and local responders and those volunteer personnel willing to assist in locating victims. If the catastrophic incident involves collapsed buildings, national SAR task force response assets will immediately deploy in accordance with the Catastrophic Incident Response Execution Schedule (Annex 1).
- All injuries and fatalities need to be extricated.
- All locations need hazmat assessment for proper personal protective equipment (PPE).
- Typical fire and hazmat response has PPE to extricate lightly trapped victims.
- US&R strike teams begin to extricate moderately trapped victims.
- US&R task forces extricate heavily trapped victims.
- Trapped victims surviving the initial exposure will be viable.
- Trapped victims have the best chance of survival if they are rescued within 72 hours. They may survive up to 14 days if provided drinking water.
- The doctrine of “do no additional harm” will apply to all SAR operations. Urban search and rescue personnel will take into consideration the dangers of contamination and unstable physical structures before entering into an area that may contain surviving victims and will take appropriate safety and protective measures before commencing operations.

- The size of the jurisdiction and the risks/threats presented will determine how extensive the SAR capability needs to be.
- Jurisdictions may be able to obtain SAR resources that are sufficient to meet that jurisdiction's needs from elsewhere.
- Training should be commensurate with population and risk.
- SAR resources may not be available due to other incidents or activities in the area.
- Location, distance, available transportation, and weather affect how quickly SAR resources can reach the scene.
- Type of SAR resources deploying will affect what type of equipment it has and how long it can conduct SAR operations without re-supply.
- When there is a base camp with sufficient resources SAR teams may not need to be self-sustaining.
- Hazardous conditions, weather, size of area, scope, access, criminal activity (hazard) determines level of work-area access and efficiency with which areas can be searched for victims.
- Complexity and circumstances of the entrapment affects the amount of time required to safely access, stabilize, and extricate victim.
- Not all SAR resources have integrated confined space medical components thus the care available to the victim will depend on the type of SAR team providing treatment throughout the extrication process.
- Intensity of equipment and personnel utilization will increase or decrease duration each US&R capability is able to work.
- The level of effort required to restore (or replace) equipment cache items will depend on how heavily they were used and the extent to which they need to be decontaminated/cleaned.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Toxic Industrial Chemical)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Type I US&R Task Force	Extrication of victims in 24 hrs: Heavy construction (HC): Entombed: 4 Structurally trapped: 12 Nonstructurally trapped: 20 Light construction (LC): Entombed: 8 Structurally trapped: 24 Nonstructurally trapped: 40	HC: 20 maximum rescued per day LC: 40 maximum rescued per day	1350 victims trapped 50% trapped in HC (675) 675 victims/3 day optimum rescue = 225 225 victims/20 maximum = 11.25 Type I US&R Teams for 3 days 1350 victims trapped 50% trapped in LC (675) 675 victims/3 day optimum rescue = 225 225 victims/40 maximum = 5.6 Type I US&R Teams for 3 days
Type II Collapse Search and Rescue Team	Extrication of victims in 12 hrs: HC: Entombed: 1 Structurally trapped: 3	HC: 18 maximum rescued per 24 hours LC: 36 maximum	Requires 2 teams, each having one 12-hour operational period

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
	Nonstructurally trapped: 5 LC: Entombed: 2 Structurally trapped: 6 Nonstructurally trapped: 10	rescued per 24 hours	
Type II Heavy Rescue Strike Team	Extrication of victims in 12 hrs: HC: Nonstructurally trapped: 6 LC: Structurally trapped: 6 Nonstructurally trapped: 9	HC: 12 maximum rescued per day LC: 30 maximum rescued per day	Requires 2 teams, each having one 12-hour operational period
Type II Heavy Rescue Squad	Extrication of victims in 12 hrs: LC: Structurally trapped: 2 Nonstructurally trapped: 3	LC: 10 maximum rescued per day	Requires 2 teams, each having one 12-hour operational period
Type I Large Animal Rescue Strike Team	This six-member team should be capable of completing an average of one rescue every 30 minutes in a suburban setting and one rescue every hour in rural settings. These times would be semi-dependent on uncontrollable factors such as terrain, weather, road conditions, and distance between rescue sites.		Number of teams ordered will be based on number of rescues anticipated.
Type I Small Animal Rescue Strike Team	This six-member team should be capable of completing an average of one rescue every 30 minutes in a suburban setting and one rescue every hour in rural settings. These times would be semi-dependent on uncontrollable factors such as terrain, weather, road conditions, and distance between rescue sites.		Number of teams ordered will be based on number of rescues anticipated.

Approaches for Large-Scale Events

- During incidents, licensing and certifications need to be national and not restricted by State borders. A border should not determine the location of a resource.
- Basic disaster training should be standard, such as that sanctioned by NIMS and the National Response Plan (NRP), to allow more personnel to be used on the day of the incident.

- Training must be coordinated at the Federal level.
- FEMA, in coordination with the Department of State (DOS), will coordinate the use and employment of international urban search and rescue assets/resources if the level of response will overwhelm our national capability.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Type I US&R Task Force (TF)	Resource Organization	1	Per each pre-determined location	Federal (DHS)	All SAR Activities
Type II Collapse Search and Rescue Team	Resource Organization	1	Per population > 100k	Local (City)	All SAR Activities
Type II Heavy Rescue Squad	Resource Organization	1	Per population >25k but <100k	Local (City)	All SAR Activities

References

1. Homeland Security Presidential Directive/HSPD-8, "National Preparedness". December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan (NRP). Department of Homeland Security. December 2004.
3. National Incident Management System (NIMS). Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>
4. Homeland Security Exercise and Evaluation Program (HSEEP), Volume II: Exercise Evaluation and Improvement. Office for Domestic Preparedness, Department of Homeland Security. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>
5. Urban Search and Rescue (US&R) Incident Support Team (IST) In Federal Disaster Operations, Operations Manual. Federal Emergency Management Agency. January 2000. <http://www.fema.gov/pdf/usr/usristops.pdf>
6. National Urban Search and Rescue Response System Field Operations Guide. Federal Emergency Management Agency. September 2003. http://www.fema.gov/pdf/usr/usr_fog_sept_25_2003_color_final.pdf
7. National Urban Search and Rescue Response System Operations Manual: 2003-2004 Task Force Equipment Cache List. Federal Emergency Management Agency. August 2003. http://www.fema.gov/pdf/usr/task_force_documents equip_cach_list_intro.pdf
8. Urban Search and Rescue Task Force Equipment Cache List. Federal Emergency Management Agency. 2004. http://www.fema.gov/pdf/usr/usr_equip_cache_list.pdf
9. NFPA 1670- Standard on Operations and Training for Technical Search and Rescue Incidents. National Fire Protection Association. 2004 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1670>
10. NFPA 1006- Standard for Rescue Technician Professional Qualifications, National Fire Protection Association, 2003 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1006>
11. NFPA 1951- Standard on Protective Ensemble for US&R Operations, National Fire Protection Association, 2001 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1951>

12. NFPA 1500- Standard on Fire Department Occupational Safety and Health Program, National Fire Protection Association, 2002 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1500>
13. Inventory of Navy Laboratory Rescue & Diving Equipment Available for Emergency Undersea Operations, NOSC TD 112. U.S. Navy. 1983.
14. Rescue and Survival Systems Manual, COMDTINST M10470.10 (Series). U.S. Coast Guard. 2003.
15. SARSAT Users Manual for Use by Coast Guard Search and Rescue Personnel. U.S. Coast Guard, 1982.
16. Standard First Aid Training Course, NAVEDTRA 10081-C. U.S. Navy.
17. United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, National Search and Rescue Committee, Washington DC. May 2000.

This page intentionally left blank

EMERGENCY PUBLIC INFORMATION AND WARNING

Capability Definition

The Emergency Public Information and Warning capability includes public information, alert/warning and notification. It involves developing, coordinating, and disseminating information to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines effectively under all hazard conditions.

- (a) The term “public information” refers to any text, voice, video, or other information provided by an authorized official and includes both general information and crisis and emergency risk communication (CERC) activities. CERC incorporates the urgency of disaster communication with risk communication to influence behavior and adherence to directives.
- (b) The term “alert” refers to any text, voice, video, or other information provided by an authorized official to provide situational awareness to the public and/or private sector about a potential or ongoing emergency situation that may require actions to protect life, health, and property. An alert does not necessarily require immediate actions to protect life, health, and property and is typically issued in connection with immediate danger.
- (c) The term “warning” refers to any text, voice, video, or other information provided by an authorized official to provide direction to the public and/or private sector about an ongoing emergency situation that requires immediate actions to protect life, health, and property. A warning requires immediate actions to protect life, health, and property and is typically issued when there is a confirmed threat posing an immediate danger to the public.
- (d) The term “notification” refers to any process where Federal, State, local, tribal, and nongovernmental organization, department, and/or agency employees and/or associates are informed of an emergency situation that may require a response from those notified.

Outcome

Government agencies and public and private sectors receive and transmit coordinated, prompt, useful, and reliable information regarding threats to their health, safety, and property, through clear, consistent information-delivery systems. This information is updated regularly and outlines protective measures that can be taken by individuals and their communities.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs) and Annex:

ESF #5: Emergency Management

ESF #15: External Affairs

Public Affairs Support Annex

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.B1f 1.2.2	Identify all pertinent stakeholders across all disciplines and incorporate them into the information flow through a clearly defined information sharing system
Res.B1f 1.1.1	Develop plans, procedures, and policies for coordinating, managing, and disseminating public information effectively under all hazards and conditions
Res.B1f 1.1.2	Develop plans, procedures, and policies for coordinating, managing, and disseminating alerts and warnings effectively under all hazards and conditions
Res.B1f 1.1.3	Develop plans, procedures, and policies for coordinating, managing, and disseminating notifications effectively under all hazards and conditions
Res.B1f 1.2	Develop communication plans, policies, procedures, and systems that support required information sharing and communications across stakeholders to support public information, alert/warning, and notification
Res.B1f 1.3	Develop crisis and emergency risk communication (CERC) plan
Res.B1f 1.3.2	Develop and maintain emergency declaration protocols and templates
Res.B1f 1.4.1	Develop procedures for disseminating information on the re-entry of citizens
Res.B1f 1.2.6	Develop a communication network with State homeland security departments
Res.B1f 1.2.1	Develop programs and systems to process the inflow of public-related information from all sources in a timely fashion
Res.B1f 1.2.3	Develop procedures to ensure that information provided by all sources includes the necessary content to enable reviewers to determine its authenticity and potential validity
Res.B1f 1.1	Prepare emergency public information plans
Res.B1f 1.3.1	Develop plans, procedures, programs and systems to rapidly control rumors by correcting misinformation
Res.B1f 1.1.5	Develop community-based mechanisms to support providing prompt, accurate information to the public in the dominant languages of the community and languages and formats appropriate for those with limited language competence, disabilities, cultural or geographic isolation, or vulnerabilities due to age
Res.B1f 1.1.4	Develop emergency plans that take into account special needs populations
Res.B1f 1.1.6	Develop emergency plans that are community-based and include outreach and education to the public, through community and faith-based organizations and other institutions, to promote individual preparedness based on the risks in their communities
Res.B1f 1.2.4	Establish neighborhood pre-disaster and post-disaster information centers at schools, the work place, libraries, shopping centers, places of worship, and other community institutions, to provide information on evacuations and the location of disaster assistance sites

Preparedness Measures	Metrics
The emergency operations plan (EOP) specifies how and when to enact the public information function	Yes/No
The emergency operations plan (EOP) specifies how and when to activate public alert and warning functions	Yes/No
The emergency operations plan (EOP) specifies how and when to enact the notification function	Yes/No
The emergency operations plan (EOP) includes a communications strategy to engage the media to ensure accurate information is disseminated	Yes/No
The emergency operations plan (EOP) specifies how and when to enact a Joint Information System (JIS)	Yes/No
The emergency operations plan (EOP) provides procedures for use when normal information sources are lost	Yes/No
Emergency Alert System (EAS) activation plan is in place and is tested regularly	Yes/No
Public awareness and education plan is in place with all appropriate agencies and partners	Yes/No
Plans for Joint Information Center (JIC) include multi-jurisdictional, multi-disciplinary agencies, the private sector, nongovernmental organizations, and staffing JIC functions	Yes/No
Communications plan in place to communicate changes in threat level (in the Homeland Security Advisory System) to the public	Yes/No
Public Information Field Guide is in place	Yes/No
Public Information Field Guide includes protocols for interfacing with the media, legislative interests, officials and celebrities, community-citizens, and tribal, city, county, State, Federal, and private industry leaders	Yes/No
Public Information Field Guide includes a listing of homeland security and emergency management sources of information and updatable media lists	Yes/No
Contact information for public and private partners is current and available	Yes/No
Public Information Field Guide includes protocols for operating in Joint Information Center (JIC)	Yes/No
Crisis and emergency risk communications (CERC) plans are in place	Yes/No
Public Information Field Guide includes protocols for identification of resources and responsibilities in advance of an accident	Yes/No
Procedures are in place for rapidly deploying public affairs teams, which are self-sufficient, established across all Federal departments and agencies with key Homeland Security responsibilities, and can deploy	Yes/No
Procedures are in place for communicating with internal groups and individuals about disasters and emergencies following established standards, as appropriate (e.g. the Emergency Management Accreditation Program (EMAP) and the National Fire Protection Association (NFPA) 1600)	Yes/No
Procedures are in place for communicating with external groups and individuals about disasters and emergencies following established standards, as appropriate (e.g. the EMAP and the NFPA 1600)	Yes/No

Procedures and protocols to communicate and coordinate effectively with other JICs and other incident command system (ICS) components, structured according to the incident command, unified command, or area command are in place	Yes/No
Preparedness information is widely distributed in languages appropriate to the cultural and ethnic needs of the populations of the area	Yes/No
Information dissemination and alert/warning mechanisms are structured so that private sector entities receive accurate, timely, and unclassified information	Yes/No
Plans and procedures to update alerts/warning frequently are in place	Yes/No
Plans and procedures to receive and archive responses from stakeholders that have been previously notified are in place	Yes/No
Plans and procedures for how notification of recovery assistance information will be disseminated to the public are in place	Yes/No
Plans and procedures for a post-incident containment informational program are in place	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.B1f 2.1.1	Develop and implement awareness training about public information
Res.B1f 2.2	Develop and implement public information, alert/warning, and notification training and exercise programs
Res.B1f 2.2.2	Incorporate public information function as part of multi-discipline response operations exercises
Res.B1f 2.1.3	Ensure potential spokespersons identified to provide information during an emergency have been trained in the principles of Crisis and Emergency Risk Communication (CERC)
Res.B1f 2.2.1	Develop tests, and exercise the plan to enhance its effectiveness
Res.B1f 2.1.2	Develop and conduct training to improve all-hazard incident management capability
Res.B1f 2.2.3	Conduct an after action review to determine strengths and shortfalls and develop a corrective plan accordingly

Preparedness Measures	Metric
------------------------------	---------------

Frequency with which all appropriate agencies and personnel are trained in and exercise the Emergency Alert System (EAS) plan	Every 12 months
Frequency with which Joint Information Center (JIC) deployment and operations are exercised	Every 12 months
Frequency with which plans and procedures are tested to ensure accuracy and completeness	Every 12 months
Frequency with which public awareness and education plan is updated	Every 12 months
Frequency with which emergency risk communications plan is exercised	Every 12 months
Frequency with which Emergency Operations Plans are exercised	Every 12 months
Frequency with which alert and warning systems are exercised	Every 3 months

Frequency with which exercise community-based mechanisms to support providing prompt, accurate information to the public in the dominant languages of the community and languages and formats appropriate for those with limited language proficiency, disabilities, cultural or geographic isolation, or vulnerabilities due to age	Every 12 months
Percent of relevant staff trained on public information, alert/warning, and notification policy and procedures	100%

Performance Tasks and Measures/Metrics

Activity: Manage Emergency Public Information and Warnings Definition: In recognition of likely hazards provide management and coordination of public information, alert/warning, and notification activities	
Critical Tasks	
Res.B.5.1	Activate plans, procedures, and policies for coordinating, managing, and disseminating public information and warnings
Res.B1f 4.1.1	Identify public information needs and media types and utilization of the affected area
Res.B1f 3.1.1	Coordinate internal information programs
Res.B1f 3.1.2	Coordinate external information programs
Res.B1f 3.1	Coordinate public emergency information
Res.B1f 3.1.5	Implement government agency and nongovernmental organization notification protocols and procedures
Res.B1f 3.4.1	Implement a community relations plan for ensuring continued communications with citizens and city, county, tribal, State, Federal, and private industry leaders
Res.B1f 3.3.1	Plan and coordinate warnings, instructions, and information updates
Res.B1f 3.3.3	Coordinate with EOC/responders for public safety concerns that need to be disseminated
Res.B1f 3.3.4	Identify information transfer between and among Incident Command Post concerning public information
Res.B1f 3.3.5	Monitor communications and information systems as needed to identify information to be disseminated to public
Res.B1f 3.3.6	Coordinate with law enforcement and provide media outlets to provide the public with accurate, consistent, and timely information
Res.B1f 3.3.7	Coordinate with intelligence information to provide State, local, and tribal authorities with clearly defined information needs based on the threat environment
Res.B1f 3.3.8	Coordinate dissemination of incident site information within a National Incident Management System (NIMS) compliant framework
Res.B1f 3.1.3	Implement international affairs operations
Performance Measures	
	Metric
Time in which initial communications strategy is developed in collaboration with interagency partners	Within 90 minutes from the incident

Frequency with which public warnings, instructions, and information updates are planned and coordinated during an incident	Continuous
Pre-established mechanisms are used to provide State, local, and tribal authorities with clear and easy to understand information based on the threat environment	Yes/No
Percent of public information, alert/warning, and notifications that are managed according to the established plan	100%

Activity: *Activate Emergency Public Information, Alert/Warning, and Notification Plans*
Definition: Activate key personnel, facilities, and procedures

Critical Tasks	
Res.B1f 4.4	Activate and establish Joint Information System (JIS)
Res.B1f 4.2.6	Activate and deploy public information/affairs personnel
Res.B1f 4.2.1	Assign Public Information Officer (PIO)
Res.B1f 4.2.2	Identify appropriate spokesperson(s)
Res.B1f 4.1.5	Update the Homeland Security Advisory System, as appropriate
Res.B1f 6.1.2	Notify, as the first responding agency, both public and private partner agencies regarding Joint Information Center (JIC) activation
Res.B1f 4.2	Ensure appropriate representation of all relevant public affairs entities, to include nongovernmental organizations and the private sector, in any Joint Information Center (JIC) that is established by the government
Res.B1f 4.3	Disseminate domestic and international travel advisories
Performance Measures	Metric
Time in which partner agencies are notified by the designated or assigned public information officer (PIO) at the initial responding agency	Within 60 minutes from notification to respond to the incident
Emergency Operations Plan is activated	Yes/No
Percent of JIC personnel registered	100%
Percent of JIC personnel briefed	100%
Information is delivered to stakeholders based on security clearance level and need to know	Yes/No
Time in which appropriate spokesperson is identified	Within 60 minutes from opening of JIC

Activity: *Establish Joint Information Center*
Definition: Activate and implement a Joint Information Center (JIC) and disseminate information to public

Critical Tasks

Res.B1f 5.1.1	Coordinate the provision of timely and accurate emergency public information through the Joint Information System (JIS)	
Res.B1f 6.1	Activate Joint Information Center (JIC), to include nongovernmental and private-sector partners as appropriate	
Res.B1f 3.2.2	Coordinate and integrate the resources and operations of external affairs organizations to provide accurate, consistent, and timely information through the Joint Information Center (JIC)	
Res.B1f 6.2	Coordinate emergency public information through the Joint Information System (JIS).	
Res.B1f 6.1.3	Provide a central contact for the media through the Joint Information Center (JIC), ensuring a “one accurate message, many voices” approach to information dissemination	
Res.B1f 6.2.2	Coordinate among Joint Information Centers (JICs) at all levels of government	
Res.B1f 6.2.1	Implement routing and approval protocols for release of information	
Res.B1f 6.2.3	Provide for external media support and operations	
Res.B1f 6.1.1	Establish adequate numbers of trained personnel at dispatch or communications centers to process and disseminate information	
Performance Measures		Metrics
Time in which JIC is activated		Within 2 hours from notification of threat or incident
Percent of JIC personnel that have been vetted and credentialed		100%
JIC chain of command and operations management chain of command are established		Yes/No
Regularly scheduled updates are provided for JIC personnel		Yes/No
Percent of major JIC activities for which written documentation or log is kept		100%

Activity: Conduct Joint Information Center Operations

Definition: Upon activation of the JIC, monitor media and conduct press briefings.

Critical Tasks		
Res.B1f 7.2.6.1	Correct misinformation before next news cycle	
Res.B1f 7.1.2	Receive, authenticate, and screen information for relevance at the supervisory level in a timely manner	
Res.B1f 7.1.4	Use a NIMS compliance framework for coordinating incident related communications	
Res.B1f 7.2.8	Provide for rumor control within information network	
Res.B1f 7.5	Prepare post-incident information	
Performance Measures		Metrics
Time in which media are alerted of JIC activation and how to access services		Within 2 hours from JIC activation
Time in which first formal news conference is held		Within 3 hours from incident, as appropriate

Time in which public messages are released providing information on how to apply for individual assistance	Within 24 hours from incident
Inaccuracies are addressed prior to next news cycle	Yes/No
Time in which public information hotline is activated	Within 4 hours from incident
Frequency with which hotline information is updated to ensure that the most accurate information is distributed in a timely fashion	Continuous
Frequency with which alerts/warnings and notifications are provided to planners and decision makers at all levels as appropriate	Continuous
Information is authenticated and screened for relevance at the supervisory level as received	Yes/No
Percent of first responders notified of new and developing information as it is authenticated	100%

Activity: Issue Public Information, Alerts/Warnings, and Notifications

Definition: Issue public information, alerts, warnings, and notifications through established systems to the public, coordinating officials, and incident managers and responders.

Critical Tasks

Res.B1f 5.1	Disseminate crisis and emergency risk communication emergency (CERC) information to the media, public, partners and stakeholders
Res.B1f 5.2	Provide emergency public information to special needs populations and special populations
Res.B1f 5.2.5	Provide emergency information to the public that is verified, accurate, and as up-to-date as possible
Res.B1f 4.3	Disseminate domestic and international travel advisories
Res.B1f 5.3	Ensure accurate and timely dissemination of protective action messages to general public and emergency personnel
Res.B1f 5.2.1	Disseminate prompt, accurate information to the public in appropriate languages and formats that take into account demographics and special needs/disabilities
Res.B1f 5.2.4	Provide emergency public information to special, vulnerable, and at-risk populations that are economically disadvantaged, have limited language proficiency, have disabilities (physical, mental, sensory, or cognitive limitations), experience cultural or geographic isolation, or are vulnerable due to age
Res.B1f 5.3.3	Activate Rapid Response Plan for rumor control and correcting misinformation
Res.B1f 5.5.2	Disseminate critical health and safety information designed to alert the public to clinical symptoms and reduce the risk of exposure to ongoing and potential hazards.
Res.B1f 5.7	Disseminate guidance for the public regarding appropriate donation methods and volunteer activities

Performance Measures

Metrics

Time from threat notification to activation of warning systems	Within 30 minutes from threat notification
Population is notified of an emergency utilizing multiple available warning systems	Yes/No

Percent of appropriate individuals and special needs groups provided with notification communications in accordance with the public awareness and education plan	100%
Percent of alert/warning systems and media outlets monitored to assure the proper message is delivered	100%
System is in place to receive response to interagency notifications previously sent out (if required)	Yes/No
System is in place to conduct public information activities, as needed	Yes/No

Activity: *Conduct Media Relations*

Definition: Upon activation of the JIC/JIS, monitor media contacts and conduct press briefings

Critical Tasks	
Res.B1f 7.2.1	Provide periodic updates and conduct regularly scheduled media conferences
Res.B1f 7.2.5	Track media contacts and public inquiries, listing contact, date, time, query, and outcome
Res.B1f 7.2.3	Establish relationship with non-English speaking media
Res.B1f 7.2.4	Monitor media coverage of event to ensure that information is accurately relayed

Activity: *Provide Public Rumor Control*

Definition: Upon activation of the JIC/JIS, track inquiries for rumors

Critical Tasks	
Res.B1f 7.2.5	Track media contacts and public inquiries, listing contact, date, time, query, and outcome
Res.B1f 7.2.6	Issue corrective messages when errors are recognized in previous public announcements
Res.B1f 7.2.7	Establish frequently updated public information hotline

Activity: *Demobilize Emergency Public Information and Warning*

Definition: Upon deciding public information services are no longer needed, close the JIC and demobilize personnel

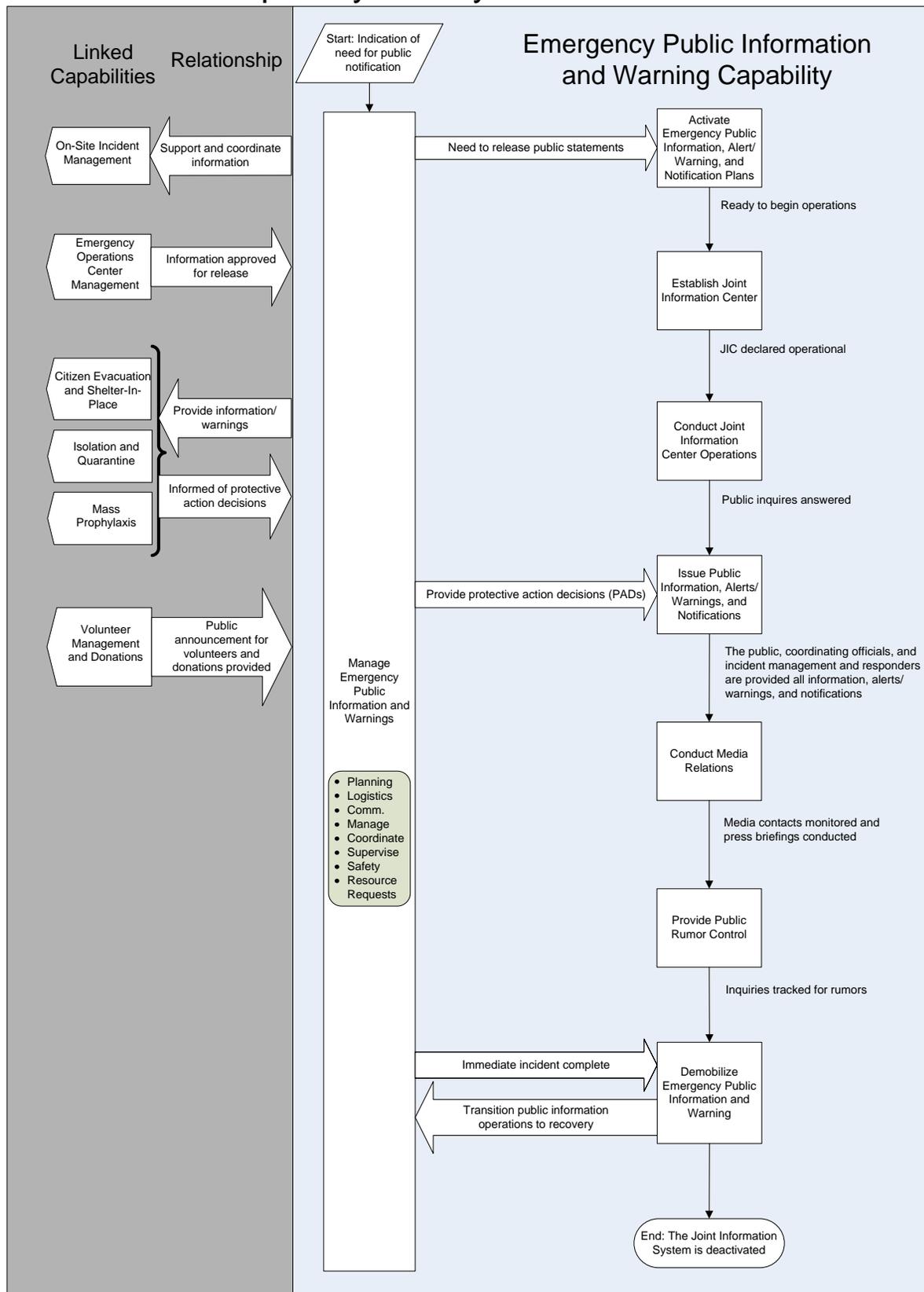
Critical Tasks	
Res.B1f 8.2	Disseminate notice of JIC closure to all Federal, State, local, tribal, and nongovernmental stakeholders and the media
Res.B1f 8.3	Archive important records of JIC activities and NIMS compliant records
Res.B1f 8.1	Demobilize JIC personnel
Res.B1f 8.2.1	Debrief staff and JIC partners
Performance Measures	Metric

Time in which notice of JIC closure is disseminated	Within 24 hours prior to JIC closure
Percent of staff and JIC partners debriefed	100%
Pertinent information and documentation is collected	Yes/No
After action review is conducted to determine strengths and shortfalls and develop a corrective plan accordingly	Yes/No
Percent of alert/warning systems returned to normal operations mode	100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Emergency Public Information and Warning provides informational support and coordination to On-Site Incident Management, and vice versa.
Emergency Operations Center Management	Emergency Operations Center Management approves information for release by Emergency Public Information and Warning.
Citizen Evacuation and Shelter-In-Place	Emergency Public Information and Warning provides information, alerts, warnings, and/or notifications. Citizen Evacuation and Shelter-In-Place provides protective action information or decisions to disseminate.
Isolation and Quarantine	Emergency Public Information and Warning provides information, alerts, warnings, and/or notifications for Isolation and Quarantine. Isolation and Quarantine provides protective action information or decisions to disseminate.
Mass Prophylaxis	Emergency Public Information and Warning provides information, alerts, warnings, and/or notifications related to Mass Prophylaxis. Mass Prophylaxis provides protective action information or decisions to disseminate.
Volunteer Management and Donation	Emergency Public Information and Warning provides public announcements for volunteers and donations.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Joint Information Center (JIC)	<p>As defined by the NRP, a facility established to coordinate all incident-related public information activities on-scene. It includes representatives of local, State, Federal, and voluntary agencies, the Governor’s Office, as appropriate, and JIC operations functional staff.</p> <p>Personnel: Deputy PAO for each PAO office manager and administrative staff Research team: Personnel to gather and verify information, do fact checking, handle writing and research. Media operations team: Personnel to staff news desk, handle outreach, support field operations, monitor the media, and handle video and photography Creative services (writing/research, graphic liaison, program liaison) Logistics team: Personnel to provide event planning, design and production, JIC setup and operations. Government Translators Rapid Response Team - Team to rapidly evaluate rumors and misinformation and issue corrections 2 IT staff 1 support administrator Special Projects (video, photography, event planning)</p> <p>Equipment: JIC Media Briefing Room: Designated media briefing area that includes podium/lectern, malt box, flags, seals, turtle phone, overhead projector, PowerPoint projector, screen – Pre-establish alerts/warnings announcements for citizens to take protective actions. Designated media briefing areas include the following: Podium/lectern, Malt box, Flags, Seals, Turtle phone, Overhead projector, and PowerPoint projector Screen JIC Office Equipment: For each PAO and PIO: 1 Cell phones with walkie-talkie, chargers; 1 landline phone; Maps of updated, disaster-impacted areas Per JIC: Video conference capabilities, blast fax; 2 Fax machines – incoming, outgoing; Radio bank – with recording capability; 6 televisions with recording capability; 1 laptops/Computers with CD/DVD burner and appropriate software per staff; server; high-speed color copier; color printers (1 per 3 people), Local telephone directories (1 per person), Office telephone directory (1 per person), JIC meeting space or access to a meeting room, Private room or access to a private room, Office supplies.</p>
Public Information Officer (PIO)	<p>As defined by the NRP, the PIO is a member of the Command Staff responsible for interfacing with the public and media at incident site and with other agencies with incident-related information requirements.</p>

JIC/JFO Public Affairs Officer (PAO)	<p>Includes two public affairs leads at the JIC and JFO; one is the Lead Federal PAO and the other is the Lead State PAO. Includes at least one representative of each local, State, Federal, and voluntary agency, the Governor’s Office and the Incident Commander per JIC</p> <p>Per 2 12-hour shifts per JIC, representatives from:</p> <p>Local: 1 State: 1 Federal: 1 Voluntary agency: 2 Emergency management/ homeland security: 1 Governor: 1 U.S. Department of Transportation (DOT): 1 Public health: 1 Law enforcement: 1 Fire: 1 Emergency medical services (EMS): 1 Public works: 1 Search and rescue: 1 Human services: 1 Housing: 1</p>
Alert and Notification System	An alert/warning and notification system appropriate to population, special needs of citizens, and hazards in a jurisdiction.
JIC support staff training	<p>Requires ICS 100–200, NIMS IS–700</p> <p>Core base training, such as:</p> <ul style="list-style-type: none"> Basic public information course Advanced public information course Cultural competency Interoperable communications Public and volunteers Risk communications

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the major earthquake scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Coordinated, accurate, timely public information will be required immediately to inform the public of appropriate protective and self-care actions.
- Accurate and timely information over time must be distributed to the affected populations to control rumors and minimize psychological effects. This activity will be particularly important following CBRNE-related events.
- All scenarios will require a multi-jurisdictional/multi-agency response to implement the Joint Information System (JIS) and a Joint Information Center (JIC) to ensure that public information activities are consistent and coordinated across agencies and jurisdictions.
- All scenarios require that jurisdictions provide timely and accurate public information. Some scenarios will have advanced warning, and others will occur with no warning. All scenarios need to

consider alternate communications means. Power outages will disrupt radio, television, the World Wide Web, and other power-dependent information outlets.

- Door-to-door notification would not be feasible given scenario requirements of higher population densities.
- The jurisdiction may have systems in place to conduct emergency notification.
- Implement a public awareness program whenever people are threatened by a serious hazard.
- The JIC will include representatives of each jurisdiction, agency, private sector, and nongovernmental organization (NGO) involved in incident management activities. Inclusion of liaisons from the various responding agencies will ensure a “one voice” approach and consistency of information released. A unified effort also fosters collaboration, helping to ensure all agencies’ critical messages are identified and appropriately addressed.
- A single JIC location is preferable, but the system should be flexible enough to accommodate multiple JIC locations if required. For example, multiple JICs may be needed for a complex incident spanning a wide geographic area.
- Following the command structure will ensure consistency of operations and will enhance cooperation among JICs, command posts, and other partners.
- Effective warning of people with special needs or disabilities will require the media, the Emergency Alert System (EAS), and other communications systems to use multiple communications.
- The amount of resources needed should be determined by each agency participating in the response, in coordination with the leads for the JICs.
- Emergency public information and warning is dependent on the timely availability of accurate information on the type of threat or hazard presented, as indicated in the *Target Capabilities List*. An additional factor is the availability and reliability of accurate information that has been verified and is ready for distribution.
- Timely, accurate information is essential to all scenarios. It is important for the incident commander and other critical functions included in the ICS to emphasize public information in their respective operations.
- Implementation of a JIC ensures a “one message, many voices” approach that incorporates representatives across multiple jurisdictions. All agencies involved in disaster response must be represented in the JIC.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Earthquake)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
JIC	Operate 7/24 in two 12-hr shifts per JIC	Operate 24/7	2 teams (one per 12-hour shift)
Public Information Officer (PIO)	Operate 7/24 in two 12-hr shifts per JIC		County JIC=10 PIOs per county Regional JIC=10 PIOs per region State JIC=10 PIOs Federal=10 PIOs
Public Affairs	Operate 7/24 in two 12-hr	Minimum of one per	1 IC command

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Officers/Specialists (PAOs)	shifts per JIC	agency per level of government	structure per impacted jurisdiction=2 PAOs
Alert/warning and notification systems	Each jurisdiction should have an alert and notification system appropriate to population and hazards.	1 per jurisdiction	1 per jurisdiction

Approaches for Large-Scale Events

Approaches to large-scale events are similar to Emergency Operations Center Management.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Joint Information Center (JIC)	NIMS Typed Resource Organization	1	Per jurisdictional EOC	Federal/State/Local	All Activities
Public Information Officer (PIO)	Personnel	1	Per central & backup EOC per 12 hour shift	Federal/State/Local	All Activities
JIC/JFO Lead PAOs	Personnel	1	Per central & backup EOC per 12 hour shift	Local	All Activities
JIC/JFO Lead PAOs	Personnel	1	Per federal	Federal	All Activities
JIC/JFO Lead PAOs	Personnel	1	Per state	State	All Activities
JIC/JFO Deputy Lead PAOs	Personnel	1	Per central & backup EOC per 12 hour shift	Local	All Activities
JIC/JFO Deputy Lead PAOs	Personnel	1	Per federal	Federal	All Activities
JIC/JFO Deputy Lead PAOs	Personnel	1	Per state	State	All Activities
Alert and Notification System	Equipment	1	Per central & backup EOC per 12 hour shift	Federal/State/Local	Issue Emergency Warnings

References

1. Executive Order 13407 “Public Alert and Warning System.” June 26, 2006. <http://www.whitehouse.gov/news/releases/2006/06/20060626.html>
2. Homeland Security Presidential Directive/HSPD–8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
3. National Response Plan. U.S. Department of Homeland Security. December 2004.
4. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
5. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. Office for Domestic Preparedness, Department of Homeland Security. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
6. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>.
7. NFPA 1221. Communications Systems, Installation, Maintenance, and Use of Emergency Services. 2001. <http://www.nfpa.org/catalog/product.asp?catalog%5Fname=NFPA+Catalog&pid=122102&query=NFPA+1221&link%5Ftype=search&src=nfpa>
8. Emergency Management Accreditation Program Standards. September 2003. <http://www.emaponline.org/index.cfm>.
9. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) Program, <http://mmrs.fema.gov>
10. Crisis and Emergency Risk Communication. CDC. October 2002. http://www.cdc.gov/gov/communication/emergency/erc_overview.htm
11. Crisis and Emergency Risk Communication by Leaders for Leaders. CDC. <http://www.cdc.gov/communication/emergency/leaders.pdf>
12. Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency. CDC. 2006. <http://www.bt.cdc.gov/workbook>
13. Executive Order 13166, “Improving Access to Services for Persons with Limited English Proficiency.” <http://www.usdoj.gov/crt/cor/Pubs/eolep.pdf>

EMERGENCY TRIAGE AND PRE-HOSPITAL TREATMENT

Capability Definition

Emergency Triage and Pre-Hospital Treatment is the capability to appropriately dispatch emergency medical services (EMS) resources; to provide feasible, suitable, and medically acceptable pre-hospital triage and treatment of patients; to provide transport as well as medical care en-route to an appropriate receiving facility; and to track patients to a treatment facility.

