

State Emergency Management Staff Training and Evaluation

By

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USAWC CIVILIAN UNIVERSITY AFFILIATED RESEARCH PROJECT

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Table of Contents

List of Illustrations	iv
List of Tables	iv
List of Acronyms	v
Preface	vi
Chapter 1: Problem Formulation	1
1.1 General Problem.....	1
1.2 Scope and Assumptions.....	3
1.3 Research Goals.....	3
Chapter 2: Department of Homeland Security Policies and Guidance on Training, Evaluation, and Structure	4
2.1 Homeland Security Presidential Directives.....	4
2.2 DHS Guidance and Directives.....	4
2.3 Homeland Security Exercise and Evaluation Program Overview.....	7
2.4 Daily Structure versus Emergency Operations Center Structure.....	8
2.5 DHS Methodology Limitations.....	9
Chapter 3: Department of Defense Joint Training Methodology	12
3.1 Joint Doctrine.....	12
3.2 DOD JMETL Development.....	12
3.3 DOD Universal Joint Task List (UJTL).....	15
3.4 JMETL Measurement	15
Chapter 4: Application of DOD Training Methodology for Selection of Emergency Management Agency Mission Essential Tasks (AMETs)	17
4.1 Director’s Guidance for EMA Training.....	17
4.2 EMA Staff Mission Analysis.....	18
4.3 Selection of Agency Mission Essential Tasks.....	18
4.4 Selection of AMETL Supporting Tasks.....	18
4.5 Selection of AMETL for the EMA AMETL.....	19
Chapter 5: Application of the Analytical Hierarchy Process for Training Evaluation	21
5.1 Model Development.....	21
5.2 Typical Evaluation Distributions	21
5.3 Application of the Model to the AMETL	22
5.4 Analysis of Training Effectiveness Using the AHP Model.....	23
Chapter 6: Conclusion	24
6.1 Summary.....	24
6.2 Future Work.....	25
Appendix A	26
Appendix B	28
Endnotes	36

List of Illustrations

FIGURE 1: Example of a Typical EMA Organizational Structure.....	3
FIGURE 2: Capabilities Development Process and Tools.....	9
FIGURE 3: National Planning Scenarios.....	10
FIGURE 4: Target Capabilities List.....	12
FIGURE 5: TCL Activity Example.....	17
FIGURE 6: Exercise Guide Example.....	19
FIGURE 7: JMETL Inputs, Processes, and Outputs.....	22
FIGURE 8: Day 1 and Day 3 T-Rating Comparisons for <i>FA Panamax 2007</i> and <i>Noble Resolve 2007</i>	37

List of Tables

TABLE 1: Emergency Operations Center Essential Functional Areas.....	15
TABLE 2: Example DOD Joint Mission Essential Task List.....	24
TABLE 3: Example of DOD Universal Joint Task	26
TABLE 4: Sample of Agency Essential Tasks.....	31
TABLE 5: Essential Task with Supporting Tasks.....	32
TABLE 6: Performance Measures for Agency Mission Essential Task 1.0.....	33
TABLE 7: <i>FA Panamax 2007</i> and <i>Noble Resolve 2007</i> T-Rating Results.....	36

List of Acronyms

AHP	Analytical Hierarch Process
AMETL	Agency Mission Essential Task List
AMET	Agency Mission Essential Task
DHS	Department of Homeland Security
DOD	Department of Defense
EOC	Emergency Operations Center
EMA	Emergency Management Agency
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HSC	Homeland Security Council
HSEEP	Homeland Security Exercise and Evaluation Program
HSPD	Homeland Security Presidential Directive
JMET	Joint Mission Essential Task
JMETL	Joint Mission Essential Task List
NIMS	National Incident Management System
ROI	Return on Investment
SOC	State Operations Center
TCL	Target Capabilities List
UJTL	Universal Joint Task List
UTL	Universal Task List

Preface

The old saying “an ounce of prevention is worth a pound of cure” has assumed renewed importance with regard to planning for and execution of emergency responses since 9/11 and Hurricane Katrina. As Stephen Flynn writes in *The Edge of Disaster*, “The loss of life and economic fallout that disasters reap will always be magnified by our lack of preparedness to manage the risk actively and to respond effectively when things go wrong.”¹ The United States’ ability to manage and respond effectively to natural and manmade disasters is influenced by the number of agencies and the levels of government involved in emergency management. An emergency management incident may involve any of the following entities: local first responders, municipalities, Native American tribal governments, private companies, state and federal agencies.

The goal of any emergency response is to assess, react, and recover from an emergency so that local communities can resume normal activities as quickly and effectively as possible. The term applied to critical infrastructure that embodies this concept is *resiliency*. Resiliency, in terms of the environment, is commonly defined as the measure or ability of an environment return to its original state after adversity.² So how does an organization like a state emergency management agency (EMA) better prepare itself to accomplish an effective all hazards response? The answer, which is the focus of this paper, lies at least partially in an effective collective staff training and evaluation program.

CHAPTER 1. PROBLEM FORMATION

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.

– National Preparedness Guidelines³

1.1. General Problem

According to the Department of Homeland Security (DHS) in its recently released *National Preparedness Guidelines*, serious gaps exist between ‘all hazards’ risks and the resources and capabilities available for responding to those risks. Key factors such as time constraints, staff size and organization, money, and the range of possible hazards leaves state emergency management agencies with tough resource allocation decisions. State agencies must decide what hazards to plan for, how to best allocate limited financial resources, prioritize training tasks, schedule and manage time available, and identify and quantify acceptable risks to all hazards. An efficient method of prioritizing these resources along with metrics for quantifying results is needed.

One of the most important sources of emergency management information is the *National Preparedness Guidelines* published by DHS in September 2007. This publication provides guidelines to help state EMAs prioritize the application of limited resources and makes suggestions for EMA collective staff training which generally encompass two or more divisions across an organization. In other words, an EMA division is generally a subordinate element that conducts the day-to-day management and responsibilities of the agency. Annex B of the *National Preparedness Guidelines*, the *Target Capabilities List* (TCL), enumerates critical tasks and suggested performance measures for evaluation of emergency management staff training. Unfortunately there are both shortcomings and gaps with the *National Preparedness Guidelines* in the tasks and metrics for staff training:

1. The document does not suggest performance measures for some key tasks which lead to critical tasks having different requirements between state agencies throughout the country.
2. Training guidelines do not differentiate which tasks would be most appropriately conducted at the local, state, or federal levels.
3. Training tasks are not consistently numbered between DHS documents. For example, the task entitled *Critical Resource Logistics and Distribution* in the TCL, is numbered Res.B1d.3.1.1 while the exact same task carries the number 1 in the DHS exercise guide builder. Inconsistencies with the task numbering convention create confusion.
4. The *National Preparedness Guidelines* fails to propose guidelines and standards for formulating an agency mission essential task. Leaving this process to each state creates inconsistent approaches from state to state. The guidelines do not provide a method for quantifying training results.
5. Tasks selected for training can come from other documents outside DHS. The guidelines do not suggest other sources for essential or supporting tasks such as Department of Defense (DOD) documents which contain tasks that can be adapted for use in homeland security missions including suggested performance measures.

The major responsibilities of a state EMA are to generate, coordinate, and direct the state's executive level response to all hazards in order to protect the lives and property of its citizens. Figure 1 depicts the six divisions typical of most EMAs. These divisions are hazard mitigation, finance, public affairs, operations, public assistance, and terrorism emergency response and preparedness. The mission of the hazard mitigation division is to alleviate or eliminate risks to life and property from natural or man-made hazards. The two key sections within the mitigation division that are responsible for these activities are the planning program and risk reduction sections. The finance division administers grants, personnel, payroll and other support functions for the agency. The operations division responsibilities include school safety, emergency operations center orientation training, planning and execution of the state exercise program, information technology, emergency broadcasts, and the emergency operations center. Key sections include state operations center, planning, training, communication, and school safety. Key sections include state operations center, planning, training, communication, and school safety.

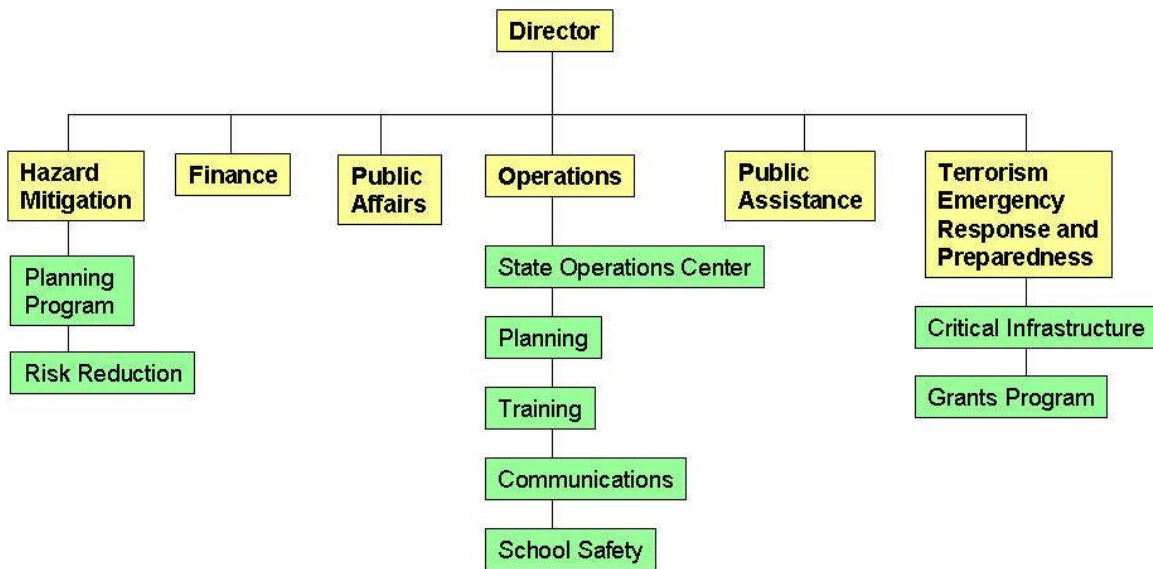


Figure 1. Example of a Typical EMA Organizational Structure

The state operations center coordinates daily message traffic, emergency broadcast such as Levi's Calls, and EOC orientation training. A Levi's Call is a tool that allows local law enforcement agencies to request emergency broadcasts through an EMA on child abduction situations. The planning section conducts planning for training and exercises while the training section coordinates the training of field programs personnel and exercise evaluations. Communications maintains homeland security communications and communication packages for incident response. The school safety section coordinates public school safety assessments, crisis exercise design and evaluation, and incident response.