Outcome

Emergency Medical Services (EMS) resources are effectively and appropriately dispatched and provide pre-hospital triage, treatment, transport, tracking of patients, and documentation of care appropriate for the incident, while maintaining the capabilities of the EMS system for continued operations.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

- ESF #1: Transportation
- ESF #8: Public Health and Medical Services
- ESF #9: Urban Search and Rescue
- ESF #10: Oil and Hazardous Materials Response

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.C1a 1.1	Assess, categorize, and track health and medical resources at the State, regional, and local levels, including but not limited to trauma centers, burn centers, pediatric facilities, acute care facilities, and other specialty facilities
Res.C1a 1.1.1	Ensure appropriate protective resources are available, including vaccinations, prophylaxis, and PPE for pre-hospital providers and their families
Res.C1a 1.1.2	Ensure sufficient EMS personnel and resources are available to respond to day-to-day emergencies in the community
Res.C1a 1.1.3	Ensure sufficient EMS personnel, supplies, and equipment are available to respond to and manage a catastrophic incident until Federal resources become available
Res.C1a 1.2.1	Develop procedures for effective, reliable interoperable communications between EMS, incident command, public health, and healthcare facilities
Res.C1a 1.2.2	Establish and maintain intrastate and interstate EMS communications systems
Res.C1a 1.3.1	Develop protocols and procedures for tracking triage and pre-hospital treatment response staff and equipment during day-to-day operations, as well as catastrophic incidents

Res.C1a 1.1.4	Ensure that EMS systems include an education, licensure, and credentialing system consistent with national standards	
Res.C1a 1.2.3	Identify and coordinate with public safety access points that have enhanced capabilities (e.g., automatic location identification) and redundancy, and are capable of handling a surge in call volume	
Res.C1a 1.3.2	Establish a means to allow EMS resources to be used across jurisdictions, both intrastate and interstate, using the National Incident Management System (NIMS) (e.g., mutual aid agreements)	
Res.C1a 1.4	Develop and/or maintain protocols and procedures for EMS dispatch, assessment, triage, treatment, transport, logistical support, medical command and coordination, safety, communications, and tracking of patients during day-to-day operations as well as catastrophic incidents	
Res.C1a 1.5	Develop mechanisms to ensure freedom of movement of medical response, transport, and personnel when faced with restricted travel laws, isolation/quarantine, or security measures	
Res.C1a 1.3.3	Develop plans and mechanisms for obtaining reimbursement for both public and private expenditures for triage and pre-hospital treatment following a declared catastrophic incident	
Preparedness Measures		Metrics
State EMS personnel certification and licensure system modeled after the principles of the National EMS Education Agenda for the Future (and its five components) and NIMS is in place		Yes/No
Written mutual aid protocols and procedures for EMS support are in place		Yes/No
Sufficient certified/licensed EMS personnel are available to staff the current EMS system 24 hours per day, 7 days per week, and with a response consistent with established local response times		Yes/No
Recall procedures to summon off-duty EMS personnel when needed are in place		Yes/No
Sufficient numbers of ambulance transport and support vehicles are available to handle routine call volume 24/7 with response consistent with established local response times		Yes/No
All cities have a minimum of one spare ALS vehicle available		Yes/No
Cities greater than 300,000 have at least one spare vehicle for every 100,000 maintained on an in-service basis (i.e., stocked and garaged) to support immediate surge needs		Yes/No
EMS personnel participate on a regular basis with emergency management planning and operations		Yes/No
Jurisdiction-wide EMS data collection system that complies with the National EMS Information System (NEMSIS) Version 2.0 or later is in place		Yes/No
Written protocols approved by medical control for EMS assessment, triage, transport, and tracking of patients during a catastrophic event are in place		Yes/No
Written EMS dispatch procedures include the dispatch of personnel and equipment in the unique circumstances of a catastrophic event		Yes/No
Redundant public safety answering points (PSAPs) that comply with phase II Federal Communications Commission (FCC) requirements for cell phone access are available and are capable of handling a large volume of calls		Yes/No
EMS plans address patient and resource transportation (i.e. helicopters and corresponding landing zone, ambulances and en route health care providers).		Yes/No
EMS plans address the treatment of EMS response personnel, site staff, and their families		Yes/No

(e.g. medical needs, stress management strategies).	
The vehicle tracking system is consistent with a written infrastructure protection plan and NIMS resource typing	Yes/No
Written plans and procedures for coordination of the local EMS system with the National Disaster Medical System are in place	Yes/No
Sufficient PPE is available for all EMS personnel who would respond to a catastrophic or routine incident (scenario-specific)	Yes/No
A NIMS-compliant plan that enables communicable disease first responders and receivers to understand their roles, responsibilities, and requirements when responding to a communicable disease outbreak (scenario-specific) is in place	Yes/No
A plan for prophylaxis and issuance of PPE to non-surge first responders and first receivers within 24 hours from a communicable disease outbreak, including the logistical chain to support this effort is in place	Yes/No
A plan that accounts for the multi-jurisdictional pre-hospital response to a catastrophic incident that considers mutual aid agreements, associated equipment, staff, command and control, and nontraditional patient movement and transfers is in place	Yes/No
Compatible communications equipment and communications radio frequency plans are in place for common hospital diversion and bed capacity situational awareness at the local, State, and regional levels;	Yes/No
Compatible communications equipment and communications radio frequency plans are in place for command and control dispatch procedures for task force operations	Yes/No
An interoperable patient tracking system is in place that allows patient tracking from the first response site to a healthcare facility, and allows data to be accessible among geographically appropriate users	Yes/No
A plan to return to normal operations post-incident is in place	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.C1a 2.1.1	Conduct training of dispatch personnel in protocol and procedures for dispatch during catastrophic events
Res.C1a 2.1.2	Develop and implement multi-disciplinary training programs for EMS personnel, based on local risk vulnerability assessments and lessons learned
Res.C1a 2.2	Develop and implement multi-disciplinary exercise programs for EMS personnel, based on local risk vulnerability assessments and lessons learned
Preparedness Measures	
Frequency with which exercises are conducted using scenarios based on a jurisdiction-specific risk vulnerability assessment and Homeland Security Exercise and Evaluation Program (HSEEP) guidelines	Every 12 months
Percent of field responders who received training on dispatch, triage, treatment, and transport protocols and procedures	80%
Percent of dispatchers who received training on dispatch, triage, treatment, and transport protocols and procedures	80%

Performance Tasks and Measures/Metrics

Activity: *Direct Triage and Pre-Hospital Treatment Tactical Operations*

Definition: In response to a notification for emergency medical assets, provide the overall management and coordination of the Triage and Pre-Hospital Treatment Response, through to demobilization

Critical Tasks	
Res.C1a 3.1.1	Establish Medical Branch/Group officer
Res.C1a 3.1	Coordinate triage and pre-hospital treatment operations with on-site Incident Command
Res.C1a 3.1.2	Coordinate and integrate triage and pre-hospital treatment operations with the National Disaster Medical System
Res.C1a 3.2	Implement and coordinate effective, reliable interoperable communications between EMS, incident command, public health, and healthcare facilities
Res.C1a 3.3.2	Assess need for additional medical resources/mutual aid
Res.C1a 3.3.3	Initiate recall and/or mutual aid to staff spare ambulances and provide immediate surge capability
Res.C1a 3.3.4.1	Implement and maintain accountability procedures for EMS personnel, equipment, and supplies
Res.C1a 3.3.4.2	Provide medical support, safety considerations, and appropriate PPE for EMS responders
Res.C1a 3.3.1	Organize and distribute resources for triage and pre-hospital treatment operations
Performance Measures	Metric
Time in which medical dispatch react and respond to the increased call volume	Within 30 minutes from start of increased call volume
Time in which medical coordination of on-scene EMS system personnel and other health resources is provided	Within 30 minutes from initial units arrival on scene
Time in which medical coordination of public health services, hospitals, and healthcare providers is provided	Within 60 minutes from the establishment of Medical Command
Time in which primary and secondary communication is established	Within 30 minutes from the establishment of Tactical Operations
Time in which recall and mutual aid agreements with State and local partners are executed	Within 60 minutes from initial request for additional resources
Time in which sufficient and appropriate medical equipment and supplies are readily available to on scene personal	Within 2 hours from initial units arrival on scene
Time in which special safety equipment is organized and made available to all on-scene medical personnel	Within 60 minutes from initial units arrival on scene
Procedures for the safety, health, and well-being of on-scene personnel are followed	Yes/No

Activity: Activate Triage and Pre-Hospital Treatment

Definition: In response to a notification, respond, mobilize, and arrive on scene to begin emergency medical operations

Critical Tasks	
Res.C1a 4.1	Dispatch and support medical care personnel
Res.C1a 4.2	Complete scene survey
Res.C1a 4.2.1	Establish scene safety, based on the type and severity of the incident
Res.C1a 4.3	Establish triage, treatment, and transport areas
Performance Measures	Metric
Time in which EMS responders are notified and dispatched toward the scene	Within 10 minutes from 911 receipt of initial call

Activity: Triage

Definition: Once on scene, provide initial and ongoing emergency medical triage of ill and injured patients that prioritizes their respective treatment and transport

Critical Tasks	
Res.C1a 5.1	Conduct initial and on-going pre-hospital triage in accordance with a jurisdiction's prescribed triage methodology (e.g., Simple Triage and Rapid Treatment (START) Triage)
Res.C1a 5.2	Initiate a patient tracking system
Res.C1a 5.3.1	Ensure decontamination of patients prior to treatment and transport
Res.C1a 5.4	Move patients to safe, secure, and easily accessible treatment area(s)
Performance Measures	Metric
Time in which triage of ill/injured patients is initiated	Within 30 minutes from receipt of call
Time in which a patient tracking system is initiated	Within 30 minutes from the initiation of on scene triage
Data management system is operational	Yes/No

Activity: Provide Treatment

Definition: Provide medical treatment appropriate to the patient's injuries and the incident

Critical Tasks	
Res.C1a 6.1	Establish immediate, minor, and delayed treatment areas
Res.C1a 6.2	Provide pre-hospital treatment appropriate to the nature of incident and number of injured/ill
Res.C1a 6.2.1	Administer antidotes for victims of WMD attacks

Res.C1a 6.2.2	Provide ongoing pain management therapy as needed to victims awaiting transport	
Res.C1a 6.3	Ensure documentation of patient care and transfer, in accordance with mass casualty protocols	
Performance Measures		Metric
Time in which ill/injured patients receive initial treatment by appropriately credentialed on-scene medical personnel		Within 30 minutes from initial units arrival on scene
Time in which on-line medical control is notified of incident		Within 10 minutes from initial patient triage on a not-to-interfere basis with immediate patient treatment
Time in which coordination of patient treatment with on-line medical control is initiated		Within 60 minutes from arrival on scene

Activity: Transport

Definition: Transport ill and injured patients via the most appropriate mode of transport available (e.g. Ambulances, helicopters, etc.), provide ongoing medical assessment and treatment en route to the designated receiving facility, and upon arrival transfer medical care of the patient(s) to the receiving facility's staff

Critical Tasks

Res.C1a 7.1	Identify transport vehicles, victims, and priority of transport	
Res.C1a 7.1.1	Provide for alternative modes of transport should air or other operations be necessary (e.g. – helicopters along with a corresponding landing zone [LZ])	
Res.C1a 7.2	Coordinate and transport patients to the appropriate treatment facility	
Res.C1a 7.2.1	Provide ongoing assessment and treatment en route	
Res.C1a 7.2.2	Transfer care of the patient to the medical staff at the facility	
Res.C1a 7.3	Develop local protocols that address return to service of transport vehicles (e.g. decontamination, stocking, and personnel)	
Performance Measures		Metric
Percent of patients transported in vehicles appropriate to each patient's conditions and the nature and magnitude of the incident		100%
Time in which patients are transported		Within 2 hours from initial units arrival on scene
Time in which single patient transportation is coordinated with appropriate treatment facility for single patient transfer		Within 30 minutes from initial unit arrival on scene
Time in which mass casualty patient transportation is coordinated with appropriate treatment facility		Within 30 minutes from EMS Transportation/ Communications Officer arrival
Protocols are in place that address return to service of transport vehicles (e.g., decontamination, stocking, and personnel)		Yes/No

Activity: Demobilize Triage and Pre-Hospital Treatment

Definition: Upon completion of duties, clear the incident scene, reconstitute as appropriate, and return to service or end duty tour

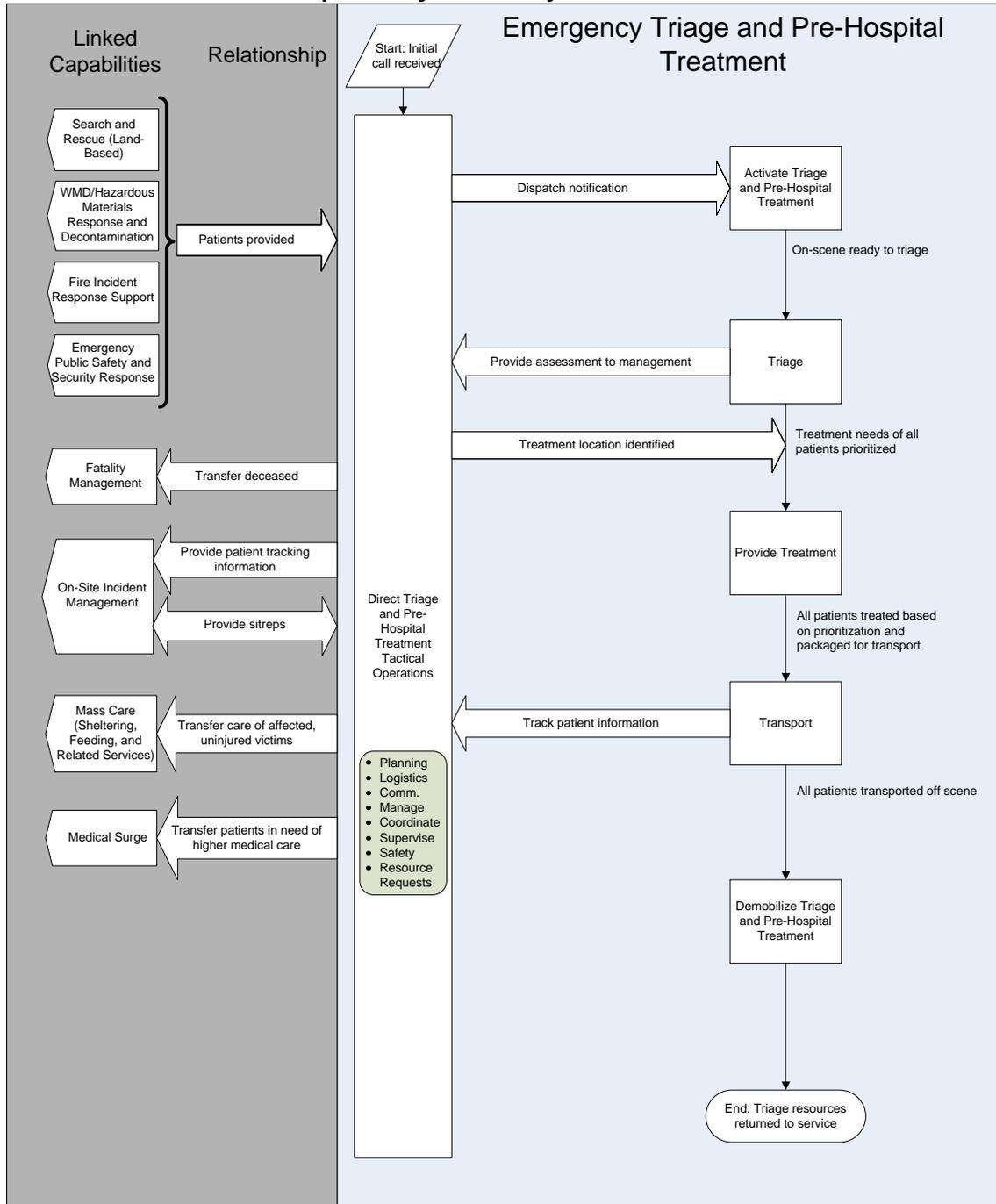
Critical Tasks		
Res.C1a 8.1.1	Reconstitute EMS personnel and equipment	
Res.C1a 8.1.2	Participate in incident debriefing for triage and pre-hospital treatment operations	
Res.C1a 8.3.1	Identify responder needs dependent upon their level of involvement and/or hours committed to the incident	
Res.C1a 8.3.2	Implement comprehensive stress management strategies and programs for all emergency responders and other workers	
Res.C1a 8.2	Reestablish normal EMS operations	
Res.C1a 8.3.3	Ensure post-event medical monitoring and care of pre-hospital/triage responders	
Res.C1a 8.3.4	Conduct post-event analysis, including development and dissemination of lessons learned; revise plan as indicated	
Performance Measures		Metric
Time in which triage and pre-hospital personnel are restored to normal or original operations		Within 12 hours from start of demobilization
Percent of triage and pre-hospital treatment personnel debriefed		100%

Linked Capabilities

Linked Capability	Relationship
Search and Rescue (Land-Based)	Emergency Triage and Pre-Hospital Treatment receives extricated patients from Search and Rescue (Land-Based).
WMD and Hazardous Materials Response and Decontamination	Emergency Triage and Pre-Hospital Treatment receives decontaminated patients from WMD and Hazardous Materials Response and Decontamination.
Fire Incident Response Support	Emergency Triage and Pre-Hospital Treatment receives patients from Fire Incident Response Support.
Emergency Public Safety and Security Response	Emergency Triage and Pre-Hospital Treatment provides information on, or the location of, potential witnesses to Emergency Public Safety and Security Response, while Emergency Public Safety and Security Response provide patients to Emergency Triage and Pre-Hospital Treatment.
Fatality Management	Emergency Triage and Pre-Hospital Treatment notifies Fatality Management of the location of human remains or directly transfer these remains to Fatality Management.
On-Site Incident Management	Emergency Triage and Pre-Hospital Treatment provides patient tracking information to On-Site Incident Management, and they both provide situational reports to each other.
Mass Care (Sheltering, Feeding, and Related Services)	Emergency Triage and Pre-Hospital Treatment transfers care of uninjured affected victims to Mass Care.

Linked Capability	Relationship
Medical Surge	Emergency Triage and Pre-Hospital Treatment transfers medical care of injured victims requiring a higher-level of definitive care during surge to Medical Surge. Non-surge emergency medical care will need to be addressed in a future capability.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Command, Control, Communication, Coordination (C4) Infrastructure	NIMS compliant Emergency Medical Services (EMS) C4 component integrated with local, State and Federal C4 components. While any direct jurisdictional linkages to Federal components are not meant to bypass State C4 components, this may be appropriate under certain conditions
Emergency Medical Services Communication System	A State interoperable EMS communication system capable of coordinating cross-jurisdictional EMS operations and supporting State EMS command, control, and coordination. This system must enable communications among pre-hospital providers, EMS operations, hospital facilities, public health and safety, and emergency management.
Emergency Medical Task Force	Per NIMS, any combination (within span of control) of resources (e.g., ambulances, rescues, engines, squads) assembled for a medical mission, with common communications and a leader (supervisor).
Emergency Medical Services preparedness assessment capability	The capacity to assess national, State and local triage and pre-hospital treatment capabilities in support of the National Preparedness Guidelines and coordinated with the Federal Interagency Committee on EMS, and the ability to coordinate pre-event emergency preparedness efforts

Planning Assumptions

General

- The primary role of the EMS system during an incident is triage, treatment and transportation of patients to definitive care facilities. The EMS system will have a graded response and may be required to adopt alternate standards of care from the norm depending on the locality, demographics, type of incident and number of people affected. At any point of an incident or outbreak, there could be spikes or reductions in pre hospital needs.
- EMS will coordinate scene safety, security and law enforcement will investigate needs with law enforcement authorities.
- Neighboring States/jurisdictions may resist accepting patients that are contaminated or infectious.
- The national capacity requirement should focus on maintaining the integrity of the health care system and delivery of health care services to the general population. As the incident wears on through potential multiple phases, relief of medical staff will become necessary.
- An unknown percent of EMS workers will become injured/ill during any given incident rendering them unavailable for duty.
- Planning, response, and preparedness activities should focus on reducing morbidity and mortality rates, which will vary based upon the type of agent involved, time, geography, and availability of resources.
- Non-standard dispatch, triage and treatment criteria will need to be applied due to the huge demands on limited health care resources.
- Special needs populations (i.e., pediatrics, geriatrics and the disabled) will need to be given particular consideration.
- Information will need to be provided in multiple languages.

Target Capabilities List

- Public Health Emergency under HHS authority and a Stafford Act Emergency declaration will be declared in order to obtain needed Federal resources.
- Response to the demand for emergency medical services will require an altered standard approach to treatment and transport of injured or ill patients.
- In areas with climate extremes, EMS systems will need the ability to create sheltered (warmed or cooled, as needed) treatment areas.
- EMS systems are functioning close to peak capacity at time of incident.
- Professional responders and volunteers may fail to participate as expected due to dual roles in emergency care delivery and/or fear of the unknown.
- EMS systems will have education, licensure and credentialing systems in place consistent with national standards.
- States will have in place trauma and triage protocols identifying transportation of large numbers of victims across regional and State boundaries to assure appropriate distribution of patients.
- Local, regional and response agencies will have access to specialized medical resources from public/private sector agencies and academia.
- EMS responders will have participated in multi-disciplinary exercises with State and local emergency management agencies, fire-rescue, public health, hospitals, law enforcement and other related agencies.
- Patient transportation to and from airheads and medical treatment facilities (MTFs) will be problematic due to excessive congestion on local roads and limited patient movement alternatives (e.g., rotary wing lift)

Scenario Specific

- For **Biological (Communicable)** events (e.g., plague, avian flu), assume 20 – 30% of the population is affected, with 50% of the sick requiring transport. Duration of EMS role is days to months. Assume 2 EMS personnel per transport vehicle. Numbers reflect 200–300 % increase in average daily activity
- For **Biological (Non-communicable)** events (e.g., anthrax – 330,000 exposures), assume 4% of exposed become infected (13, 000 infected), with 25% of infected population requiring transport. Duration of EMS role is days to weeks. Assume 2 EMS personnel per transport vehicle. Majority of patient transports will occur in the first week.
- For **Chemical** events, assume 100% of exposed population, with 25% of exposed population requiring transport (up to 75% of victims in a major incident will self-transport). Duration of EMS role is hours to days. Assume 2 EMS personnel per transport vehicle; each ambulance transporting twice. On-scene: 1:4 ratio of personnel to patients. Majority of transports will be in the first hours.
- For **Explosive** events (may be multiple IEDs), assume 100 fatalities and 500 injured per each major IED, with 50% of injured requiring transport. Duration of EMS role is hours. Assume 2 EMS personnel per transport vehicle (approx. 125 ambulances, each transporting twice). On-scene: 150 EMS personnel (1:4 ratio of personnel to patients). Majority of transports will be in the first hours.
- For **Radiological Dispersion Device** events, assume 180 fatalities, 270 injuries, up to 20,000 exposed/ potentially exposed, with 50% of injured requiring transport. Duration of EMS role is hours. Assume 2 EMS personnel per transport vehicle (135 ambulances - each ambulance transporting only one patient due to decontamination requirements). On-scene: 135 EMS personnel

(1:2 ratio of personnel to patients due to safety and logistic concerns). Injuries include blast, burn, radiological exposure, and trauma.

- For **Nuclear** events (10 kiloton), assume several hundred thousand victims over thousands of square miles. Duration of EMS role is hours to days due to logistical issues. Assume only EMS personnel with specialized training and equipment can enter on-scene. EMS personnel receive decontaminated victims. 10s of 1000s EMS personnel will be required. Injuries include blast, burn, radiological exposure, and trauma.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Command, Control, Communications, and Coordination (C4) Infrastructure	Resource Organization	1	Per Joint Field Office	Federal	Direct Operations Activate Triage and Pre-Hospital Treatment Demobilize
Command, Control, Communications, and Coordination (C4) Infrastructure	Resource Organization	1	Per State	State	Direct Operations Activate Triage and Pre-Hospital Treatment Demobilize
Command, Control Communications, and Coordination (C4) Infrastructure	Resource Organization	1	Per Jurisdiction	Local	Direct Operations Activate Triage and Pre-Hospital Treatment Demobilize
Emergency Medical Services Communication System	Resource Organization	1	Per State	State	Direct Operations
Emergency Medical Task Force	Resource Organization	1	Minimum per State	State	Triage Provide Treatment Transport
Emergency Medical Services preparedness assessment capability	Resource Organization		As needed	Federal/State/Local	Direct Operations

References

- Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
- National Response Plan. U.S. Department of Homeland Security. December 2004.

3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Modular Emergency Medical System: Concept of Operations for the Acute Care Center. U.S. Army Soldier and Biological Chemical Command, Biological Weapons Improved Response Program. Maryland. May 2003.
5. Resource Typing Definitions–I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
6. Emergency Response Training Necessary for Hospital Physicians/Nurses That May Treat Contaminated Patients. Standard interpretation. Occupational Safety and Health Administration. March 1999. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22710.
7. Emergency Response Training Requirements for Hospital Staff. Standard interpretation. Occupational Safety and Health Administration. April 1997. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22393.
8. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
9. Medical Personnel Exposed to Patients Contaminated With Hazardous Waste. Standard interpretation. Occupational Safety and Health Administration. March 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20609.
10. Training Requirements for Hospital Personnel Involved in an Emergency Response of a Hazardous Substance. Standard interpretation. Occupational Safety and Health Administration. October 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20911.
11. National Bioterrorism Hospital Preparedness Program, FY 2005 Continuation Guidance, HRSA Announcement 5–U3R–05–001. U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration. <http://www.hrsa.gov/bioterrorism/>.
12. Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances. Standard interpretation. Occupational Safety and Health Administration. December 2004. <http://www.osha.gov/pls/oshaweb/>.
13. E2413–04 Standard Guide for Hospital Preparedness and Response. ASTM International. January 2005. http://www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/REDLINE_PAGES/E2413.htm?L+mystore+hdvu4953
14. National Disaster Medical System. U.S. Department of Homeland Security. 2004. <http://ndms.dhhs.gov/>.
15. National EMS Education Agenda for the Future: A Systems Approach. U.S. Department of Transportation, National Highway Traffic Safety Administration. 2000. www.nhtsa.dot.gov
16. Protecting Emergency Responders, Volume 3. Safety Management in Disaster and Terrorism Response. National Institute of Occupational Safety and Health. Rand Science and Technology. 2004.
17. Interim National Infrastructure Protection Plan. U.S. Department of Homeland Security. February 2005.
18. Model Trauma System Planning and Evaluation. Health Resources and Services Administration, U.S. Department of Health and Human Services

MEDICAL SURGE

Capability Definition

Medical Surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternate care facilities and public health departments) in order to provide triage and subsequent medical care. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-to-day acute-care medical capacity. Planners must consider that medical resources are normally at or near capacity at any given time. Medical Surge is defined as rapid expansion of the capacity of the existing healthcare system in response to an event that results in increased need of personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical equipment and supplies).

Outcome

Injured or ill from the event are rapidly and appropriately cared for. Continuity of care is maintained for non-incident related illness or injury.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports Emergency Support Function:

(ESF) #8: Public Health and Medical Services.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.C1b 1.5.1	Establish a healthcare system to receive and appropriately treat incident specific casualties or illnesses. This system should be composed of multiple resources from State, sub-State and community resources
Res.C1b 1.9.7.2	Coordinate with WMD/hazmat to develop plans for managing/decontaminating self-presenting contaminated victims off-site
Res.C1b 1.3.8	Identify local, State, sub-State, and interstate mental health and substance abuse professionals or paraprofessionals by survey
Res.C1b 1.9.1	Integrate local, State, and regional mental health and substance abuse professionals or paraprofessionals in response planning, exercises, and drills
Res.C1b 1.11.5	Ensure emergency system patient transport and tracking systems are interoperable with national and Department of Defense systems

Res.C1b 1.10.3	Ensure that comprehensive stress management strategies and programs are in place and available to all emergency responders, support personnel, and healthcare professionals	
Res.C1b 1.4.2	Develop medical mutual aid agreements for medical facilities and equipment	
Res.C1b 1.15.4	Develop surge capacity plans for Acute Care hospitals	
Res.C1b 1.15.5	Coordinate with community healthcare systems when developing surge capacity plans for Acute Care hospital	
Res.C1b 1.14.2	Ensure facility based evacuation plans include identification of receiving facilities and transportation assets. Transportation assets should be coordinated and planned out with response partners	
Res.C1b 1.14	Develop healthcare system evacuation plans to include receiving facilities and transportation assets that are coordinated on a regional basis	
Res.C1b 1.14.1	Identify adequate evacuation transportation assets and receiving facilities with adequate assets	
Res.C1b 1.15.3	Develop plans to mitigate identified hazards to medical treatment facilities	
Res.C1b 1.11.3	Develop electronic medical records for recording treatment provided and patient self-reporting	
Res.C1b 1.3.11	Develop plans to identify staff, and equipment and resources to operate alternate care facilities	
Res.C1b 1.15.1	Develop plan to restrict access and secure healthcare and surge facilities	
Res.C1b 1.5.6	Develop a local/State regional pharmaceuticals management system that captures current inventory of Metropolitan Medical Response System, Health Resources and Services Administration-hospital, CHEM-PACK caches; ensures a sufficient supply of pharmaceuticals to provide prophylaxis for 3 days to first responders and their families, other key incident response/management personnel, and the general public as determined by local authorities; and tracks the dispensing of pharmaceuticals during the incident	
Preparedness Measures		Metrics
The healthcare system has the capacity to complete triage, treatment, and initially stabilize 500 cases per million population for patients with symptoms of acute infectious disease – especially smallpox, anthrax, plague, tularemia, and influenza		Yes/No
The healthcare system has the capacity to complete triage, treatment, and initially stabilize 50 cases per million population for patients with symptoms of acute botulinum intoxication, acute chemical poisoning, and nerve agent exposure		Yes/No
The healthcare system has the capacity to complete triage, treatment, and initially stabilize 50 cases per million population for patients suffering burn or trauma		Yes/No
The healthcare system has the capacity to complete triage, treatment, and initially stabilize 50 cases per million population for patients manifesting the symptoms of radiation-induced injury – especially bone marrow suppression		Yes/No
A process is in place to project the demand for Medical Surge (e.g. how many people will need treatment, how long it will take to secure facilities).		Yes/No
A scalable patient tracking system is in place		Yes/No
Plan for community based surge hospital bed surge capacity is in place		Yes/No
A 50-bed nursing subunit – per 50,000 population – can be staffed		Yes/No
At least one healthcare facility that is identified in each defined sub-State region is able to		Yes/No

support initial evaluation and treatment of at least 10 total adult and pediatric patients at a time in negative pressure isolation within 3 hours from the event	
All acute care hospitals have capacity to maintain, in negative pressure isolation, at least one suspected case of a highly infectious disease or a febrile patient with a suspect rash or other symptoms of concern who might be developing a highly communicable disease	Yes/No
Sufficient supply of pharmaceuticals are stored at the healthcare facility to provide prophylaxis for 3 days to hospital personnel (medical and ancillary staff), their family members, and hospital based emergency first responders and their families	Yes/No
Sufficient supplies of Personal Protective Equipment are available for current and surge healthcare personnel to work safely within the limits defined by their SOPs	Yes/No
Secure and redundant communications system that provide connectivity during a catastrophic event among healthcare facilities and all other responder disciplines at all jurisdictional levels is in place	Yes/No
Updated medical surge plans have been developed in conjunction with critical multi-disciplinary partners (public health, emergency management agency (EMA), law enforcement, etc.)	Yes/No
Plans address the use of existing facilities (e.g. hospitals, clinics, extended care facilities)	Yes/No
Plans address the identification and setting up of additional facilities (e.g. provision of personnel, equipment, pharmaceuticals) when needed.	Yes/No
Plans address patient and resource transportation (e.g. identification and availability of traditional and non-traditional resources).	Yes/No
Plans address facility based evacuation (e.g. identification of receiving facilities, coordination of transportation assets).	Yes/No
Plans to operate without public utilities for 72 hours are in place	Yes/No
Plans for the set up, staffing, and operation of alternate care facilities are in place	Yes/No
Plans address the treatment of Medical Surge personnel, site staff, and their families (e.g. medical needs, stress management strategies).	Yes/No
Plans address dissemination of accurate, timely, accessible information to public, media, support agencies	Yes/No
A data base to track the status of medical surge resources (e.g. medications, medical professionals) is in place or accessible	Yes/No
A local regional/State regional pharmaceuticals management system is in place that captures current inventory of Metropolitan Medical Response System, Health Resources and Services Administration-hospital, CHEM-PACK caches	Yes/No
A local regional/State regional pharmaceuticals management system is in place that ensures a sufficient supply of pharmaceuticals to provide prophylaxis for 3 days first responders and their families, and other key incident response/management personnel and the general public as determined by local authorities	Yes/No
A local regional/State regional pharmaceuticals management system is in place that tracks the dispensing of pharmaceuticals during the incident	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>		
Critical Tasks		
Res.C1b 2.1.6	Train designated hospital personnel in National Incident Management System (NIMS), National Response Plan (NRP) and Incident Command System (Hospital Incident Command System)	
Res.C1b 2.2.4	Exercise healthcare system, in compliance with appropriate national, State, and local guidance	
Res.C1b 2.2.3	Develop and/or implement training, preparedness and exercise programs based on local risk vulnerability assessment, and lessons learned	
Res.C1b 2.1.7	Train designated hospital personnel in recognition and treatment of chemical, biological, radiological, nuclear, and explosive (CBRNE) hazards	
Res.C1b 2.2.5	Exercise medical surge plans	
Res.C1b 2.1.1	Develop and conduct competency-based education and training programs for adult and pediatric pre-hospital, hospital, and outpatient healthcare personnel	
Res.C1b 2.1.2	Develop program to train medical and non-medical personnel	
Res.C1b 2.1.3	Develop program to train health professions students	
Res.C1b 2.2.1	Evaluate emergency management plans through training and multiple methods including drills and exercises at tribal, local, State and national levels	
Res.C1b 2.2.2	Exercise all plans on an annual basis to demonstrate proficiency in responding to bioterrorism, other infectious disease outbreaks and other public health threats and emergencies	
Res.C1b 2.1.5	Develop just-in-time training programs healthcare workers for unfamiliar critical job functions, and Personal Protective Equipment for specific threats	
Preparedness Measures		Metric
Hospitals utilize competency-based education and training programs for all hospital personnel responding to a terrorist incident or other public health emergency		Yes/No
Percent of hospitals that are NIMS/Incident Command System compliant		100%
Percent of acute care facilities that participate in exercises consistent with national and Joint Commission on Accreditation of Healthcare Organizations requirements		75%
Hospitals and their healthcare partners have an exercise program that conforms with Joint Commission on Accreditation of Healthcare Organizations, Health Resources and Services Administration, Center for Disease Control (CDC), NIMS, and Homeland Security Exercise and Evaluation Program (HSEEP) requirements		Yes/No
State participates in Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Program		Yes/No

Performance Tasks and Measures/Metrics

Activity: Direct Medical Surge Tactical Operations	
Definition: In response to notification of mass casualty incident, provide overall management and coordination of medical surge operations.	
Critical Tasks	
Res.C1b 3.7.1	Implement incident response communications within the healthcare system
Res.C1b 3.4.1	Execute medical mutual aid agreements
Res.C1b 3.6	Provide coordination and support for medical care through incident command/ emergency operations center in accordance with the NIMS
Res.C1b 3.6.4.1	Coordinate public health and medical services for those individuals who have been isolated or quarantined
Res.C1b 3.7.2	Provide consistent, accurate and relevant public health and medical information to clinicians, other responders, and the public in a timely manner
Res.C1b 3.7.3	Coordinate with Emergency Public Information to disseminate public health and safety information to the public to improve provision of home healthcare
Res.C1b 3.4.5	Implement emergency credentialing and privileging procedures
Performance Measures	Metric
Policies are implemented for security of healthcare facilities and its perimeter during a mass casualty incident or large scale public health emergency	Yes/No
Percent of hospitals in the local regional incident impact area that support the incident recognizing that most regions will only have a couple of hospitals	90%
Timely public health information is disseminated to improve provision of home healthcare and other personal, family, and employer actions	Yes/No
Time in which National Disaster Medical System (NDMS) and other hospital asset reporting and tracking systems are activated	Within 60 minutes from the incident
Time in which deployment actions for the Health and Human Services (HHS) Incident Response Coordination Team are initiated	Within 4 hours from the incident
Time in which the State medical coordinating system is activated	Within 2 hours from notification of the incident
Time in which Federal ESF 8 assets are activated	Within 6 hours from notification of the incident
Time in which deployment actions for the National Disaster Medical System (NDMS) Disaster Medical Assistance Teams (DMAT) are initiated	Within 6 hours from incident
Time in which deployment actions for the National Disaster Medical System (NDMS) Disaster Medical Assistance Teams (DMAT) equipment caches are initiated and activated	Within 24 hours from the incident

Activity: *Activate Medical Surge***Definition: In response to a mass casualty incident, activate medical surge through implementation of surge plan****Critical Tasks**

Res.C1b 4.1	Activate healthcare system incident command
Res.C1b 4.4	Consider the implementation of altered standards of care
Res.C1b 4.6	Activate medical surge plans, procedures, and protocols to ensure medical treatment for populations requiring specialized assistance

Performance Measures**Metric**

Medical Surge plans are implemented	Yes/No
Personnel are available to augment treatment facilities	Yes/No
Time in which, for cases of a Catastrophic Incident Supplement (CIS) activation, Department of Veteran Affairs (VA) Primary Receiving Centers (PRCs) within 500 miles of an incident venue prepare to terminate non-critical medical services and redirect available resources for receipt of patients at VA medical facilities. Department of Defense (DOD) facilities in the United States will respond under the National Response Plan Pursuant to a Request for Assistance approved by the Secretary of Defense or when directed by the President. DOD facilities within close proximity of the event may be able to render assistance under "Immediate Response Authority."	Within 24 hours from CIS activation
Development of a reconstitution plan is initiated upon identification of Planning Section Chief	Yes/No

Activity: *Implement Surge Patient Transfer Procedures***Definition: Transition from pre-event bed utilization to access surge capabilities****Critical Tasks**

Res.C1b 5.2	Activate alternative care sites and overflow emergency medical care facilities to manage hospital surge capacity
Res.C1b 5.3	Provide knowledge or visibility of available destination medical care facilities/services and tracking for mass movement of patients, ensuring patients are matched with transportation and destinations that provide appropriate levels of medical care

Performance Measures**Metric**

Systems are in place to identify patients able to be transferred	Yes/No
Time in which patients to discharge are identified	Within 6 hours from notification of requirement to move patients
Resources are available to provide tracking and mass movement of patients	Yes/No
Patient transfers are coordinated with local or State Emergency Operations Center (EOC)	Yes/No
Time in which traditional and non-traditional emergency transport vehicles are	Within 3 hours from

activated	notification
Percent of level of coordination with patient tracking system	100%

Activity: *Implement Surge Staffing Procedures*

Definition: Maximize staffing levels in accordance with medical surge plans

Critical Tasks	
Res.C1b 6.1	Activate healthcare workers' and volunteers' call systems
Res.C1b 6.3.1	Support medical surge capability by using volunteer resources
Res.C1b 6.2.1	Mobilize incident-specific medical treatment personnel for pediatrics and adults
Res.C1b 6.2.2	Mobilize non-medical support personnel
Res.C1b 6.3	Assess initial and ongoing need for medical specialists and augment as needed
Res.C1b 6.5	Provide just-in-time training for staff performing non-standard duties
Res.C1b 6.4	Coordinate staff transportation and staging through the State and local EOC
Res.C1b 6.3.2	Coordinate response staffing with Medical Reserve Corps, Metropolitan Medical Response System, Federal and interstate resources, and nongovernmental organizations and faith-based groups
Performance Measures	
Percent of healthcare organizations involved in surge that implement call-back procedures	Metric 100%
Just-in-time materials and instructions are developed and distributed	Yes/No

Activity: *Receive and Treat Surge Casualties*

Definition: Receive mass casualties and provide appropriate clinical care

Critical Tasks	
Res.C1b 7.1.2	Provide treatment appropriate to nature of incident and number of injured/ill
Res.C1b 7.3.1	Ensure adequacy of medical equipment and supplies in support of immediate medical response operations and for restocking supplies/equipment requested
Res.C1b 7.3.3	Coordinate and integrate with local, Federal, and State ESF 8
Res.C1b 7.2.3	Implement comprehensive stress management strategies and programs for all emergency responders and workers
Res.C1b 7.1.3	Provide short-term mental health and substance abuse behavioral health services to the community
Performance Measures	
Systems are in place to accrue supplies, pharmaceuticals, and equipment to support facility surge capacity	Metric Yes/No
Percent of patients for whom decontamination is confirmed prior to facility access	100%

Percent of patients and responders identified, screened, and monitored after an event	100%
Percent of patients tracked from arrival at healthcare system through duration of medical care	100%

Activity: Demobilize Medical Surge

Definition: Prepare to return healthcare system to normal operations

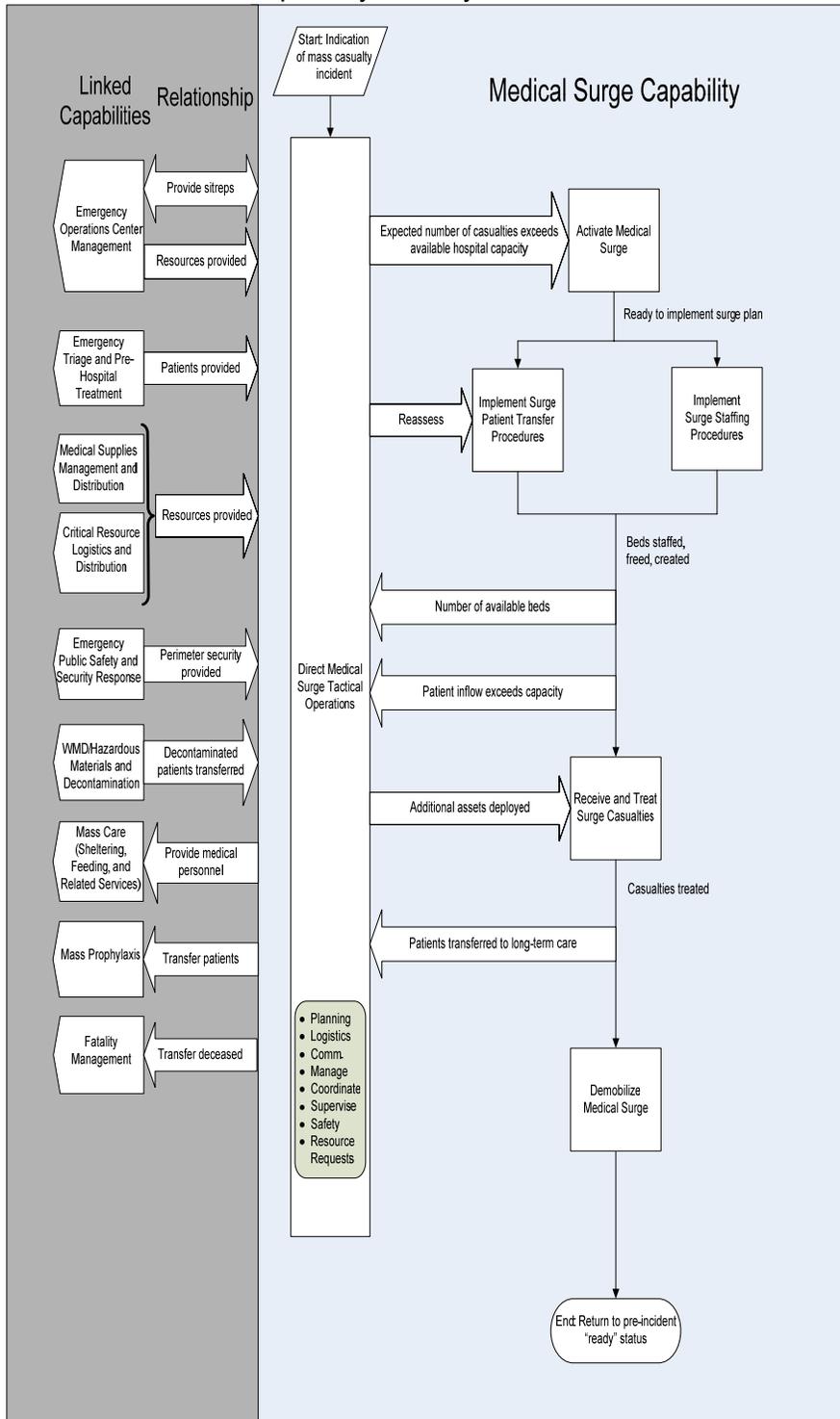
Critical Tasks

Res.C1b 8.1	Transition from surge to normal operations
Res.C1b 8.2	Implement plan for reconstitution of healthcare system capabilities
Res.C1b 8.3	Conduct After-Action Reviews and prepare report
Performance Measures	
Percent of healthcare system conducting an After-Action Review	Metric 100%

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Medical Surge and Emergency Operations Center Management provide one another with situation reports. Emergency Operations Center Management also provides resources to Medical Surge as needed.
Emergency Triage and Pre-Hospital Treatment	Medical Surge capability receives patients from Emergency Triage and Pre-Hospital Treatment.
Medical Supplies Management and Distribution	Medical Surge capability receives medical resources from Medical Supplies Management and Distribution.
Critical Resource Logistics and Distribution	Medical Surge capability receives resources from Critical Resource Logistics and Distribution.
Emergency Public Safety and Security Response	Medical Surge receives perimeter security from Emergency Public Safety and Security Response.
WMD/Hazardous Materials and Decontamination	Medical Surge receives decontaminated patients from WMD/Hazardous Materials and Decontamination.
Mass Care (Sheltering, Feeding, and Related Services)	Medical Surge provides medical personnel to Mass Care (Sheltering, Feeding, and Related Services) to conduct treatment of people in shelters.
Mass Prophylaxis	Medical Surge sends patients to Mass Prophylaxis to receive appropriate protection (countermeasures) and treatment.
Fatality Management	Medical Surge capability provides remains to Fatality Management.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Surge bed capacity for infectious disease treatment	Beds above the daily bed capacity for triage treatment and initial stabilization for patients requiring hospitalization with symptoms of acute infectious disease
Other surge bed capacity	Beds above the daily bed capacity for triage treatment and initial stabilization for patients requiring hospitalization with: (1) symptoms of acute botulinum intoxication or other acute chemical poisoning; (2) suffering from burns or trauma or (3) symptoms of radiation-induced injury—especially bone marrow suppression
Surge Healthcare Staff Unit	Minimum staffing level for an acute care center (50-bed nursing subunit) per 12-hour shift: 1 physician, 1 physician’s assistant (PA) or nurse practitioner (PN), 6 registered nurses (RN) or a mix of RNs and licensed practical nurses (LPN), 4 nursing assistants/nursing support technicians, 2 medical clerks (unit secretaries), 1 respiratory therapist, 1 case manager, 1 social worker, 1 housekeeper, and 1 patient transporter. Staffing levels will vary and be incident specific. Staffing and support functions will be more efficient as similar patients are treated at individual facilities.
Isolation capacity (1-person)	The capacity to maintain, in negative-pressure isolation, at least one suspected case of a highly infectious disease or a febrile patient with a suspect rash or other symptoms of concern who might be developing a highly communicable disease.
Isolation capacity (10-person)	The capacity to support the initial evaluation and treatment of at least 10 total adult and pediatric patients at a time in negative-pressure isolation.
Regional pharmaceutical cache system	A local regional/State regional pharmaceuticals management system that captures current inventory of Health Resources and Services Administration-hospital, Metropolitan Medical Response System, CHEM-PACK caches; ensures a sufficient supply of pharmaceuticals to provide prophylaxis for 3 days for first responders, their families, other key incident response/management personnel, and the general public as determined by local authorities; and tracks the dispensing of pharmaceuticals during the incident.
Personal protective equipment (PPE)	Adequate personal protective equipment to protect current and additional healthcare personnel. The quantity and type of PPE will be established based on a health vulnerability assessment (HVA) and the level of decontamination that is being designed.
Secure and redundant communications system	Secure and redundant communications system ensures connectivity during a catastrophic incident among healthcare facilities, State and local health departments, emergency medical services, emergency management agencies, public safety agencies, neighboring jurisdictions, and Federal ESF#8 elements. .
Data reporting system	System to report data

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Pandemic Influenza scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This capability may require support from multiple ESFs and capabilities.
- HHS Secretary can lift Emergency Medical Treatment and Active Labor Act (EMTALA) requirements for 72 hours.
- Each State should review with HHS other restrictions that may need to be lifted or minimized during the time of an emergency such as Critical Access Hospitals, Health Insurance Portability and Accountability Act and Medicare and Medicaid rules.
- Triage done in the field will have a significant impact on the subsequent healthcare surge capacity system.
- This capability applies to a wide range of incidents and emergencies including accidental or deliberate disease outbreaks, natural disasters, nuclear, chemical, and conventional explosive events.
- The professionals listed in the following have basic skill sets commensurate with their professional training and experience qualified by professional licensure and/or industry standards.
- There will be a significant problem locating and providing information on displaced family members as well as victims at treatment facilities.
- Federal, State, and local Emergency Response Plans are activated.
- Non-Federal hospitals of the National Disaster Medical System, as well as Department of Veteran's Affairs (VA) Primary Receiving Center (PRCs) within the local vicinity of the incident are authorized to provide definitive care to casualties of a catastrophic mass casualty incident. DOD facility support is available in response to a Request for Assistance that has been approved by Secretary of Defense or the President
- Public Health Emergency and Stafford declaration will be utilized to enable the Secretary of the Department of Health and Human Services (HHS) to invoke Emergency Hiring Authority and additional resources for additional healthcare assets.
- Alternative Care Facilities (ACFs) are community based medical facilities such as ambulatory surgical centers, which can be rapidly mobilized for medical surge. ACFs are typically buildings that serve a medically-related purpose when not requisitioned for use in an emergency to house patients.
- Ambulatory Care Centers (ACCs) are buildings of opportunity which can be resourced and staffed to provide medical care. The Federal Medical Contingency System (FMCS) can also be incorporated within this structure. These are community facilities that do not necessarily provide a medical function outside of an emergency, but have the space and access needed to house patients (armories, auditoriums, conference centers, firehouses, etc.)
- Response to the overwhelming demand for services will require non-standard (Altered Standards of Care) approaches, including: discharge of all but critically ill hospital patients, expansion of hospital "capacity" by using all available space, less than code compliance beds, relaxation of practitioner licensure requirements as deemed appropriate, such as ratio of staff to patients, and utilization of general purpose and special needs shelters as temporary health facilities.
- Secondary bacterial infections following any mass casualty event will stress antibiotic supplies.
- There will be critical shortages of healthcare resources such as staff, hospital beds, mechanical ventilators, morgue capacity, temporary holding sites with refrigeration for storage of bodies and other resources.
- Routine medical admissions for acute medical and trauma needs will continue.
- Alternate healthcare facility plans are implemented.

Target Capabilities List

- Emergency Use Authorities will be sought.
- Victims and responder monitoring and treatment may be required over a long time frame.
- There may be a denigration of healthcare staff numbers for a variety of causes.
- A large number (75 percent plus) of victims could self-present without field triage or evaluation.
- The “normal” supply chain will likely be disrupted.
- Hospital logistical stores will be depleted in the early hours from any large scale event.
- Blood supplies will be taxed and significant regional shortages could materialize quickly following a catastrophic incident. Blood manufacturing, infectious disease-testing, and distribution of tested blood will be problematic.
- There will be a significant increase and demand for specialty healthcare personnel and beds (biological contagious, burn, trauma, pediatrics) depending on the specific event.
- A large number of patients may self-refer to a healthcare facility requiring decontamination.
- Healthcare providers are subject to the effects of disasters and may need decontamination, prophylaxis, or immunization measures before being able to perform their response roles.
- Patient transportation to and from airheads and medical treatment facilities (MTFs) will be problematic due to excessive congestion on local roads and limited patient movement alternatives (e.g. rotary wing lift).
- Public anxiety related to a catastrophic incident will require effective risk communication and may require mental health and substance abuse services.
- During a catastrophic incident, medical support will be required not only at medical facilities, but in large numbers at casualty evacuation points, evacuee and refugee points, and shelters as well as to support field operations.
- The DHS National Disaster Medical System (NDMS) and HHS U.S. Public Health Service (USPHS) Commissioned Corps assets will be the first Federal health and medical assets to arrive on the scene of a catastrophic event. Although they may not arrive at all.
- Sub-State regions are able to provide and sustain medical surge capacity in a large-scale public health emergency or bioterrorism event. Ideally, each sub-State region will contain one acute care hospital, one emergency medical services agency, and one public health department/district and work with a multitude of various public agencies as well as private and faith based groups, all of which would respond to a wide-scale event.

Scenario-Specific

Pandemic Influenza:

- Pandemic is pervasive and not localized.
- Worst case scenario would produce 733,000 patients hospitalized on any given day.
- Up to 20 percent of those hospitalized (146,600 patients) are critical and will each require a critical care bed and mechanical ventilation, necessitating staff to patient ratios of 1:2 registered nurses (RN) (73,300 RNs), 1:10 physicians (14,660 MDs); 1:5 respiratory therapists (29,320 RTs). Ratios should be consistent with State/sub-State regions
- 80 percent of those hospitalized (586,400 patients) are non-critical and will require a general medical bed, necessitating patient to staff ratios of 1:40 physician (14,660 MDs) and 1:20 RN (29,320 RNs).
- Vaccine availability will be insufficient and time to produce additional vaccine unacceptably long.
- Antiviral drug production will be surged.
- Strategic National Stockpile (SNS) will be depleted.
- 42 million outpatient visits need to be provided with antivirals, antipyretics, analgesics
- 50 million at home on self care are on over-the-counter (OTC) only.

- 1 percent of the hospitalized patient population (7,338) warrants transfer from one healthcare facility to another more than 100 miles.
- 50 percent of the transferring patient population (3,669) will require transfer during one two-month period; the other half (3,669) during a separate two-month period; averaging 61 patients per day, with surging to 200 patients per day for one week.
- 10 percent of transferring patients (total of 733 patients over/during the entire scenario) could travel by commercial means sans medical attendance en route.
- 50 percent are ambulatory (total 3,669) but require medical attendance en route at a rate of 1 nurse per 50 patients.
- 40 percent are restricted to litters (total 2,936) and require medical attendance at a rate of 1 nurse per 20 patients.
- 50 percent of litter patients are critical and require ventilation and 1 nurse per patient (1,468).
- There is a critical need for containment measures to prevent additional disease spread. Specific counter measures such as social distancing, masks, and hand hygiene should be instituted.
- Because of the limited supply and production capacity, there is a need for explicit prioritization of influenza vaccine based on the risk of influenza complications, the likelihood of benefit from vaccination, role as an influenza pandemic responder, and impact of the pandemic on maintenance of critical infrastructure.
- Persons of all ages will likely need 2 doses of vaccine, 3-4 weeks apart in order to be protected.
- Primary prevention including masks, hand hygiene, and social isolation may be the primary mode of preventing the spread of disease if vaccine and viral agents are not available in adequate quantities.

Chemical:

- Most likely route of introduction of a chemical exposure in a mass casualty event will be inhalation.
- There will be a delay in the identification of the chemical.
- All chemicals are toxic depending on the concentration and time spent in that concentration.
- Medical treatment facilities have inadequate decontamination capabilities.
- Chemical events will result in immediate and potentially life threatening injuries.
- Appropriate response will rely on rapid decontamination and a locally deployable, pharmaceutical cache. (i.e., Chempack or Metropolitan Medical Response System)
- Many potential victims may present themselves to healthcare facilities requiring decontamination.

Nuclear Detonation:

- Triage will be a major issue for care providers.
- Decontamination and monitoring will be a major issue.
- As a rule of thumb, the sooner the onset of symptoms and the higher the dose received the less likely the victim will survive.
- Generally, invasive (open) procedures should be performed within the first 48 hours on those receiving significant doses of radiation exposure due to follow on progressive immunocompromised state.
- Critical infrastructure and personnel will be damaged and rendered ineffective for a three mile radius.
- Tens of thousands will require decontamination and both short-term and long-term treatment.
- The evacuated population will require shelter and food for an indefinite time.
- Healthcare facilities and emergency workers in the affected area will be overwhelmed.

- There will be a significant psychological impact on survivors creating long term mental health demands.
- The effects of the radiation will be prevalent for years creating long term health issues.
- Healthcare facilities involved in the affected area will have to be replaced and relocated.
- Triage may identify a significant number of patients who have received lethal doses of radiation with zero chance of survivability who will require palliative care only.
- There is a lack of palliative care resources and planning for large numbers of victims.
- Timely and accurate emergency public health information/crisis information news releases are vital for mitigation and prevention of further health issues.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Pandemic Influenza)

Resource Element	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Surge bed capacity for infectious disease treatment		733,000 patients hospitalized on a given day	Bed capacity above the current daily staffed bed capacity to allow for triage, treatment, and initial stabilization for 500 cases per million population for patients with symptoms of acute infectious disease
Other surge bed capacity			Bed capacity above the current daily staffed bed capacity to allow for triage, treatment, and initial stabilization for: 50 cases per million population for patients with symptoms of acute botulinum intoxication, acute chemical poisoning, and nerve agent exposure 50 cases per million population for patients suffering from burns or trauma 50 cases per million population for patients manifesting the symptoms of radiation-induced injury—especially bone marrow suppression
Surge Healthcare Staff Unit	Staff teams needed per 12-hour shift		
Regional pharmaceutical cache system			
Personal protective equipment (PPE)			The quantity and type of PPE will be established based on a hazardous vulnerability analysis (HVA) and the level of decontamination that is being designed
Secure and redundant communications system			

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Beds - Surge capacity for infectious disease treatment	Equipment	500	Per million population	Federal/State/Local (City, Intrastate region)	Receive and Surge Treat Casualties
Beds - Surge capacity for other treatment	Equipment	50	Per million population	Federal/State/Local (City, Intrastate region)	Receive and Surge Treat Casualties
Surge Healthcare Staff Unit (Option 1 – for establishing acute care center)	Non-NIMS Resource Organization	2	Per 50-bed unit	Local (Intrastate region)	Receive and Surge Treat Casualties
Surge Healthcare Staff Unit (Option 2 - for surge support to existing healthcare facility)	Non-NIMS Resource Organization	1	Per surge bed assuming a 1:4 staff to patient ratio	Local (Intrastate region)	Implement Surge Staffing Procedures Receive and Surge Treat Casualties
Surge Healthcare Staff Unit (Option 2 - for surge support to existing healthcare facility)	Non-NIMS Resource Organization	1.4	Per surge bed assuming a 1:6 staff to patient ratio	Local (Intrastate region)	Implement Surge Staffing Procedures Receive and Surge Treat Casualties
Isolation capacity (1-person)	Equipment	1	Per Healthcare facility	Local (Intrastate region)	Receive and Surge Treat Casualties
Isolation capacity (10-person)	Equipment	1	Per Regional healthcare facility	State	Receive and Surge Treat Casualties
Regional Pharmaceutical cache system	Equipment	1	Per Public health region	State	Receive and Surge Treat Casualties
Personal protective equipment (PPE)	Equipment	1	Per Healthcare provider (person)	State/Local (City, Intrastate region)	Receive and Surge Treat Casualties

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>
2. National Response Plan. U.S. Department of Homeland Security. December 2004.

3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Resource Typing Definitions–I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
5. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
6. Medical Personnel Exposed to Patients Contaminated With Hazardous Waste. Standard interpretation. Occupational Safety and Health Administration. March 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20609.
7. OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances. Occupational Safety and Health Administration. January 2005. http://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html.
8. Altered Standards of Care in Mass Casualty Events. AHRQ Publication No. 05–0043. Agency for Healthcare Research and Quality. April 2005. <http://www.ahrq.gov/research/altstand/>.
9. DHS, Office for Domestic Preparedness. Metropolitan Medical Response System (MMRS) Program. <http://fema.mmrs.gov>
10. Model Trauma System Planning and Evaluation, self-assessment tool for States, Department of Health and Human Services, Health Resources and Services Administration, <http://www.hrsa.gov/trauma/model.htm>, February 2006.

MEDICAL SUPPLIES MANAGEMENT AND DISTRIBUTION

Capability Definition

Medical Supplies Management and Distribution is the capability to procure and maintain pharmaceuticals and medical materials prior to an incident and to transport, distribute, and track these materials during an incident.

Outcome

Critical medical supplies and equipment are appropriately secured, managed, distributed, and restocked in a timeframe appropriate to the incident.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

- ESF #1: Transportation
- ESF #2: Communications
- ESF #5: Emergency Management
- ESF #7: Resource Support
- ESF #8: Public Health and Medical Services
- ESF #13: Public Safety and Security
- ESF #14: Long-Term Community Recovery and Mitigation
- ESF #15: External Affairs

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Res.C1c 1.2	Develop plans for establishing staging areas for internal and external medical response personnel, equipment, and supplies
Res.C1c 1.2.3	Establish strategies for transporting materials through restricted areas, quarantine lines, law enforcement checkpoints and so forth that are agreed upon by all affected parties
Res.C1c 1.3	Obtain demographic/health-related data to plan for the types of medications, durable medical equipment, or consumable medical supplies that may need to be provided during an event (including supplies needed for populations requiring functional or medical care)
Res.C1c 1.1.1	In coordination with the appropriate agencies, develop processes for ensuring the distribution of medical supplies to shelters
Res.C1c 1.4	Establish procedures for billing and reimbursement of the medication/equipment/supplies that are dispensed

Preparedness Measures	Metrics
Emergency public health and medical material distribution plans are in place	Yes/No
Hazard-specific response plan identifies and prioritizes resource needs	Yes/No
Plans for the procurement, rotation and maintenance of Federal, State, local stockpiled assets or private/commercial inventories are implemented	Yes/No
Plans address storage of supplies (e.g. secure, climate controlled).\	Yes/No
Medical treatment facilities and State, county and local governments have coordinated with medical distributors to develop preplanned worst-case scenario orders that reflect differing needs for various possible scenarios (chemical, biological attacks, natural disaster)	Yes/No
Frequency with which pre-plan worst-case scenario orders are reviewed and updated	Every 6 months
Processes for obtaining and distributing medication, DME, and/or CMS address what medication/equipment/supplies should be stockpiled versus obtained just in time	Yes/No
Processes for obtaining and distributing medication, DME, and/or CMS address sources of medication/equipment/supplies (e.g., vendors, medical facilities, strategic stockpiles)	Yes/No
Processes for obtaining and distributing medication, DME, and/or CMS address staging locations and distribution sites	Yes/No
Processes for obtaining and distributing medication, DME, and/or CMS address transport of medication/equipment/supplies to staging locations and distribution sites	Yes/No
Processes for obtaining and distributing medication, DME, and/or CMS address re-supply of medication/equipment/supplies	Yes/No
Medical treatment facilities and State, county and local government plans reflect input from local and regional sources of potential medical supplies and pharmaceuticals to lower dependency on Federal assets	Yes/No
Plans for assuring physical security of medical materiel in transport and distribution are in place	Yes/No
Distributors' plans and logistical systems to identify potential sources of excess in their supply chains that might be diverted to higher need locations are in place	Yes/No
Manufacturers memoranda of understanding (MOUs) to determine collective inventory accessibility and to ramp up manufacturing capability as needed are in place	Yes/No
Frequency with which the Federal Government receives updates from distributors and manufacturers on the status of critical items that would prove necessary in a large scale incident with the focus on likely shortage and bottleneck situations	Every 3 months
Increased inventory levels of critical items are maintained by medical suppliers, equipment, and pharmaceutical manufacturers and distributors working in conjunction with the government	Yes/No
Stockpile includes supplies and pharmaceuticals for special populations (i.e. pediatrics and geriatrics)	Yes/No
Jurisdiction has identified locally available sources of critical medical supplies to use prior to arrival of external (State/Federal) resources	Yes/No
Jurisdiction has acquired and established access, through memoranda of understanding (MOUs), contracts or established supply depots, to effective pharmaceuticals (including medical gases) and medical material in accordance with forecasted needs	Yes/No

Plans address unused resources and disposal of waste materials generated by medical supplies warehousing operations.	Yes/No
--	--------

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.C1c 2.1.1	Provide training on various types and models of medical supplies likely to be used in an emergency situation through government grants and industry-sponsored workshops	
Res.C1c 2.2.1	Establish and regularly exercise plans for transporting medical material assets at the Federal, State, local, and private/commercial levels with specific focus on their transfer between various levels or organizations	
Preparedness Measures		Metric
Frequency with which NIMS-compliant courses are held to train emergency coordinators on plans and procedures		Every 12 months
Frequency with which NIMS-compliant exercise is conducted to ensure that plans and procedures are understood and executable		Every 12 months

Performance Tasks and Measures/Metrics

Activity: *Direct Medical Supplies Management and Distribution Tactical Operations*

Definition: In response to a need for medical assets, provide overall management and coordination for Medical Supplies Management and Distribution

Critical Tasks

Res.C1c 3.1	Provide medical supply management and distribution support to incident response operations according to Incident Management Team (IMT) assignments in the incident action plan (IAP)
Res.C1c 3.2.1	Request Strategic National Stockpile assets from Centers for Disease Control
Res.C1c 3.2.3	Coordinate and obtain external resources for sustained operations of medical supplies management and distribution
Res.C1c 3.4	Maintain communications with transportation vendors during distribution of medical supplies
Res.C1c 3.2.4	Coordinate acquisition of private source medical supplies
Res.C1c 3.2.5	Coordinate with medical surge operations and the American Association of Blood Banks (AABB) Task Force to identify supply levels at the supporting medical facilities for the incident
Res.C1c 3.3	Monitor supply usage and stockpile levels of health facilities, mass prophylaxis sites, and other critical care venues
Res.C1c 3.2.7	Ensure the timely provision of medical supplies to shelters and mass care and medical facilities
Res.C1c 3.2.8	Provide personnel for shelters and mass care and medical facilities
Res.C1c 3.2.6	Monitor stockpiles levels of medical supplies maintained by private sources
Res.C1c 3.3.1	Process and manage requests for additional medical supply personnel or equipment

Res.C1c 3.2	Provide logistics support for medical supplies management and distribution	
Res.C1c 3.5	Provide for financial management and reimbursement of medical supplies	
Res.C1c 3.5.1	Coordinate with Center for Disease Control for return of unused Federal assets	
Performance Measures		Metric
Time in which Strategic National Stockpile (SNS) is requested following medical surveillance indication of requirement		Within 6 hours from indication

Activity: <i>Activate Medical Supplies Management and Distribution</i>		
Definition: Upon identification of medical resource shortfalls and/or SNS deployment, activate warehousing operations		
Critical Tasks		
Res.C1c 4.1	Establish medical supplies warehouse management structure	
Res.C1c 4.2	Activate warehousing operations for receipt of medical assets	
Res.C1c 4.3	Identify needed transportation assets for medical supplies	
Res.C1c 4.4	Identify Technical Advisory Response Unit (TARU) team resource needs	
Res.C1c 4.5	Provide and coordinate the use of emergency power generation services at medical supply warehouse locations	
Performance Measures		Metric
Time in which Federal medical assets warehouse are activated and fully staffed		Within 6 hours from approved request
Time in which local supplies arrive at warehouse (to be used until Federal/State assets arrive)		Within 2 hours from request
Percent of medical supplies and pharmaceuticals that are properly maintained and arrived in undamaged, serviceable condition and within the expiration date indicated on each container (bottle, case, vial, etc.)		100%
Time in which backfill of medical support packages from Strategic National Stockpile (SNS) is initiated		Within 36 hours

Activity: <i>Establish Security</i>		
Definition: Upon activation of warehouse, activate Medical Supplies Management and Distribution Security Plan		
Critical Tasks		
Res.C1c 5.3.1	Execute plan for credentialing medical supplies personnel	
Res.C1c 5.2.1	Ensure security meets medical assets at point of entry into State	
Res.C1c 5.3.2	Identify locations that require increased security within the warehouse (such as controlled substance storage areas)	
Res.C1c 5.2.2	Establish security checkpoints in vicinity of medical supplies warehouse and at staging areas	

Performance Measures	Metric
Percent of appropriate security (e.g. U.S. Marshals, state police, county sheriff, city police) and credentialing provided at all steps of transportation of pharmaceuticals and supplies	100%

Activity: *Repackage and Distribute*

Definition: After delivery of medical assets to warehouse facility, repackage pharmaceuticals and other assets and distribute to Points Of Distribution (PODs) and other health facilities

Critical Tasks

Res.C1c 6.2	Assemble medical supplies warehouse teams (receiving, order management, picking, packaging, quality control, and shipping)
Res.C1c 6.3	Inventory medical supplies warehouse resource levels
Res.C1c 6.4	Provide quality control/quality assurance for requested medical assets prior to shipping
Res.C1c 6.5	Track re-supply requests for medical supplies
Rec.C1c 6.6	Distribute medical supplies to Points of Distribution (POD), health facilities, and shelters
Performance Measures	Metric
Time in which medical resources/SNS at warehouse arrive at points of distribution (PODs)	Within 12 hours from arrival at warehouse
Time in which additional medical assets are delivered to POD or other health facility	Within 36 hours from approval of request for re-supply

Activity: *Recover Medical Resources*

Definition: As warehousing activities diminish, activate plan to recover unused medical resources

Critical Tasks

Res.C1c 7.1	Ensure recovery of unused (unopened) pharmaceuticals from Receipt, Storage and Staging site (RSS), and unused pharmaceuticals and durable items from mass prophylaxis sites
Res.C1c 7.2	Distribute unused but open medical resources within the local health system according to local policies and plans
Performance Measures	Metric
Percent of unused medical assets recovered	100%

Activity: *Demobilize Medical Supplies Management and Distribution*

Definition: Inventory, reorganize, and reconstitute stockpiles to return to pre-incident levels, and release personnel from Medical Supplies Management and Distribution duties

Critical Tasks

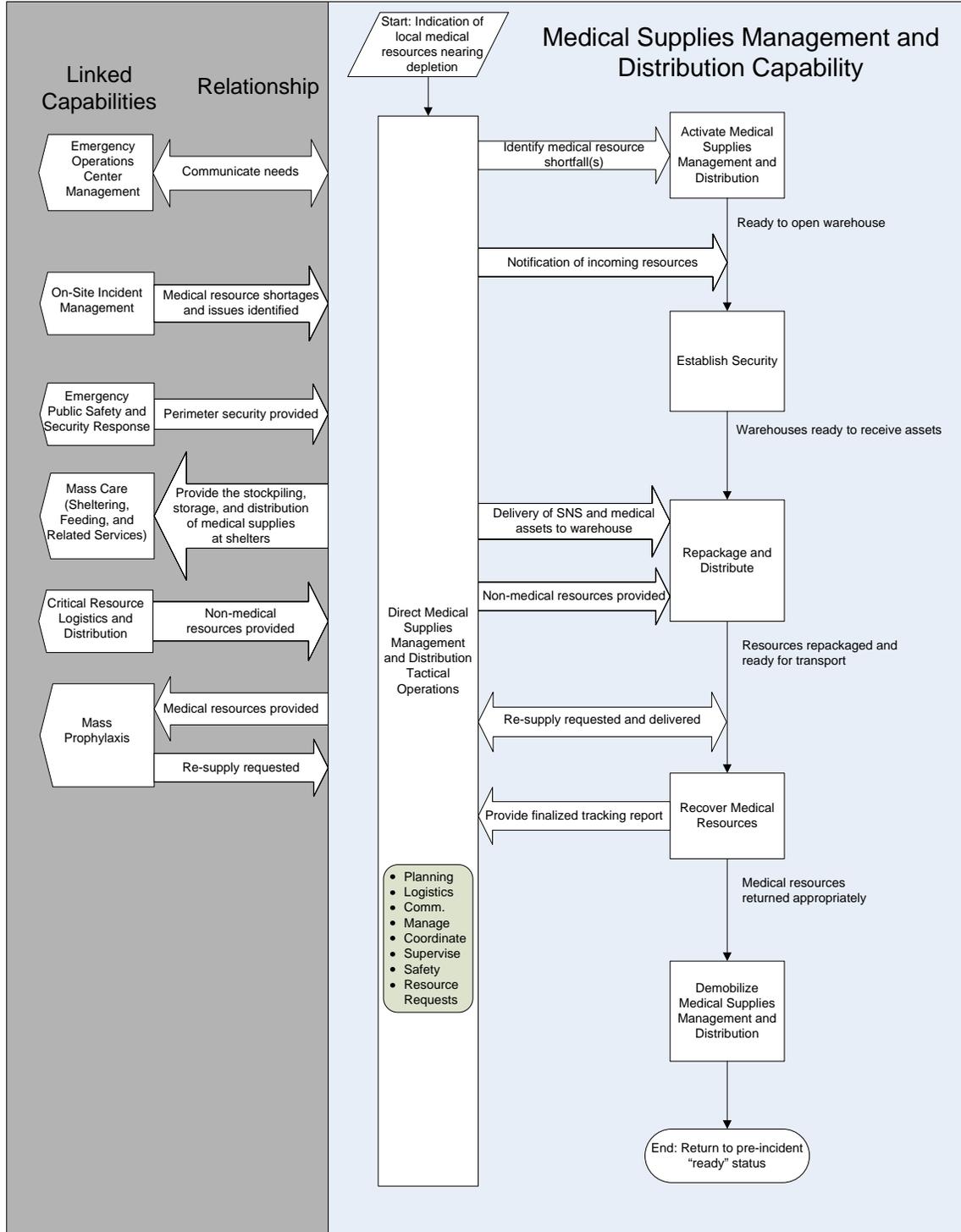
Res.C1c 8.1	Execute plan to reduce medical supplies warehouse operations as distribution needs ease
-------------	---

Res.C1c 8.2	Dispose of waste materials generated by medical supplies warehousing operations	
Performance Measures		Metric
Percent of medical waste materials disposed of in accordance with applicable State laws and regulations		100%

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Medical Supplies Management and the Emergency Operations Center communicate operational and resource needs to one another.
On-Site Incident Management	On-Site Incident Management identifies medical resource shortages and issues and communicates this to Medical Supplies Management.
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides perimeter security for Medical Supplies and Management, including transport, warehouse, and distribution site security.
Mass Care (Sheltering, Feeding, and Related Services)	Medical Supplies Management provides the stockpiling, storage, and distribution of medication, durable medical equipment, and consumable medical supplies that may be needed at general population shelters and functional and medical support shelters.
Critical Resource Logistics and Distribution	Critical Resource Logistics and Distribution provides non-medical resources to Medical Supplies Management
Mass Prophylaxis	Following a re-supply request from Mass Prophylaxis, Medical Supplies Management provides the request medical resources.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Stockpile Content Management Group	Experts in medicine and public health to determine what is required in the various stockpiles or needs to be supplemented in the existing supply chain, e.g., Pharmaceuticals Management Group, Medical Supplies Management Group, Laboratory Supplies Management Group
Strategic National Stockpile (including Vendor Managed Inventory)	12-hour Push Package of pharmaceuticals, antidotes, and medical supplies; may include follow-on vendor managed inventory (VMI) supplies. Store and maintain medical materiel required for all hazards response.
National Medical Equipment and Supplies Stockpile	Medical equipment and supplies necessary for a comprehensive all hazards response that are not currently accounted for in the Strategic National Stockpile at quantities determined by robust modeling tools and input from experts in the field
State Pharmaceutical and Supply Stockpiles	
Local Pharmaceutical and Supply Stockpiles	
SNS Technical Advisory Response Unit (TARU)	The Health and Human Services Strategic National Stockpile program teams of emergency responders and logistics experts who arrive with the first shipment of the SNS to provide technical assistance related to receipts of medical material from SNS. Staff associated with the Strategic National Stockpile that can coordinate delivery and distribution of stockpile assets with State and local officials
Receipt, Staging, and Storage (RSS) site, staff, and equipment	The warehouse (minimum 12,000 square feet, loading dock, temperature/humidity control, emergency electrical power, secure area for controlled substances) from which the SNS materiel will be received and distributed. Includes staff for operations management, inventory control, distribution dispatch, and repackaging. Includes inventory management system and equipment. RSS includes: 1) staff necessary to activate and manage RSS and 2) Material Handling Equipment and Supplies and an inventory management system required to efficiently run receipt, staging, and storage site
Interagency warehouse and team	Location to house critical resources as transferred from State, donated by non-governmental organizations (NGO) and public. Includes staff necessary to activate, set up and manage warehouse and inventory; includes inventory management equipment and systems required to efficiently run warehouse. Team includes: 1) staff necessary to activate, set up and manage warehouse and inventory and 2) inventory management equipment and systems required to efficiently run warehouse.
National Tracking System	National system that captures and tracks resource availability -- includes locally managed tracking systems to feed into the larger system
Federal Staging Area	Locations at incident site to receive Federal assets
Transportation vehicles and personnel	To move large amounts of critical resources (trucks, planes, boats, trains)
Transportation Coordinator	Per National Response Plan (NRP) Emergency Support Function #1 (ESF#1); coordinates critical resource transportation needs between Federal, State, local and private agencies and organizations

Resource Elements	Components and Description
Security personnel	Provides required physical security to pharmaceuticals and medical supplies while stockpiled prior to an incident, in transit to and incident and while on-site during an incident
All –Hazards Core Supply Formulary	<p>Basic supplies needed for each adult casualty in any type of disaster scenario. Supplies may include:</p> <ul style="list-style-type: none"> • Instruments/ Equipment (BP Cuffs, Disposable; BP Manometer; Batteries- AA, AAA, D, C, 1 gross per incident; Artificial Resuscitator Bag, 10% child, 5% infant). • Sharps: NDL/ Syringes (10cc Needleless Syringes; 60cc Needleless Syringes; 3cc 23 G1” Safety Syringes; 3cc 23 G1 1/2” Safety Syringes TB Syringes; Insulin Syringes; Blunt Plastic Cannula; Lever Lock Cannula; 18G 11/2” Safety Needles; 20G 11/2” Safety Needles; Sharps Container; 20G IV Start Catheter; 18G Start Catheter; Winged Infusion Set 23GA &25GA). • Irrigation Solutions (Normal Saline Irrigation Solution- 2000cc; Sterile Water Irrigation Solution- 2000 cc). • IV Access/ Supplies (IV Start Kits; Micro Drip Tubing; Adult Drip Tubing; Blood Admin. Tubing; Disposable IV Pressure Bag; Metri Set Tubing; Arterial Line Tubing). • IV Solutions (LR 1000cc; NS 1000cc; Central Vein Catheter Kit; Multi Lumen Central Catheter Kit; Long Arm Board; Short Arm Board; Stopcock). • Linen (Disposable Sheets; Disposable Pillows; Disposable Pillow Covers). • Hand Hygiene (Providine/Iodine Scrub Brushes; PCMX Scrub Brushes- 1 box per 100 casualties). • Patient Personal Care Supplies (Bath Basin; Emesis Basin; Facial Tissues; Bedpan; Urinal; Belonging Bag; Regular Soap; Mouth Care Supplies). • Miscellaneous (Sterile Lubricant; Alcohol Wipes; PVP Wipes; Tongue Depressors; 5 in 1 Connectors; Garbage Liners; Blood Glucose Testing Supplies; Waterproof Markers; Body Bag- 25 per 100 casualties; Blank Labels/ Tags; Individual Bottled Drinking Water).
All Hazards Pediatric Supply Formulary	<p>Basic supplies needed for each pediatric casualty in any type of disaster scenario. Supplies may include:</p> <ul style="list-style-type: none"> • Instruments/ Equipment (Disposable BP Cuffs- Neonatal, Infant, Child, Small Adult; Artificial Resuscitator Bag Masks- Ped, Infant). • Patient Personal Care Supplies (Bath Basin, Cotton Swabs; Facial Tissues; Diapers; Pacifier; Belonging Bag; Cotton Balls). • Respiratory System Supplies (Nasal Airways; Oral Airways; Oxygen Cannulas; Oxygen Masks). • ER/Trauma/Surgical Supplies (Scalpel #11; Sutures-to be ordered individually, by box; General Instruments Tray; Facial Suture Tray; Chest Drainage System; Buretol Tubing-60 drops; Thoracostomy Tray; Chest Tubes- 8, 10, 12, 24, 32; Thoracic Catheter with Tubing and Container; Sterile Towels; Sterile Sheets; Small Sterile Basins; Electrodes; Monitoring Electrodes). • Dressings (Bandage Scissors; 2X2 Dressings; 4X4 Dressings; Adhesive IV Dressing; 4” Bandage Rolls; 1” Paper Tape; Adhesive Bandages).