The public affairs division coordinates actions in the areas of legislative liaison, media support, and public affairs. The public assistance division handles mutual aid and coordination of financial assistance for state of emergencies and Presidential declarations. Finally, the terrorism emergency response and preparedness division, through its two key sections, oversees the critical infrastructure and the grants program. The critical infrastructure section conducts analyses of critical infrastructure, gathers and analyzes intelligence, coordinates fire services, and agro-

terrorism preparedness. The grants program coordinates and administers the funding for support and enhancement of counter-terrorism down to the local municipal levels.

1.2. Scope and Assumptions

The organization and staffing of EMAs varies from state to state, however their basic functionality remains fairly consistent across all states. The focus of this research is a hypothetical state emergency management agency as depicted previously in Figure 1 consisting of six divisions: hazard mitigation, finance, public affairs, operations, public assistance, and terrorism emergency response and preparedness. Key assumptions used for this study are:

1. Planning guidance from the state director of emergency operations to subordinate staffs is provided in writing and in a standard format.
2. The emergency management scenarios considered for this research are based on the fifteen national planning scenarios.
3. The scenario considered will require a state to activate a state emergency operations center to respond to a regional catastrophic incident.

1.3. Research Goals

The objective of this research is to propose a framework and methodology for the formulation and analysis of an agency mission essential task list. For illustrative purposes a hurricane scenario was selected to stimulate and establish a baseline for EMA staff training based on Department of Homeland Security guidelines and policies. The baseline task list for state emergency management staff training will then be enhanced and extended with lessons observed and learned from the DOD joint training system. The scenario involves a category three to four hurricanes impacting a southeast United States coastal state and a sizeable municipality with an international airport and a major seaport. Chapter 2 presents and discusses Department of Homeland Security guidelines and policies. Department of Defense joint training doctrine is addressed in Chapter 3 through an investigation of those aspects of DOD doctrine that are well suited for incorporation into the DHS methodology to make emergency management staff training at the state level more effective. Chapter 4 presents a state agency mission essential task list (AMETL) for collective staff training that incorporates DOD doctrine. An analytic hierarchy process is introduced in Chapter 5 for evaluating the AMETL and assessing the return on investment of EMA staff training. Chapter 6 concludes the paper and provides observations, recommendations, and future applications of the AHP model and the EMA staff training methodology.

CHAPTER 2. Department of Homeland Security Policies and Guidance on Training, Evaluation, and Structure

2.1. Homeland Security Presidential Directives.

Another important source of national and state level policies and guidelines for homeland security comes from The Office of the President in the form of Homeland Security Presidential Directives (HSPD). Two directives that specifically relate to homeland security issues relevant to this study are HSPDs five and eight.

Homeland Security Presidential Directive 5-Management of Domestic Incidents outlines the National Incident Management System (NIMS) which standardizes emergency management processes throughout the United States.⁴ This directive establishes guidelines for improved coordination of emergency responses to incidents at the national and state levels. It also requires states to establish the capability for coordinating and managing emergencies and incidents. For state EMAs, this capability is their emergency operations center.

Homeland Security Presidential Directive 8-National Preparedness requires DHS to establish a comprehensive emergency management training program to meet national preparedness goals.⁵ The program includes training guidelines for first responders, state and federal officials, and others with preparedness, prevention, response, and recovery roles. The directive leaves the establishment of standards for training evaluation of EMAs to each state.

Another recently published White House document dealing with homeland security processes is *The National Strategy for Homeland Security*.⁶ In military terms, this document provides 'commander's guidance' for each of the President's goals in the strategy. Published in October 2007, the national strategy serves as a common framework for focusing homeland security efforts at all government levels. The national strategy encompasses the following goals: 1) preventing and disrupting terrorist attacks; 2) protecting the American people, critical infrastructure, and key resources; 3) responding to and recovering from incidents that do occur; and 4) continuing to strengthen government cooperation at all levels for long-term success. The document also outlines a framework for developing and applying joint planning and training processes. The use of 'joint planning and training' terminology in DHS methodology is relatively new and implies the same connotations as is used in DOD methodology.

2.2. DHS Guidance and Directives

In September 2007, DHS published *National Preparedness Guidelines, Appendix B, Target Capabilities List: A companion to the National Preparedness Guidelines* which provide training guidance to state governments for homeland security training standards. This document outlines a methodology for analyzing risks and determining the tasks and standards for a state emergency management agency's training and evaluation program. In this document, DHS limits its guidelines to standards in training and evaluation. A separate DHS program conducts the evaluation of those tasks which is discussed in the *Homeland Security Exercise and Evaluation Program*.

The *National Preparedness Guidelines* outlines a four step methodology for developing an emergency management staff training strategy. The steps are: 1) threat analysis; 2) mission area

analysis; 3) task analysis; and 4) capabilities development. Figure 2 below diagrams these steps as depicted in Annex B of the *National Preparedness Guidelines Target Capabilities List*.⁷

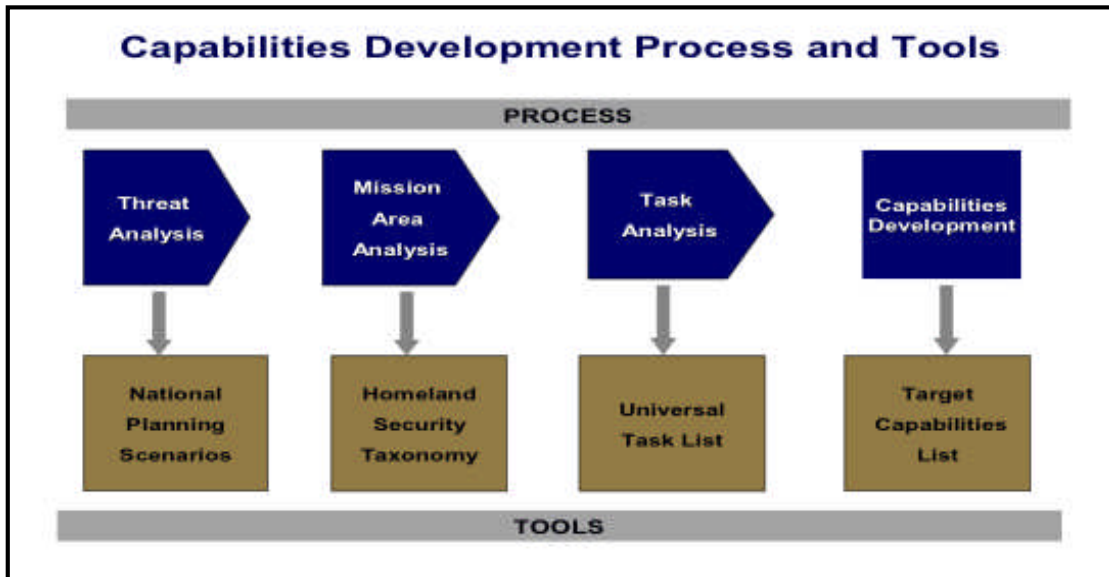


Figure 2. Capabilities Development Process and Tools

Capabilities development begins with threat analysis and an examination of the fifteen national planning scenarios specified by the Homeland Security Council (HSC) in partnership with DHS illustrated in Figure 3.

- National Planning Scenarios**
- Improvised Nuclear Device
 - Aerosol Anthrax
 - Pandemic Influenza
 - Plague
 - Blister Agent
 - Toxic Industrial Chemical
 - Nerve Agent
 - Chlorine Tank Explosion
 - Major Earthquake
 - Major Hurricane
 - Radiological Dispersal Device
 - Improvised Explosive Device
 - Food Contamination
 - Foreign Animal Disease
 - Major Cyber Attack

Figure 3. National Planning Scenarios

The HSC was established in October 2001 to oversee coordination of all homeland security-related activities among executive departments and agencies and to promote the effective development and implementation of all homeland security policies. The scenarios represent a wide range of high impact events that pose great risk to the United States.

The disaster events, listed in no particular order, include two natural disasters, two nuclear incidents, four chemical emergencies, five biological hazards, one technology attack and one conventional explosion. The list, while not exhaustive, serves as a starting point for EMAs to determine current and future training requirements based on high impact disasters and emergencies with wide ranging probabilities.

Step two in the capabilities development process involves a mission area analysis whereby emergency management planners examine each scenario listed and rank order them based on potential threats most likely to occur in their state. Mission analysis focuses on tasks that state agencies must accomplish in four mission areas associated within each of the scenarios selected.⁸ The four mission areas are prevent, protect, respond, and recover. The output of this process step is a review of DHS documents and doctrine identifying objectives and functions needed in the four mission areas.

The next step, task analysis, utilizes *The Universal Task List 2.1* (UTL) to identify tasks to meet the training objectives and needs specified previously identified in each of the four mission of step two. The UTL 2.1 provides planners with a comprehensive list of essential tasks for achieving proficiency in assigned or anticipated roles, responsibilities, and missions. Within the UTL, these selected essential tasks as the *mission essential task list*. After selecting essential tasks from the UTL, planners use the target capabilities list from the *Target Capabilities List, A Companion to the National Preparedness Guidelines*, to select required capabilities.

The process concludes with the specification of capabilities which are defined as a means to accomplish a mission and achieve desired outcomes through combinations of planning, organization, equipment, training, and exercises.⁹ Figure 4 (below) illustrates the complete target capabilities list.

The capabilities listed are categorized into the four mission areas with common capabilities listed first. According to the Department of Homeland Security, the thirty-seven capabilities enumerated in the Target Capabilities List (TCL) apply to each of the fifteen national scenarios. The conditions under which the tasks must be performed are defined by the national planning scenarios.

Based on the unique requirements of each scenario, emergency planners select capabilities corresponding to tasks necessary to accomplish the emergency response. The TCL contains an extensive list of tasks and suggests performance measures in some cases.

Within each capability listed, the TCL lists numerous 'activities' for each capability. An activity is defined as a plan, protocol, procedure, or system that needs to be actioned prior to the demand for the capability. A definition follows the activity that gives further explanation of the activity for planners. Critical tasks that support the accomplishment of the activity are listed next followed last by performance measures.¹⁰

<p>Common Capabilities Planning Communications Community Preparedness and Participation Risk Management Intelligence and Information Sharing and Dissemination</p> <p>Prevent Information Gathering and Recognition of Indicators and Warning Intelligence Analysis and Production Counter-Terror Investigation and Law Enforcement CBRNE Detection</p> <p>Protect Critical Infrastructure Protection Food and Agriculture Safety and Defense Epidemiological Surveillance and Investigation Laboratory Testing</p> <p>Respond On-Site Incident Management Emergency Operations Center Management Critical Resource Logistics and Distribution Volunteer Management and Donations Responder Safety and Health</p>	<p>Respond (Continued) 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</p> <p>Recover Mission Capabilities Structural Damage Assessment Restoration of Lifelines Economic and Community Recovery</p>
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Figure 4. Target Capabilities List

2.3. Homeland Security Exercise and Evaluation Program Overview

The Department of Homeland Security’s Exercise and Evaluation Program (HSEEP) falls under the Federal Emergency Management Agency (FEMA). The mission of the HSEEP is to establish a capabilities and performance-based exercise program that includes a standardized policy, methodology, and language for all states within which each state can design, develop, conduct, and evaluate all hazards exercises.¹¹ The HSEEP consists of four volumes that specify relevant policies and guidance. Volume I outlines program management. Volume II provides guidance on planning and conducting emergency management exercises. Volume III focuses on exercise evaluation and improvement of planning exercises. Volume IV offers sample documents, formats, multimedia files, and published references of emergency management related documents. The HSEEP website contains additional information such as a message-based events list builder for interjecting information into exercises and an exercise evaluation guide builder that aides in the assessment of the tasks listed in the TCL.

The exercise evaluation guide provides templates for the assessment of exercise related tasks. The exercise guide also suggests four options for evaluation of evaluation of tasks: *fully trained*, *partially trained*, *not trained*, and *not observed*. These categories are very similar to DOD training assessments of *trained*, *needs practice*, and *untrained*.

2.4. Daily Structure versus Emergency Operations Center Structure

As stated earlier, HSPD-5 is the document that establishes the National Incident Management System. This directive mandates that a standard, scalable framework for incident response be established that can accommodate changes in hazard scope and complexity.¹² Publication of this directive was an important step forward for incident management as it articulated concepts and processes that were lacking in jurisdictional issues, multiple functional agencies, and emergency responder disciplines.¹³

The fundamental principle of the NIMS is to keep the response at the lowest level possible and elevate the response only as the incident outweighs the local government's or entity's capacities. The problem facing state governments is that EMAs are not operationally 'ready' on a day-to-day basis to respond to a catastrophic incident. During normal operations, most of the EMA's six divisions are stood down with only a small operations section on duty to maintain a state operations center (SOC). The SOC provides basic capabilities for routine operations. These consist of emergency communications like weather warnings, conducting EOC orientation training and exercises as well as monitoring daily message traffic between state agencies. Upon occurrence of a major incident, the state activates its emergency operations center. Table 1 (see below) lists essential support functions (ESF) that supplement the emergency operations center during a crisis response situation. State agencies typically provide additional personnel to staff these functions during emergencies.

A state's emergency operations plan, signed by the governor, assigns agencies with primary and secondary responsibilities for the emergency support functions.¹⁴ When the EOC is activated, it forms a combined 'joint' staff representing all applicable state agencies which, along with permanently assigned EMA personnel, work together to respond to a large scale incident.

Operations	Transportation	Communications	Firefighting
Planning	Emergency Management	Public Works & Engineering	Mass Care, Housing and Human Service
Logistics	Resource Support	Public Health & Medical Services	Search & Rescue
Finance/ Administrative	Hazardous Materials	Agriculture and Natural Resources	Energy
Intelligence	Long Term Recovery	Public Safety and Security Services	External Affairs

Table 1. Emergency Operations Center Essential Support Functions

An informal survey of state EMAs indicates that EMA and ESF personnel do not regularly conduct joint training. The lack of a regular joint training program, combined with personnel turnovers due to retirements, reassignments, voluntary departures, and dismissals, can significantly degrade the proficiency of a state EMA.

An imperative of military training doctrine is to ‘train as you fight.’ This imperative holds true for an EOC staff as well. Molding a state EOC ‘joint’ staff into an effective, high-performing team capable of planning and executing emergency management operations requires integration and training of all state agencies that provide essential support functions to the state EMA during crisis situations.

2.5 DHS Methodology Limitations

The DHS methodology, described previously in Sections 2.2 and 2.3, has several limitations and shortcomings. First, the ordering of the four steps described in the capabilities development process may be out of sequence. In addition, the process lacks, and would benefit from, a feedback mechanism. As written, the selection of essential tasks occurs before specification of required capabilities. This assumes the emergency response capabilities required by EMA planners to accomplish intended objectives leading to desired outcomes are known ahead of time. History and past emergency management experiences suggest this is not the case. Every large scale disaster creates its own unique set of conditions and outcomes to which the state must tailor its emergency response. The process would be improved by identifying an initial baseline set of capabilities and adding a feedback loop to allow training results and lessons observed, and learned, to be fed back into the staff training process.

Second, as described in *Target Capabilities List, A Companion to the National Preparedness Guidelines*, the capabilities development process exclusively draws essential tasks from the universal task list. This approach omits other tasks for consideration from other viable sources such as the TCL.

Third, the UTL 2.1 does not identify performance measures for staff training tasks.¹⁵ The lack of performance measures forces EMA staffs to generate their own measures for selected tasks which may result in the same tasks being evaluated very differently across the 50 state EMAs throughout the nation. We note that the TCL, on the other hand, does list performance measures for some critical staff training tasks and we recommend that these be considered and incorporated into staff training and exercises when appropriate.

Fourth, although the TCL provides performance measures for some tasks, the document separately categorizes training tasks and performance measures. This makes it difficult to match up the two; a problem made more challenging because the document omits performance criteria for some tasks. Similar to UTL 2.1, this omission burdens state EMA staffs with the responsibility to derive their own performance measurements for critical tasks. Figure 5 (below) provides an illustrative example of the unclear and confusing linkage in the TCL between staff activity, critical training tasks, and performance measures for the activity entitled, “Respond to Needs Assessment and Inventory.”

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	
Time in which logistics staging area (LSA) responds to EOC tasking for resource support	Metric Within 1 hour from request

Figure 5. TCL Activity Example

In this example, four tasks are cited for the activity but only one performance measure is provided. It is unclear whether the performance measure applies to the activity, or to one or more of the tasks listed for the activity. The lack of guidance regarding performance measures for all tasks in the TCL makes it difficult for staffs to standardize training and evaluate staff proficiency.

Fifth, the numbering scheme used to identify critical tasks in the Exercise Evaluation Guide (EEG) differs from the task numbering scheme used in the TCL for the exact same or similar task. This creates unnecessary confusion in the task evaluation process. For example, the activity entitled “Critical Resource Logistics and Distribution” is found in both the TCL and the EEG. The TCL identifies the first critical task in the activity with task number Res.B1d 3.1.1., while the EEG denotes the same task as task number 1.