Resource Elements	Components and Description
	<ul style="list-style-type: none"> • Linen (Disposable Sheets; Disposable Pillows; Disposable Pillow Covers). • Muscle/ Skeletal Supplies (Limb Restraints). • GI System Supplies (Anti-Reflux Valve- 10, 12, 14; Feeding Tubes- 5,8). • Sharps: NDL/ Syringes (Bulb Syringes; Safety Syringes- 21, 25; Filter Needles; Catheter Tip Syringe 60cc; Sharps Container; Luer Lock Syringes- 20cc, 60cc; Syringes- 1, 3, 5, 10cc). • IV Access/ Supplies (IV Start Kits; Stopcock; T-Connector; IV Start Catheter- 18, 20, 22, 24; Arm Boards- Infant, Child; Blood Administration Tubing; IV Filters-.22 micron, 1.2 micron; Syringe Pump Tubing; Micro Drip Tubing). • IV Solutions (Glucose Water; NS 10cc; NS 1000cc). • Irrigation Solutions (Normal Saline Irrigation Solution- 2000cc; Sterile Water Irrigation Solution- 2000 cc). • Miscellaneous (Sterile Lubricant; Alcohol Wipes; Alcohol Swab Sticks; Tongue Blades; Heel Warmers; Tape Measure; Body Bag; Disposable Linen Savers; Safety Pins; Povidone Iodine Swab Sticks; Povidone Iodine Wipes; Hydrogen Peroxide; Individual Bottled Drinking Water).
Chemical Disaster Supply Formulary	<p>Supplies needed to supplement the Core or Pediatric Formulary for chemical disasters. Supplies may include:</p> <ul style="list-style-type: none"> • Respiratory System Supplies (ABG Kits; Nasal Airways- 6.5, 7.0, 7.5, 8.0- 1 box per 100; Oral Airways-3, 4, 6-1 box per 100; Oxygen Cannulas; Oxygen Masks; Yankauer Suction Tips; Connecting Tubing; Suction Kit/Cup 14FX22). • GU System Supplies (Urine Multi-Stix; Foley Catheter Trays; Urometers). • Irrigation Solution (Sterile Water Irrigation Solution 3000cc). • Miscellaneous (Disposable Sheet; Balanced Salt Solution).
Biological Disaster Supply Formulary	<p>Supplies needed to supplement the Core or Pediatric Formulary for biological disasters. Supplies may include:</p> <ul style="list-style-type: none"> • GU System Supplies (Urine Multi-Stix; Foley Catheter Trays; Urometers). • Miscellaneous (50 Micron Mask; Stomach Tube).
Radiological Disaster Supply Formulary	<p>Supplies needed to supplement the Core or Pediatric Formulary for radiological disasters. Supplies may include:</p> <ul style="list-style-type: none"> • GU System Supplies (Urine Multi-Stix; Foley Catheter Trays; Urometers). • Irrigation Solution (Sterile Water Irrigation Solution 3000cc). • Miscellaneous (Disposable Sheet; Balanced Salt Solution).
Nuclear Disaster Supply Formulary	<p>Supplies needed to supplement the Core or Pediatric Formulary for nuclear disasters. Supplies may include:</p> <ul style="list-style-type: none"> • GU System Supplies (Urine Multi-Stix; Foley Catheter Trays; Urometers). • Irrigation Solution (Sterile Water Irrigation Solution 3000cc). • Miscellaneous (Disposable Sheet; Balanced Salt Solution).
Explosive Disaster Supply Formulary	<p>Supplies needed to supplement the Core or Pediatric Formulary for explosive disasters. Supplies may include:</p>

Resource Elements	Components and Description
	<ul style="list-style-type: none"> • GU System Supplies (Urine Multi-Stix; Foley Catheter Trays; Urometers). • ER/Trauma/Surgical Supplies (Scalpel Blade Holer-#3, #4; Scalpel Blades- #10, #11, #15, #20; Disposable Safety Scalpel #15; Suture Sets; Silk & Gut Sutures- ordered in bulk by facility; Thoracostomy Tray; Peritoneal Lavage Tray; Chest Tubes- 12, 24, 28, 36; Chest Drainage Tube with Container; Sterile Towels; Sterile Sheets; Large Sterile Basin; Small Sterile Basin; Trocar Chest Tube; Skin Stapler; Electrodes; Tracheotomy Kit). • Dressings (Bandage Scissors; Impregnated Dressing; 3” Dressing; ABD Pads; 4X4 Dressing; Self Adhering Dressing; 4X4 Sponges; 4” Bandage Rolls; 3” Elastic Bandage; 4” Elastic Bandage; 6” Elastic Bandage; Sterile Cotton Applicators; 2” Porous First Aid Tape; 3” Porous First Aid Tape; Adhesive Bandages; 1” Paper Tape). • GI System Supplies (Piston Irrigation Sets; Gastric Lavage Kits; Anti-Reflux Valve- 8, 12, 18). • Irrigation Solutions (Normal Saline Irrigation Solution- 2000cc; Sterile Water Irrigation Solution- 2000 cc). • Muscle/Skeletal Supplies (Medium Slings; Large Slings; Small Cervical Collars; Universal Cervical Collars: Knee Immobilizers; Wrist Restraints; Restraint Belts; OCL Splints Plaster; Plaster Impregnated Gauze Roll 4”).
Staff Supply Formulary	<p>Supplies needed for each hospital person in a disaster. Supplies may include:</p> <ul style="list-style-type: none"> • Hand Hygiene (Personal Hand Foam Sanitizer). • Protective Gear (Sterile Gloves- all sizes- 1 box per 100 casualties; Exam Gloves, Medium- 1 box per 25 casualties; Latex Free Gloves Medium- 1 box per 25 casualties; Fluid Resistant Gowns; Masks; Goggles; Shields; Balanced Salt Solution for Eye Wash; Isolation Gown- 4 per staff member; Fluid Resistant Gowns- 1 per staff member; hair Cover; Liquid Scrub Soap; Individual Bottled Drinking Water).

Planning Assumptions

- For contagious and/or pandemic diseases (and possibly other scenarios), there will be limited or no implementation of cooperative agreements due to quarantine or actual or perceived contamination and/or widespread infection.
- Prior to dying, many people would use considerable healthcare resources because of their critical condition at admission.
- Existing medical devices (e.g., ventilators, respiratory equipment) will be inadequate. Manufacturers of large, expensive medical devices typically manufacture product on an “as needed” basis with a minimum of a 2–4 week lag time. Even surge production capacity is likely to be inadequate for short-term requirements.
- Surge capacities of pharmaceutical and medical product manufacturers and distributors will diminish compared with projected capabilities due to high absenteeism in all commercial sectors resulting from employees being directly affected by the scenario or choosing to stay home with families.
- Development of plans, procedures, and protocols for resource management in accordance with the National Incident Management System (NIMS) (Res.B.1.5) will be outlined within the Planning capability.

- Transport of medical supplies, pharmaceuticals, and laboratory supplies from federally controlled sources to the Federal mobilization base camp is the responsibility of the Federal Government.
- Transport of medical supplies, pharmaceuticals, and laboratory supplies from a Federal mobilization base camp to the State staging area is the responsibility of the State unless otherwise negotiated with the Federal Government.
- The originating entity is responsibly for transporting non-federally owned supplies to an interagency warehouse unless otherwise negotiated with Federal or State organizations.
- Any of the services, performance measures, or capabilities can and should be applied to the supply chain for laboratory testing materials as well. Although this does not necessarily fall directly under *medical* supplies, it is crucial that the diagnostic supplies to support medical functions are not forgotten or ignored.
- The capability to keep track of potential shortages of critical drugs during a large-scale event already exists within the Food and Drug Administration’s Center for Drug Evaluation and Research. This program can serve as a viable model for beginning such a program with medical supply distributors and manufacturers. This process absolutely must be initiated as soon as possible with the government providing necessary assurances to maintain commercial confidentiality. Destruction of physical structures over large areas will result in structures without permanent addresses which complicates or prohibits shipment of DEA scheduled drugs (controlled substances). Planning for alternatives should be initiated.
- During large scale contaminating event (CBNRE), provisions need to be made for transition of large volume of medical supplies into warm/hot zones without losing use of vehicles to contamination.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Stockpile Content Management Group		Continuous open dialogue to determine the current requirements	3 management groups
Strategic National Stockpile (including vendor managed inventory)		Response capability will leverage both Federal stockpiles and commercial capabilities.	Resource quantities needed must be determined by robust modeling tools to estimate stockpiles requirements based on the national planning scenarios and anticipated resultant patients/populations
Strategic National Stockpile Technical Advisory Response Unit (TARU)			1 Technical Advisory Response Unit per State/municipality receiving stockpile assets directly from stockpile
State Staging Area (Receipt, Staging, and Storage Site, RSS)		2 receipt, staging, and storage sites per State	Minimum of 2 receipt, staging, and storage sites per State
Interagency warehouse		Establish warehouse sites as necessary based on volume of donated goods	1 warehouse minimum, based on incident need

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Transportation vehicles and personnel		Climate controlled and non-climate controlled transport capacity for all pharmaceuticals, and medical and laboratory diagnostic supplies	Volume capacity of vehicle multiplied by amount of resource needed
Transportation Coordinator		Scenario will require resources from all over to help support the incident, therefore coordinator will need to have overarching capability to monitor and troubleshoot movement of resources	1 to sit in Emergency Operation Center (EOC) / can be component Emergency Support Function (ESF) #1

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
National Medical Equipment and Supplies Stockpile	Equipment	1		Federal	Repackage and Distribute
State Pharmaceutical and Supply Stockpiles	Equipment			State	Repackage and Distribute
Local Pharmaceutical and Supply Stockpiles	Equipment	20% increase	Increase over usual supply at local medical treatment facilities	Local	Repackage and Distribute
SNS Technical Advisory Response Unit (TARU)	Federal Resource Organization	1	Per State/municipality receiving stockpile assets directly from stockpile	Federal	Establish Security Repackage and Distribute
Receipt, Staging, and Storage (RSS) site, staff, and equipment	Resource Organization	2	Minimum per State & territory	State	Repackage and Distribute Establish Security
Interagency warehouse	Non-NIMS Resource Organization	1	Per incident	Local	Repackage and Distribute Establish Security
National Tracking System	Network	1	Nationally, including jurisdictional components	Federal	Direct Tactical Operations Recover Resources

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Federal Staging Area	Resource Organization		Not pre-established	Federal	Repackage and Distribute Establish Security
Transportation Vehicles and Personnel	Vehicle		Depends on incident need	Federal/ State/ Local	Repackage and Distribute Recover Resources
Transportation Coordinator	Personnel	1	per EOC	Federal/ State/ Local	Repackage and Distribute Recover Resources

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. *National Response Plan*. U.S. Department of Homeland Security. December 2004
3. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf.
4. Sector Specific Plan for the Healthcare and Public Health Sector. U.S. Department of Health and Human Services. June 2005.
5. Modular Emergency Medical System: Concept of Operations for the Acute Care Center. U.S. Army Soldier and Biological Chemical Command, Biological Weapons Improved Response Program. Maryland. May 2003.
6. *Resource Typing Definitions-I: First 60 Resources*. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
7. Strategic National Stockpile. Centers for Disease Control and Prevention. January 2005. www.bt.cdc.gov/stockpile.
8. Mass Antibiotic Dispensing-Managing Volunteer Staffing. Centers for Disease Control and Prevention. December 2004. www.phppo.cdc.gov/PHTN/webcast/antibiotic2/default.asp.
9. Mass Antibiotic Dispensing: A Primer. Centers for Disease Control and Prevention. June 2004. www.phppo.cdc.gov/phtn/antibiotic/default.asp.
10. National Disaster Medical System. U.S. Department of Homeland Security. 2004. www.ndms.dhhs.gov/.
11. DHS, Office for Domestic Preparedness, Major Metropolitan Response System (MMRS) Program. <http://fema.mmrs.gov>.
12. "Medical-Surgical Supply Formulary by Disaster Scenario" Presented by the Association for Healthcare Resource & Material Management, the Health Industry Distributors Association, and the Health Industry Group Purchasing Association.

MASS PROPHYLAXIS

Capability Definition

Mass Prophylaxis is the capability to protect the health of the population through the administration of critical interventions in response to a public health emergency in order to prevent the development of disease among those who are exposed or are potentially exposed to public health threats. This capability includes the provision of appropriate follow-up and monitoring of adverse events, as well as risk communication messages to address the concerns of the public.

Outcome

Appropriate drug prophylaxis and vaccination strategies are implemented in a timely manner upon the onset of an event to prevent the development of disease in exposed individuals. Public information strategies include recommendations on specific actions individuals can take to protect their family, friends, and themselves.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the Emergency Support Function:

(ESF) #8: Public Health and Medical Services

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.C2a 1.1	Create plans and systems for mass prophylaxis patient movement and tracking
Res.C1c 1.1	Create plans and systems for the transport and tracking of medical supplies and equipment
Res.C2a 1.2	Develop procedures for obtaining mass prophylaxis supplies from the receipt, staging, and storage (RSS) sites in coordination with the Medical Supplies and Distribution Capability
Res.C2a 1.3	Develop plans, procedures, and protocols for mass prophylaxis dispensing operations
Res.C2a 1.3.3	Develop the tactical communications portion of the mass prophylaxis dispensing plan
Res.C2a 1.3.2	Develop a mass prophylaxis inventory management system
Res.C2a 1.3.1	Develop procedures for the distribution and dispensing of mass prophylaxis
Res.C2a 1.4	Develop processes to ensure that first responders, public health responses, critical infrastructure personnel, and their families receive prophylaxis prior to POD opening
Res.C2a 1.4.1	Develop processes for coordinating with treatment centers
Res.C2a 1.4.2	Establish protocols for individuals receiving medications (e.g., number of doses, identification requirements, etc.)
Res.C2a 1.4.3	Establish processes for obtaining and distributing investigation new drug (IND) consent forms at POD sites

Res.C2a 1.5	Develop credentialing mechanisms for volunteers and staff at mass prophylaxis dispensing sites
Res.C2a 1.5.1	Develop programs to ensure security of mass prophylaxis during dispensing operations
Res.C2a 1.6	Identify and address legal issues regarding authorizations for mass prophylaxis practitioners
Res.C2a 1.3.3.1	Establish processes for communicating with the public regarding nature of event and mass prophylaxis operations in coordination with Emergency Public Information and Warning Capability,
Preparedness Measures	
Metric	
Percent of state/local plans that contain elements included in the State/Local SNS Assessment Tool	100 %
Mass prophylaxis plan is incorporated into overall emergency response plan	Yes/No
Plan addresses requesting and receiving Mass Prophylaxis from the State and/or CDC.	Yes/No
Plan addresses the distribution of mass therapeutics (e.g. Points of Dispensing, medical supplies, staffing, security).	Yes/No
Plan addresses cultural characteristics of populations to be treated (e.g. religious needs, language barriers).	Yes/No
Plan addresses the provision of prophylaxis to special needs populations (e.g. disabled people, quarantined individuals, people requiring ongoing medical support).	Yes/No
Plan addresses infection control measures to protect staff and patients (e.g. medical screening is performed in separate area away from mass prophylaxis site).	Yes/No
Frequency with which mass prophylaxis plan is reviewed and updated	Every 12 months
Mass prophylaxis plan incorporates input from all relevant stakeholders, including health department, emergency management agency, public works, department of transportation, law enforcement, EMS, fire, hospitals, military installations, department of finance)	Yes/No
Treatment center point of contact is identified and documented in mass prophylaxis plan	Yes/No
Mass prophylaxis plan provides authorization for practitioners to issue standing orders and protocols for dispensing sites	Yes/No
Mass prophylaxis plan provides authorization for practitioners to dispense medications	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Res.C2a 2.1	Develop and implement training for mass prophylaxis operations
Res.C2a 2.1.1	Conduct training of all key personnel on fundamentals of NRP, ICS and NIMS
Res.C2a 2.1.2	Develop and implement training for key personnel on tactical communications during mass prophylaxis operations
Res.C2a 2.1.3	Develop and implement training on public information and communication for mass prophylaxis operations
Res.C2a 2.1.4	Develop and implement training on security of mass prophylaxis
Res.C2a 2.1.5	Develop and implement training for mass prophylaxis inventory management

Res.C2a 2.1.6	Develop and implement training for mass prophylaxis repacking, distribution, and dispensing	
Res.C2a 2.2	Create and implement plans and drills for mass prophylaxis	
Preparedness Measures		Metric
Exercises evaluate the tactical communications portion of the mass prophylaxis plan		Yes/No
Exercises evaluate the public information and communication portion of the mass prophylaxis plan		Yes/No
Exercises evaluate the mass prophylaxis plan procedures to maintain security		Yes/No
Exercises evaluate the mass prophylaxis inventory management system plan		Yes/No
Exercises evaluate the mass prophylaxis plan procedures to distribute prophylaxis		Yes/No
Exercises evaluate the mass prophylaxis dispensing procedures		Yes/No
Exercises evaluate the treatment center coordination plan		Yes/No
Frequency with which all key emergency and public health personnel to include Leaders and POD Managers are trained in accordance with identified training plans		Every 12 months
Frequency with which at least one full scale POD exercise to test Mass Prophylaxis capability is conducted		Every 12 months

Performance Tasks and Measures/Metrics

Activity: Direct Mass Prophylaxis Tactical Operations		
Definition: In response to notification of a mass prophylaxis incident, provide overall management and coordination of mass prophylaxis operations		
Critical Tasks		
Res.C2a 3.2	Coordinate dispensing/administration of mass prophylaxis	
Res.C2a 3.4	Coordinate public information releases regarding location of PODs	
Res.C2a 3.3.1	Coordinate with the Medical Supply and Distribution Capability to ensure that medical stockpile warehouses can re-supply Points of Dispensing (PODs) as needed	
Res.B3b 3.2.2	Coordinate with public information agencies to disseminate health and safety information to the public	
Res.B3b 3.3.2	Coordinate mass prophylaxis to functional and medical support sheltering locations for special needs populations	
Res.C2a 3.3.4	Coordinate with law enforcement to provide security to protect medicines, supplies, and public health personnel	
Res.C2a 3.5	Establish and maintain tactical equipment and communication networks including establishing redundant systems	
Res.C2a 3.2.4	Coordinate Point of Dispensing (POD) locations and hours of operations	
Res.C2a 3.2.5	Establish shift change procedures to ensure continuity of operations	
Performance Measures		Metric
Percent of public health personnel who arrive safely within target timeframe to perform capability		100%

Percent of PODs that completely deplete all medical resources prior to re-supply	0%
Time in which public is provided with accurate and consistent information messages regarding POD locations	Within 4 hours from POD opening
Testing and functionality of tactical equipment and communication networks is demonstrated and documented	Yes/No
The availability of the intervention is not affected by supply chain or other logistical problems	Yes/No
Percent of population covered by PODs that are secured, open, and prepared to serve	100%

Activity: Activate Mass Prophylaxis Dispensing Operations

Definition: Upon notification, activate points of dispensing for mass prophylaxis operation

Critical Tasks

Res.C2a 4.4	Implement local, regional, and State plans for distributing and dispensing prophylaxis. This should include procedures for requesting federal SNS assets when state and local caches and other available resources have been depleted
Res.C2a 4.2.1	Initiate staff call down lists for POD operations
Res.C2a 4.3.1	Ensure POD site operations are established in accordance with POD specific plans and protocols
Res.C2a 4.3.2	Provide internal and external security for POD sites
Res.C2a 4.4.1	Have or have access to information systems that support tracking mass prophylaxis allocation that comply with the Public Health Information Network (PHIN) functional requirements for Countermeasure and Response Administration
Res.C2a 4.2.3	Assemble needed supplies and equipment for POD operations including materials to prepare oral suspension
Res.C2a 4.5	Create and assemble signage for POD
Res.C2a 4.6	Implement the plan to provide mass prophylaxis to functional and medical support sheltering locations for populations with disabilities, etc.

Performance Measures

Metric

Percent of sufficient, competent personnel available to staff dispensing centers or vaccination clinics, as set forth in SNS plans and State/local plans	100%
Time for all first shift staff to be at the POD Site and ready	3 hours from notification
Time for all equipment and operational supplies to be in place	4 hours from notification
Percent of security forces designated in the POD specific plan who report for duty	100%

Activity: Establish Points Of Dispensing**Definition: Set up POD to receive members of the general public, according to POD plan****Critical Tasks**

Res.C2a 5.2	Implement processes for providing prophylaxis for public health responders and their families prior opening POD to general population
Res.C2a 5.3	Implement processes for providing prophylaxis for first responders and critical infrastructure personnel and their families prior to opening POD to general population
Res.C2a 5.1.4	Ensure adequate staffing levels for anticipated mass prophylaxis throughput
Res.C2a 5.6	Implement processes for obtaining and distributing mass copies of IND protocol consent forms at POD sites
Res.C2a 5.5	Post signage to inform and direct the public
Res.C2a 5.1.3.1	Implement processes to ensure the mobility impaired populations have access to PODs

Performance Measures**Metric**

Percent of POD staff, first responders, and critical infrastructure personnel and their families given prophylaxis prior to POD opening to general public	100%
Percent of PODs that are easily accessible and fully functional	100%
Percent of IND drugs dispensed that have corresponding consent forms	100 %
Percent of population directed to appropriate stations	100 %

Activity: Conduct Triage for Symptoms**Definition: Conduct initial screening of individuals prior to their entering the POD****Critical Tasks**

Res.C2a 6.1.2	Establish number of triage stations to commensurate with the anticipated size of the throughput
Res.C2a 6.1.3	Ensure symptomatic individuals are directed to appropriate treatment facility
Res.C2a 6.2.1	Transport or direct symptomatic individuals to appropriate health facility prior to their entering POD sites
Res.C2a 6.2.2	Ensure that personnel conducting triage and other persons in the area are not exposed to disease

Performance Measures**Metric**

Time in which clinical staff and volunteers become available at triage station	Within 4 hours from decision to activate site
Transportation assets are available to bring symptomatic individuals to appropriate treatment facility	Yes/No

Activity: Conduct Medical Screening**Definition: Review patient screening documentation and available medical history to determine proper course of treatment****Critical Tasks**

Res.C2a 7.1	Ensure proper documentation is created for each individual receiving prophylaxis	
Res.C2a 7.2	Identify appropriate prophylaxis based on medical history and exposure	
Res.C2a 7.3	Ensure sufficient staffing at the POD site screening station to prevent initial bottlenecks	
Res.C2a 7.4	Take appropriate actions for individuals for whom prophylaxis is determined to be inappropriate	
Performance Measures		Metric
Time in which clinical staff and volunteers become available at medical screening station		Within 4 hours from decision to activate site
Proper documentation secured		Yes/No
Percent of people dispensed the appropriate drug		100 %

Activity: Conduct Mass Dispensing**Definition: Dispense oral medication/administer vaccination according to standing medical orders****Critical Tasks**

Res.C2a 8.2.6	Dispense the appropriate medication and dosage to the population, including children, infants and special needs populations	
Res.C2a 8.3	Maintain a system for inventory management to ensure availability of critical prophylaxis medicines and medical supplies	
Res.C2a 8.3.1	Ensure adequate supply of pharmaceuticals, ancillary medical supplies and drug information sheets	
Res.C2a 8.3.3	Ensure availability of and distribute pre-printed drug information sheets	
Res.C2a 8.3.4	Distribute IND consent forms as needed for mass prophylaxis/vaccine administration	
Res.C2a 8.1.1	Monitor patient throughput per hour	
Performance Measures		Metric
Percent of dispensing centers or vaccination clinics that are able to process patients at the rate (persons per hour) specified in SNS Plans and State/Local Plans		100%
Percent of at-risk population that was successfully provided initial prophylaxis within 48 hours of State/local decision to provide prophylaxis		100%
Dispensing is not interrupted due to lack of preparation, availability of forms and materials and equipment		Yes/No
Percent of patients who are transported from station to station within times specified in SNS Plans and State/local plans		100%
Percent of parents receiving appropriate dosage and/or instructions to prepare oral suspensions for their children according to FDA Guidelines		100%

Percent of individuals receiving appropriate medication	100%
---	------

Activity: Monitor Adverse Events	
Definition: Through monitoring, identify individuals who have an adverse reaction to prescribed medication and initiate appropriate medical care	
Critical Tasks	
Res.C2a 9.1	Continue to track outcomes and adverse events following mass distribution of prophylaxis
Res.C2a 9.3	Provide alternate medication as ordered by clinician
Res.C2a 9.1.1	Access information systems that support monitoring of adverse reactions that comply with the PHIN functional requirements for Countermeasure and Response Administration
Res.C2a 9.1.2	Establish a call center to triage individuals to receive appropriate medical care in case of an adverse effect
Performance Measures	
Percent of patients who receive instructions for adverse event reaction	Metric 100%
Adverse event monitoring system is in place	Yes/No
Number of staff or mechanisms to monitor individuals is adequate based on number of individuals receiving prophylaxis	Yes/No

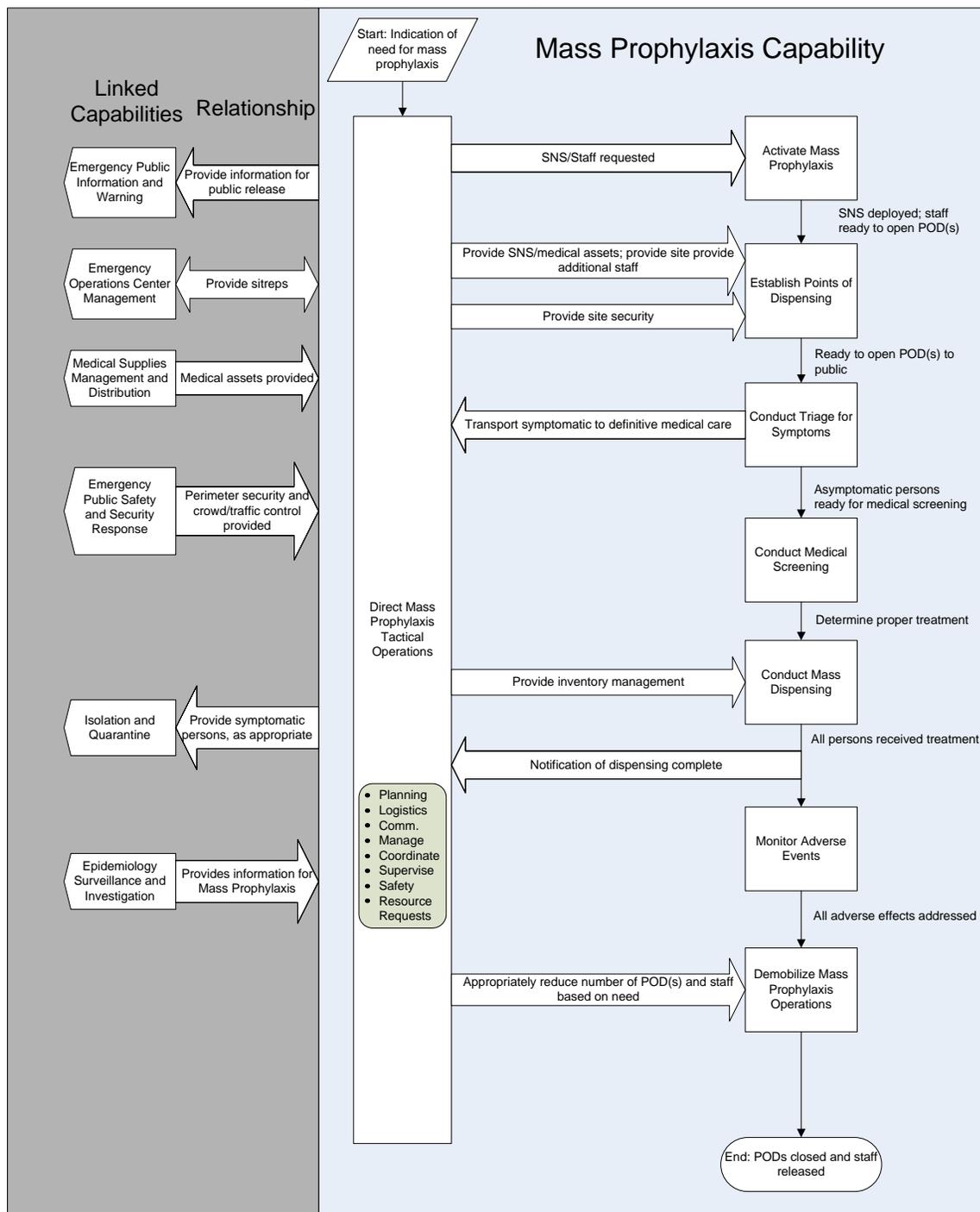
Activity: Demobilize Mass Prophylaxis Operations	
Definition: Upon completion, stand down POD operations, return site to normal operations, and release or redeploy staff	
Critical Tasks	
Res.C2a 10.1	Debrief POD personnel
Res.C2a 10.2	Reconstitute POD personnel and supplies
Performance Measures	
Percent of staff debriefed after mass prophylaxis distribution	Metric 100%

Linked Capabilities

Linked Capability	Relationship
Emergency Public Information and Warning	Mass Prophylaxis provides releasable public information of POD sites and other relevant information to Emergency Public Information and Warning for public notification.

Linked Capability	Relationship
Emergency Operations Center Management	Emergency Operations Center Management provides situation reports to Mass Prophylaxis, which provides situation reports in return.
Medical Supplies Management and Distribution	Medical Supplies Management and Distribution provides medical assets to Mass Prophylaxis, including the request for SNS and the receipt, staging, and storage of mass prophylaxis
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides perimeter security and crowd/traffic control for Mass Prophylaxis.
Epidemiology Surveillance and Investigation	Epidemiology Surveillance and Investigation provides information for Mass Prophylaxis.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Multiagency Coordination Systems (MACS)	Command and control center based on incident command system (ICS) functions (planning, logistics, operations, finance/administration and information)
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	Locations where prophylaxis will be provided. Includes all equipment and trained and available fulltime staff and volunteers to include: clinicians/public health professions; ancillary support personnel, traffic control personnel, security personnel, inventory assistants, and staff for storing, receiving and distributing federal medical supplies and equipment to fully staff 24 hour operations at each POD
Prophylaxis supplies and materials	Pharmaceuticals, medical supplies and materials, available from local, state and federal stockpiles. This may include follow-on managed inventory (MI) supplies
Receiving, Staging, and Storage (RSS)	
Technical Advisory Response Unit (TARU) Teams	
Adverse event monitoring system	Triage call center system and personnel equipped to address affected populations who have had an adverse reaction. Vaccines and drugs used under the IND protocol require monitoring and reporting of such adverse events. Monitoring and reporting the adverse effects of IND vaccines and drugs are the joint responsibility of designated State adverse event coordinators and the CDC through established mechanisms
Countermeasure Response and Administration system	

Planning Assumptions

- Assume population potentially exposed and requiring prophylaxis is 2 million in one Metropolitan Statistical Area (MSA). Additional geographic locations would require resource considerations according to population estimates in affected areas.
- Additional illnesses will occur prior to mass prophylaxis campaign. Many people are likely to present who fear they might have been exposed multiple unexplained physical symptoms (MUPS). Due to time elapsed prior to plan execution and non-informed public. Studies show that between 4 and 50 times as many people seek medical care after an event for MUPS than for diagnosable symptoms treatable by medical providers.
- State/local medicines and medical supplies are insufficient for mass prophylaxis.
- Federal medical assets are requested and received at each location within 12 hours from the Federal decision to deploy assets.
- Adequate prophylaxis is readily available from the Strategic National Stockpile; initial 10-day regimen with ciprofloxacin (Cipro) or doxycycline (Doxy). Amoxicillin (10-day regimen) is also available based on antimicrobial sensitivity results. Goal is to protect exposed or potentially exposed population as quickly as possible based on current Centers for Disease Control (CDC) recommendations for anthrax prophylaxis.

- Follow-on prophylaxis with vaccine and antibiotics (50-day supply) for persons at highest risk of exposure based on epidemiological data and current CDC recommendations for anthrax prophylaxis.
- State/locals have sufficient personnel to fully command or staff a mass prophylaxis dispensing operation. This may include assistance from Federal response teams, if requested.
- State/locals have developed and exercised both an emergency response plan and a Mass Prophylaxis response plan.
- Guidelines for post exposure prophylaxis populations will be developed by public health officials and subject matter experts depending on epidemiological circumstances. Decision will be based on estimates of timing, location and conditions of exposure.
- Point of Distribution (POD) Staffing: Number of PODs determined assumes 24 hour operation, population equally distributed among PODs, performance at 100% capacity at all times, constant flow of people, staffing is constant and adequate. PODs should be located where easily accessible to the public i.e., publicly owned buildings.
- Medical Assets/Supplies – Adequate prophylaxis and medical supplies are readily available in the SNS.
- Due to limited pediatric suspension, states have established MOAs with local compounding pharmacies and are prepared to use the FDA’s crushing guidelines to enhance pediatric prophylaxis capability.
- The regulatory mechanism for providing investigational product(s) for Mass Prophylaxis may be under an IND or an Emergency Use Authorization.
- States will be prepared for both IND and EUA regulatory channels.
- Population Centers – resources readily available for largest urban areas for duration of prophylaxis period.
- Receiving, Staging, and Storing (RSS) – State/local jurisdictions with mass prophylaxis plans have identified a site for receiving, staging, and storing Federal assets. In some worse case scenarios, more than one site may need to be identified.
- Risk Factors:
 - The occurrence of multiple events could deplete the availability of Federal stockpiled medical assets and Federal resources i.e., staff, supplies, etc.
 - The unavailability of staff and volunteers to operate the POD system.
 - Fear and mass panic could escalate.
 - Inadequate planning for mass prophylaxis would result in delays in response and ultimately risk of loss of life.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Multiagency Coordination Systems (MACS)	24 hours/7 days	Number/shift	Number/2–3 shifts
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	47,667 patients per hour (PPH)	Prophylaxis for 2 million	47 DVCs (PODs)
Receiving, Staging, and	Single warehouse,	Prophylaxis medicines	Federal assets from SNS

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Storage (RSS)	minimum 12,000 square feet	for 2 million	based on estimated number of exposed persons
Technical Advisory Response Unit (TARU) Teams	12-hour response.	1 7-9 member team for logistics, operations, and communications	1 team per single geographic incident
Adverse event monitoring system	24 hours	Triage call center(s) and personnel to support affected population	Estimates will vary depending on population receiving prophylaxis and who have an adverse reaction

Approaches For Large-Scale Events

The information and analysis included in this capability reflects only one of the 15 scenarios - aerosolized anthrax.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Multiagency Coordination Systems (MACS)		1		Federal/State/Local	Command and Control (Mass Prophylaxis Tactical)
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	Resource Organization	1	Per population of 42,554 (47 DVC/PODs per 2 million people)	State/Local	Establish POD Conduct Triage for Symptoms Conduct Medical Screening Conduct Mass Dispensing Conduct Adverse Events Monitoring
Prophylaxis supplies and materials	Equipment			Federal/State/Local/Private Sector	Conduct Mass Dispensing
Adverse event monitoring system	Non-NIMS Resource Organization	1+	National	Federal/State/Local	Conduct Adverse Events Monitoring

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Countermeasure Response and Administration system	Non-NIMS Resource Organization	1	Nationally	Federal (HHS/CDC)	Conduct Adverse Event Monitoring

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Modular Emergency Medical System: Concept of Operations for the Acute Care Center. U.S. Army Soldier and Biological Chemical Command, Biological Weapons Improved Response Program. Maryland. May 2003.
5. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
6. Emergency Response Training Necessary for Hospital Physicians/Nurses That May Treat Contaminated Patients. Standard interpretation. Occupational Safety and Health Administration. March 1999. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22710.
7. Emergency Response Training Requirements for Hospital Staff. Standard interpretation. Occupational Safety and Health Administration. April 1997. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22393.
8. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
9. Medical Personnel Exposed to Patients Contaminated with Hazardous Waste. Standard interpretation. Occupational Safety and Health Administration. March 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20609.
10. Training Requirements for Hospital Personnel Involved in an Emergency Response of a Hazardous Substance. Standard interpretation. Occupational Safety and Health Administration. October 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20911.
11. Mass Antibiotic Dispensing-Managing Volunteer Staffing. Centers for Disease Control and Prevention. December 2004. <http://www.phppo.cdc.gov/PHTN/webcast/antibiotic2/default.asp>.
12. Mass Antibiotic Dispensing: A Satellite Web Cast Primer. Centers for Disease Control and Prevention. June 2004. <http://www.phppo.cdc.gov/phtn/antibiotic/default.asp>.
13. U.S. Postal Service May Deliver Medicine in the Event of a Catastrophic Incident. Memorandum of understanding between the U.S. Departments of Homeland Security and Health and Human Services and the U.S. Postal Service. February 2004. http://www.usps.com/communications/news/press/2004/pr04_015.pdf#search='U.S.%20POSTAL%20SERVIC E%20MAY%20DELIVER%20MEDICINE.
14. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) program, <http://mmrs.fema.gov>.
15. Receiving, Distributing, and Dispensing Strategic National Stockpile (SNS) Assets: A Guide for Preparedness, Version 10 – Draft, June 2005.

16. "Community-Based Prophylaxis. A Planning Guide for Public Health Preparedness." Weill Medical College of Cornell University, Department of Public Health, August 2004.
17. Hupert, Nathaniel. Modeling the Public Health Response to Bioterrorism: Using Discrete Event Simulation to Design Antibiotic Distribution Centers, in a September-October 2002 supplement to Medical Decision Making (*Med Decis Making 2002;22(Suppl): S17-S25*).
18. "PHIN Preparedness - Countermeasure/Response Administration Functional Requirements", Version 1.0, Centers for Disease Control and Prevention, April 2005.
19. "State and Local Technical Assistance Review Tools, Centers for Disease Control and Prevention, September 11, 2006.

MASS CARE (SHELTERING, FEEDING, AND RELATED SERVICES)

Capability Definition

Mass Care is the capability to provide immediate shelter, feeding centers, basic first aid, bulk distribution of needed items, and related services to persons affected by a large-scale incident. Mass Care is usually provided by nongovernmental organizations (NGOs), such as the American Red Cross, or by local government.

The capability also provides for companion animal care/handling through local government and appropriate animal-related organizations.

Functional and Medical Support Shelters (formerly known as Special Needs Shelters) are addressed as a separate capability. However, this capability does cover those individuals who have disabilities that can be accommodated in general population shelters. These individuals could include the following:

- A person requiring medication, Consumable Medical Supplies ([CMS], such as hearing aid batteries, incontinence supplies), or Durable Medical Equipment ([DME], such as wheelchairs, walkers, canes, etc);
- A person with a stable medical or psychiatric condition;
- A person who requires a caregiver where the regular caregiver can stay with the person;
- A person requiring assistance with transferring from a wheelchair to a cot where the assistance does not require specialized training or lifting equipment;
- A person requiring oxygen who is mobile and does not require medical attention; or
- A person needing assistance with some activities of daily living such as cutting of food.

This list does not include all accommodations that can be made in a general population shelter, but each shelter will have different capabilities based on location and available facilities at the time of the disaster

Outcome

Mass care services, including sheltering, feeding, and bulk distribution, are rapidly provided for the population and companion animals within the affected area.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

ESF #6: Mass Care, Housing, and Human Services

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Programs, and Systems	
Critical Tasks	
Res.C3a 1.3	Develop plans, policies, and procedures for the provision of mass care services to general populations in coordination with all responsible agencies
Res.C3a 1.6.1.1	Develop plans, policies, and procedures for the provision of services for companion animals in coordination with all responsible agencies
Res.C3a 1.3.4	Develop processes and criteria for conducting an assessment (functional, cultural, dietary, medical) of the general population registering at the shelter to determine suitability for the shelter, and the transference of individuals and caregivers/family members, to more appropriate care facilities
Res.C3a 1.9	Develop plans, policies, and procedures to ensure maximum retention of people with disabilities in general population shelters
Res.C3a 1.9.1	Develop procedures to ensure that general population shelters allow individuals to bring in existing support systems (including service animals and care-givers)
Res.C3a 1.9.3	Establish procedures for identifying and receiving individuals to general population shelter when they no longer need to be accommodated at Functional & Medical Sheltering Service location
Res.C3a 1.3.5	Develop plans, policies, and procedures for close cooperation between general population shelters, Functional and Medical Support Shelters and other medical facilities
Res.C3a 1.1	Develop plans, policies, and procedures for activation and mobilization of mass care staff
Res.C3a 1.3.1	Develop plans, policies, and procedures to address common issues (e.g. cultural, language, people with disabilities in general population shelters, etc.) as part of the mass care service delivery
Res.C3a 1.2.2	Develop plans, procedures and protocols for pre-identification of sufficient and suitable facilities for evacuation and post-impact shelters (to include non-traditional shelter facilities such as camps, hotels, etc.)
Res.C3a 1.2.7	Enter pre-identified shelter facilities into the National Shelter System (NSS)
Res.C3a 1.2.8	Identify accessible shelters as part of pre-identification of shelter option choices
Res.C3a 1.2.3	Develop shelter contingency plans that allow for shelter self-sufficiency for a minimum 48 hours without re-supply
Res.C3a 1.3.8	Develop shelter contingency plans that allow for shelter relocation when shelter is no longer habitable due to changing incident conditions (e.g., structural damage, contamination, etc.)
Res.C3a 1.3.2	Develop plans, procedures, and protocols for coordination of mass care services with agencies providing human services and housing, (e.g., welfare inquiry, transitional/interim housing services, other individual/family assistance programs), and family reunification
Res.C3a 1.3.3	Develop plans, policies, and procedures for coordination of mass care services with supporting agencies (e.g., conducting decontamination, citizen evacuation/shelter-in-place, volunteer management and donations, environmental health, and public safety and security)
Res.C3a 1.5	Develop public education materials concerning mass care services
Res.C3a 1.6.1	Develop criteria and guidance materials for sheltering companion animals

Res.C3a 1.4.1	Develop vendor agreements, MOUs, or MOAs for critical mass care resources as appropriate	
Preparedness Measures		Metrics
A mass care plan for the general population is in place		Yes/No
Mass care plan is integrated with our plans for evacuation (e.g. evacuation routes to shelters are identified, exercise evacuation from various locations to local shelters)		Yes/No
Mass care plan addresses cultural characteristics and needs of populations to be sheltered (e.g. religious needs, language barriers).		Yes/No
Mass care plan addresses the shelter requirements of special needs populations (e.g. disabled people, people requiring ongoing medical support).		Yes/No
Mass care plan addresses the feeding needs of affected populations (e.g. estimate projected need, identify distribution, preparation, and feeding sites, establish mobile feeding routes).		Yes/No
Plans for the transference of individuals with needs beyond the shelter's capacity to a Functional and Medical Support Shelter or other appropriate care facility with their caregivers/family are in place		Yes/No
Plan to utilize ARC/HHS Initial Intake and Assessment Tool to assess individuals arriving at shelters is in place		Yes/No
A mass care plan for companion animals (includes provision of shelter, food, and animal welfare inquiry services) is in place		Yes/No
Shelter agreements for each jurisdiction are in place		Yes/No
Mass care plan addresses the safety and security of shelter facilities		Yes/No
The mass care plan includes MOUs with non-governmental organizations (NGOs) to provide personnel and equipment support following an incident		Yes/No
Mass care plan includes programs for recruiting volunteers		Yes/No
Local government has a companion animal care/handling plan coordinated with appropriate partners		Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks	
Res.C3a 2.1.1	Develop and implement training programs for mass care personnel to include sheltering, feeding and bulk distribution for general population
Res.C3a 2.1.1.1	Develop and implement training for shelter staff
Res.C3a 2.2.1	Develop and implement exercise programs for mass care personnel to include sheltering, feeding and bulk distribution for general population
Res.C3a 2.2.3	Develop and implement exercise programs for mass care personnel for delivery of mass care companion animal services
Res.C3a 2.1.3	Develop and implement training programs for mass care personnel for delivery of companion animal services

Preparedness Measures	Metrics
Training and exercise program for mass care personnel is in place and covers sheltering, feeding and bulk distribution services	Yes/No
Training and exercise program addresses common mass care issues (e.g., culture, language, accommodating people with disabilities in general population shelters etc.)	Yes/No
Training and exercises for mass care operations occur on regular basis	Yes/No
Shelter staff are familiar with ARC/HHS Initial Intake and Assessment Tool that is used for initial screening of clients	Yes/No
Training and exercise program is in place	Yes/No

Performance Measures and Metrics and Critical Tasks (by Activity)

Activity: Direct Mass Care Operations	
Definition: In response to requests made by agencies, provide management and coordination of Mass Care Capability	
Critical Tasks	
Res.C3a 3.1	Conduct initial and ongoing mass care needs assessment for sheltering, feeding, bulk distribution
Res.C3a 3.1.1.1	Obtain information on population and location of potentially affected populations as part of planning process
Res.C3a 3.1.2.1	Coordinate anticipated need for mass care services with agencies responsible for evacuation
Res.C3a 3.3	Designate sites to serve as mass care facilities to include shelters, feeding sites, reception centers, food preparation sites, distribution points, etc.
Res.C3a 3.1.2.2	Estimate numbers requiring sheltering services
Res.C3a 3.1.2.3	Estimate numbers requiring feeding services
Res.C3a 3.1.2.4	Estimate numbers requiring bulk distribution of relief items
Res.C3a 3.7.4	Implement a daily counting and reporting system for sheltering, feeding, and bulk distribution items delivered
Res.C3a 3.7.5	Activate contingency plans for shelter surge capacity, as needed
Res.C3a 3.7.6	Activate vendor agreements/MOUs/MOAs in support of mass care activities as needed
Res.C3a 3.7.1	Acquire and provide resources necessary to support mass care services
Res.C3a 3.8	Provide appropriate communication systems for mass care personnel and facilities
Res.C3a 3.4.1	Supervise and support day-to-day mass care operations
Res.C3a 3.8.1	Disseminate accurate, timely, and accessible information to the public, media, support agencies, and vendors about mass care services
Res.C3a 3.4	Coordinate mass care services for general population with appropriate agencies

Res.C3a 3.4.2	Coordinate with appropriate agencies on common population issues (e.g. disability, language, culture, etc.)	
Res.C3a 3.4.3	Coordinate environmental health assessment of mass care operations with agencies responsible for environmental health	
Res.C3a 3.8.2	Disseminate notification of cessation of mass care operations	
Res.C3a 3.6	Coordinate mass care services for companion animals and owners with appropriate agencies	
Performance Measures		Metric
Time in which the mass care plan is activated		Within 2 hours from notification of need for mass care services
Time in which the initial mass care needs assessment is completed (sheltering, feeding, and bulk distribution)		Within 4 hours from notification of need for mass care services
Time in which appropriate organizations are tasked to mobilize resources to provide mass care services		Within 6 hours from the notification of need for mass care services
Frequency with which reports of shelter populations and locations are received from all mass care facilities		Every 24 hours
Frequency with which mass care needs are assessed		Every 24 hours
Percent of total number of people seeking shelter who are either sheltered or referred to appropriate facilities		100%
Time in which oversight of sanitation of shelters, food service, and distribution operations is established		Within 12 hours

Activity: *Activate Mass Care*

Definition: Activate and mobilize mass care personnel and resources

Critical Tasks

Res.C3a 4.2	Notify mass care staff	
Res.C3a 4.3	Mobilize needed mass care resources	
Res.C3a 4.2.1.1	Assemble mass care teams for each identified mass care facility	
Res.C3a 4.2.1	Assemble mass care teams for each identified mass care site (e.g. shelter, feeding, bulk distribution)	
Res.C3a 4.1	Activate emergency shelters	
Res.C3a 4.4	Mobilize veterinary and animal shelter services	
Res.C3a 4.4.1	Assemble teams for each identified companion animal site	
Performance Measures		Metric
Time in which mass care staff are notified		Within 2 hours from notification of need for mass care services

Percent of mass care staff mobilized within timeframe designated in SOPs	100%
Time in which to determine availability of shelter and staff within jurisdiction	Within 4 hours from activation of mass care plan

Activity: *Establish Shelter Operations*

Definition: Staff and equip shelter in preparation to receive displaced persons

Critical Tasks

Res.C3a 5.1	Determine whether areas are located in a safe area as determined by appropriate government agencies
Res.C3a 5.2.1	Staff shelter with appropriately trained personnel
Res.C3a 5.2	Set-up shelter for operations
Res.C3a 5.2.2	Establish self-sufficiency (water/food/staffing) of shelter for minimum of 48 hours
Res.C3a 5.2.3	Ensure adequate communication systems are available for shelter staff
Res.C3a 5.3	Conduct regular communications with mass care management
Res.C3a 5.2.4	Provide regular updates on shelter needs and capacity
Res.C3a 5.3.1	Coordinate provision of mass care services within the shelter
Res.C3a 5.4	Coordinate provision of shelter support services with appropriate agencies
Res.C3a 5.4.1	Ensure shelter facility is accessible or provides temporary accessibility solutions where feasible
Res.C3a 5.5	Coordinate with appropriate government agency to conduct an environmental health assessment for mass care operations
Res.C3a 5.2.1	Coordinate with appropriate government agency to ensure any necessary decontamination is provided for shelter residents prior to entering shelter facility
Res.C3a 5.6	Coordinate dissemination of information about locations of different kinds of shelter, including companion animal shelters, general population shelters, and Functional and Medical Support Shelters
Performance Measures	
Metric	
Time in which shelters are opened with appropriate staff	Within 6 hours from activation of mass care plan

Activity: *Shelter General Population*

Definition: Provide temporary shelter for those individuals displaced during an incident

Critical Tasks

Res.C3a 6.1	Conduct shelter registration for general population
Res.C3a 6.1.1	Conduct initial assessment of population registering at shelter ensure appropriate shelter services are provided

Res.C3a 6.1.4	Conduct detailed assessments to identify types and levels of support needed to maintain functional independence of those individuals with disabilities and determine whether these needs can be met in general population shelters	
Res.C3a 6.4.1	Coordinate with Functional and Medical Support Shelter Capability to ensure that individuals are referred to appropriate settings and appropriate functional and medical care is provided	
Res.C3a 6.1.2	Establish processes to address issues identified in the assessment of shelter registrants	
Res.C3a 6.1.3	Make arrangements to transfer individuals and caregivers/family members to appropriate care facilities when necessary	
Res.C3a 6.4	Request additional resources and equipment necessary to support shelter operations	
Res.C3a 6.2.1	Implement mechanisms for daily reporting of shelter population and locations	
Res.C3a 6.2.4	Coordinate to provide security services if needed	
Res.C3a 6.2.5	Coordinate feeding services for general populations in shelters	
Res.C3a 6.2.5.1	Provide culturally and restricted diet appropriate feeding services when possible	
Res.C3a 6.3.1	Provide regular updates on shelter needs and capacity	
Res.C3a 6.3.2	Assess ongoing medical and public health needs of shelter population and refer as appropriate	
Res.C3a 5.5.1	Coordinate environmental health assessment of mass care operations	
Performance Measures		Metric
Percent of general population shelters that have access to the ARC/HHS Initial Intake and Assessment Tool		100%
Time in which all individuals at general population shelters are evaluated for health and mental health services		Within 12 hours from arrival
Percent of population initially assessed and referred to appropriate accommodation within 24 hours of seeking shelter		100%
Percent of shelter population registered within 24 hours of residing in shelter		100%
Frequency with which shelter population is reported		Every 24 hours
Time in which shelter is able to provide 2 meals per day		Within 24 hours from shelter opening

Activity: Shelter Companion Animals

Definition: Provide temporary shelter for companion animals of displaced owners or those companion animals who are abandoned

Critical Tasks

Res.C3a 7.1.2	Establish companion animal shelter
Res.C3a 7.1.3	Arrange for companion animal care/handling services
Res.C3a 7.3	Operate companion animal care/handling facilities
Res.C3a 7.3.1	Coordinate provision of veterinary medical services with appropriate agencies

Res.C3a 7.2.1	Coordinate with entities responsible for search and rescue for transference of companion animals into animal shelters	
Res.C3a 7.2.2	Coordinate message regarding companion animal evacuation with agencies responsible for issuing evacuation orders	
Res.C3a 7.3.2	Coordinate animal shelter operations with agencies responsible for environmental health	
Res.C3a 7.4.3	Coordinate acquisition of needed companion animal resources with appropriate agencies receiving donations	
Res.C3a 7.2.3	Coordinate transportation of companion animals with appropriate agencies	
Res.C3a 7.3.3	Identify any special procedures necessary for the intake of companion animals (e.g., decontamination)	
Res.C3a 7.3.4	Identify and implement special procedures (e.g., decontamination) for companion animal intake	
Res.C3a 7.3.5	Implement procedures for companion animal intake/registration	
Res.C3a 7.3.6	Implement tracking system for intake and export of companion animals in compliance with local holding regulations	
Res.C3a 7.4.1	Provide feeding services that ensure adequate nutrition for companion animals	
Res.C3a 7.4.2	Establish guidance for staff on integrating volunteers while maintaining health and safety for staff, companion animals, and volunteers	
Res.C3a 7.3.7	Manage shelter facility maintenance	
Performance Measures		Metric
Time in which shelters are opened for staff and set-up		Within 8 hours from mobilization
Companion animal import/export process complies with local holding regulations		Yes/No
Percent of companion animals sheltered and/or referred to appropriate responsible authority		100%

Activity: *Close Shelter*

Definition: Deactivate shelter and staff upon determination that immediate shelter needs have been met or if the shelter is no longer suitable to meet mission needs

Critical Tasks

Res.C3a 8.2.1	Ensure appropriate referral information is provided to shelter residents	
Res.C3a 8.1	Transport and/or coordinate with agencies responsible for transportation of shelter population to residence or temporary/interim housing	
Res.C3a 8.2	Disseminate notification to close shelter operations to shelter residents, appropriate government agencies, and other partners	
Res.C3a 8.3	Conduct closing inspection and walk-through of shelters	
Performance Measures		Metric

Percent of shelter residents transitioned from shelter to their residence or to alternative accommodations prior to shelter closure	100%
Time in which shelter closure notification is provided	Within 48 hours prior to shelter closure

Activity: Establish Feeding Operations

Definition: Identify availability of resources for feeding operations

Critical Tasks

Res.C3a 9.1	Estimate projected feeding services required
Res.C3a 9.2.1	Identify kitchens, vendors, and other capabilities to prepare and distribute food
Res.C3a 9.2.2	Identify additional mobile feeding resources necessary to meet feeding need
Res.C3a 9.2.3	Assess number of pre-packaged meals needed to augment feeding services
Res.C3a 9.2	Develop a strategy to meet projected feeding need
Res.C3a 9.3.1	Conduct inspection of identified food operation facilities to determine structural integrity, capability, and suitability
Res.C3a 9.3.2	Ensure kitchen facilities are in compliance with local health regulations
Res.C3a 9.3.3	Staff kitchens with appropriately trained personnel
Res.C3a 9.3.4	Acquire foodstuffs for feeding operations
Res.C3a 9.4	Determine mobile feeding routes
Res.C3a 9.5	Implement reporting mechanism for daily meal counts
Res.C3a 9.6	Coordinate with shelter managers to ensure adequate feeding is conducted at shelters

Performance Measures	Metric
Time in which strategy is developed to meet demand for feeding services	Within 6 hours from notification of need for mass care services
Time in which feeding services are mobilized	Within 12 hours from activation of mass care plan
Time in which locations are identified for effective service delivery to meet feeding needs	Within 36 hours from activation of mass care plan
Frequency with which reassessment of feeding strategy is conducted	Every 24 hours

Activity: *Prepare and Distribute Food***Definition: Prepare and distribute meals to affected general populations**

Critical Tasks	
Res.C3a 10.1	Implement strategy to meet feeding needs of affected population
Res.C3a 10.4	Evaluate effectiveness of ongoing feeding operations
Res.C3a 10.1.2	Conduct food preparation and distribution using safe food handling protocols
Res.C3a 10.2	Conduct mass feeding operations, including mobile and fixed
Res.C3a 10.3.1	Conduct food preparation and distribution using safe food handling protocols
Res.C3a 10.1.3	Provide culturally and diet-restriction appropriate feeding services as available
Res.C3a 10.1.4	Ensure adequate nutrition is provided for shelter populations
Res.C3a 10.4.1	Report accurate count of meals and snacks served
Res.C3a 10.4.2	Disseminate notification of end to feeding operations
Performance Measures	Metric
Percent of anticipated need for feeding services met	100%
Time in which initial food is provided	Within 6 hours from activation
Time in which notification of end to feeding services is provided	48 hours prior to end of operations

Activity: *Establish Bulk Distribution Operations***Definition: Establish bulk distribution sites and prepare them to distribute items to the affected population**

Critical Tasks	
Res.C3a 11.1.2	Establish distribution sites and routes
Res.C3a 11.2.1	Conduct inspection of identified mass care bulk distribution facilities to determine structural integrity, capability, and suitability
Res.C3a 11.2.2	Staff bulk distribution site with appropriately trained personnel
Res.C3a 11.2.3	Ensure adequate communication systems are available for bulk distribution staff
Res.C3a 11.2.3.1	Conduct communications with mass care management
Res.C3a 11.2.4	Establish reporting mechanisms for daily distribution count
Res.C3a 11.2	Establish bulk distribution operations at fixed sites
Res.C3a 11.1.1	Determine mobile bulk distribution routes
Res.C3a 11.3	Acquire items for bulk distribution, ensuring coordination with logistics resources

Res.C3a 11.1	Coordinate with appropriate agencies to determine bulk distribution needs of affected population	
Res.C3a 11.3.1	Coordinate with agencies receiving donations to acquire items needed for bulk distribution, including supplies for companion animals	
Performance Measures		Metric
Time in which operational sites receive logistics support to maintain service delivery		Within 24 hours from site activation
The locations of distribution centers are accurately and clearly communicated to the public		Yes/No

Activity: *Conduct Bulk Distribution Operations*
Definition: After establishing bulk distribution operations, distribute items to the affected population

Critical Tasks		
Res.C3a 12.1	Conduct bulk distribution of relief items at fixed sites	
Res.C3a 12.1.1	Conduct mobile bulk distribution operations	
Res.C3a 12.1.2	Report daily distribution count and number of people served	
Res.C3a 12.2	Disseminate notification of end to bulk distribution operations	
Performance Measures		Metric
Time in which facilities can receive and distribute disaster relief items		Within 24 hours from site activation
Time in which notification of end to bulk distribution services is provided		Within 48 prior to end of operations

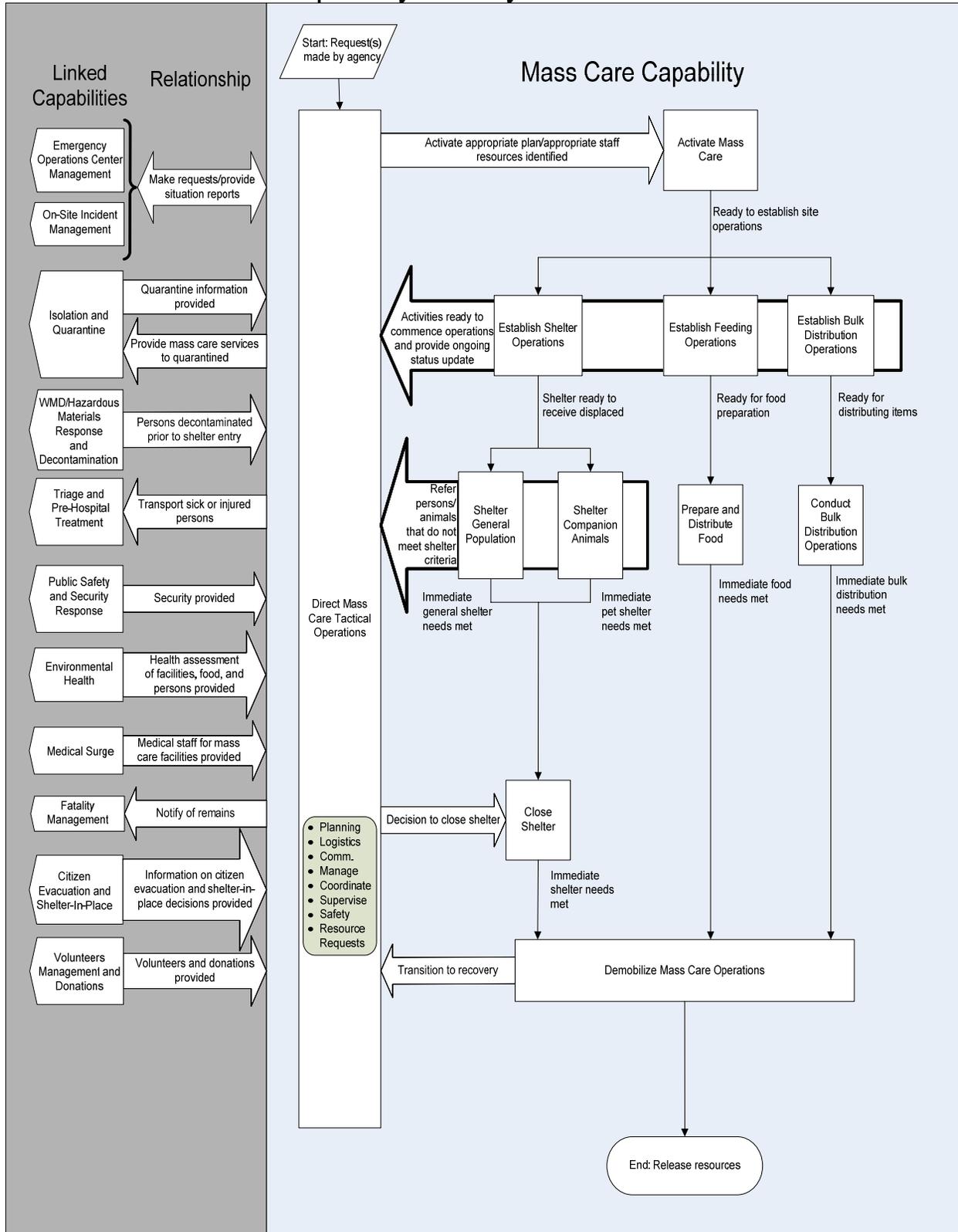
Activity: *Demobilize Mass Care Operations*
Definition: Upon completion of assigned mission, demobilize mass care resources

Critical Tasks		
Res.C3a 13.1	Coordinate demobilization of mass care resources with participating agencies	
Res.C3a 13.2	Disseminate notification of demobilization of mass care resources/services	
Res.C3a 13.4	Demobilize mass care resources	
Res.C3a 13.5	Provide staff briefing	
Res.C3a 13.6	Deactivate staff from operations	
Performance Measures		Metric
Percent of participating agencies notified of demobilization		100%
Percent of staff debriefed		100%

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Mass Care coordinates with Emergency Operations Center Management on resource requests and situation reports.
On-Site Incident Management	Mass Care coordinates with On-Site Incident Management on resource requests and situation reports.
Isolation and Quarantine	Mass Care relies on Isolation and Quarantine to provide quarantine information to mass care personnel.
WMD/Hazardous Materials Response and Decontamination	Mass Care relies upon WMD/Hazardous Materials Response and Decontamination to provide decontamination to persons and companion animals prior to shelter entry.
Triage and Pre-Hospital Treatment	Mass Care notifies Triage and Pre-Hospital Treatment of sick or injured people in need of transport.
Public Safety and Security Response	Mass Care relies upon Public Safety and Security Response to provide security at mass care facilities, including companion animal shelters.
Environmental Health	Mass Care relies upon Environmental Health to provide a health assessment of facilities, food, persons, and companion animals.
Medical Surge	Mass Care relies upon Medical Surge to provide alternative care facilities for people needing medical care.
Fatality Management	Mass Care notifies Fatality Management of remains.
Citizen Evacuation and Shelter-In-Place	Mass Care coordinates with the Citizen Evacuation and Shelter-In-Place Protection capability to ensure mass care services are in place for evacuating populations.
Volunteer and Donations Management	Mass Care relies upon Volunteer and Donations Management to provide volunteers and donations at mass care facilities.
Search and Rescue (Land-Based)	Mass Care coordinates with Search and Rescue (Land-Based) for transference of rescued companion animals.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Volunteer Agency Shelter Management Team (Type I)	For 1,000 shelter residents: personnel (8 shelter managers, 16 assistant shelter managers, 8 logistics supervisors, 8 feeding managers, 3 health services workers, 12 mental health services workers, 12 safety & asset protection workers)
Volunteer Agency Shelter Management Team (Type II)	For 750 shelter residents: personnel (6 shelter managers, 12 assistant shelter managers, 6 logistics supervisors, 2 feeding managers, 6 health services workers, 9 mental health services workers, 9 safety & asset protection workers)
Volunteer Agency Shelter Management Team (Type III)	For 500 shelter residents: personnel (4 shelter managers, 8 assistant shelter managers, 4 logistics supervisors, 4 feeding managers, 6 health services workers, 10 mental health services workers, 6 safety & asset protection workers)
Volunteer Agency Shelter Management Team (Type IV)	For 250 shelter residents: personnel (2 shelter managers, 4 assistant shelter managers, 2 logistics supervisors, 2 feeding managers, 3 health services workers, 5 mental health services workers, 3 safety & asset protection workers)
Voluntary Food Service Delivery Unit (Type I)	Personnel (2 drivers); 1,500 vehicles (converted Ford F-450 with dual wheels, 22' x 10'); food equipment (including 2 12-inch tongs, 2 6-ounce solids, 2 4-ounce solids, 4 4-ounce slotted, 1 food thermometer); emergency equipment (2 fire extinguishers and 1 first aid kit); tools (including 2 flathead screwdrivers, 2 phillips screwdrivers, 1 allen or star wrench, 2 crescent wrench, 1 set of open/closed end wrench, 1 pliers, 1 tire gauge); miscellaneous equipment (including 1 mesh barrier/door, 1 visor organizer, 2 flashlights, 6 food cambros, 6 5-gallon beverage cambro, 1 satellite tracking unit, 6 cambro clips, 3 cambro molds, 6 cargo straps, 3 road reflectors, 1 100-foot electrical extension, 1 lug wrench, 1 jumper cable, 2 wheel chocks, 2-4 drainage plugs)
Voluntary Agency Field Kitchen (Type I)	Personnel (40 workers capable of producing 30,000 meals); electrical equipment (1 box fan, 1 propane space heater(s), 1 100kw generator, vendor agreements for daily refueling of generators; 1 electrical drop/generator, 2 portable lighting system(s)); sanitation equipment (1 power washer, 12 portable toilets, 1 hand wash stations, 1 public water system connection); transportation equipment (10 rental truck(s)/van(s), 2 hand truck(s), 2 pallet jack(s), 1 3000-3500 lbs outside forklift(s), 1 kitchen support trailer); emergency equipment (2 first-aid kit/supplies, 6 fire extinguishers); storage equipment (300 cs cambro liners, 1 portable office trailer, 1 gray water storage system, 1 potable water storage system & bulk water, 30 wood pallets, 2 dry storage drop trailer(s), 2 refrigerated drop trailer(s), 2 stretch wrap for palletizing); cleaning equipment (1 clean-up kits/supplies, 1 trash bags, trash removal service, 1 40 yd dumpster, 1 steam jenny); administrative equipment (16 chairs, 4 tables); communication equipment (1 computer & printer, 1 antenna tower/repeater, 1 low band radio system, 1 phone lines/satellite system, 6 cell phones, 1 fax machine/copier); miscellaneous equipment (support material shipment, 2 drag chain w/ hooks, 8 padlocks, keyed alike, 2 wall tent/canopy, 10 tarps)
Voluntary Agency Field Kitchen (Type II)	Personnel 30 workers capable of producing 20,000 meals); electrical equipment (1 box fan, 1 propane space heater(s), 1 100kw generator, vendor agreements for daily refueling of generators; 1 electrical drop/generator, 2 portable lighting system(s)); sanitation equipment (1 power washer, 10 portable toilets, 1 hand wash stations, 1 public water system connection); transportation

Resource Elements	Components and Description
	equipment (6 rental truck(s)/van(s), 1 hand truck(s), 1 pallet jack(s), 1 3000-3500 lbs outside forklift(s), 1 kitchen support trailer); emergency equipment (2 first-aid kit/supplies, 4 fire extinguishers); storage equipment (20 cs cambro liners, 1 portable office trailer, 1 gray water storage system, 1 potable water storage system & bulk water, 20 wood pallets, 1 dry storage drop trailer(s), 1 refrigerated drop trailer(s), 1 stretch wrap for palletizing); cleaning equipment (1 clean-up kits/supplies, 1 trash bags, trash removal service, 1 40 yd dumpster, 1 steam jenny); administrative equipment (12 chairs, 3 tables); communication equipment (1 computer & printer, 1 antenna tower/repeater, 1 low band radio system, 1 phone lines/satellite system, 4 cell phones, 1 fax machine/copier); miscellaneous equipment (support material shipment, 2 drag chain w/ hooks, 6 padlocks, keyed alike, 2 wall tent/canopy, 8 tarps)
Voluntary Agency Field Kitchen (Type III)	Personnel (20 workers capable of producing 10,000 meals); electrical equipment (1 box fan, 1 propane space heater(s), 1 100kw generator, vendor agreements for daily refueling of generators; 1 electrical drop/generator, 1 portable lighting system); sanitation equipment (1 power washer, 4 portable toilets, 1 hand wash stations, 1 public water system connection); transportation equipment (4 rental truck(s)/van(s), 1 hand truck(s), 1 pallet jack(s), 1 3000-3500 lbs outside forklift(s), 1 kitchen support trailer); emergency equipment (1 first-aid kit/supplies, 2 fire extinguishers); storage equipment (10 cs cambro liners, 1 portable office trailer, 1 gray water storage system, 1 potable water storage system & bulk water, 10 wood pallets, 1 dry storage drop trailer(s), 1 refrigerated drop trailer(s), 1 stretch wrap for palletizing); cleaning equipment (1 clean-up kits/supplies, 1 trash bags, trash removal service, 1 40 yd dumpster, 1 steam jenny); administrative equipment (8 chairs, 2 tables); communication equipment (1 computer & printer, 1 antenna tower/repeater, 1 low band radio system, 1 phone lines/satellite system, 3 cell phones, 1 fax machine/copier); miscellaneous equipment (support material shipment, 1 drag chain w/ hooks, 4 padlocks, keyed alike, 1 wall tent/canopy, 6 tarps)
Voluntary Agency Field Kitchen (Type IV)	Personnel (15 workers capable of producing 5,000 meals); electrical equipment (1 box fan, 1 propane space heater(s), 1 100kw generator, vendor agreements for daily refueling of generators; 1 electrical drop/generator, 1 portable lighting system(s)); sanitation equipment (1 power washer, 2 portable toilets, 1 hand wash stations, 1 public water system connection); transportation equipment (4 rental truck(s)/van(s), 1 hand truck(s), 1 pallet jack(s), 1 3000-3500 lbs outside forklift(s), 1 kitchen support trailer); emergency equipment (1 first-aid kit/supplies, 2 fire extinguishers); storage equipment (5 cs cambro liners, 1 portable office trailer, 1 gray water storage system, 1 potable water storage system & bulk water, 20 wood pallets, 1 dry storage drop trailer(s), 1 refrigerated drop trailer(s), 1 stretch wrap for palletizing); cleaning equipment (1 clean-up kits/supplies, 1 trash bags, trash removal service, 1 40 yd dumpster, 1 steam jenny); administrative equipment (8 chairs, 2 tables); communication equipment (1 computer & printer, 1 antenna tower/repeater, 1 low band radio system, 1 phone lines/satellite system, 3 cell phones, 1 fax machine/copier); miscellaneous equipment (support material shipment, 1 drag chain w/ hooks, 4 padlocks, keyed alike, 1 wall tent/canopy, 6 tarps)
Voluntary Agency Field Support Unit (Type I)	1 vehicle (48-53' trailer); 2 drivers
Voluntary Agency Mobile Kitchen (Small) (Type I)	3 workers (capable of producing 800 meals) [Commensurate with Salvation Army Canteen]
Voluntary Agency Warehouse	1 facility (100,000 sq ft) with personnel (1 manager, 4 supervisors, 12 team

Resource Elements	Components and Description
Team (Type I)	leads, 33 workers)
Voluntary Agency Warehouse Team (Type II)	1 facility (25,000 sq ft) with personnel (1 manager, 4 supervisors, 15 workers)
Voluntary Agency Warehouse Team (Type III)	1 facility (15,000 sq ft) with personnel (1 manager, 3 supervisors, 11 workers)
Voluntary Agency Warehouse Team (Type IV)	1 facility (10,000 sq ft) with personnel (1 manager, 2 supervisors, 7 workers)
Voluntary Agency Drop Trailer Team	1 dry box trailer, 1 refrigerated trailer, 1 tractor, 1 driver, 1 forklift
Prepackaged meals	Meal, Ready to Eat (MRE) via mission assignment and other private corporations such as HeaterMeal
Shelter Childcare Team (Type 1)	1 worker per 3 infants and 1 worker per 5 non-infants; or 1 team per 250 shelter residents
Meals from contractors (e.g., vendors, caterers)	Contracted caterers and vendors
Type 1 Small Animal Sheltering Team	Per NIMS, there are Type I, II, and III Small Animal Sheltering Teams
Small Animal Transportation Team	Per NIMS, there is a Type I Small Animal Transport Team
Animal Incident Response Team	Per NIMS, there is a Type I, II, and III Incident Management Team for Animal Protection

Planning Assumptions

- General population shelters management will make every attempt to accommodate people with disabilities in general population shelters. In such cases where an individual cannot be accommodated, care should be taken to ensure appropriate referral to a Functional and Medical Support Shelter (formerly known as special needs shelter) or other appropriate facility.
- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Major Earthquake scenario. Other scenarios were reviewed to identify required adjustment or additions to the planning factors and national targets.
- This capability applies to a wide range of incidents and emergencies, including major hurricanes, improvised explosives, pandemic influenza, and improvised nuclear devices.
- An immediate and sustained need for bulk distribution of relief supplies will be required. Requirements will depend on the nature of the human needs produced by the incident.
- Populations likely to require mass care services include the following: 1) Primary victims (with damaged or destroyed homes); 2) Secondary and tertiary victims (denied access to homes); 3) Transients (visitors and travelers within the affected area); and 4) Emergency workers (seeking feeding support, respite shelter(s), and lodging).