Sixth, there are two notable shortcomings with the EEG. First, it does not provide measurements for all tasks listed. Second, tasks are observed and evaluated on the basis of qualitative assessments only. The document, and the users of the document, would benefit from quantitative performance metrics as opposed to evaluators making subjective and qualitative assessments on evaluated tasks. As currently written, the outcomes obtained from training assessments are not measurable and do not provide specific feedback based on observed performance data.¹⁶ Figure 6 (below) illustrates the exercise guide’s vague performance assessments two tasks listed for the activity entitled “Direct Critical Resource Logistic (CRL) and Distribution.”

Activity 1: Direct Critical Resource Logistics (CRL) and Distribution		Delete Activity
<p>Activity Description: In response to an incident or situation that may require outside resource support, management and coordination of CRL and Distribution capability is provided from activation through demobilization</p>		
<p>Tasks Observed (check those that were observed and provide the time of observation)</p> <p><i>Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure</i></p>		
Tasks/Observation Keys	Time of Observation/ Task Completion	
1.1 Establish communication between Emergency Operations Center (EOC) and Incident Management Team to determine resource needs to support incident response and operations. <ul style="list-style-type: none"> — Incident resource needs identified — Mission tasking assigned to supplement resource shortages 	Time: Task Completed? Fully <input type="checkbox"/> Partially <input type="checkbox"/> Not <input type="checkbox"/> N/A <input type="checkbox"/>	
1.2 Identify existing internal, jurisdiction-specific resources available to support response and recovery operations. <ul style="list-style-type: none"> — Available internal resources provided — Project additional resource requirements 	Time: Task Completed? Fully <input type="checkbox"/> Partially <input type="checkbox"/> Not <input type="checkbox"/> N/A <input type="checkbox"/>	

Figure 6. Exercise Guide Example

Lastly, the process for evaluating tasks, as explained in the HSEEP, does not offer any measurable outcomes for the evaluation of staff performance. Guidance provided in Volume III of the HSEEP for using the EEG states that evaluators are not to rate the staff’s performance because the EEG is neither a grading tool nor a scorecard.¹⁷ If the program that has been established to evaluate critical task proficiency of emergency management agency staffs is not to be used as either a scorecard or an evaluation tool, then it is difficult to envision the intended purpose of the program and the EEG.

CHAPTER 3. Department of Defense Joint Training Methodology

3.1. Joint Doctrine.

The DOD has decades of experience at developing and implementing joint training guidance and doctrine. The focus on joint doctrine was formalized over twenty years ago with the Goldwater-Nichols Department of Defense Reorganization Act of 1986. This law mandated the development and implementation of joint military training and doctrine. Before enactment of this law, each branch of military service, Army, Navy, Air Force, and Marines, relied upon their own doctrine for conducting training and operations with other services. In most cases, the lead service for either training or real world operations involving multiple services simply extended its own training management program to cover joint operations with other services. In today's environment, it is extremely rare for one branch of military service to conduct missions independent of other services. Services now train for 'jointness.'

Similarly, a 'joint' approach to training makes sense for emergency response agencies at the federal, state, and local level given that no single agency will ever be solely responsible for responding to a catastrophic event. Emergency and consequence management response will require the participation of numerous federal, state, local, tribal, and non-governmental agencies in a unified effort. Clearly, joint staff training is paramount to success. The lessons learned by the DOD over the past two decades can be an important source of information and help guide staff training efforts by the DHS.

The joint training system consists of four phases: requirements, plans, execution, and assessment. Six tenets guide military commanders in the formulation of joint training plans. These are: 1) adhere to joint training doctrine that guides and coordinates the actions of all organizations towards the accomplishment of a common objective; 2) commanders and agency directors are the primary trainers responsible for preparing their organizations to accomplish assigned missions; 3) maintain mission focus – commanders and directors ensure that their training programs remain focused on mission essential tasks; 4) train the way you fight – joint training is based on realistic conditions and standards; 5) centralized planning and decentralized execution – operational flexibility is essential; and 6) training assessments are linked to readiness assessments – capability is defined as the ability to accomplish essential tasks.¹⁸ These six tenets for joint military training apply equally as well to training EMA staffs in planning and preparing for all hazards incidents.

3.2. DOD JOINT MISSION ESSENTIAL TASK LIST DEVELOPMENT PROCESS

Development of a joint mission essential task list (JMETL) is perhaps the most important product of the DOD joint training system. According to the DOD *Joint Mission Essential Task List Development Handbook*, the JEMTL sets the focus and direction for joint training utilizing the limited resources available to an organization. An effective JEMTL can help set conditions for joint staffs to be effectively and efficiently trained. Constructing a viable JMETL follows a three phase methodology outlined in Figure 7 below. The methodology consists of inputs, processes, and outputs.

Inputs for JMETL development come from guidance from higher headquarters, assigned missions and the military commander's assessment of the organization's readiness. For military

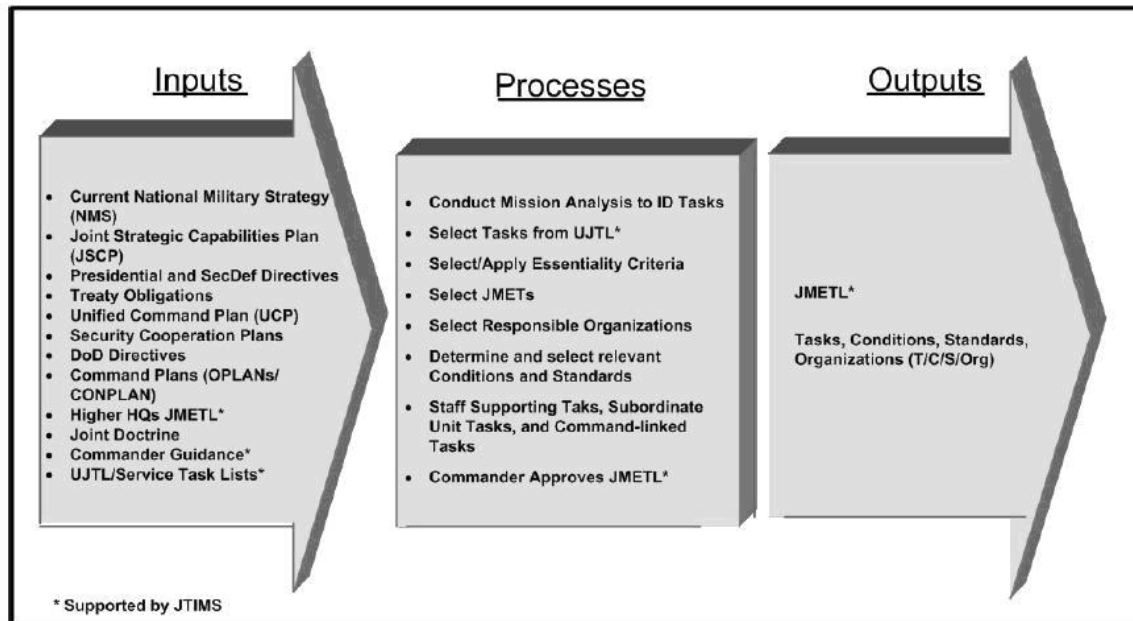


FIGURE 7. JMETL Inputs, Processes, Outputs

units, this includes documents such as the *National Military Strategy*, Secretary of Defense directives, operational plans, higher headquarters JMETL, and commander’s guidance. Of these, perhaps the most important document is commander’s guidance. The commander produces a written mission statement that clearly and concisely articulates the essential tasks to be accomplished by the organization and the objectives to be achieved. The commander also identifies the *who, what, when, and where* aspects of the training to be accomplished.¹⁹ The commander’s guidance also sets the framework for mission analysis to be conducted in the second phase of the JMETL development process. This phase provides: 1) a description of the desired end state objectives for assigned and implied missions; 2) intermediate objectives leading to mission objectives; 3) intended methods for accomplishing mission objectives; and 4) any time constraints and additional resources required by the commander to accomplish objectives. Mission analysis extracts specified and implied tasks from these sources.²⁰ A specified task is one that is explicitly stated or assigned by one of the input documents.²¹ Implied tasks are not specifically stated but necessary to accomplish the mission.²² The output of phase two is a complete list of tasks that need to be trained to standard across the full range of expected missions.

Next, the staff categorizes the tasks according to missions. This establishes an initial set of tasks commonly referred to as joint mission essential tasks (JMETs). It is important to note at this point that joint mission essential tasks often apply to multiple missions. Since plans are rarely executed as intended, agencies remain flexible by writing generic joint mission essential tasks that apply to a wide range of missions.²³ From this list, the staff selects the most important tasks to create the JMETs, which, once approved by the commander, represent essential tasks selected for mission accomplishment.