- In the initial phase (hours and days) of a catastrophic disaster, organized and spontaneous sheltering will occur simultaneously within and at the periphery of the affected area as people leave the area. Additional congregate sheltering may be required for those evacuating to adjacent population centers.
- Mass care may need to be setup pre-incident for some types of incidents such as a hurricane where evacuations occur prior to landfall. In other instances, the need for mass care may not emerge until after an incident has occurred.
- Depending on the nature of the incident, additional services such as decontamination may need to be arranged prior to admission into a shelter facility.
- The type of incident will affect when mass care services are required (e.g. hurricane may necessitate mass care services being set-up pre-landfall for evacuees, an earthquake would be post-incident).
- The location of the incident will affect the time needed for arrival on-scene.
- The type of incident affects the time needed to verify shelter availability after evaluating structural factors (e.g. accessibility, structural integrity, and level of contamination).
- The type of incident will determine the timeliness of establishing feeding operations due to accessibility of affected populations.
- The population density will affect the demand for feeding at centralized sites.
- The type of incident will determine the accessibility of affected populations in need of bulk distribution services, and determine the availability of resources needed to conduct bulk distribution.
- Shelters will likely experience large numbers of elderly with specific medication requirements and other evacuees on critical home medical care maintenance regimens.
- Significant numbers of Functional and Medical Support Shelters (formerly known as special needs shelters) will likely be required as nursing homes and other similar care facilities are rendered inoperable and are unable to execute their evacuation mutual aid plans and agreements with other local facilities.
- Family reunification within the affected area will be an immediate and significant concern as many family members may be separated at the time of the event.
- Populations with the resources to help themselves will be encouraged to take independent action.
- Assume 763,000 people need mass care support: 313,000 will need shelter and feeding (3 meals a day for the 313,000 people would equal 939,000 meals a day for shelters) immediately, and an additional 450,000 people remaining in the affected area will need feeding. Shelter population will vary between low during the day and higher at night.
- More people will initially flee and seek shelter from terrorist attacks involving CBRNE agents than for natural catastrophic disaster events. They will also exhibit a heightened concern for the health-related implications related to the disaster agent.
- Substantial numbers of trained mass care personnel will be required for an extended period of time to sustain mass care sheltering and feeding activities.
- Timely logistical support to shelters and feeding sites will be essential and required for a sustained period of time. Food supplies from the U.S. Department of Agriculture (USDA) positioned at various locations across the country will need to be accessed and transported to the affected area in a timely manner.
- Census data indicate that 20 percent of the population have a disability, 15 percent of people needing mass care support have a physical or cognitive disability that will require some level of functional care (i.e. personal care assistance, sign language interpreter, mobility assistance, etc.).

- Twenty-five percent of the self-evacuee population will seek shelter out of the area.
- Approximately 37,000 trained workers will be needed to support the general population (worker to recipient ratio—1:30): 32,500 for shelter operations (30,000 within the affected area, 2,500 outside the area) and 4,500 for other human services.
- As a result of the incident, many local emergency personnel – paid and volunteer – that normally respond to disasters may be dead, injured, involved with family concerns, or otherwise unable to reach their assigned posts.
- State and local resources will immediately be overwhelmed; thus, Federal assistance will be needed immediately.
- The event will exceed local capacity for trained mass care staff.
- Service delivery to affected populations by voluntary agencies and NGOs will occur in locations deemed safe by appropriate government officials.
- Immediately following major CBRNE events, decontamination facilities may not be readily available in all locations during the early stages of self-directed population evacuations. Unaware contaminated persons therefore may seek entry to shelters. These facilities may, as a result, become contaminated, adversely affecting resident health and general public trust.
- The average population per shelter will rise with a catastrophic event (estimate 1,000 residents per shelter, versus 250 residents typically) because fewer facilities will be available than the preplanning estimation.
- Public health and medical care will be a significant challenge as local emergency medical services (EMS) resources and medical facilities will likely be overwhelmed quickly. The deployment of public health and medical personnel and equipment to support medical needs will need to be immediate and sustained by the U.S. Department of Health and Human Services.
- Mental health services will be needed by victims and responders in and near the affected area, as well as (on a lesser scale) throughout the nation.
- Some previously identified structures will not be able to be shelters due to actual or potential damage.
- Significant disruption of the affected area’s infrastructure, particularly power, transportation, and communications systems, may occur.
- Timely logistical support to shelters and feeding sites will be essential and required for a sustained period of time.
- Close liaison and coordination with numerous voluntary and nongovernmental organizations (NGOs) will be necessary on the Federal, regional, state, and local levels.
- Disaster welfare information may be a priority concern for family members throughout the nation.
- Transient populations such as tourists, students, and foreign visitors, within the affected areas will require assistance.
- Coordination of information will be extremely important, including informing the public of different types shelters available (e.g. companion animal shelter, Functional, and Medical Support Shelter).
- Immediate response activities focusing on meeting urgent mass care needs should be located in safe areas.
- Adjacent communities need to be prepared to deal with significant numbers of evacuating persons from the affected area. (Those host communities will also need significant mass care support.)
- Co-located but separate companion animal shelters and general population shelters are desired.

- If the general population shelter is not located near the companion animal shelter, more support staff will be necessary in the animal shelter to feed, walk, and care for the animals.
- The evacuation policy of an affected area will determine the number of companion animals arriving at companion animal shelters.
- Sixty percent of the affected population will have companion animals.
- Scenarios typically count the number of persons in shelters as the basis for computing the number of companion animals (CAs). In a scenario with many dead and injured people (which varies by type of event), additional sheltering of CAs will be required. Some CAs will have perished in the same event that killed or injured humans. The assumption is made that the number of animals needing shelter will rise by 10 percent because their owners are either dead or injured.
- Assume 14,000 workers (includes some owners and volunteers) will be needed for companion animal care.
- Companion (small) animal sheltering team requirements assume that the shelters will house only animals. “Pet friendly” shelters (that include owner families with their companion animal) will have a reduced need for staff after the initial setup.
- USDA will coordinate Federal activities in support of companion animals.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Major Earthquake)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Voluntary Agency Shelter Management Team (Type IV)	Capable of managing 1 shelter of 250 shelter residents (Note: In a catastrophic event, the average number of residents per shelter will rise to an average of 1,000 per shelter, changing target levels and type of Shelter Team used to a Type I Shelter Management Team)	313,000 people needing shelter	1,252 Type IV Shelter Teams (an average of 250 people in each shelter)
Voluntary Food Service Delivery Unit (Type I)	Capable of distributing 1,500 meals per day in accordance with safe food handling requirements	1.5 million meals delivered per day	1,000 food service/delivery units (1,000 x 1,500 meals = 1,500,000)
Voluntary Agency Field Kitchen (Type IV)	Capable of providing 5,000 meals per day	1.5 million meals needed per day	300 Voluntary Agency Field Kitchens (Type IV) (300 x 5,000 meals = 1,500,000)
Voluntary Agency Field Kitchen (Type III)	Capable of providing 10,000 meals per day,	1.5 million meals needed per day	150 Voluntary Agency Field Kitchens (Type III) (150 x 10,000 meals = 1,500,000)
Voluntary Agency Field Kitchen (Type II)	Capable of providing 20,000 meals per day	1.5 million meals needed per day	75 Voluntary Agency Field Kitchens (Type II) (75 x

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
			20,000 meals = 1,500,000
Voluntary Agency Field Kitchen (Type I)	Capable of providing 30,000 meals per day	1.5 million meals needed per day	50 Voluntary Agency Field Kitchens (Type I) (50 x 30,000 = 1,500,000)
Voluntary Agency Mobile Kitchen (Type I)	Capable of providing 800 meals per day	1.5 million meals needed per day	1,875 Voluntary Agency Mobile Kitchens (1,875 x 800 meals = 1,500,000)
Voluntary Agency Field Support Unit (Type I)	1 per Type IV kitchen 2 per Type III kitchen 3 Per Type II kitchen 4 per Type I kitchen	300 Type IV kitchens 150 Type III kitchens 75 Type II kitchens 50 Type I kitchens	300 Field Support Units for Type IV 300 Field Support Units for Type III 150 Field Support Units for Type II 200 Field Support Units for Type I
Voluntary Agency Warehouse Team (Type I)	Capable of providing 100,000 square feet	Need 100,000 square feet of space	1 Voluntary Agency Warehouse Teams (Type I)
Voluntary Agency Warehouse Team (Type II)	Capable of providing 25,000 square feet	Need 100,000 square feet of space	4 Voluntary Agency Warehouse Teams (Type II)
Voluntary Agency Warehouse Team (Type III)	Capable of providing 15,000 square feet	Need 100,000 square feet of space	7 Voluntary Agency Warehouse Teams (Type III)
Voluntary Agency Warehouse Team (Type IV)	Capable of providing 10,000 square feet	Need 100,000 square feet of space	10 Voluntary Agency Warehouse Teams (Type IV)
Voluntary Agency Drop Trailer Team	Each kitchen site needs each needing 1 drop trailer for dry goods and 1 drop trailer for refrigerated goods	Maximum of 300 kitchen sites	300 Voluntary Agency Drop Trailer Teams (1 dry goods trailer x 300 kitchen sites max plus 1 refrigerated goods trailer x 300 kitchen sites = 600 trailers)
Prepackaged meals	1 meal per person	1.5 million meals needed per day	1.5 million prepackaged meals
Shelter Childcare Team (Type 1)	Capable of supporting average 250 shelter residents	313,000 people needing shelter	1,252 Shelter Childcare Teams (an average of 250 people in each shelter)
Meals from contractors (e.g., vendors, caterers)	1 meal per person	1.5 million meals needed per day	1.5 million meals from contractors
Type 1 Small Animal Sheltering Team	Capable of handling 300 companion animals per Shelter Team	193,000 animals displaced	643 Type 1 Small Animal Sheltering Teams
Animal Shelter Management	Capable of managing and coordinating 5-7 Shelter	193,000 animals displaced	90-130 Animal Shelter Management Coordination

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Coordination Team	Teams per team		Teams (5-7 Animal Shelter Coordination Teams x 90-130 = 643 Type 1 Small Animal Sheltering Teams)
Small Animal Transportation Team	2 Small Animal Transportation Teams each per Type 1 Small Animal Sheltering Team	193,000 animals displaced	1,286 Small Animal Transportation Teams
Animal Incident Response team	4 animal incident response teams per Type 1 Small Animal Sheltering Team	193,000 animals displaced	2,725 Animal Incident Response Teams

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Volunteer Agency Shelter Management Team (Type IV)	NIMS Typed Resource Organization	6	Per Jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Activate Mass Care Direct Mass Care Operations Establish Shelter Establish Feeding Operations Shelter General Population Close Shelter Demobilize
		15	Per Jurisdiction with population <10-25K		
		30	Per Jurisdiction with population <25-50K		
		60	Per Jurisdiction with population <50-100K		
		150	Per Jurisdiction with population <100-250K		
		300	Per Jurisdiction with population <250-500K		
Type 1 Small Animal Sheltering Team	NIMS Typed Resource Organization	3	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector Federal/State/Local/NGO/Private Sector	Shelter Companion Animals
		6	Per jurisdiction with population 10K-25K		
		12	Per jurisdiction with population 25K-50K		
		23	Per jurisdiction with population <50-100K		
		56	Per jurisdiction with population <100-250K		
		111	Per jurisdiction with population <250-500K		

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Small Animal Transportation Team	NIMS Typed Resource Organization	5	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Shelter Companion Animals
		12	Per jurisdiction with population 10K-25K		
		23	Per jurisdiction with population 25K-50K		
		45	Per jurisdiction with population <50-100K		
		111	Per jurisdiction with population <100-250K		
		222	Per jurisdiction with population <250-500K		
Animal Incident Response Team	NIMS Typed Resource Organization	9	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Shelter Companion Animals
		23	Per jurisdiction with population 10K-25K		
		45	Per jurisdiction with population 25K-50K		
		89	Per jurisdiction with population <50-100K		
		222	Per jurisdiction with population <100-250K		
		444	Per jurisdiction with population <250-500K		
Voluntary agency field kitchen Type IV	NIMS Typed Resource Organization	1	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Establish Feeding Operations Prepare and Distribute Food
		2	Per jurisdiction with population 10K-25K		
		3	Per jurisdiction with population 25K-50K		
		6	Per jurisdiction with population <50-100K		
		16	Per jurisdiction with population <100-250K		
		30	Per jurisdiction with population <250-500K		
Voluntary agency field kitchen Type III	NIMS Typed Resource Organization	1	Per jurisdiction with population <10K-25K	Federal/State/Local/NGO/Private Sector	Establish Feeding Operations Prepare and Distribute Food
		2	Per jurisdiction with population <25K-50K		
		3	Per jurisdiction with population <50-100K		

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
		8	Per jurisdiction with population <100-250K		
		15	Per jurisdiction with population <250-500K		
Voluntary agency field kitchen Type II	NIMS Typed Resource Organization	1	Per jurisdiction with population <25K-50K	Federal/State/Local/NGO/Private Sector	Establish Feeding Operations Prepare and Distribute Food
		2	Per jurisdiction with population <50-100K		
		4	Per jurisdiction with population <100-250K		
		8	Per jurisdiction with population <250-500K		
Voluntary agency field kitchen Type I	NIMS Typed Resource Organization	1	Per jurisdiction with population <25K-100k	Federal/State/Local/NGO/Private Sector	Establish Feeding Operations Prepare and Distribute Food
		2	Per jurisdiction with population <100-250K		
		4	Per jurisdiction with population <250-500K		
Voluntary agency mobile kitchen (Type I)	NIMS Typed Resource Organization	4	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Establish Feeding Operations Prepare and Distribute Food
		10	Per jurisdiction with population <10K-25K		
		20	Per jurisdiction with population <25K-50K		
		38	Per jurisdiction with population <50-100K		
		100	Per jurisdiction with population <100-250K		
		188	Per jurisdiction with population <250-500K		
Voluntary Agency Warehouse Team (Type IV)	Non-NIMS Resource Organization	1	Per jurisdiction with population ≤10K-50K	Federal/State/Local/NGO/Private Sector	Establish Bulk Distribution Operations Conduct Bulk Distribution Operations
		2	Per jurisdiction with population <50-250K		
		3	Per jurisdiction with population <250-500K		
Voluntary Agency Warehouse Team (Type III)	Non-NIMS Resource Organization	1	Per jurisdiction with population ≤10K-100K	Federal/State/Local/NGO/Private Sector	Establish Bulk Distribution Operations Conduct Bulk Distribution Operations
		2	Per jurisdiction with population <100-250K		
		3	Per jurisdiction with population <250-500K		

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Voluntary Agency Warehouse Team (Type II)	Non-NIMS Resource Organization	1	Per jurisdiction with population ≤10K-250K	Federal/State/Local/NGO/Private Sector	Establish Bulk Distribution Operations Conduct Bulk Distribution Operations
		2	Per jurisdiction with population <250-500K		
Voluntary Agency Warehouse Team (Type I)	Non-NIMS Resource Organization	1	Per jurisdiction with population ≤500K	Federal/State/Local/NGO/Private Sector	Establish Bulk Distribution Operations Conduct Bulk Distribution Operations
Voluntary Agency Drop Trailer Team	Non-NIMS Resource Organization	2	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Establish Bulk Distribution Operations Conduct Bulk Distribution Operations
		4	Per jurisdiction with population <10K-25K		
		8	Per jurisdiction with population <25K-50K		
		15	Per jurisdiction with population <50-100K		
		38	Per jurisdiction with population <100-250K		
		75	Per jurisdiction with population <250-500K		
Prepackaged meals	Equipment	3,000	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Prepare and Distribute Food
		7,500	Per jurisdiction with population <10K-25K		
		15,000	Per jurisdiction with population <25K-50K		
		30,000	Per jurisdiction with population <50-100K		
		75,000	Per jurisdiction with population <100-250K		
		150,000	Per jurisdiction with population <250-500K		
Voluntary Agency Shelter Childcare Team (Type I)	Non-NIMS Resource Organization	6	Per jurisdiction with population ≤10K	Federal/State/Local/NGO/Private Sector	Shelter General Population
		15	Per jurisdiction with population <10K-25K		
		30	Per jurisdiction with population <25K-50K		
		60	Per jurisdiction with population <50-100K		

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
		150	Per jurisdiction with population <100-250K		
		300	Per jurisdiction with population <250-500K		
Meals from contractors (e.g., vendors, caterers)	Resource Organization	1.75M	Nationally (1.5 Million plus 250,000 capacity needed to respond to concurrent disasters)	Federal/State/Local/NGO/Private Sector	Prepare and Distribute Food

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.

This page intentionally left blank

FATALITY MANAGEMENT

Capability Definition

Fatality Management is the capability to effectively perform scene documentation; the complete collection and recovery of the dead, victim’s personal effects, and items of evidence; decontamination of remains and personal effects (if required); transportation, storage, documentation, and recovery of forensic and physical evidence; determination of the nature and extent of injury; identification of the fatalities using scientific means; certification of the cause and manner of death; processing and returning of human remains and personal effects of the victims to the legally authorized person(s) (if possible); and interaction with and provision of legal, customary, compassionate, and culturally competent required services to the families of deceased within the context of the family assistance center. All activities should be sufficiently documented for admissibility in criminal and/or civil courts. Fatality management activities also need to be incorporated in the surveillance and intelligence sharing networks, to identify sentinel cases of bioterrorism and other public health threats. Fatality management operations are conducted through a unified command structure

Outcome

Complete documentation and recovery of human remains and items of evidence (except in cases where the health risks posed to personnel outweigh the benefits of recovery of remains). Remains receive surface decontamination (if indicated) and, unless catastrophic circumstances dictate otherwise, are examined, identified, and released to the next-of-kin’s funeral home with a complete certified death certificate. Reports of missing persons and ante mortem data are efficiently collected. Victims’ family members receive updated information prior to the media release. All hazardous material regulations are reviewed and any restrictions on the transportation and disposition of remains are made clear by those with the authority and responsibility to establish the standards. Law enforcement agencies are given all information needed to investigate and prosecute the case successfully. Families are provided incident-specific support services.

Relationship to National Response Plan ESF Annex

This capability supports the following Emergency Support Functions (ESFs):

- ESF #4: Firefighting
- ESF #8: Public Health and Medical Services
- ESF #9: Urban Search and Rescue
- ESF #10: Oil and Hazardous Materials Response
- ESF #13: Public Safety and Security

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.C4a 1.1	Identify entity responsible for developing and maintaining plans, procedures, programs and systems across all hazards

Res.C4a 1.1.1	Involve Medical Examiner/Coroner (ME/C), emergency preparedness, public health, hospitals, and funeral directors, at a minimum, in the development of plans and procedures	
Res.C4a 1.1.2	Develop and maintain comprehensive fatality management mission critical list (i.e., facilities, personnel and agencies)	
Res.C4a 1.1.3	Develop contingency plan for obtaining surge personnel for fatality management	
ResC4a 1.2	Develop plans, procedures, protocols, and systems for Scene Operations	
ResC4a 1.3	Develop plans, procedures, protocols, and systems for Morgue Operations	
ResC4a 1.4	Develop plans, procedures, protocols, and systems for Antemortem Data Management	
ResC4a 1.5	Develop plans, procedures, protocols, and systems for Victim Identification	
ResC4a 1.6	Develop plans, procedures, protocols, and systems for Final Disposition	
ResC4a 1.6.6	Develop contingency plans for final disposition of remains	
ResC4a 1.7	Develop plans, procedures, protocols, and systems for Fatality Surge	
Preparedness Measures		Metrics
A comprehensive fatality management plan is in place		Yes/No
Fatality management plan addresses management of facilities (e.g. morgue locations, portable and temporary morgues, decontamination, storage)		Yes/No
Fatality management plan addresses management of family relations (e.g. notification, grief services, antemortem information)		Yes/No
Fatality management plan addresses victim identification (e.g. conduct DNA, finger/palm/foot print analysis; compare morgue and Family Assistance Center information)		Yes/No
Fatality management plan addresses antemortem data management (e.g. establish record repository and its housing facility, conduct DNA collection of family members, enter interview data into library, balance victim needs with those who have lost family members)		Yes/No
Fatality management plan addresses personnel needs (e.g. medical, psychological, financial assistance)		Yes/No
Fatality management plan addresses documenting on-site Fatality Management operations (e.g. photographing, measuring, obtaining witness statements)		Yes/No
Frequency with which the comprehensive fatality management mission critical list (i.e., facilities, personnel and agencies) is reviewed and updated		Every 12 months
Frequency with which contingency plans with local, State, and private entities regarding final disposition of remains (e.g., contaminated, unclaimed remains) are updated		Every 2 years
Frequency with which contingency plans with local, State, and private entities regarding surge (e.g., pandemic flu, natural disasters, terrorism) are updated		Every 2 years
Frequency with which the collection, storage and management of antemortem data is updated		Every 2 years

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks

Res.C4a 2.1	Develop and implement training programs for fatality management
-------------	---

Res.C4a 2.2	Develop and implement exercise programs for fatality management	
Preparedness Measures		Metric
Frequency with which training is conducted for augmented fatality management personnel (i.e., law enforcement, fire, dental ID team, anthropologists, funeral directors)		Every 2 years
Frequency with which exercises are conducted contingency plans with local, State, and private entities regarding final disposition of remains (i.e., contaminated, unclaimed remains)		Every 2 years
Frequency with which exercises are conducted for contingency plans with local, State, and private entities regarding surge (i.e., pandemic flu, natural disasters, terrorism)		Every 2 years
Frequency with which training is conducted on the collection, storage and management of antemortem data		Every 2 years

Performance Tasks and Measures/Metrics

Activity: Direct Fatality Management Tactical Operations		
Definition: Direct all internal Fatality Management Operations, coordinating with other capabilities as needed		
Critical Tasks		
Res.C4a 3.1	Coordinate Fatality Management	
Res.C4a 3.6.1	Coordinate Federal mortuary/morgue services	
Res.C4a 3.6.2	Coordinate with local legal authority in mortuary affairs	
Res.C4a 3.4.3	Coordinate State assistance for next-of-kin notification and collection of antemortem information	
Res.C4a 3.1.1	Identify medico-legal authority	
Res.C4a 3.1.2	Coordinate with medical facility/Department of Public Health/general medical community	
Res.C4a 3.2.1	Develop fatality management inputs to an incident action plan (IAP) by evaluating previously developed plans, procedures, protocols, and systems	
Res.C4a 3.1.4	Coordinate with public health and regulatory agencies to develop plans, procedures, and protocols to protect fatality management personnel from infectious diseases, environmental, radiological, chemical, and other hazards when handling remains	
Res.C4a 3.3.1	Identify key morgue staff	
Res.C4a 3.4.1	Identify Medical Examiner/Coroner staff for antemortem data collection in Family Assistance Center	
Res.C4a 3.5.1	Coordinate regional and State assistance for victim identification and mortuary services, and the processing, preparation, and disposition of remains	
Performance Measures		Metric
Surge morgue resources are activated		Yes/No
Time in which suitable facilities for fatality management activities are located		Within 18 hours from report of deceased victims

Activity: Activate Fatality Management Operations**Definition: Notify and mobilize appropriate personnel**

Critical Tasks	
Res.C4a 4.1	Activate scene operations
Res.C4a 4.2.1	Mobilize medical examiner/coroner
Res.C4a 4.2.5	Provide primary care physician with medico-legal authority
Res.C4a 4.3.1	Deploy portable morgue as appropriate
Res.C4a 4.2	Activate and implement fatality surge plan
Res.C4a 4.3.2	Determine morgue location
Res.C4a 4.4	Request activation of DMORT as appropriate
Performance Measures	Metric
Appropriate number of physicians with medical legal authority are available based on incident needs	Yes/No
Time in which functional morgue facilities (e.g., portable morgue) are set up	Within 24 hours from arrival on-scene
Time in which surge resources and personnel are operational	Within 12 hours from callout
Time in which DMORT arrives on-scene and sets up	Within 72 hours from callout

Activity: Conduct On-scene Fatality Management Operations**Definition: Conduct scene evaluation, document, and remove fatalities from scene**

Critical Tasks	
Res.C4a 5.1	Conduct scene survey for fatality management operations
Res.C4a 5.2	Document scene for fatality management operations
Res.C4a 5.2.2	Document (photograph, measure, obtain witness statements) in a manner consistent with the Medical Examiner/Coroner's incident plan
Res.C4a 5.3.1	Gather forensic evidence for fatality management operations
Res.C4a 5.5	Remove remains to staging
Res.C4a 5.4	Decontaminate remains
Res.C4a 5.5.2	Recover human remains in a dignified manner
Res.C4a 5.5.3	Transport remains to staging
Res.C4a 5.	Transfer remains from staging to morgue operations

Performance Measures	Metric
Time in which initial scene survey is completed	Within 2 hours from notification
Time in which appropriate refrigerated storage units arrive on-scene	Within 48 hours from notification

Activity: *Conduct Morgue Operations*

Definition: Store remains temporarily, and conduct multi-specialty forensic analysis of human remains to determine the cause and manner of death

Critical Tasks	
Res.C4a 6.1	Implement morgue operations
Res.C4a 6.3	Receive remains at morgue
Res.C4a 6.4	Store human remains
Res.C4a 6.6.2	Package personal effects found with remains for return to next of kin (if possible)
Res.C4a 6.5	Perform autopsies
Performance Measures	Metric
Percent of remains tracked through morgue	100%
Percent of personal effects tracked with appropriate set of remains	100%
Percent of complete and accurate records following quality control procedure	100%

Activity: *Manage Antemortem Data*

Definition: Initiate plan for the collection and management of antemortem information from family members and other sources

Critical Tasks	
Res.C4a 7.1	Activate antemortem data collection activities
Res.C4a 7.1.1	Establish antemortem record repository and its housing facility
Res.C4a 7.2	Conduct collection of antemortem information
Res.C4a 7.2.3	Conduct DNA collection of family members
Res.C4a 7.4	Enter data obtained in interviews into library
Res.C4a 7.3	Implement a balanced approach to address the needs of victims versus those families who have lost family members
Performance Measures	Metric
Time in which a communications system is activated for the general public to report missing persons	Within 60 minutes from incident
Time in which first public announcement is made of missing persons reporting	Within 4 hours from incident

Time in which Jurisdictional Medical Examiner/Coroner (ME/C) participates in the family assistance center (if one is established)	Within 2 hours from Family Assistance Center establishment
Time in which the antemortem information collection process is activated and staffed	Within 48 hours from incident
Time in which the repository/library is ready to receive antemortem victims' records from establishment of Family Assistance Center (FAC)	Within 48 hours from incident

Activity: Conduct Victim Identification

Definition: Compile antemortem records of missing individuals and compare those to the repository of postmortem data collected through On-scene and Morgue Operations

Critical Tasks

Res.C4a 8.1	Activate victim identification operations
Res.C4a 8.2.5	Compare data from morgue and Family Assistance Center
Res.C4a 8.2.1	Conduct DNA analysis as indicated
Res.C4a 8.2.2	Conduct fingerprint/palmprint/footprint analysis
Res.C4a 8.2.3	Check with local/State/Federal/international databases
Res.C4a 8.3	Identify remains

Performance Measures

Metric

Percent of recovered remains identified	100%
Time in which antemortem and postmortem medical, dental, and fatality management databases are ready to receive records from establishment of Family Assistance Center (FAC)	Within 48 hours from FAC establishment

Activity: Conduct Final Disposition

Definition: Return the human remains and personal effects to the families or designated legal authority (ie, ME/C, Sheriff) for final disposition following recovery, decontamination, determination of the cause and manner of death and positive identification

Critical Tasks

Res.C4a 9.1	Activate final disposition operations
Res.C4a 9.1.1	Issue death certificate
Res.C4a 9.2	Notify next-of-kin
Res.C4a 9.2.1	Release remains to next-of-kin or local authorities if no next-of-kin are identified
Res.C4a 9.2.4	Return affects to next-of-kin

Performance Measures

Metric

Percent of deceased individuals for whom death certificate is issued	100%
--	------

Activity: Demobilize Fatality Management Operations**Definition: Return all fatality management assets and resources to pre-incident readiness levels**

Critical Tasks		
Res.C4a 10.2	Reconstitute fatality management personnel and equipment	
Res.C4a 10.2.1	Participate in operational review of fatality management operations	
Res.C4a 10.3.1	Identify fatality management staff post-operational needs	
Res.C4a 10.3.2	Provide information to fatality management personnel on where and how to obtain medical, psychological, and financial assistance	
Performance Measures		Metric
Time in which irretrievable resources are re-ordered		Within 48 hours from start of demobilization
Percent of fatality management personnel participating in operational review		100%

Linked Capabilities

Linked Capability	Relationship
On-Site Incident Management	Fatality Management integrates itself into the local Incident Command/Unified Command system. On-Site Incident Management also provides the initial notification of deaths to Fatality Management.
Search and Rescue (Land-Based)	Fatality Management receives deceased victims from Search and Rescue (Land-Based) personnel.
Emergency Triage and Pre-Hospital Treatment	Fatality Management receives deceased victims from Emergency Triage and Pre-Hospital Treatment personnel.
WMD and Hazardous Materials Response and Decontamination	Fatality Management receives deceased victims from HazMat personnel.
Fire Incident Response Support	Fatality Management receives deceased victims from Fire Incident Response Support personnel.
Emergency Public Safety and Security Response	Fatality Management receives deceased victims from Emergency Public Safety and Security Response personnel. This capability also provides perimeter security for Morgue Operations.
Emergency Public Information and Warning	Emergency Public Information provides information on family assistance to next-of-kin
Counter-Terror Investigation and Law Enforcement	Fatality Management receives access to law enforcement databases to aid the victim identification.
Epidemiological Surveillance and Investigation	Fatality Management coordinates with Epidemiological Surveillance and Investigation in determining if a death is the result of an exposure or disease.

Resource Element Description

Resource Elements	Components and Description
Department of Defense Mortuary	
Disaster Mortuary Operational Response Team (DMORT) – Type 1	Per NIMS
DMORT - WMD	Per NIMS
DMORT-Family Assistance Center (FAC)	Personnel: Family Assistance Center (FAC) manager, DNA specialist, data entry, administrative, FAC core support elements, scheduler, medical records specialist, interview specialist, language interpreter (all necessary languages), antemortem IT/communications team, notification team, social services rep/Chaplain, ME/C public affairs officer
Deployable Portable Morgue Unit (DPMU)	Per NIMS
Morgue Operations Team	Personnel: Funeral director or embalmer, body tracker (should be funeral directors, medico-legal investigators (MLI) or similar), forensic odontologist team, fingerprint specialist, X-Ray technician or radiologist, postmortem IT manager, post-mortem data entry clerk, forensic anthropologist, DNA specialist, forensic pathology team, PE technician (MLI), evidence technician (LEO), lab technicians, security team, safety officer
Morgue Security Team	
DOJ/FBI Evidence Response Team Unit	
Body Recovery Unit	
Medical Support Team	
Field Investigative Unit	Per DPMU. Personnel: Medico-Legal Investigator (MLI), Law Enforcement Investigative Unit, Photographer (Photo), Scribe/GPS coordinates (Scribe), Anthropologists, Dental Team
Scene Logistics Team	
Escort Security Team (provided by ESF 13)	
FM Staging Security Team	
Incident Historian	
Remains Decontamination Team	
Underwater Recovery Team (provided by ESF 9)	
Jurisdictional Medical Examiner/Coroner (ME/C)	
Refrigerated storage	
Mortuary Officers (Funeral Directors)	
Family Assistance Center (FAC)	

Resource Elements	Components and Description
personnel/Antemortem Data Collection Team	
Medical Examiner/Coroner Public Affairs Officer	
ME/C Public Information Officer	
Scene operations personnel/Recovery Team: (per 12 hr shift)	
Safety Officer	
Scene Communications Team	
Storage Officer	
FAC Manager	
DNA Specialist	20 personnel from law enforcement or DNA specialists per shift
Data entry	
Administrative	
Scheduler	
Medical Records Specialist	
Interview Specialist	
Language Interpreter (all necessary languages)	
Antemortem IT/Communications Team	
Notification Team	
Social services representative /chaplain	
Law Enforcement	
Embalming Section	
Body Tracker	One or more Funeral Directors, MLIs, or similar personnel
Dental Section	
Fingerprint Section	
Radiology Section (digital equipment)	
Postmortem IT Manager	
Post-Mortem Data Entry Clerk	
Anthropology Section	
DNA Section	
Pathology Section	
Personnel Effects and Photography Section	
Logistics Section	
Safety Officer	
Medical Team	

Resource Elements	Components and Description
City Engineers/Inspectors	
State Dental Association (Response Team)	
State ME/C Association (Response Team)	
State Funeral Director Association (Response Team)	
NTSB Family Assistance Team	
DHS National Disaster Medical System's (NDMS) Disaster Medical Assistance Teams (DMAT)	
DHS Nuclear Incident Support Teams (NIST)	

Planning Assumptions

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the Improvised Nuclear Device (IND) scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- This Capability applies to a wide range of incidents and emergencies, accidental or deliberate including disease outbreaks, geological and meteorological disasters, nuclear, hazardous materials (hazmat) or conventional events and all manners of transportation incidents (land, air, marine).
- Family members will mobilize to the incident scene to search for loved ones.
- Families will surge for information on unaccounted family members and share information on unaccounted family members.
- Recovery and identification of remains is expected to continue for multiple years.
- Active duty military will be victims in the event. Therefore, the military's Casualty Assistance Office will be involved.
- Emergency workers, including those necessary for fatality management, may not report to duty due to evacuating their families or because they have been injured or killed.
- Sceneops: After the recovery process begins, a Recovery team (consisting of Field Investigation and Body Handling Units) will process 3 bodies/hour (for a 12-hr shift).
- Under ideal circumstances (non-contaminated, physically identifiable, and intact remains), the Dover Mortuary – at full resource activation (12 (Medical Examiner/Coroner (ME/C), plus support staff and logistic support) – can handle 100 cases per day.
- Antemortem Data Collection In The Family Assistance Center (FAC) A 2-person interview team in the FAC requires 2 hours/family interview (+ breaks). 5 families can be interviewed over the course of a 12-hour shift by one team. Additional support elements handle the collection and management of specimens (DNA) and records (medical).
- Morgueops: One 35-member Morgue Operations team can process and positively identify 5 bodies/day (based on historical data – see attachment A)
- The National Association of Medical Examiners recommends that a pathologist can adequately perform 250-350 autopsies per year.
- Scene hazards such as structural collapse, explosives and chemical hazards are communicated to the ME/C upon notification and/or arrival.

- Fatality management staffing includes ME/C, funeral service personnel, cemetery and crematorium personnel, dentist, anthropologist, crime lab technician, and any other person whose responsibility involves direct handling of human remains.
- The ME/C is defined as the agency chief and all staff authorized to act on behalf of his/her authority (e.g., Medico Legal Investigators [MLI]).
- Community leaders will support the time requirements to conduct a safe, efficient, methodical, and complete collection of human remains and evidence for the purposes of crime scene investigation for law enforcement (LE) and victim ID for the ME/C.
- As worker safety permits, remains, personal effects and items of evidence will be processed by fatality management personnel in accordance with incident action plan (IAP).
- Deaths will be protracted and require medical treatment facilities to report deaths to ME/C.
- There will be multiple sites for managing fatalities in multiple jurisdictions.
- ME/C may have to institute a unified command with other ME/C.
- ME/C may have to institute a decentralized approach due to lack of communications and geographical distribution.
- Different jurisdictions have different laws about public health emergencies and who has authority.
- Different jurisdictions have different laws pertaining to the issuance of death certificates when there is no scientific evidence of an individual's remains.
- Different jurisdictions may have different standards for processing remains, identifying remains, ruling out atypical cases, those requiring autopsy and establishing cause and manner of death.
- There may be a large discrepancy in the identification and release of bodies among jurisdictions.
- In the event of widely dispersed mass fatalities, significant damage to infrastructure, and/or where the risks posed to Fatality Management personnel outweigh the benefit of conducting scene operations, performance of critical tasks will take longer to accomplish
- IND in a single event located in a major urban area.
- The explosion and electromagnetic pulse have disrupted/destroyed infrastructure, taking out communications, electrical grids, water, transportation, and computers at ground zero. Electrical outages may cascade down the stem causing blackouts on the entire Eastern seaboard.
- There may be simultaneous transportation accidents due to flash blindness or permanent retinal damage in operators.
- The Federal Government would be severely impacted with cascading implications.
- There will be up to 229,270 fatalities.
- Due to the severity of the explosion, no remains will be found in the crater (30 percent of fatalities = 68,781). However, appropriate legal document will be required to be generated by the medical-legal authority (death certificate by judicial decree).
- Some remains will be in areas of high levels of fallout. (20 percent of fatalities = 45,854). These remains in the hot zone will not begin to be recovered until between 3 and 14 days after incident at which time the radiation level should be approximately 0.1 percent of its initial level following the detonation of the IND.
- The majority of remains available for immediate processing (50 percent of fatalities = 114,635) will be burn victims in areas where radiation is not hazardous.
- The local ME/C is no longer operationally functional due to the effects of the IND. Mutual aid with the adjoining medical examiner system will respond to assist the local medical examiner.