Staff planners work next in selecting supporting tasks that help to achieve the goals of the joint mission essential tasks. Table 2 (below) provides an extract of a Joint Force Headquarters’ JMETL consisting of five JMETL tasks and 29 supporting tasks.²⁴

ST 4. Sustain Theater Forces	OP 6.2. Provide Protection for Operational Forces, Means, and Noncombatants
OP 4.4. Coordinate Support for Forces in the Joint Operations Area (JOA)	OP 7.4. Coordinate Consequence Management (CM) in JOA
OP 4.7 Provide Politico-Military Support to Other Nations, Groups, and Government Agencies	OP 5.1. Acquire and Communicate Operational Level Information and Maintain Status
ST 7.2. Maintain and Report Readiness of Theater Forces	OP 2.2. Collect and Share Operational Information
SN 6.1.5. Maintain Current Operational Readiness Status of Units	OP 2.2.1. Collect Information on Operational Situation
SN 6.3. Mobilize at Home Station	OP 2.4.2. Prepare Intelligence for the Joint Operations Area (JOA)
SN 6.4.1. Develop Requirements/Movement Plans from HS to MS (or POE)	OP 2.5. Disseminate and Integrate Operational Intelligence
ST 4.2.4. Establish and Coordinate Training of Joint and Combined Forces	OP 5.1.1. Communicate Operational Information
ST 7.2.2. Assess and Report Theater Military Capability	OP 5.1.2. Manage Means of Communicating Operational Information
OP 4.4.2. Provide for Personnel Services	OP 5.1.8. Execute C4 Policies and Procedures for the Joint Operations Area (JOA)
OP 4.5. Manage Logistic Support in the Joint Operations Area (JOA)	OP 5.2. Assess Operational Situation
ST 8.4. Provide Theater Support to Other DOD and Government Agencies	OP 5.5. Establish, Organize, and Operate a Joint Force Headquarters
ST 1.1.2. Coordinate and Monitor Theater Strategic Joint Reception, Staging, Onward Movement, and Integration (JRSOI)	OP 5.3. Prepare Plans and Orders
ST 8.4.1. Advise and Support Counterdrug Operations in Theater	OP 5.4. Command Subordinate Operational Forces
ST 8.4.2. Assist in Combating Terrorism	OP 5.4.3. Provide Rules of Engagement
OP 4.7. Provide Politico-Military Support to Other Nations, Groups, and Government Agencies	OP 5.5.6. Establish or Participate in Task Forces
OP 5.7. Coordinate and Integrate Joint/Multinational and Interagency Support	OP 5.8. Provide Public Affairs in the Joint Operations Area (JOA)

Table 2. Example of a DOD Joint Mission Essential Task List

After selecting essential and supporting tasks, planners next determine organizational responsibilities and training standards for the joint mission essential and supporting tasks. At the conclusion of this step, each task will have at least one measurable criterion for assessing task proficiency. Planners rely on the universal joint task list as their primary source for identifying measurement criteria for training tasks.

3.3. DOD Universal Joint Task List

The universal joint task list (UJTL) is a comprehensive, hierarchal repository of tasks, conditions and measures for joint training. The UJTL is the official authoritative source describing the tasks, conditions that impact the tasks, measures, and criteria for joint training standards.²⁵ Tasks are described using a common language and are organized according to levels of war: strategic, operational, and tactical.²⁶ Strategic tasks are further differentiated as either strategic national or strategic theater tasks. Strategic national tasks focus on DOD / Service / Interagency responsibilities pertaining to national resources, security, and guidance. Strategic theater tasks relate to combatant command/interagency responsibilities in the area of national military objectives.

At the operational level of war campaigns and major operations are conducted to accomplish strategic objectives within an area of operation. Activities and tasks at the operational level ensure the logistics and administrative support functions meet the needs of tactical forces and provide the means by which tactical successes are achieved in support of strategic objectives. The tactical level of war is where combat battles and military engagements are planned and executed to accomplish military objectives of higher headquarters.²⁷

Within the UJTL, tasks for all levels of military operations are categorized and numbered according to warfighting capabilities. Each task number corresponds to a designated capability based on strategic, operational, and tactical level requirements. The task categories are: 1) deployment and movement of forces; 2) information and intelligence; 3) employment of firepower; 4) logistics and force sustainment; 5) command, control, communications, and computers; and 6) force protection.

3.4. JMETL Measurement

Following the selection of tasks from the UJTL, the next step in JMETL development is to define how the tasks will be measured. Table 3 (below) illustrates an operational level task from the UJTL. The UJTL provides the task title, definition of the task, and suggested measures. In this example, the task has seven measurements, attributes, and performance measures.

The description of task training measures consist of: 1) the performance measure for the task to be performed; and 2) the attribute describing how task performance is measured which is generally expressed in units of time, distance, percentages, or other countable or measurable outcomes. The DOD UJTL does not provide criteria establishing the acceptable level of performance for tasks. This responsibility belongs to the military unit commander or his designated representative. Once determined and paired with the performance measure, the articulation of the task, condition, and standard is complete.

Title	OP 5.1 Communicate Operational Information	
Definition	To send and receive operationally significant data from one echelon of command to another by any means	
Measurements	Attributes	Performance Measure
M1	Hours	After approval, all orders and plans received by components and adjacent units
M2	Minutes	Queuing time for high precedence messages
M3	Percent	Accuracy of data transmitted/disseminated
M4	Percent	Accuracy of deployment orders and notification requirements transmitted/disseminated
M5	Percent	Of addressees received message
M6	Percent	Of time information passed within established criteria
M7	Percent	Of time information on commander's critical information requirements passed within established time criteria.

Table 3. Example of DOD Universal Joint Task

Once training conditions affecting the task have been identified, measures and criteria established, and standards are established, the mission analysis phase of JMETL development is complete.²⁸ For continuity and integration between mission and task, each task in the DOD UJTL includes at least one standard with a corresponding attribute and performance measure. This continuity in DOD's methodology ensures consistency between staffs when training and evaluating common tasks. The only difference between staffs training on the same task is in the establishment of acceptable levels of performance for task evaluations.

Once the staff finishes with development of the JMETs, with supporting staff tasks and standards, the task list product is presented to the commander for approval. The approved document becomes the unit's JMETL.

CHAPTER 4. Application of DOD Training Methodology for Generation of Emergency Management Agency Mission Essential Task List (AMETL)

Chapter 3 outlined the DOD Joint METL development process. Chapter 4 draws upon the DOD JMETL process for ways to improve how state agencies can generate a mission essential task list (AMETL) for staff training. At the state level, higher echelon emergency response guidance comes from documents such as the *National Strategy for Homeland Security*, *Homeland Security Presidential Directives*, *National Preparedness Guidelines*, *National Response Framework*, *National Infrastructure Protection Plan*, and *National Planning Scenarios*. Although not exhaustive, these sources provide the guidance and background for framing a holistic mission analysis at the state EMA level.

4.1. EMA Director Guidance for State Agency Staff Training

Written mission guidance from the EMA director focuses the EMA staff on the director's training requirements. The guidance includes joint training required of state EMA personnel mobilizing in response to either: 1) a local or catastrophic event; or 2) preparation for a large scale state or national incident involving state and federal collaboration. EMA director guidance includes a thorough review of policies from higher and adjacent agencies and guidance by the EMA staff. A hypothetical mission statement, vision, and endstate are provided below to illustrate state EMA director guidance on collective joint training.

Director's Mission Statement. *The state EMA maintains trained personnel to perform missions as directed by the governor. The state EMA supports, through NIMS, command and control of all committed response forces. In accordance with policies and procedures established by the President, Governor, Secretary of Homeland Security, and the state Homeland Security director, the state EMA will mobilize quickly to establish the capability to provide command elements able to prevent/disrupt terrorist attacks, protect the American people and critical infrastructure/key resources, respond to and recover from incidents, and continue to strengthen the foundation for long term success. In addition, the state EMA provides expertise and situational awareness to supporting agencies to facilitate response activities.*

Director's Vision. *It is envisioned that training resources will be focused upon the goals planning, prevention, response, and recovery. Emergency response is the one mission area that has the most public visibility. An efficient and effective response by the state is paramount. The state EMA will mobilize quickly with the correct staff. The state EMA will train to command and control assigned response forces and sustain all response forces and affected populations during response. The EMA will provide situational awareness and concurrently function as the executive agent for coordinating response execution with local, tribal, state and federal agencies. The EMA public affairs will ensure timely and accurate information flow with the media and the public. The state EMA will train to be capable of receiving, staging, and integration of supporting forces and will be the conduit for deployment, employment and redeployment of all supporting forces in the state's affected area.*

End State. *The vision of the end state is to have a state EMA capable of performing core tasks that provide the following: 1) command and control; 2) reception, staging, integration of responding forces; 3) inter-agency integration and cooperation; 4) situational awareness; 5) establishing joint task force(s) response; and 6) public affairs management.*

4.2. EMA Staff Mission Analysis.

Upon receipt of the Director’s Guidance, the EMA staff undertakes a mission analysis of potential requirements. The EMA staff utilizes guidance available to produce a list of tasks that capture the Director’s intent within limitations of laws, policies, regulations, cost, and time as prescribed by both the federal and state governments. The end product of mission analysis is the AMETL with supporting tasks and standards.

The mission analysis process described in this section reflects only some key tasks of many that must be accomplished. Using assumptions from Chapter 1, director’s guidance, and homeland security policies and guidelines, Table 4 lists several key AMETL tasks.

Assess Operational Situation	Establish or Participate in Task Forces
Activate Emergency operations center	Support and Coordinate Response
Collect and Share Operational Information	Disseminate and Integrate Operational Intelligence
Direct Critical Resource Logistics and Distribution Operations	Activate Critical Resource Logistics and Distribution
Acquire Resources	Transport, Track, and Manage Resources
Conduct Media Relations / Provide Public Rumor Control	Determine Director’s Critical Information Requirements
Maintain Operational Information and Force Status	Direct Medical Surge Operations

Table 4. Examples of Agency Essential Tasks

4.3. Selection of Agency Mission Essential Tasks

A complete mission analysis can identify a multitude of wide ranging tasks for emergency management scenarios under consideration and guidance from the President, federal agencies and the Governor. Following the Director’s guidance, the EMA reduces the full list of training task to a manageable number along with supporting task, standards and assessment criteria. This reduced list becomes the AMETL that is used EMA staff training using resources allocated to the agency.