- Decontamination: At present, decontamination assets are at the Federal level and consist of one Department of Defense (DOD) team and one Disaster Mortuary Operational Response Team – Weapons of Mass Destruction (DMORT-WMD) team. These resources would take 12 – 24 hours to arrive on-scene after receiving orders and could process up to 25 bodies/hour. This assumption does not include the actual recovery of the contaminated remains.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated capacity	Scenario Requirement values	Quantity of resources needed
Disaster Mortuary Response Team (DMORT)			
DMORT-WMD			
DMORT Family Assistance Team			
Deployable Portable Morgue Unit (DPMU)	2	2	2
Morgue operations Team	Time frames are based on 1.5 hrs to perform each autopsy.	112,000 set of remains to autopsy.	A morgue ops team this size can process 100 sets of remains per day (12 hour shift per morgue)
Security Team (provided by ESF 13)			
Body Recovery Unit	1 Body Recovery Unit for each Field Investigative Unit. 4 body handlers per team	15 units per 12 hr shift (5 units suiting, 5 in field and 5 coming out of field)	414 days
Medical Support Team			
Field Investigative Unit	Each unit can recover 36 bodies per shift	15 units per 12 hr shift (5 units suiting, 5 in field and 5 coming out of field)	414 days
Scene Logistics Team	1 per incident	1 per incident	414 days
Escort Security Team (provided by ESF 13)	1 per field investigative unit, 1 per body recovery unit	10 teams per 12 hr shift	414 days
FM Staging Security Team	2 teams, one for hot and cold		414 days

Resource Organization	Estimated capacity	Scenario Requirement values	Quantity of resources needed
	staging areas		
Incident Historian	1 team per incident	1 team per incident	1 team
Remains Decontamination Team	2 remains per 1 hr per 35 member team	16 teams per day	388 days
Underwater Recovery Team (provided by ESF 9)			
Jurisdictional Medical Examiner/Coroner (ME/C)	1 per jurisdiction	1 per jurisdiction	1 for each jurisdiction affected
Family Assistance Center (FAC) personnel/Antemortem Data Collection Team	Historical data shows 10 family members will present at the FAC for each victim.	If FACs are established for the IND scenario we assume 1,000,000 will present at FACs/FAC.) However, it may well be that antemortem information will be collected telephonically.	
Medical Examiner/Coroner Public Affairs Officer	1 per shift	2 per day	6 per day
ME/C Public Information Officer	1	1	1
Scene operations personnel/Recovery Team: (per 12 hr shift)			
Safety Officer	1 per incident	1 per incident	414 days
Scene Communications Team	1 per incident	1 per incident	414 days
Storage Officer	1 per incident	1 per incident	414 days
FAC Manager	1 per FAC	1 per FAC	1 per affected jurisdiction = 3
DNA Specialist	each specialist can collect 2 samples per hour	40 per day for each FAC	120 per day
Data entry	50-60 personnel	120 per day for each FAC	360 per day
Administrative	5 per shift	10 per day	30 per day
Scheduler	2 personnel	4 per day	12 per day
Medical Records Specialist	10 personnel per	20 per day	60 per day

Resource Organization	Estimated capacity	Scenario Requirement values	Quantity of resources needed
	shift		
Interview Specialist	100 teams of 2 each per shift – each team can interview 5 families per day	200 per day -	600 per day
Language Interpreter (all necessary languages)	As situation dictates		
Antemortem IT/Communications Team	5 personnel per team per shift	10 per day	30 per day
Notification Team	20 per daytime shift	20 per day	60 per day
Social services representative /chaplain	As determined by social services/chaplain		
Law Enforcement	As determined by law enforcement		
Embalming Section	4 personnel per station	48 personnel (8 embalmings per shift)	1100 days
Body Tracker (should be Funeral Directors, MLI's or similar)	8 personnel per shift	16 personnel per day	1100 days
Dental Section	5 personnel per station	10 personnel per day	1100 days
Fingerprint Section	2 personnel per station	4 per day	1100 days
Radiology Section (digital equipment)	2 personnel per station	4 per day	1100 days
Postmortem IT Manager	1 = section leader	2 per day	1100 days
Post-Mortem Data Entry Clerk	3 per section	6 per day	1100 days
Anthropology Section	2 personnel per section	4 per day	1100 days
DNA Section	2 personnel per section	4 per day	1100 days
Pathology Section	3 personnel per section	6 per day	1100 days

Resource Organization	Estimated capacity	Scenario Requirement values	Quantity of resources needed
Personnel Effects and Photography Section	4 personnel per section	8 per day	1100 days
Logistics Section	4 personnel per shift	8 per day	1100 days
Safety Officer	1 per shift		
Medical Team	1 per morgue		
City Engineers/Inspectors			
State Dental Association (Response Team)			
State ME/C Association (Response Team)			
State Funeral Director Association (Response Team)			
NTSB Family Assistance Team			
DHS National Disaster Medical System's (NDMS) Disaster Medical Assistance Teams (DMAT)			
DHS Nuclear Incident Support Teams (NIST)			

Approaches for Large-Scale Events

(Please see introduction to Fatality Management Target Capability document as well as discussion of IND earlier in this document).

Pandemic Influenza

- Personnel involved in fatality management should be considered as critical and be given as the same priority group determination as first responders for the distribution of limited antiviral medications and vaccines.
- Because pandemic influenza is a natural disease event, the Medical Examiner/Coroner (ME/C) may or may not have the lead responsibility to manage fatalities. In some areas, local jurisdictional authorities in coordination with hospitals, funeral homes, and EMS and law enforcement responders will likely manage the remains. In some jurisdiction, the Medical Examiner/Coroner's (ME/C) primary role may be to assist in the identification process.
- The influenza pandemic would spread quickly across the United States, affecting most communities virtually simultaneously for purposes of planning. The use of assets at the Federal Government would likely be relatively small related to the local demands for its voluntary DMORT members. Similarly, DOD assets would likely be stretched very thin.

- Among working aged adults, about 20 percent to 25 percent will become ill during the pandemic wave. About 10 percent will be sick or caring for ill family members during the peak of the community outbreak. Rates could be higher in some communities or work settings.

Aerosol Anthrax

- Fatalities would be victims of crime (terrorism)
- Most would die in medical facilities; could be dispersed geographically
- ME/C in coordination with law enforcement would need to establish what level of evidence would need to be collected from remains (e.g., would 100 percent need autopsies, or some lesser number)
- Fatality Management workers should be treated as first responders are with respect to personal protective equipment (PPE) and medications/vaccinations.
- The need for restrictions on final disposition, if any, e.g. cremation should be addressed in the planning process and implemented in the response.

Pneumonic Plague

- Criminal event (terrorism).
- ME/C in coordination with law enforcement would need to establish what level of evidence would need to be collected from remains (e.g., would 100 percent need autopsies, or some lesser number)
- Due to person-to-person transmission, some of the same issues as pandemic influenza.
- The need for restrictions on final disposition (cremation), precautions for transportation of remains, decontamination of transport vehicles, and other issues should be addressed in the planning process and implemented in the response.
- Fatality Management workers should be treated as first responders are with respect to PPE and medications/vaccinations.

Blister Agent

- Criminal event so ME/C would be heavily involved.
- Fatalities would need to be decontaminated unless this had occurred en route to medical treatment.

Toxic Industrial Chemical

- Fatalities would need to be decontaminated unless this had occurred en route to medical treatment.
- State, Regional, or Federal assets may be needed depending on the jurisdiction in which it occurs.

Nerve Agent

- ME/C in coordination with law enforcement would need to establish what level of evidence would need to be collected from remains (e.g., would 100 percent need autopsies, or some lesser number)
- Fatalities would need to be decontaminated unless this had occurred en route to medical treatment.
- Due to the large number of fatalities, all levels of governmental response would likely be activated.

Chlorine Tank Explosion

- ME/C in coordination with law enforcement would need to establish what level of evidence would need to be collected from remains (e.g., would 100 percent need autopsies, or some lesser number)
- Fatalities would need to be decontaminated unless this had occurred en route to medical treatment.
- Due to the large number of fatalities, all levels of governmental response would likely be activated.

Major Earthquake

- Search & Rescue (Land-Based) would be heavily involved in extracting remains from collapsed structures. The rate of recovery would influence the mortuary workload.

- The severe damage to infrastructure as well as large number of infrastructure makes it likely that a centralized call center outside the region would be established to collect missing persons reports and help reunite families/friends and determine those likely dead. This would also reduce the strain posed by bringing personnel into an area already strapped for shelter, food, etc. Antemortem data could be collected telephonically as needed. These capabilities could be returned to the State as infrastructure is re-established.
- While this is a natural event, ME/C would likely be heavily involved in the identification process of remains.

Radiological Dispersal

- Due to criminal nature of event, ME/C and law enforcement would work together closely.
- Those who are killed by the explosion would need decontamination. Those dying later in a medical facility should not require this.

Improvised Explosive Device

- Due to criminal nature of event, ME/C and law enforcement would work together closely.
- Depending on the location, the number of fatalities could require State, regional, and, perhaps, Federal assistance to manage the surge.

Food Contamination

- ME/C in coordination with law enforcement would need to establish what level of evidence would need to be collected from remains (e.g., would 100 percent need autopsies, or some lesser number)

Target Capability Preparedness Level

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Department of Defense Mortuary	Federal Resource Organization	1	Nationally	Federal	Activate Fatality Management Operations Conduct Morgue Operations Manage Antemortem Data Conduct Victim Identification Conduct Final Disposition Demobilize
Disaster Mortuary Operational Response Team (DMORT) – Type 1	NIMS Resource Organization		Nationally (DHS FEMA NDMS)	Federal	Activate Fatality Management Operations Conduct On-scene Operations Conduct Morgue Operations Demobilize

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
DMORT - WMD	NIMS Resource Organization		Nationally (DHS FEMA NDMS)	Federal	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
DMORT-Family Assistance Center (FAC)	Non-NIMS Resource Organization		Nationally (DHS FEMA NDMS)	Federal	Activate Fatality Management Operations Manage Antemortem Data Demobilize
Deployable Portable Morgue Unit (DPMU)	NIMS Resource Organization	3	Nationally (DHS FEMA NDMS)	Federal (DHS/FEMA)	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Deployable Portable Morgue Unit (DPMU)	NIMS Resource Organization	1	Per every 5 States	State	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Morgue Operations Team	Non-NIMS Resource Organization	1	Per Federal Deployable Portable Morgue Unit	Federal	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Morgue Operations Team per DPMU	Non-NIMS Resource Organization	1	Per State Deployable Portable Morgue Unit	State	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Morgue Security Team	Non-NIMS Resource Organization	1	Per Federal or State Deployable Portable Morgue Unit	State/Local	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
DOJ/FBI Evidence Response Team Unit	Non-NIMS Resource Organization			Federal	Activate Fatality Management Operations Conduct On-

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					scene Operations Demobilize
Body Recovery Unit	Non-NIMS Resource Organization	30	Per Federal or State Deployable Portable Morgue Unit	Federal/State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Medical Support Team	Non-NIMS Resource Organization	1	Per Federal or State Deployable Portable Morgue Unit	Federal/State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Field Investigative Unit	Non-NIMS Resource Organization	30	Per Federal or State Deployable Portable Morgue Unit	Federal/State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Scene Logistics Unit	Non-NIMS Resource Organization	1	Per Federal or State Deployable Portable Morgue Unit	Federal/State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Escort Security Team	Non-NIMS Resource Organization	30	Per Federal or State Deployable Portable Morgue Unit	Federal/State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Fatality Management Staging Security Team	Non-NIMS Resource Organization	1	Per staging area (26)	State/Local	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Incident Historian Team	Non-NIMS Resource Organization	1	Per State	State	Direct Fatality Management Tactical Operations Activate Fatality Management Operations Conduct On-

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					scene Operations Conduct Morgue Operations Manage Antemortem Data Conduct Victim Identification Demobilize
Remains Decontamination Team	Non-NIMS Resource Organization	16	Per State Deployable Portable Morgue Unit	State/Local	Activate Fatality Management Operations Conduct On-scene Operations Conduct Morgue Operations Demobilize
Dive (underwater) Recovery Team	Non-NIMS Resource Organization	28	Nationally at pre-determined locations	Federal	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Dive (underwater) Recovery Team	Non-NIMS Resource Organization	1	Per State	State	Activate Fatality Management Operations Conduct On-scene Operations Demobilize
Medical Examiner/Coroner	Personnel	1	Per State	State	Direct Fatality Management Tactical Operations Activate Fatality Management Operations Conduct On-scene Operations Conduct Morgue Operations Conduct Victim Identification Conduct Final Disposition Demobilize
Medical Examiner/Coroner	Personnel	1	Per jurisdiction	Local	Direct Fatality Management

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
					Tactical Operations Activate Fatality Management Operations Conduct On-scene Operations Conduct Morgue Operations Conduct Victim Identification Conduct Final Disposition Demobilize
Refrigerated storage (to accommodate 200 remains)	Equipment	1	Nationally	Federal	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Refrigerated storage (to accommodate 100 remains)	Equipment	1	Per State	State	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Refrigerated storage (accommodate remains)	Equipment	1	Per 10% of local population	Local	Activate Fatality Management Operations Conduct Morgue Operations Demobilize
Mortuary Officers (Funeral Directors)	Personnel			Federal/State/Local	Direct Fatality Management Tactical Operations Activate Fatality Management Operations Conduct Morgue Operations Conduct Victim Identification Conduct Final Disposition Demobilize

Resource Element Unit	Type of Element	# of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Antemortem Data Collection Team within Family Assistance Center	Non-NIMS Resource Organization	3	Nationally	Federal	Activate Fatality Management Operations Manage Antemortem Data Demobilize
Antemortem Data Collection Team within Family Assistance Center	Non-NIMS Resource Organization	1	Per State	State	Activate Fatality Management Operations Manage Antemortem Data Demobilize
Antemortem Data Collection Team within Family Assistance Center	Non-NIMS Resource Organization	1	Per UASI	Local	Activate Fatality Management Operations Manage Antemortem Data Demobilize

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf
5. OSHA Technical Manual. U.S. Department of Labor. January 1999.
6. Biological and Chemical Terrorism: Strategic Plan for Preparedness and Response. Centers for Disease Control and Prevention. April 2000. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4904a1.htm>
7. First Responders Guidelines for Mass Casualty Decontamination during a Terrorist Chemical Agent Incident. United States Army Soldier and Biological Chemical Command. 2000. <http://www1.va.gov/vasafety/docs/July25-2000-DASHOCall.pdf>.
8. Mass Fatality Incidents: A Guide for Human Forensic Identification. Special report. Technical Working Group for Mass Fatality Forensic Identification. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. June 2005. NCJ 199758.
9. Capstone Document: Mass Fatality Management for Incidents Involving Weapons of Mass Destruction. Department of the Army, Research Development and Engineering Command, Military Improved Response Program and U.S. Department of Justice, Office of Justice Programs, Office for Domestic Preparedness. February 2005 (forthcoming 2005).
10. Mass Fatality Plan. National Association of Medical Examiners. <http://www.thename.org/Library/NAME%20Mass%20Fatality%20Plan%20with%20appendices.pdf>.

11. Death Investigations System Descriptions. Centers for Disease Control and Prevention.
http://www.cdc.gov/epo/dphsi/mecisp/death_investigation.htm

Recover Mission Area Target Capabilities

This page intentionally left blank

STRUCTURAL DAMAGE ASSESSMENT

Capability Definition

Structural Damage Assessment is the capability to conduct damage and safety assessments of civil, commercial, and residential infrastructure and to perform structural inspections, and mitigation activities. The capability includes being able to provide contractor management, construction management, cost estimating, technical assistance, and other engineering services to support and manage response and recovery operations.

Outcome

Accurate situation needs and damage assessments occur. The full range of engineering, building inspection, and enforcement services are implemented, managed, and coordinated in a way that maximizes the use of resources, aids emergency response, implements recovery operations, and restores the affected area to pre-event conditions. Mitigation projects to lessen the impact of similar future events are identified and prioritized.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports Emergency Support Function (ESF) #3: Public Works and Engineering.

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Rec.C3a 1.3.4	Develop standards and procedures to identify qualified contractors offering recovery/restoration services
Rec.C3a 1.1.2	Develop damage assessment procedures
Rec.C3a 1.4	Develop mitigation plans and procedures
Rec.C3a 1.4.1	Identify mitigation measures and emergency restoration procedures
Rec.C3a 1.5	Develop qualification and certification standards for paid and volunteer staff
Rec.C3a 1.1.3	Maintain situation and damage assessment plans
Preparedness Measures	
Metrics	
Damage assessment procedures are in place	Yes/No
Procedures address identifying and mobilizing personnel to support structural damage assessment operations	Yes/No
Procedures address required forms, reports, documentation, and follow-up notation	Yes/No
Procedures address conducting inspections and assessments	Yes/No
Procedures address post-incident assessments and follow-up	Yes/No

Procedures address demobilization of structural damage assessment operations	Yes/No
Mitigation plans and procedures are in place	Yes/No
Mitigation measures and emergency restoration procedures are in place	Yes/No
Procedures address identifying qualified contractors offering recovery/restoration service	Yes/No
Relevant qualifications and certification standards for paid and volunteer staff are in place	Yes/No
Situation and damage assessment plans are in place	Yes/No
Code enforcement activities are conducted	Yes/No
Street maps are available for determining alternate routes	Yes/No
Critical Resource List is in place	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Rec.C3a 2.1.2	Conduct training on damage assessment procedures
Rec.C3a 2.1.3	Conduct training on mitigation plans and procedures
Rec.C3a 2.2.1	Exercise damage assessment procedures
Rec.C3a 2.2.2	Exercise mitigation plans and procedures
Preparedness Measures	Metric
“Just-in-time” training for personnel is developed and implemented	Yes/No
Damage assessment procedures are exercised	Yes/No
Mitigation plans and procedures are exercised	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Activate Structural Damage Assessment</i>	
Definition: Alert assessment staff to the potential need for services and conduct notifications, dispatch, and other staff mobilization activities necessary to begin assessment activities	
Critical Tasks	
Rec.C3a 4.1	Conduct emergency dispatch and notification for structural damage and mitigation assessment personnel
Rec.C3a 4.2	Dispatch secondary response agencies
Performance Measures	Metric
Time in which damage assessment personnel are mobilized after the observed end of the incident	Within 24 hours from notification

Activity: Direct Structural Damage Assessment Operations

Definition: In response to a notification for recovery assets, provide the overall management and coordination of the response, through to demobilization

Critical Tasks	
Rec.C3a 3.1.2	Coordinate resources to conduct building inspections and damage assessment
Rec.C3a 3.7	Support incident response operations according to incident management team (IMT) assignments on the inputs to the incident action plan (IAP)
Rec.C3a 3.1.3	Recommend prioritization schedule of critical infrastructure services, facilities, and assets restoration based on structural damage and mitigation assessments
Rec.C3a 3.6	Develop standards and procedures to identify qualified contractors offering recovery/restoration services
Rec.C3a 3.7.1	Report and document the incident by completing and submitting required forms, reports, documentation, and follow-up notation
Rec.C3a 3.5	Integrate appropriate private-sector entities into incident response activities
Performance Measures	Metric
Private sector entities participate in recovery efforts	Yes/No
Time in which prioritization schedule for critical infrastructure is developed	Within 24 hours from assessment completion
FEMA and non-FEMA mitigation activities are identified and prioritized concurrent to development of individual project worksheets for specific repair/reconstruction projects	Yes/No

Activity: Conduct Inspections and Assessments

Definition: Conduct safety inspections to support the safety of first responders and to assess the habitability of residences. Support assessments of public facilities, lending civil, structural, and mechanical engineering support to affected entities and other assessment staff

Critical Tasks	
Rec.C3a 5.4.3	Assist in the identification of incident response coordination centers for rebuilding property
Res.B1a 5.3	Conduct debris assessment
Res.B1a 5.3.1	Assess the requirement for decontamination or safe demolition, removal, and disposition of contaminated debris.
Rec.C3a 5	Conduct building inspections and damage assessments of public and private structures
Rec.C3a 5.4.1	Assessment the need for emergency flood protection and/or emergency erosion control
Rec.C3a 5.2.2	Identify the need for additional engineering and assessment resources from other Federal agencies and issue mission assignments to activate such resources
Rec.C3a 5.4.2	Assist with the assessment to determine the requirement to relocate affected essential services to back-up locations
Rec.C3a 5.3.1	Assess buildings and private structures to determine occupancy eligibility

Rec.C3a 5.3.2	Provide geo-coded status report of community, homes and facilities identified as safe or unsafe to re-enter and re-occupy	
Rec.C3a 5.4.4	Determine need for recovery programs	
Performance Measures		Metric
Situation assessments are conducted using one of following methods: (1) aerial reconnaissance; (2) remote sensing; (3) computer modeling (e.g., HAZUS); (4) rapid field assessments/windshield surveys		Yes/No
Results of situation assessments are compared and contrasted to provide best initial estimate		Yes/No
Time in which situation assessment is conducted and provides results		Within 24 hours from the incident
Time in which a detailed situation assessment is conducted, to include information on buildings that are in imminent danger of collapse and critical resources of infrastructure are threatened		Within 48 hours from the conclusion of the disaster
Time in which building safety inspections are conducted for habitability (green, yellow, and red tags)		Within 4 weeks from the event
Time in which an emergency work damage assessment and public works (PW) preparation is conducted		Within 6 months from end of the incident period
Time in which a permanent work damage assessment and public works (PW) preparation (FEMA and non-FEMA) is conducted		Within 12 months from end of the incident period

Activity: *Provide Mitigation and Technical Assistance*

Definition: Support recovery personnel as they work to develop scopes of work and costs for restoring public buildings and infrastructure. Participate in the identification of mitigation opportunities that may be factored into repair, restoration, and recovery efforts.

Critical Tasks

Rec.C3a 6.1.8	Coordinate, fund, and implement contracts for construction management and inspection	
Rec.C3a 6.1.5	Coordinate, fund, and implement contracts for emergency repair of utilities and other services	
Rec.C3a 6.1.6	Manage, monitor, and/or provide of technical advice on debris management and reestablishment of ground and water routes into the affected area	
Rec.C3a 6.1.7	Assist with the implementation and management of Federal Emergency Management Agency (FEMA) Public Assistance Program (PA) to support the repair and restoration of public property	
Rec.C3a 6.1.9	Participate in post-incident assessments of structures, public works and infrastructure to develop cost estimates, complete written project worksheets, determine priority repair/reconstruction projects, and help to prioritize engineering and construction resources	
Performance Measures		Metric
Time in which jurisdiction provides technical assistance to responders		Within 24 hours from the end of the disaster
Time in which all FEMA project worksheets are processed and eligibility and other reviews are completed		Within 14 days from the project worksheet entry

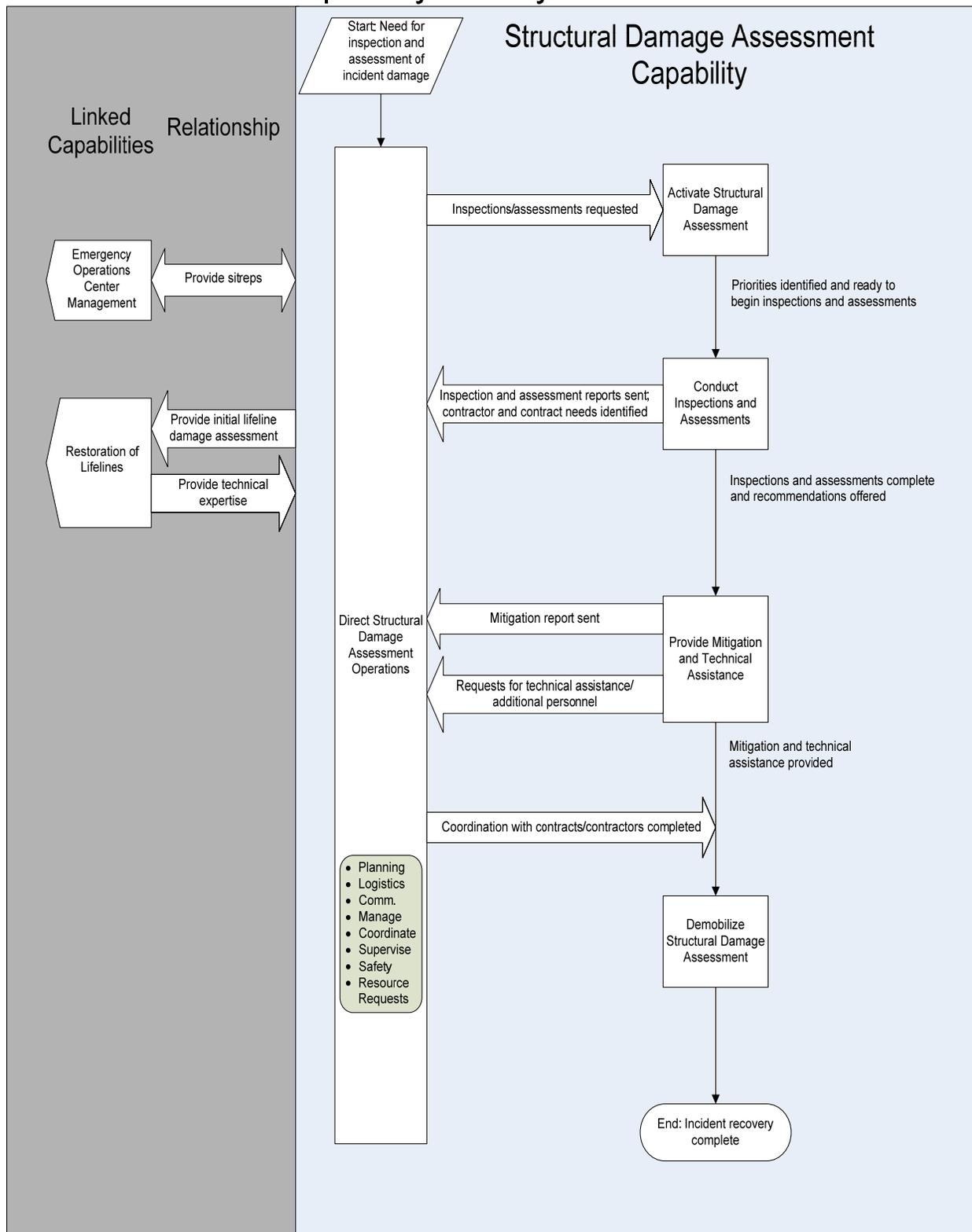
Time in which 200 applicants' briefings for FEMA's Public Assistance Program applicants are completed (based on estimate: 100,000 category E Projects, at 10 buildings per applicant)	Within 2 months
---	-----------------

Activity: <i>Demobilize Structural Damage Assessment</i>	
Definition: Account for all personnel and assets utilized and safely return them to their original location and function	
Critical Tasks	
Rec.C3a 7.1	Develop a demobilization plan for structural damage and mitigation assessment
Rec.C3a 7.2	Restore personnel and equipment to normal operations
Rec.C3a 7.3	Complete appropriate documentation
Performance Measures	Metric
Personnel and equipment are returned to normal operations	Yes/No
Percent of appropriate documentation completed in timely manner	100%

Linked Capabilities

Linked Capability	Relationship
Emergency Operations Center Management	Structural Damage Assessment and Emergency Operations Center Management provide situation reports to each other.
Restoration of Lifelines	Structural Damage Assessment provides initial lifeline damage assessment to Restoration of Lifelines, while Restoration of Lifelines provides technical expertise to Structural Damage Assessment.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Public Assistance Teams: buildings	A Public Assistance Team, led by a Public Assistance Coordinator, manages the processing of all of the applicant's recovery projects. The Public Assistance Coordinator is a NIMS-typed resource.
Public Assistance Teams: debris, emergency measures	See above
Public Assistance Teams: other permanent work	See Above
Rapid Needs Assessment Teams	Per NIMS, a team of specialists (e.g., HazMat, medical, mass care, infrastructure) that provides a rapid assessment capability immediately following a major disaster or emergency.
Disaster Assessment Teams	Per NIMS, there are Type I, II, and III Disaster Assessment Teams. NIMS also defines Individual Assistance Disaster Assessment Teams.
Engineering service Teams	A team of engineers that includes safety engineers
Home and Business Assessment Teams	Teams that include staff who are SBA Verifiers
DOC NIST National Construction Safety Team	National Institute of Standards and Technology (NIST) teams that are authorized to investigate building failures.

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the major earthquake scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Federal funding to State and local governments is dependent upon Presidential Disaster Declaration.
- Management of significant debris removal operations, emergency protective measures for the public, and the restoration of transportation routes will take immediate precedence over building and structural assessments.
- Requirement for Federal support will be increased because significant numbers of State, local, and private sector personnel in the impacted area will not be available to support structural damage assessment and mitigation activities.
- Public Assistance Teams, Disaster Assessment Teams, and Engineering Services resources could be based regionally (using 10 standard Federal Regions) or at the national level, given the longer timeline of their missions.
- Initial safety assessments will be required before deploying additional resources to conduct building, structural, and mitigation assessments. The Federal Government can provide assistance to State and local governments with building inspections to protect public health and safety.
- Sufficient resources from Federal agencies and the private sector will be available for assessment and recovery operations.
- Appropriate and trained professional staff could be mobilized within 48 hours from multiple locations, nationwide.

- All operations would be managed out of a Joint Field Office (JFO) established for the disaster incident.
- Initial meetings with impacted State/local governments would result in the formation of teams to complete:
 - Emergency inspections (health/safety)
 - Repair/reconstruction project worksheets for public structures and mitigation activities.
- Additional teams would be established by the private sector (including the insurance industry) to focus on inspection/recovery for the private sector, to include mitigation activities. Government should coordinate with these entities.

Scenario-Specific

- Of the 1 million buildings moderately damaged, 200,000 were commercial buildings, 100,000 were public buildings, and 700,000 were residences (300,000 red tagged unsafe for habitation). Of these 1,000 were large office buildings that were partially collapsed and where victims were trapped.
- The scenario identifies earthquake damage to more than 1 million buildings. For purposes of quantifying this capability, the indefinite amount above the 1 million was assumed to be statistically insignificant.
- Total number of Public Assistance Projects: 300,000.
- Port facilities in the affected area are significantly damaged, cargo throughput is reduced by 50 percent.
- Transit system is unavailable by 50 percent.
- Rail system cargo throughput is reduced by 50 percent.
- Highest probability U.S. earthquake areas are: Arkansas, Arizona, California, Colorado, Hawaii, Idaho, Illinois, Kentucky, Missouri, Montana, Nevada, Oregon, South Carolina, Tennessee, Utah, and Washington, according to the United States Geological Survey (USGS). There are approximately 64 metropolitan statistical areas (MSA) with populations greater than 100,000 in these States.
- Rapid Needs Assessment Teams would need to be located in close proximity to these 64 MSAs to perform necessary tasks immediately following the incident.
- FEMA's principal responsibility under this capability will be to prepare project worksheets for the 100,000 damaged public buildings in order to implement the Public Assistance Grant Program.
- Assume that damaged building projects represents 33 percent of total number of FEMA eligible projects with other categories as follows:
 - Debris – 15%
 - Emergency measures – 25%
 - Roads/bridges – 12%
 - Flood control - <1%
 - Utilities – 10%
 - Other – 5%
- Rapid Needs Assessment Teams – 30 for this scenario
- Population of affected area in this scenario – 10,000,000
 - Ratio of teams to population 3 teams/1 million people
 - From the Census Bureau's Metropolitan Area Rankings 1997 press release, 69,704,815 people live within the 64 MSA with populations greater than 100,000 that are located in States with the highest earthquake probability.
 - Therefore, the total number of Rapid Needs Assessment Teams is 210.
- Moderately damaged means that the impacted building is less than 50 percent damaged.

- Normal deployment time for required response personnel increased by 24-48 hours.
- 300,000 project worksheets for approximately 10,000 applicants
- 50 applicants will participate in each applicant’s briefing
- 20 of the Rapid Needs Assessment (RNA) Teams will be deployed to the county with the greatest amount of damage, while the other affected counties will require only two RNA teams each.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Major Earthquake)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Public Assistance Team: buildings	35 public structures per team, per week	100,000 public structures [(100000 structures 7 days/week)/(35structures/team/week *365days)]	55 Public Assistance Teams for completion within 365 days
Public Assistance Team: debris, emergency measures	30 PWs per team per week	120,000 projects [(30 PWs/team/week *180 days/7 days)]	155 Public Assistance Teams
Public Assistance Team: other permanent work	30 PWs per team per week	80,000 projects [(80,000 PWs)/(30 PWs/team/day * 365 days/7 days)]	51 Public Assistance teams
Rapid Needs Assessment Team	1.4 teams per counties per day	Six counties impacted; 1,000 buildings partially collapsed	30 Rapid Needs Assessment teams
Disaster Assessment Team	30 structures per day, per team	200,000 private/commercial structures; 700,000 residences [900,000 structures/(30 structures/team/day * 30 days)]	1,000 teams
Engineering Service Teams	30 structures per day, per team	100,000 public buildings with 15,000 destroyed; require inspection to determine safety (e.g., need for “Red Tag”). [100,000 structures/(30 structures/team/day * 30 days)]	112 teams
Home and Business Assessment			3,300 SBA Verifiers

Approaches for Large-Scale Events

- By extending the time for public building inspections/project worksheets to be completed from one to two years, the workload will be reduced by 50 percent.
- By extending the time for private building inspections to be completed from one month to two or more months, the workload is reduced by at least 50 percent.

- By extending the time for building inspections to be completed from one month to two or more months, the workload is reduced by at least 50 percent.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Public Assistance Teams: Buildings	NIMS Typed Resource Organization	110	Per incident (with composition apportioned 80% Federal, 20% State/local reps)	Federal/State/Local	Provide Mitigation and Technical Assistance
Public Assistance Teams: Debris, emergency measures	NIMS Typed Resource Organization	310	Per incident (with composition apportioned 80% Federal, 20% State/local reps)	Federal/State/Local	Provide Mitigation and Technical Assistance
Public Assistance Teams: Other permanent work	NIMS Typed Resource Organization	102	Per incident (with composition apportioned 80% Federal, 20% State/local reps)	Federal/State/Local	Provide Mitigation and Technical Assistance
Rapid Needs Assessment Teams	NIMS Typed Resource Organization	210	Per incident (with composition apportioned 33% Federal, 66% State/local reps)	Federal/State/Local	Conduct Inspections and Assessments
Disaster Assessment Teams	NIMS Typed Resource Organization	1,000	Per incident (with composition apportioned 78% State/local, 22% private reps)	State/Local/Private Sector	Conduct Inspections and Assessments
Engineering Service Teams	Non-NIMS Resource Organization	112	Per incident	Federal	Conduct Inspections and Assessments Provide Mitigation and Technical Assistance
Home and Business Assessment	Personnel	3,000	Per incident	Federal	Provide Mitigation and Technical Assistance
National Construction Safety Team	Federal Resource Organization			Federal (DOC/NIST)	Conduct Inspections and Assessments

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. National Strategy for Homeland Security. The White House, Office of Homeland Security. July 2002. http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.
5. The National Strategy for the Physical Protection of Critical Infrastructures and Key Assets. The White House. February 2003. http://www.whitehouse.gov/pcipb/physical_strategy.pdf.
6. Protected Critical Infrastructure Information Program. U.S. Department of Homeland Security. 2004. <http://www.dhs.gov/dhspublic/display?theme=92&content=3755>.
7. Public Works and Terrorism Response: Black Sunday. Mann, P., and Scott, T. American Public Works Association. May 2005. http://www.apwa.net/documents/advocacy/IssueBrief_05052005.pdf.
8. Risk Management: An Essential Guide to Protecting Critical Assets. National Infrastructure Protection Center. November 2002. <http://www.iwar.org.uk/comsec/resources/risk/risk-mgmt.pdf>.
9. Instrumentation and Monitoring Methods for Radiation Protection. NCRP Report # 57. National Council on Radiation Protection and Measurement. 1978.
10. Post-Emergency Response Resources Guide. U.S. Nuclear Regulatory Commission and Federal Emergency Management Agency. 1991.
11. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents. EPA 400-R-92-0001. U.S. Environmental Protection Agency. 1991.
12. Radiological Sources of Potential Exposure and/or Contamination. USACHPPM Tech Guide 238. Aberdeen Proving Ground, MD. 1999.
13. Emergency Response to Terrorism Job Aid. Edition 2.0. Federal Emergency Management Agency and U.S. Department of Justice. February 2003. <http://biotech.law.lsu.edu/blaw/FEMA/ert-ja.pdf>.
14. Code of Federal Regulations. Title 10, Part 835; Volume 4; Parts 500 to end. U.S. Government Printing Office. 2000. http://www.access.gpo.gov/nara/cfr/waisidx_03/10cfr835_03.html

This page intentionally left blank

RESTORATION OF LIFELINES

Capability Definition

Restoration of Lifelines is the capability to initiate and sustain restoration activities. This includes facilitating the repair/replacement of infrastructure for oil, gas, electric, telecommunications, drinking water, wastewater, and transportation services.

Outcome

Lifelines to undertake sustainable emergency response and recovery activities are established.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

- ESF #1: Transportation
- ESF #2: Communication
- ESF #3: Public Works and Engineering
- ESF #12: Energy

Preparedness Tasks and Measures/Metrics

Activity: Develop and Maintain Plans, Procedures, Program, and Systems	
Critical Tasks	
Rec.C1a 1.1.1	Ensure lifeline restoration personnel can access and remain in the affected areas to complete restoration activities
Rec.C1a 1.1.2	Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities
Rec.C1a 1.1.3	Create a mechanism to provide any incident-specific lifeline restoration contract personnel with the necessary credentials to ensure unnecessary access issues will not impede them from completing their responsibilities
Rec.C1a 1.1.4	Identify a sector/company-specific point of contact (POC) for police or emergency management officials to contact to verify the credentials of lifeline restoration personnel
Rec.C1a 1.1.5	Create a plan to ensure that the sector/company-specific POC for credentialing issues has up-to-date data on all personnel—contract and regularly-employed—involved in lifeline restoration activities
Rec.C1a 1.1.6	Discuss measures that can be taken to ensure the safety of lifeline restoration personnel and equipment working in affected areas with State and local emergency management officials
Rec.C1a 1.1.7	Identify the procedure for requesting safety measures (such as police escorts) for lifeline restoration personnel
Rec.C1a 1.2.	Develop Mechanisms to Communicate and Coordinate restoration of lifelines information and activities

Rec.C1a 1.2.1	Identify a lifeline Emergency Operations Center (EOC)/Joint Field Office (JFO) liaison or liaison mechanism to ensure that lifeline restoration information and current situational updates can be shared by all parties
Rec.C1a 1.2.2	Coordinate with local/State/Federal emergency management officials to ensure that lifeline companies have an official contact person in each EOC/JFO to ensure situational awareness and coordination
Rec.C1a 1.2.3	Create a mechanism to share restoration information among all the different lifeline companies/sectors, i.e., create local/State/regional utility workgroups/associations to coordinate emergency restoration operations across sectors and share best practices
Rec.C1a 1.2.4	Identify interdependencies among all the lifelines
Rec.C1a 1.2.5	Create reporting guidelines to ensure that all company/sectors department heads report important event-specific information to the company/sector EOC/JFO liaison
Rec.C1a 1.2.6	Disseminate reporting guidelines—along with contact information for the company/sector EOC/JFO liaison—to all appropriate (lifeline and government) personnel
Rec.C1a 1.2.7	Coordinate with State and local emergency management officials to determine which radio frequencies lifeline restoration personnel can use to support restoration activities
Rec.C1a 1.3	Develop plans/mechanisms to assist in the allocation of constrained resources
Rec.C1a 1.3.1	Consider pre-staging equipment and identify barriers or gaps in developing this capability
Rec.C1a 1.3.2	Develop contingent contracts
Rec.C1a 1.3.3	Develop mutual aid networks within each lifeline
Rec.C1a 1.3.4	Develop mutual aid networks between lifelines and government
Rec.C1a 1.3.5	Develop a plan to deal with the distribution of fuel after an event to include lifeline restoration activities. Consider the prioritization of primary infrastructure so there is less of a reliance on back-up or secondary measures
Rec.C1a 1.3.6	Develop a plan to deal with the distribution of other critical components that facilitate the restoration of primary infrastructure and processes
Rec.C1a 1.3.7	consider the essential needs of the lifeline restoration personnel when developing housing strategies
Rec.C1a 1.3.8	Consider impacts on areas outside the area physically impacted
Rec.C1a 1.4	Pursue opportunities to solidify post-event regulatory relief
Rec.C1a 1.4.1	Investigate anti-trust regulations that prohibit some sectors from communicating during a disaster
Rec.C1a 1.4.2	Agree upon appropriate waivers to facilitate the restoration activities
Rec.C1a 1.4.3	Solidify appropriate waivers to facilitate restoration activities
Rec.C1a 1.4.4	Develop cross jurisdictional agreements to standardize regulatory requirements and post-disaster waivers
Rec.C1a 1.4.5	Develop inter-State post-disaster reciprocity for certifications, qualifications, licenses, etc.
Preparedness Measures	
Credentialing procedures to allow repair personnel access to critical sites are in place	Yes/No
Procedures for identifying affected lifelines (entities and structures) are in place	Yes/No

Procedures for assessing and prioritizing affected lifelines are in place	Yes/No
Interdependencies among lifelines have been identified	Yes/No
Procedures are in place for mobilizing personnel and equipment for the restoration of lifelines.	Yes/No
Procedures address housing and essential services for mobilized personnel	Yes/No
EOC/JFO liaison has been identified	Yes/No
Lifeline companies/sectors and government coordinated emergency planning and operations	Yes/No
Contingent contracts and mutual aid agreements for personnel and equipment are in place	Yes/No
Plans address establishing key transportation avenues (e.g. best routes for personnel and equipment to access disaster locations, etc.).	Yes/No
Plans address demobilization of Restoration of Lifeline operations (e.g. consideration of personnel and equipment for permanent repair operations, personnel and equipment are returned to normal operations, appropriate documentation is completed, etc.).	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>		
Critical Tasks		
Rec.C1a 2.2	Coordinate with other lifelines companies/sectors to create cross-sector exercises to test restoration plans	
Rec.C1a 2.2.1	Ensure participation of lifeline sectors in established exercise programs	
Rec.C1a 2.3	Share corrective actions and lessons learned with lifeline restoration personnel and government entities	
Rec.C1a 2.3.1	Incorporate corrective actions and lessons learned into restoration plans	
Rec.C1a 2.1	Provide training to government entities regarding the restoration of lifelines process	
Rec.C1a 2.3.2	Make best practices easily available	
Rec.C1a 2.2.2	Create exercise elements that require the weighting of the benefits of lifeline restoration activities verses the prioritization of constrained resources	
Rec.C1a 2.1.1	Develop common definitions for essential services, credentialing, and access	
Rec.C1a 2.1.2	Educate lifelines customers on what to expect after an event	
Rec.C1a 2.1.3	Create a mentoring program that will allow disaster-experienced lifeline restoration personnel (from states like California and Louisiana, for example) to support lesser experienced personnel	
Rec.C1a 2.1.4	Provide training regarding the implications to the private sector of “hijacking” contracted resources	
Preparedness Measures		Metric
Exercises include lifeline sectors		Yes/No
Best practices are available		Yes/No
Information has been disseminated to lifeline customers regarding what they should expect after an event		Yes/No
Training occurred on lifeline restoration processes		Yes/No

Performance Tasks and Measures/Metrics

Activity: *Direct Mechanisms to Facilitate the Restoration of Lifelines*

Definition: Coordinate activities between lifeline operations and government operations. Facilitate communication to maximize the efficiency and effectiveness of restoration activities. Continually update restoration status with the EOC and other impacted capabilities. (For exercise purposes only)

Critical Tasks

Rec.C1a 3.1	Develop a common operating picture (COP) concerning lifeline restoration and government operations
Rec.C1a 3.1.1	Identify entities affected by the loss of lifeline infrastructure
Rec.C1a 3.1.2	Identify resources required to manage and restore lifeline operations
Rec.C1a 3.2	Coordinate the dissemination of status and priority information on lifeline restoration activities
Rec.C1a 3.2.1	Coordinate between lifeline restoration EOC/JFO liaison and government EOC/JFO
Rec.C1a 3.3	Disseminate information about the required credentials for lifeline restoration personnel to police and other on-the-ground government personnel
Rec.C1a 3.4.1	Discuss incident-specific safety measures for lifeline restoration personnel
Rec.C1a 3.4	Disseminate coordinated radio frequency information to all emergency responders and lifeline restoration personnel, in order to prevent communications disruptions
Rec.C1a 3.4.2	Coordinate fuel and critical resource distribution plan for lifeline restoration activities
Rec.C1a 3.4.3	Coordinate housing strategy for lifeline restoration personnel
Rec.C1a 3.5	Disseminate established information on regulatory relief for lifeline restoration activities
Rec.C1a 3.6	Provide and coordinate alternate means for providing critical lifeline services

Performance Measures

Metric

Entities affected by the loss of lifeline infrastructure are identified	Yes/No
Resources required to manage and restore lifeline operations are identified	Yes/No
Dissemination of status and priority information are coordinated	Yes/No
Obstacles to the restoration of lifelines are removed	Yes/No
Coordination between lifeline services' EOCs and government EOC/JFO is conducted	Yes/No
Alternate means for providing critical lifeline services are coordinated	Yes/No

Activity: *Activate Restoration of Lifelines*

Definition: Initiate the process for getting the appropriate personnel and equipment to the disaster locations (for exercise purposes only)

Critical Tasks

Rec.C1a 4.1	Notify appropriate lifeline restoration personnel
-------------	---

Rec.C1a 4.2	Deploy EOC/JFO liaison for lifeline restoration activities	
Rec.C1a 4.3	Mobilize appropriate lifeline restoration personnel	
Rec.C1a 4.4	Mobilize equipment and resources needed for lifeline restoration activities and appropriate for the incident	
Rec.C1a 4.4.1	Begin using information-sharing mechanisms to support lifeline restoration activities	
Performance Measures		Metric
Appropriate lifeline restoration personnel are notified		Yes/No
Appropriate lifeline restoration personnel are mobilized		Yes/No
Equipment and resources appropriate for the incident are mobilized		Yes/No

Activity: *Implement Restoration of Lifelines*

Definition: Execute the restoration effort using established priorities, in a manner that maximizes the efficiency and effectiveness of the response and recovery process (for exercise purposes only)

Critical Tasks		
Rec.C1a 5.1	Use mutual aid resources to increase the pace of lifeline restoration operations	
Rec.C1a 5.2	Conduct lifeline restoration operations	
Performance Measures		Metric
Lifeline restoration operations are in process		Yes/No

Activity: *Demobilize Restoration of Lifelines Operations*

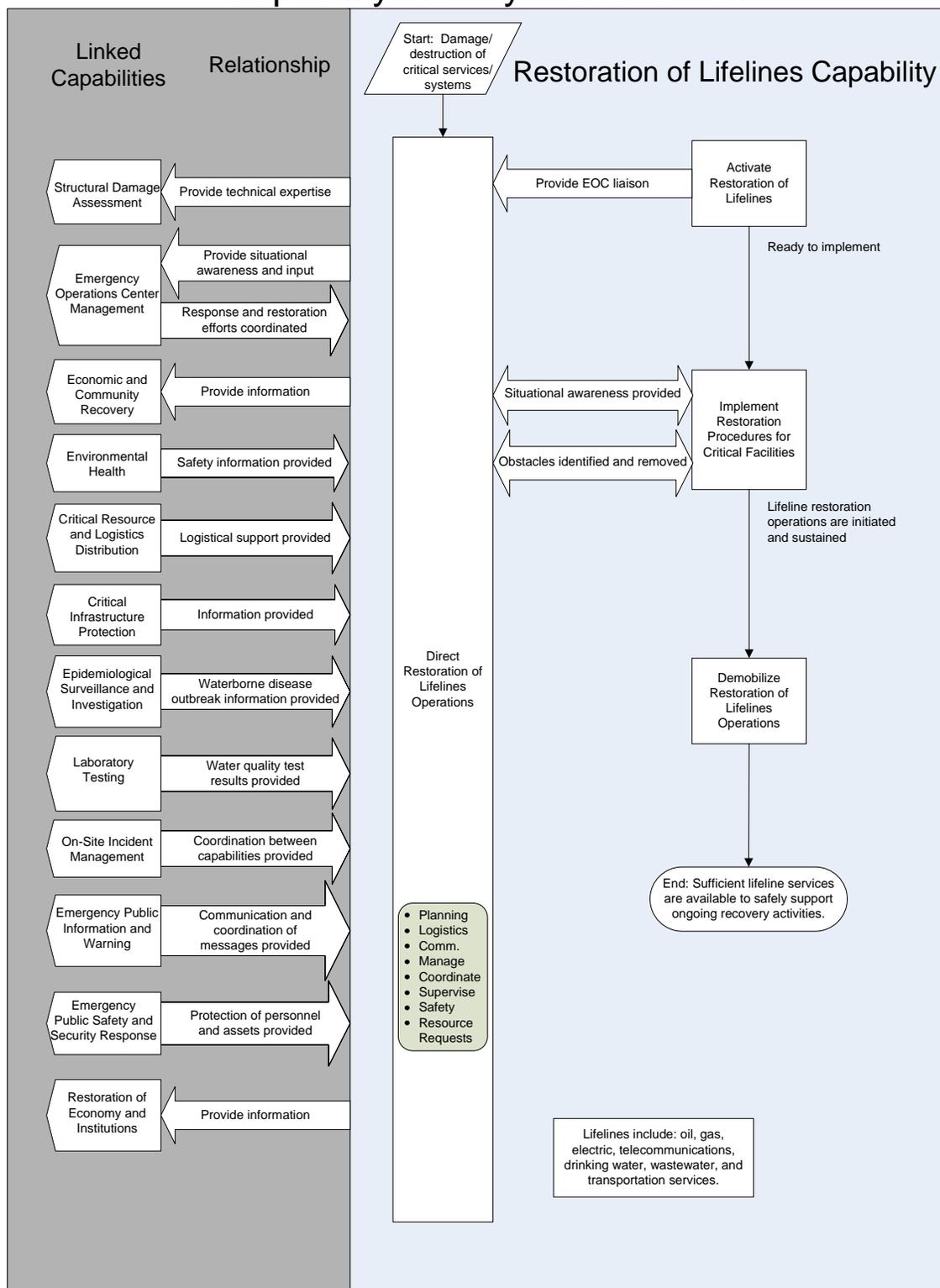
Definition: Account for all assets utilized and return them safely to their original locations and functions (for exercise purposes only)

Critical Tasks		
Rec.C1a 6.1	Implement a demobilization plan for lifeline restoration	
Rec.C1a 6.2	Restore personnel and equipment used for lifeline restoration to normal operations	
Rec.C1a 6.3	Document restoration activities, as needed	
Performance Measures		Metric
Demobilization plan is implemented		Yes/No
Personnel and equipment used for lifeline restoration are restored to normal operations		Yes/No
Restoration activities are documented as needed		Yes/No

Linked Capabilities

Linked Capability	Relationship
Structural Damage Assessment	Restoration of Lifelines provides technical expertise to Structural Damage Assessment, while Structural Damage Assessment provides initial lifeline damage assessment to Restoration of Lifelines
Emergency Operations Center Management	Restoration of Lifelines and Emergency Operations Center Management both provide situation reports to each other
Economic and Community Recovery	Restoration of Lifelines provides lifeline infrastructure assessment to Economic and Community Recovery
Environmental Health	Environmental Health provides information to Restoration of Lifelines regarding the safety considerations for assessment and repair crews in the impacted area
Critical Resource Logistics and Distribution	Critical Resource Logistics and Distribution provides resource support to Restoration of Lifelines
Critical Infrastructure Protection	Critical Infrastructure Protection provides information to assist with the prioritization of restoration activities
Epidemiological Surveillance and Investigation	Epidemiological Surveillance and Investigation provides waterborne disease outbreak information to Restoration of Lifelines
Laboratory Testing	Laboratory Testing provides water quality test results to Restoration of Lifelines
On-Site Incident Management	On-Site Incident Management and Restoration of Lifelines coordinate information
Emergency Public Information and Warning	Emergency Public Information and Warning and Restoration of Lifelines coordinate messages
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides protection of personnel and assets during Restoration of Lifelines
Restoration of Economy and Institutions	Restoration of Lifelines provides information to Restoration of Economy and Institutions

Capability Activity Process Flow



RECOVER MISSION: RESTORATION OF LIFELINES

Resource Element Description

Resource Elements	Components and Description
EOC/JFO Liaison	Representation from each lifeline sector to provide status updates, answer inquiries on Restoration of Lifelines efforts, and to request assistance as necessary. (Per NIMS)
Lifelines Cross-Sector Workgroup	An opportunity for sector representatives to get together and share best practices and lessons learned; determine training needs, conduct training, and exercises; and to coordinate planning for Restoration of Lifelines. As needed, consider the involvement of State and Federal officials.
Mutual Assistance	A scalable response mechanism to share and provide resources, such as equipment and personnel. Consider addressing issues of reimbursement and liability.
Business Continuity Plans	A plan for continued operation, post incident/impact. Although these plans differ from sector to sector, the core elements of these plans include identification of essential functions and contingency plans for the continuation of those functions.

Planning Assumptions

- Applicable to all the 15 National Planning Scenarios.
- Federal funding was available to eligible applicants of State and local governments, including some—but not all—lifeline services, as a result of a Presidential Disaster Declaration.
- Responsibility for lifeline repairs will be based on ownership of lifeline facilities (public vs. private).
- The ability to communicate with lifeline personnel and obtain additional resources will be impacted by the size and impact of the event.
- The availability of appropriate resources will be limited.

Planning Factors

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Lifeline restoration, in a major event, would be addressed with an appropriate combination of existing-resources and mutual assistance sufficient to meet disaster needs.			

Target Capability Preparedness Level

(Under Development)

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Lifeline restoration, in a major event, would be addressed with an appropriate combination of existing resources and mutual assistance sufficient to meet risk and threat assessment based needs.					

References

1. Electric Utility Industry Disaster Planning Meeting: After Action Report. Hosted by Edison Electric Institute (EEI) and the U.S. Department of Energy (DOE).
2. Energy Leadership Forum: After Action Report. U.S. Department of Energy. February 2006.
3. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
4. *Hurricane Security Operations*. National Petrochemical & Refiners Association (NPRA) White Paper. May 31, 2006.
5. *National Response Plan*. U.S. Department of Homeland Security. December 2004.
6. *National Incident Management System*. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
7. *National Strategy for Homeland Security*. The White House, Office of Homeland Security. July 2002. http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf.

This page intentionally left blank

ECONOMIC AND COMMUNITY RECOVERY

Capability Definition

Economic and Community Recovery is the capability to implement short- and long-term recovery and mitigation processes after an incident. This will include identifying the extent of damage caused by an incident, conducting thorough post-event assessments and determining and providing the support needed for recovery and restoration activities to minimize future loss from a similar event.

Outcome

Economic impact is estimated; priorities are set for recovery activities; business disruption is minimized; and individuals and families are provided with appropriate levels and types of relief with minimal delay.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the following Emergency Support Functions (ESFs):

ESF#6: Mass Care, Housing, and Human Services

ESF#14: Long-Term Community Recovery and Mitigation

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Rec.C3b 1.1.1	Develop resumption, restoration, and recovery plans
Rec.C3b 1.4	Coordinate recovery and mitigation planning
Preparedness Measures	Metrics
Resumption, restoration, and recovery plans in place	Yes/No
Protocols for ensuring access to qualified personnel (e.g., loan officers, community planning officers, development officers, etc.) are in place	Yes/No
Processes are in place for mobilizing personnel to support economic and community recovery operations	Yes/No
Plans address the assessment and prioritization of recovery needs	Yes/No
Plans include processes for providing monetary relief (e.g. notify businesses and individuals of disaster relief reimbursement vehicles, provide financial counseling)	Yes/No
Plans include processes for providing non-monetary direct assistance (e.g. facilitate recovery activities related to public works and engineering, provide temporary housing, initiate crisis counseling).	Yes/No
Plans address demobilization (e.g. personnel and equipment are returned to normal operations, appropriate documentation is completed).	Yes/No
Recovery and mitigation planning efforts are coordinated with existing or ongoing	Yes/No

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Continuity of Operations Plan (COOP)	
Private sector and voluntary agency input are reflected in planning process	Yes/No
Appropriate insurance coverage policies are in place	Yes/No
Each functional area has qualified personnel	Yes/No
Protocols for locating and recalling staff during recovery process are in place	Yes/No
Continuity of Operations Plans (COOP) are in place	Yes/No
Debris management priorities have been established, to include improving restoration of key community functions and critical infrastructures	Yes/No
Plan addresses the coordination of economic and community recovery operations (e.g., prioritizing recovery sequence, requesting State and Federal aid, establishing long-term goals, etc.)	Yes/No

Activity: <i>Develop and Maintain Training and Exercise Programs</i>	
Critical Tasks	
Rec.C3b 2.1.1	Develop and conduct training in stabilization and recovery
Rec.C3b 2.2.1	Exercise recovery plans
Preparedness Measures	Metric
Personnel are trained in stabilization and recovery plans	Yes/No
Recovery Plans are exercised	Yes/No

Performance Tasks and Measures/Metrics

Activity: <i>Direct Economic and Community Recovery Operations</i>	
Definition: Command and control economic and community recovery operations, facilitate prioritization of economic assistance for businesses, individuals, and governments, and ensure that both monetary and non-monetary assistance relief is provided to minimize the negative economic effects of the incident	
Critical Tasks	
Rec.C3b 3.4	Coordinate regional and State support for community recovery and rehabilitation services
Rec.C3b 3.2	Prioritize recovery sequence for economic and community recovery
Rec.C3b 3.3	Coordinate the request for State/Federal aid
Rec.C3b 3.6	Establish long-term recovery goals
Performance Measures	Metric
Time in which a recovery plan is implemented	Within 48 hours from need to activate plan

Debris management strategies are implemented immediately and continuously	Yes/No
Assessment and implementation of appropriate changes to codes and code enforcement begins immediately and continuously	Beginning immediately and continuing
Time in which efforts to coordinate with nonprofit sector and relief NGOs is initiated	Within 48 hours from incident
Time in which jurisdiction begins to estimate the social and economic consequences of an event in the affected area	Within 7 days from incident
Time in which meetings with private industries and NGOs on long-term community recovery begin	Within 30 days from incident
Mitigation plan is implemented	Yes/No
Time in which estimates of social and economic consequences of an event in affected area are refined	Within 30 days
Time in which property damage mitigation initiatives are implemented	Within 90 days
Recovery efforts are coordinated with other levels of government	Yes/No
Time in which an assessment of the effectiveness of recovery planning and mitigation efforts is initiated	Within 12 months from the event

Activity: <i>Activate Economic and Community Recovery</i>	
Definition: Alert recovery program staff of need for services, conduct notification, dispatch, and other staff mobilization activities as necessary to begin recovery activities	
Critical Tasks	
Rec.C3b 4.2	Establish community recovery assistance programs
Rec.C3b 4.1	Conduct dispatch and notification for economic and community recovery personnel.
Rec.C3b 4.1.1	Mobilize requests for technical experts to assist in recovery efforts.
Rec.C3b 4.3	Implement Federal assistance programs
Rec.C3b 4.4	Implement State, regional, tribal, and local assistance and recovery plans
Rec.C3b 4.2.4	Implement private-sector recovery, local assistance, and recovery and mitigation plans
Performance Measures	Metric
Percent of notified personnel who report	100%

Activity: <i>Assess and Prioritize Recovery Needs</i>	
Definition: Assess economic recession in order to prioritize monetary and non-monetary relief	
Critical Tasks	
Rec.C3b 5.1	Conduct post-event assessment and planning to effect successful long-term recovery, including the mitigation of damages from future disasters
Rec.C3b 5.2	Assess the situation and forecast economic needs for victims

Performance Measures	Metric
Time in which 50 percent of impacted individuals and business are registered for disaster assistance	Within 60 days from when assistance is available

Activity: *Provide Monetary Relief*
Definition: Provide funding to damaged or impacted entities in advance of necessary recovery expenditures or to reimburse entities

Critical Tasks	
Rec.C3b 6.1	Assess business recovery needs
Rec.C3b 6.1.1	Provide disaster loans for business
Rec.C3b 6.3.2	Provide disaster loans for individuals
Rec.C3b 6.3	Operate individual assistance programs
Rec.C3b 6.2	Provide economic stabilization, community recovery, and mitigation support and/or financial restitution to key service sectors (e.g., medical, financial, public health and safety)
Rec.C3b 6.4	Notify appropriate authorities of disaster relief reimbursement vehicles
Rec.C3b 6.3.3	Provide financial counseling
Rec.C3b 6.5	Process entity restitution/reimbursement claims

Performance Measures	Metric
Businesses and individuals are notified of disaster relief reimbursement and available financial counseling	Yes/No
Unmet economic needs have been identified	Yes/No
Time in which process to manage individual assistance claims is activated	Within 7 days
Time in which process to manage government-to-government assistance claims is activated	Within 12 months
Time in which Federal disaster assistance grants are provided to affected individuals	Within 14 days from registration
Time in which Federal disaster assistance loans are provided to individuals and businesses	Within 30 days from application
Time in which Federal grant funds are obligated for 50 percent of FEMA’s Public Assistance applications	Within 12 months
Time in which Federal grant funds are obligated for 75 percent of FEMA’s Public Assistance applications	Within 2 years
Time in which Federal grant funds are obligated for 90 percent of FEMA’s Public Assistance applications	Within 3 years
Time in which Federal grant funds are obligated for 95 percent of FEMA’s Public Assistance applications	Within 4 years
Time in which Federal grant funds are obligated for 100 percent of FEMA’s Public Assistance applications	Within 5 years

Time in which fair market value indemnity is provided to owners of destroyed animals and materials	Within 72 hours from destruction
--	----------------------------------

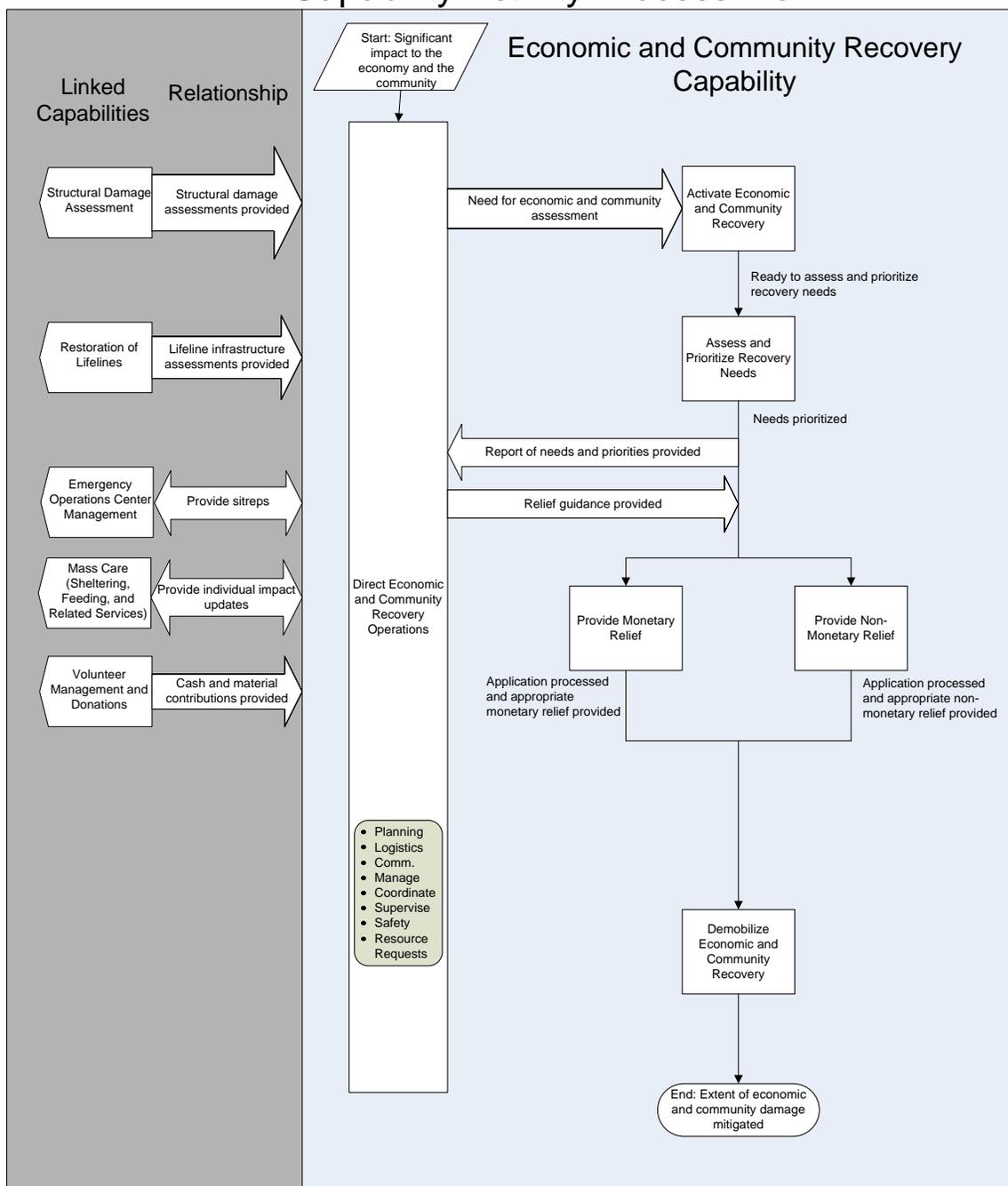
Activity: <i>Provide Non-monetary Relief</i>	
Definition: Provide direct assistance in the form of equipment, facilities, supplies, staff, technical assistance, and other material resource support to meet recovery needs of affected entities	
Critical Tasks	
Rec.C3b 7.2	Participate in and facilitate recovery activities related to public works and engineering
Rec.C3b 7.1	Assess and quantify projected housing needs
Rec.C3b 7.1.1	Develop preliminary temporary housing plan
Res.C3a 7.5	Provide temporary housing
Rec.C3b 7.3	Provide family support services
Performance Measures	Metric
Unmet social needs have been identified	Yes/No
Time in which non-monetary forms of disaster assistance (e.g., crisis counseling, disaster legal services) to individuals and businesses are initiated	Within 7 days
Time in which persons in temporary housing/interim shelters are relocated to long term housing	Within 30 to 90 days

Activity: <i>Demobilize Economic and Community Recovery</i>	
Definition: Account for all assets utilized and safely return them to their original locations and functions	
Critical Tasks	
Rec.C3b 8.1	Develop a demobilization plan for economic and community recovery
Rec.C3b 8.2	Restore economic and community recovery personnel and equipment to normal operations
Rec.C3b 8.3	Complete appropriate economic and community recovery documentation
Performance Measures	Metric
Personnel and equipment are returned to normal operations	Yes/No
All appropriate documentation is completed	Yes/No

Linked Capabilities

Linked Capability	Relationship
Structural Damage Assessment	Structural Damage Assessment provides a damage assessment to Economic and Community Recovery
Restoration of Lifelines	Restoration of Lifelines provides lifeline infrastructure assessments to Economic and Community Recovery
Emergency Operations Center Management	Emergency Operations Center Management and Economic and Community Recovery both contribute to situation reports
Mass Care (Sheltering, Feeding, and related Services)	Mass Care (Sheltering, Feeding, and related Services) and Economic and Community Recovery share individual assistance updates
Volunteer Management and Donations	Volunteer Management and Donations provides cash and material contributions for distribution during the recovery phase of the incident

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Community Planning and Development Officer	Coordinate economic recovery and mitigation plan
Damage Assessment Officer	Assess damages to publicly and privately owned facilities
Loan Officers	Process SBA applications in 60 days
Finance Officer	Compile and administer financial assistance requests and applications; assumes technical support and computer equipment
Economic Impact Community Representatives Team	Assess the economic impact to private business; includes business leaders (industry/major employers); Chambers of Commerce and business associations; local trade organizations, and local professional associations.
Essential Service Representatives Team	Assess impact to essential service infrastructure and basic service distribution systems. Comprises 20 members, including representatives from water and wastewater, public health and sanitation, utilities, transportation, hospital, police, fire and EMS, communications, debris removal and disposal
Insurance Community Inspectors	Manage insurance claims processing
Volunteer Organizations Active in Disasters (VOADs) and Nongovernmental organizations (NGOs)	Personnel and equipment
Private sector and utility system representatives	Manage repair and reconstruction of disaster damage. Includes representatives from construction, building supplies, transportation assets
Personnel from individual assistance and public assistance programs	Implement disaster assistance programs to include registration of applicants, inspection of disaster damages, and processing applications

Planning Assumptions

General

- Although applicable to several of the 15 National Planning Scenarios, the capability planning factors were developed from an in-depth analysis of the major earthquake scenario. Other scenarios were reviewed to identify required adjustments or additions to the planning factors and national targets.
- Federal funding to State and local governments is dependent upon Presidential Disaster Declaration.
- This capability focuses on the recovery of a particular community (public infrastructure, individual housing, businesses, etc); it does not address recovery of a large economic sector.
- Due to the disruption of local and regional transportation systems, alternative methods of distribution and transportation will need to be identified and/or implemented (based on historical information, shows that for every 1 home destroyed, 10 will be damaged).
- Multiple hazardous materials issues will need to be addressed.
- Assume all displaced families will require some form of government sheltering and housing assistance.
- Level of losses may result in multiple bankruptcies. (Based upon historical data and the severe economic impact scenarios, certain entities will be unable to overcome financial losses. Governments as well as business may face bankruptcy.)

- The resource component is time sensitive since pre-event implementation of effective recovery and mitigation planning efforts will impact response to community needs.
- The resource package may be called to operate for years after the incident.

Scenario-Specific

- 300,000 homes have been destroyed; there are 1,400 deaths; 18,000 hospitalizations, 150,000 buildings destroyed and 1 million buildings damaged. 250,000 individuals seek shelter in safe areas and over 250,000 people self-evacuate the area.
- The wide dispersal of disaster victims will complicate the Federal Government assistance eligibility and delivery processes for extended temporary housing, tracking, and need for registering the diseased, ill, injured, and exposed
- Of the 1 million buildings moderately damaged, 200,000 were commercial buildings and 100,000 were public buildings. Of these, 1,000 were large office buildings, they were partially collapsed. (Estimates based on trends from previous disasters).

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability (Earthquake)

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Community Planning and Development Officer			One per jurisdiction
Damage Assessment Officer	Average of 5 inspections per day – home/business	3.3 million homes inspected 500,000 businesses inspected	5,000 inspectors to process work over a period of 6 months
Finance Officer	Up to 30,000 electronically processed claims per day. (FEMA only, and only those claims that are auto-determined) Small Business Administration (SBA) loan officer can process an average of 5 applications per day	1.85 million applicants in 60 days 1 million applications received in 60 days by SBA	One finance officer (FEMA only- with adequate support staff) completes applications in 60 days 1,000 loan officers to process SBA applications in 60 days
Economic Impact Community Representative Teams	One team can estimate the economic impact of the disaster. Size of team contingent on disaster variables	The number on each team will vary by jurisdiction	Teams will be needed by level of government
Essential services representative Teams	One team serves to liaison with key community functions in one jurisdiction	Ongoing	One team per jurisdiction
Insurance community inspectors	Average of 4 inspections per day – residential and commercial	185,000 (5% of total damaged properties) have earthquake insurance	260 inspectors over 6 months

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Volunteer Organizations Active in Disasters (VOADs) and non-governmental organizations (NGOs)	Elastic – surge capacity to fit specific needs		VOAD Coordinator and coordinated assistance mechanism/system
Private sector and utility system representatives	Capacity is contingent on availability of repair and reconstruction contractors and building supplies		
Personnel from individual assistance and public assistance programs	Agencies gear up and gear down based on workload requirements		Estimated personnel requirements would roughly equal triple the 2004 hurricane season staff level. (e.g., SBA level was 2800)

Approaches for Large-Scale Events

- For temporary housing, potential exists to use tents, dorms, ships, train cars, terminals, temporary relocation sites, military facilities, and converted commercial space instead of mobile homes and trailers. Access to essential services (food, transportation, health care, etc) must accompany housing resource.
- Modes of delivery of assistance awards may vary, ranging from new expedited processes to alternative distribution methods.
- For temporary provisions, “Comfort Kits” may need to be instituted as a substitute for immediate award of disaster assistance.
- To foster communication, every neighbor tells a neighbor. Set up centralized information dissemination posts (e.g. at 7/11 stores).

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
<i>Note: Many of the staff “pools” identified below will be generated in response to a specific incident by assembling governmental and contract staff from various locations; they are not dedicated, standing organizations.</i>					
Federal/State/Local	Community Planning and Development Officer	Personnel	1	Per jurisdiction	Assess and Prioritize Recovery Needs

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Federal/State/Local	Damage Assessment Officer	Personnel	5,000	Per incident	Assess and Prioritize Recovery Needs
Federal/State/Local	Loan Officers	Resource Organization	1,000	Per incident	Provide Monetary Relief
Federal (DHS/FEMA)	Finance Officer	Personnel	1	Per incident	Provide Monetary Relief Provide Non-Monetary Relief
Local	Economic Impact Community Representatives Team	Non-NIMS Resource Organization	10	Per coordination team	Assess and Prioritize Recovery Needs
Local	Essential Services Representatives Team	Non-NIMS Resource Organization	1	Per jurisdiction	Assess and Prioritize Recovery Needs
Federal/State/Local	Insurance Community Inspectors	Personnel	260	Per incident	Assess and Prioritize Recovery Needs
Federal/State/Local	Volunteer Organizations Active in Disasters (VOADs) and Nongovernmental organizations (NGOs)	Personnel, Equipment	Elastic – Surge capacity to fit specific needs	Dependent upon incident	Assess and Prioritize Recovery Needs Provide Monetary Relief Provide Non-Monetary Relief
Federal/State/Local	Private sector and utility representatives	Personnel, Equipment	Capacity is contingent on availability of repair and reconstruction contractors and building supplies	Dependent upon incident	Assess and Prioritize Recovery Needs
Federal/State/Local	Personnel from individual assistance and public assistance programs	Personnel	30,000	Per incident	Provide Monetary Relief Provide Non-Monetary Relief

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Homeland Security Exercise and Evaluation Program, Volume II: Exercise Evaluation and Improvement. U.S. Department of Homeland Security, Office for Domestic Preparedness. October 2003. <http://www.ojp.usdoj.gov/odp/docs/HSEEPv2.pdf>.
5. Statement of Requirements for Public Safety Wireless Communications & Interoperability. Version 1.0. U.S. Department of Homeland Security, SAFECOM Program. March 2004. http://www.safecomprogram.gov/NR/rdonlyres/A1118073-1B21-42DC-941F-C9DB26F4DBEF/0/PSCI_Statement_of_Requirements_v1_0.pdf.
6. Incident Communications Emergency Plan. ICEP-2004. U.S. Department of Homeland Security. 2004.
7. NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs. National Fire Protection Association. 2004. <http://www.nfpa.org/PDF/nfpa1600.pdf?src=nfpa>.
8. National Mutual Aid and Resource Management Initiative: Resource Typing Definitions-I. Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
9. Emergency Management Accreditation Program (EMAP) Standards. September 2003. <http://www.emaponline.org/index.cfm>.
10. Federal Executive Branch Continuity of Operations. FPC-65. Federal Emergency Management Agency, Office of National Security Coordination. June 2004. http://www.fema.gov/onsc/docs/fpc_65.pdf.
11. PDD-67: Enduring Constitutional Government and Continuity of Government. Emergency and Disaster Management, Inc. October 1998. http://www.emergency-management.net/laws_pdd67.htm.
12. National Fire Protection Association, 2006 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=101> NFPA 5000, Building
13. Construction and Safety Code™, National Fire Protection Association, 2006 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=5000> NFPA 1,
14. Uniform Fire Code™, National Fire Protection Association, 2006 Edition. <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1>
15. NFPA 70, National Electrical Code®, National Fire Protection Association, 2005 Edition, <http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=70>
16. Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency. CDC. 2006. <http://www.bt.cdc.gov/workbook>