Based on the illustrative EMA Director’s guidance from Section 4.1 above, the following mission essential tasks are derived for a state EMA: 1) establish, organize, and operate an emergency operations center; 2) establish or participate in task forces; 3) acquire and communicate operational level information and maintain status; 4) provide operational logistical and personnel support; and 5) provide public affairs support.

4.4. Selection of AMETL Supporting Tasks

The next step in AMETL development is selection of supporting tasks. Supporting tasks are a subset of essential tasks that contribute to accomplishment of specified agency mission essential

task and are generally accomplished by the staff, subordinate element, or entity.²⁹ For example, Table 5 lists four supporting tasks for agency mission essential task number 1.0.

Essential Task	(1.0) Establish, Organize, and Operate an Emergency Operations Center
Supporting Task	(1.1) Activate Emergency Operations Center
Supporting Task	(1.2) Direct Emergency Center Operations
Supporting Task	(1.3) Determine Director’s Critical Information Requirements
Supporting Task	(1.4) Support and Coordinate Response

Table 5. An Example of an AMETL and Supporting Tasks

Appendix A (page 26) presents essential and supporting tasks for the hypothetical AMETL generated for this research. The AMETL consists of five mission essential tasks and twenty-eight supporting tasks. AMETL task numbers are assigned to each essential task and corresponding supporting tasks.

4.5. Selection of AMETL Standards

The illustrative AMETL example generated for this research contains 150 measures for assessing training tasks. Each measure contains a description, and an attribute and a criterion. There are four possible training assessments for each criterion: T1, T2, T3, or T4. T1 ratings signify the task was performed in an exemplary manner. T2 signifies the task was performed in an acceptable manner and is the *expected* range of all performance measures. T3 denotes the task was performed marginally while T4 indicates the task was performed unsatisfactorily. If a training task is evaluated as either trained or untrained, then either a T2 or T4 are entered, respectively.

Table 6 illustrates the evaluation of the four performance measures for the training task 1.0: *Establish, Organize, and Operate an Emergency Operations Center*. Each row represents distinct training requirement in support of the task for activating the emergency operations center.

Requirement text	Ref Number	AMETL #	Organizational Element	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
To initiate Emergency Operations Center Activation Order	OP 5.5	1.0	Command	Minutes		15-30	<15	30-45	>45
Of Emergency Operations Center actions or operations affected by late arrival of staff / augmentees.	OP 5.5	1.0	Operations	Percent		20-24	<20	25-29	>30
Of Emergency Operations Center staff / augmentees received and integrated into Emergency Operations Center IAW established procedure.	OP 5.5	1.0	Operations	Percent		94-90	>95	89-85	<85
From activation order until Emergency Operations Center fully staffed.	OP 5.5	1.0	Command	Hours		6-8	<6	9-15	>15

TABLE 6. Performance Measures for Agency Mission Essential Task 1.0

The reference number in column two identifies the document or source for the requirement. For example, tasks beginning with ‘OP’ reference the DOD UJTL while tasks beginning with ‘Res’ are from the TCL. Column three gives the AMETL task for the corresponding requirement in column one. The fourth column identifies the organizational element responsible task

execution. Column five displays the metric for each requirement listed in column one. In the case of requirement one (row one), minutes are used as the metric for measuring task proficiency. The last four columns display the four possible observation values for the assessment of the requirement. The evaluator enters the corresponding 'T value' observed in the execution of this particular measurement in the column marked 'value.' For example, the expected performance, T2, for the time in minutes to initiate activation of the EOC once the decision is made to do so is fifteen to thirty minutes. Similarly, if the activation order is given in less than fifteen minutes from the decision to activate the emergency operations center then a T1 is entered.

Appendix B (page 27) contains a listing of AMETL measures that includes organizational elements responsible for the execution of each measurement. At this point in AMETL development, the draft AMETL with supporting tasks and metrics would be briefed to the director for approval.

CHAPTER 5. Application of the Analytical Hierarchy Process for AMETL Evaluation

As mentioned in Chapter 2, no method currently exists within DHS to effectively quantify or measure the assessment of critical staff tasks. State emergency management staffs cannot determine from current evaluation methods a return-on-investment (ROI) or establish a measurable baseline of staff proficiency.

Recently, a method was developed that will allow staffs the ability to objectively determine efficiency and return-on-investment based upon previously selected and approved organizational priorities rather than a subjective assessment of a staff's perception of efficiency. This method uses the analytic hierarchy process (AHP).

The AHP is a mathematical technique for finding answers to large or complicated types of problems. The method decomposes a large problem into subsets of smaller problems which can be analyzed independently.³⁰ For this research, the AHP was used to evaluate qualitative training results converted into numerical values that can be aggregated across all subsets of the problem to give an overall assessment for the original problem. In this case, the problem is to quantify the state's ROI for joint staff training of EMA personnel.

5.1. Model Development

This paper utilizes an application of the AHP methodology developed by Dr. Mark C. Nesselrode in his doctoral dissertation, *Developing a Repeatable and Reliable Methodology to Determine Return-On-Investment*. Nesselrode used an AHP model to evaluate joint military staffs during large scale exercises and the ROI of resources applied to the training of those staffs.³¹ The staffs and exercises studied by Nesselrode included *Noble Resolve 2007* and *Fuerzas Aliadas (FA) Panamax 2007*. These exercises and staffs are very similar in scope and size to a state level EMA EOC staff involved in a major emergency response exercise.³²

5.2. Typical Evaluation Distributions

Nesselrode collected both qualitative and quantitative results from two major staff training exercises; namely *FA Panamax 2007* and *Noble Resolve 2007*, three day and four day exercises respectively. Table 7 gives staff evaluation T-rating results comparing *FA Panamax 2007* for the first (day one) and third (day three) days of the exercise and similarly for *Noble Resolve 2007*.

	T1	T2	T3	T4
FA Panamax 2007				
Day 1	9.59%	59.04%	20.42%	10.95%
Day 3	14.80%	77.83%	7.03%	0.25%
Noble Resolve 2007				
Day 1	4.40%	66.33%	27.92%	1.35%
Day 3	12.86%	72.59%	14.04%	0.51%

TABLE 7. FA Panamax 2007 and Noble Resolve 2007 T-Rating Results

Columns two through four give the overall T-ratings for staff evaluations during the exercise. The T-rating values in each cell denote the percentage of tasks that the staff achieved in each T-

rating category. The reader is referred to Section 5.3 for an explanation of T-ratings. A graphical comparison of the T-rating results from Table 7 is illustrated in Figure 8.

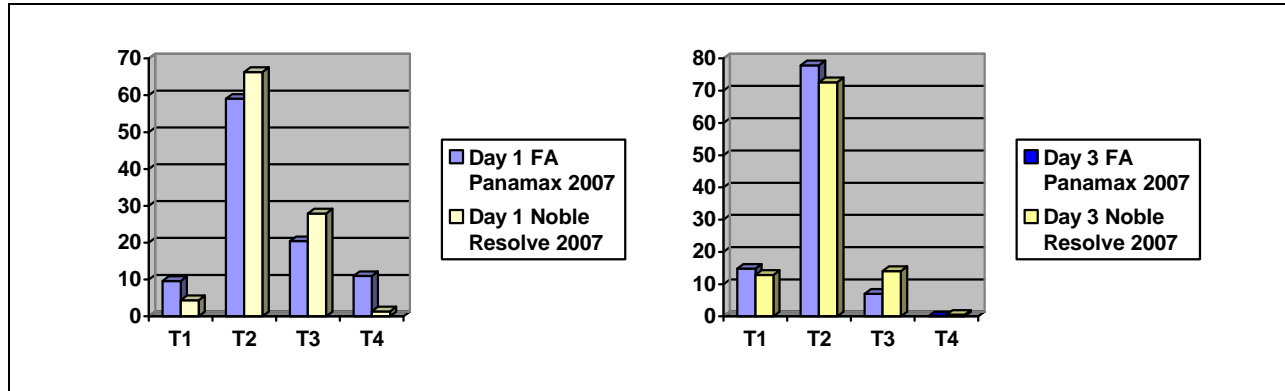


Figure 8. Day 1 and Day 3 T-Rating Comparisons for *FA Panamax 2007* and *Noble Resolve 2007*

The exercise data shows a significant improvement in the T3 and T4 categories between day 1 and day 3. Specifically, there was 57.7% reduction in tasks evaluated T3 (marginally acceptable) and an 80% reduction in tasks categorized as T4 (untrained) on average. Tasks evaluated T2 (acceptable) increased over 20% from day 1 to day 3 while T1 tasks (exceptional) increased by over 120% on average.

From the literature a key observation can be noted about organizational and staff training. When using T-ratings, most organizations staffs understand, recognize, and make serious efforts to correct bad T3 and T4 ratings. This is illustrated by the sharp reduction in the number of T4 ratings by day 3 and the corresponding jump in T1 and T2 ratings.³³

5.3. Application of the AHP Model to the AMETL

The T-rating values used in the AHP model are calculated by assigning numerical values corresponding to each T-rating for training observations. The numerical values represent the mid-range point for each T-rating value. For example, T1 is assigned value of 0.95, T2 a value of 0.85, T3 a value of 0.75, and T4 value of 0.65. The model initializes each set of training tasks with a normalized, uniformly distributed set of weights reflecting equal importance of all tasks. However, task weights can be adjusted using any normalized weighted distribution to represent differences between tasks based on institutional guidelines, past experience, current conditions, or preferences of the decision maker.

Nesselrode makes an interesting observation regarding T-rating values assigned to training tasks by staffs with his premise that staffs undergoing training and evaluation possess a high level of self-awareness with regard to the training strengths and weaknesses of their organization. This premise has been substantiated by the limited results from his dissertation research analyzing the two military exercises cited above.³⁴ If validated through further research, the implication is that it will be incumbent upon the commander, director, or designated leader of the organization to ensure that key tasks influencing the outcome of mission success receive requisite training focus.

When a staff has a well constructed AMETL, supported by metrics and standards, the staff is able to conduct objective and measurable evaluations. The AHP outputs allow a staff to establish a measurable baseline for staff proficiency and determine changes needed in training strategy for the entire staff and within each functional area of a staff.

5.4. Analysis of Training Effectiveness Using the AHP Model

The AHP methodology allows users the flexibility to analyze various outputs of interest to trainers, staffs and organizational leaders. For example, a specific skill set can be associated and analyzed with each task. Some skill sets common to emergency management organizations include situational awareness, leadership, communications, logistics, planning, and transportation. By associating skill sets with each task, the AHP process enables a staff to model and analyze performance of a particular skill across an entire staff. This provides staff trainers with valuable feedback to adjust training for critical skills staff skills. The AHP methodology may also allow EMA staff planners to associate mission areas with staff tasks such as planning, preparing, responding, and recovering. This allows staffs to model and analyze performance in a particular mission area across the entire staff.

Another way the AHP adds value to staff training and evaluation is through cost modeling associated with an exercise and linking costs as a return on investment with evaluation results. Costs for equipment, personnel, contracts, consumables, and services are modeled and can be analyzed to estimate the ROI of expenditures versus performance. This particular aspect of AHP modeling represents a significant advantage over other exercise evaluation methodologies which do not incorporate costs into the return-on-investment. Linking costs with training allows leaders and staffs to determine when and where resources can be reallocated to maximize training.

Finally, another distinct advantage of the AHP methodology is that it can be used to evaluate staff performance by work shifts during an exercise. For example, staffs typically conduct twenty-four hour operations with two twelve hour shifts. Exercise evaluations normally do not differentiate between shifts. The AHP model allows evaluation results to distinguish between work shifts and make recommendations for additional training based on the level of proficiency of each shift performing key tasks.

CHAPTER 6. Conclusion

The goals of this research were to: 1) identify gaps and limitations in DHS staff training and evaluation programs for state EMAs; and 2) recommend solutions to mitigate or overcome the gaps and shortfalls. The solutions are not offered as ‘cure-alls’ but rather are intended to serve as workable methods for standardizing EMA staff training and evaluation. It is hoped that this research contributes positively to improving DHS training systems and to producing EMA staff agency mission essential task lists for future staff training and evaluation.

6.1. Summary

Notable gaps and shortfalls in DHS training and evaluation processes identified previously are summarized below. First, DHS training documents, in particular, the TCL and UTL 2.1 lack standardized language and performance measures for some key tasks. This undoubtedly leads to confusion for readers and practitioners due to the same tasks being defined using different terminology causing requirements and evaluations to vary state-by-state throughout the country. Next, unnecessary confusion is also created by not using a consistent numbering scheme for emergency management training tasks across all DHS documents. Another convention which causes confusion, DHS training documents and training guidelines do not differentiate which tasks would be most appropriately conducted at the local, state, or federal levels. The National Preparedness Guidelines fail to propose guidelines and standards for formulating an agency mission essential task which leaves this responsibility to each state potentially creating a problem with inconsistency from state to state. Finally, the DHS guidelines do not recommend a standardized method for quantifying training results or a method for estimating the return on investment for staff training which contributes to subjective rather than objective staff evaluations.

The following recommendations are offered for dealing with the problems identified above regarding the DHS emergency management program.

First, recommend that DHS training documents provide at least one measurable performance criteria for each key task thereby unburdening the state EMAs from the need to generate their own. Adoption of this recommendation has the added benefit of helping to standardize measures for some key tasks.

Second, recommend the adoption of a consistent numbering system for tasks used in training by DHS. A consistent numbering system will help standardize measures throughout DHS training documents and the 54 states and territories.

Third, DHS training documents need to establish a taxonomy and a hierarchy of training tasks similar to the DOD methodology discussed in Chapter 3 that groups tasks into categories by task type according to what is normally conducted at local, state, and national levels. This will allow state EMAs to focus task selection on tasks typically conducted at the appropriate level.

Fourth, that the DHS embrace a DOD-like process for formulating an AMETL for ‘joint’ agency staff training. A well constructed AMETL will allow staffs to better focus training and maximize the use of limited training resources.

Finally, DHS is urged to implement an AHP based evaluation methodology to effectively evaluate staff performance and provide concise, measurable results along with a return-on-

investment. AHP outputs establish baseline proficiency, assess training strategy, and justify allocation of resources.

6.2. Future Work

Important areas of future work will be to mature the analysis of the areas discussed in Section 5.4., EMA AMETL formulation, and standardizing staff training and evaluations across the states. Two key steps for future work include: 1) creating a coalition of volunteer state EMAs interested in constructing an EMA AMETL for staff training using the method outlined in this research; and 2) maturation and application of an AHP model for staff evaluation in a large scale exercise. Related work may include identification of costs associated with an exercise to improve ROI analysis.

APPENDIX A – EMERGENCY MANAGEMENT AGENCY AMETL WITH SUPPORTING TASKS

This appendix contains the author’s hypothetical state agency mission essential task list (AMETL) generated for this research. The mission essential tasks are in bold and are: 1) establish, organize, and operate an Emergency Operations Center (EOC); 2) establish or participate in task forces; 3) maintain operational information and force status; 4) provide operational logistical and personnel support; and 5) provide public affairs in the area of operations. Supporting tasks for each mission essential tasks are listed below each essential task.

1. Establish, Organize, and Operate an Emergency Operations Center

- 1.1. Activate Emergency Operations Center
- 1.2. Direct Emergency Operations Center Operations
- 1.3. Determine Director’s Critical Information Requirements
- 1.4. Support and Coordinate Response

2. Establish or Participate in Task Forces

- 2.1. Conduct Reception, Staging, and Integration in the Area of Operations
- 2.2. Direct Subordinate operations Forces
- 2.3. Provide Rules of Engagement

3. Maintain Operational Information and Force Status

- 3.1. Maintain Operational Information and Force Status
- 3.2. Assess Operational Situation
- 3.3. Communicate Operational Information
- 3.4. Review Current Situation (Project Branches)
- 3.5. Project Future Response Operations (Sequels)
- 3.6. Determine and Prioritize Operational Priority Intelligence Requirements
- 3.7. Collect and Share Operational Information
- 3.8. Collect Information on Operational Situation
- 3.9. Prepare Intelligence for the Area of Operations
- 3.10. Disseminate and Integrate Operational Intelligence

4. Provide Operational Logistical and Personnel Support

- 4.1. Coordinate Support for Forces in the Area of Operations
- 4.2. Coordinate Field Service Requirements
- 4.3. Coordinate Support for Personnel in the Area of Operations
- 4.4. Activate Critical Resource Logistic and Distribution
- 4.5. Respond to Needs Assessment and Inventory
- 4.6. Direct Critical Resource Logistics and Distribution Operations
- 4.7. Acquire Resources
- 4.8. Transport, Track, and Manage Resources

5. Provide Public Affairs in the Area of Operations

- 5.1. Establish Joint Information Center (JIC)

- 5.2. Conduct Joint Information Center Operations
- 5.3. Manage Media Relations in the Area of Operations

APPENDIX B – EMA AMETL WITH PERFORMANCE MEASURES, ORGANIZATIONAL/FUNCTIONAL AREA RESPONSIBILITIES

This appendix lists all of the tasks, metric, measures, and standards for the hypothetical agency mission essential task list generated by the author. This complete listing is the final product in AMETL development.

- Column one lists the tasks associated with each essential and supporting tasks for the AMETL.
- Column two contains the reference number for the source of the task. ‘OP’ tasks are from the *Universal Joint Tasks List* and ‘Res’ tasks are from the *Target Capabilities List*.
- Column three lists the essential or supporting task that the subtask is associated with in Appendix A.
- Column four lists the organizational element responsible for the execution of the task.
- Column five lists the mission area that each task is associated with.
- Column six lists skill areas that each task is associated with
- Column seven lists the metric used in measuring the task.
- Column eight is the location where the observed value of task completion is entered.
- Columns nine through twelve contain the standards by T-ratings for each task.

APPENDIX B – EMA AMETL WITH PERFORMANCE MEASURES, ORGANIZATIONAL/FUNCTIONAL AREA RESPONSIBILITIES

Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
To initiate Emergency Operations Center Activation Order	OP 5.5	1.0	CMDE	Respond	Responsibility	Minutes		15-30	<15	30-45	>45
Of Emergency Operations Center actions or operations affected by late arrival of staff / augmentees.	OP 5.5	1.0	OPNS	Respond	Accountability	Percent		20	<20	<25	>30
Of Emergency Operations Center staff / augmentees received and integrated into Emergency Operations Center IAW established procedure.	OP 5.5	1.0	OPNS	Respond	Accountability	Percent		94-90	>95	89-85	<85
From activation order until Emergency Operations Center fully staffed.	OP 5.5	1.0	CMDE	Respond	Preparedness	Hours		6-8	<6	13-15	>15
Activate Emergency Operations Center and Alert Emergency Operations Center personnel to report	Res.B1c 4	1.1	CMDE	Respond	Preparedness	Hours		1-2	<1	2-3	>3
Emergency Operations Center is active/operational/secured/equipped per NFPA-1221	Res.B1c 4	1.1	OPNS	Respond	Accountability	Hours		2-4	<2	5-6	>6
Emergency Operations Center has ALL Emergency Support Functions Staffed	Res.B1c 3	1.2	OPNS	Respond	Accountability	Yes / No		Yes		No	
Emergency Operations Center emergency and situational reporting requirements established and implemented established after 8 hours	Res.B1c 3	1.2	OPNS	Respond	Competency	Yes / No		Yes		No	
Emergency Operations Center reporting personnel are briefed on situation within 1 hour of reporting	Res.B1c 3	1.2	OPNS	Respond	Competency	Yes / No		Yes		No	
Non-ESF external organizations (e.g. government and non-government) are notified and integrated into the command structure as appropriate	Res.B1c 3	1.2	OPNS	Respond	Adaptability	Hours		6-8	<6	13-15	>15
State/Federal authorities contacted for emergency or disaster declaration, as appropriate	Res.B1c 3	1.2	OPNS	Respond	Competency	Hours		2-4	<2	5-6	>6
Director's Critical Information Requirements (DCIRs) are Verified/Active/Disseminated .	OP 5.1.3	1.3	CMDE	Respond	Competency	Yes / No		Yes		No	
Of DCIRs are answered.	OP 5.1.3	1.3	OPNS	Respond	Accuracy	Percent		94-85	>95	84-75	<75
Since DCIR last update.	OP 5.1.3	1.3	OPNS	Respond	Accuracy	Hours		12-18	<12	18-24	>24
Into the future DCIRs look .	OP 5.1.3	1.3	OPNS	Respond	Preparedness	Days		5-7	>7	3-4	<3
Does the Emergency Operations Center have guidelines / procedures in place to insure that CCIR's are updated consistently and/or match commander's guidance?	OP 5.1.3	1.3	OPNS	Respond	Competency	Yes / No		Yes		No	
Mutual aid agreement(s) are initiated to provide resources	Res.B1c 8	1.4	OPNS	Respond	Competency	Yes / No		Yes		No	
Financial matters pertaining to procurement of resources implemented and managed	Res.B1c 8	1.4	FIN	Respond	Responsibility	Yes / No		Yes		No	
Prior to finalizing Common Operating Picture, Emergency Operations Center has a defined Joint Area of Operations (area of response)	Res.B1c 8	1.4	OPNS	Respond	Competency	Yes / No		Yes		No	
Develop initial Common Operating Picture (Common Operating Picture) and have displayed in the Emergency Operations Center	Res.B1c 8	1.4	OPNS	Respond	Responsibility	Hours		2-4	<2	5-6	>6

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Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
Interoperable communications systems are functioning for real time passage of critical information	Res.B1c.8	1.4	COMM	Respond	Competency	Yes / No		Yes		No	
Emergency Operations Center prepared for directing subordinate task forces(s).	OP 5.5.6	2.0	OPNS	Respond	Leadership	Yes / No		Yes		No	
Emergency Operations Center provides subordinate task force with written/verbal directive or mission (after task force is identified) that provide desired effect and sCommon Operating Picture of action required.	OP 5.5.6	2.0	OPNS	Respond	Leadership	Yes / No		Yes		No	
Emergency Operations Center provides subordinate task force with defined area of response.	OP 5.5.6	2.0	OPNS	Respond	Responsibility	Yes / No		Yes		No	
Reception, Staging, Integration Site Site(s) Information provided to supporting agencies/states/organizations	OP 1.1.3	2.1	OPNS	Respond	Competency	Yes / No		Yes		No	
Emergency Operations Center coordinates with forward on ground incident commander(s) with status of supporting forces from Reception, Staging, Integration Site Site(s)	OP 1.1.3	2.1	OPNS	Respond	Clear Communication	Yes / No		Yes		No	
Reception, Staging, Integration Site Site(s) Activated/fully manned/ fully functional with personnel and material handling equipment	OP 1.1.3	2.1	OPNS	Respond	Responsibility	Hours		25-48	12-24	49-72	>72
Emergency Operations Center provides Reception, Staging, Integration Site Site Director provided with status of Inbound forces	OP 1.1.3	2.1	OPNS	Respond	Clear Communication	Yes / No		Yes		No	
Reception, Staging, Integration Site Site(s) provide status of forces processed through daily	OP 1.1.3	2.1	OPNS	Respond/Recover	Clear Communication	Yes / No		Yes		No	
Time required to in-process supporting forces through Reception, Staging, Integration Site Site (this includes personnel accountability, predeployment health survey, vehicle verification/accountability, Rule of Engagement brief, Follow on Assignment, and Onward Movement Information)	OP 1.1.3	2.1	OPNS	Respond/Recover	Competency	Hours		24	<24	24-36	>36
Accuracy of information in plans and direction issued and disseminated to subordinate units.	OP 5.4	2.2	OPNS	Respond/Recover	Accuracy	Percent		99-95	100	94-90	<90
Of Emergency Operations Center documents that provide direction, information, and/or support (e.g., SITREPS, protective action guidelines (PAG), protective action recommendations (PAR), protective action decisions (PAD), mission guidance) passed to subordinate forces to allow parallel planning.	OP 5.4	2.2	OPNS	Respond	Situational Awareness	Percent		99-95	100	94-90	<90
Of subordinate forces clear about their immediate objectives.	OP 5.4	2.2	OPNS	Respond/Recover	Clear Communication	Percent		99-95	100	94-90	<90
Of time mission-essential intelligence and threat assessments passed to subordinate forces within established criteria.	OP 5.4	2.2	OPNS	Respond/Recover	Accuracy	Percent		99-95	100	94-90	<90
From receipt of Emergency Operations Center activation to develop rules of engagement (ROE) guidance.	OP 5.4.3	2.3	OPNS	Respond	Responsibility	Hours		8-12	<8	13-18	>18

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Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
From receipt of Emergency Operations Center activation to develop general order regarding prohibited and permitted actions for responding forces.	OP 5.4.3	2.3	CMDE	Respond	Leadership	Hours		8-12	<8	13-18	>18
Accuracy of information in Rules of Engagement changes.	OP 5.4.3	2.3	OPNS	Respond/Recover	Accuracy Situational	Percent		99-95	100	94-90	<90
Of incidents that violate rules of engagement.	OP 5.4.3	2.3	OPNS	Respond/Recover	Awareness	Percent		1-3	0	4-10	>10
Has Rules of Engagement been provided to all subordinate forces with sufficient time allotted for review and requests for change?	OP 5.4.3	2.3	OPNS	Respond	Responsibility	Yes / No		Yes		No	
Since latest information collected.	OP 5.1	3.0	OPNS	Respond/Recover	Competency	Hours		12-18	<12	19-24	>24
To establish connectivity with federal, state, and subordinate agencies, responding force agencies (after arrival).	OP 5.1	3.0	COMM	Respond/Recover	Clear Communication	Hours		2-3	<2	3-4	>4
To process and disseminate status information (to subordinate units).	OP 5.1	3.0	OPNS	Respond/Recover	Situational Awareness	Minutes		15-30	<15	31-60	>60
Of critical information acquired and disseminated to subordinate commanders.	OP 5.1	3.0	OPNS	Respond/Recover	Clear Communication	Percent		99-95	100	94-90	<90
Of organizations or subordinate forces receiving latest information.	OP 5.1	3.0	OPNS	Respond/Recover	Competency	Percent		99-95	100	94-90	<90
Of subordinate forces in communication with Emergency Operations Center.	OP 5.1	3.0	COMM	Respond/Recover	Clear Communication	Percent		99-95	100	94-90	<90
Of Command, Control, Communication, Computing support systems, operational.	OP 5.1	3.0	COMM	Respond/Recover	Competency	Percent		95-90	>95	90-85	<85
Of plans, reports, and other information, passed error free.	OP 5.1	3.0	OPNS	Respond/Recover	Accuracy	Percent		95-90	>95	90-85	<85
Agencies and subordinate forces are provided the latest information.	OP 5.1	3.0	OPNS	Respond/Recover	Competency	Yes / No		Yes		No	
Lag between joint force common operational picture and real world situation.	OP 5.1.4	3.1	OPNS	Respond/Recover	Competency	Hours		2-4	<2	4-6	>6
Of incoming information (which could affect outcome of operation) not getting to person responsible for action.	OP 5.1.4	3.1	OPNS	Respond/Recover	Responsibility	Instances		1-4	0	4-8	>8
Of critical information not reaching person responsible for action.	OP 5.1.4	3.1	OPNS	Respond/Recover	Responsibility	Instances		1-4	0	4-8	>8
To post unit reports to appropriate databases or pass to work centers (from receipt).	OP 5.1.4	3.1	OPNS	Respond/Recover	Competency	Minutes		30-60	<30	60-90	>90

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Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
Accuracy of information on essential logistics, transportation, personnel, etc., requirements and reports.	OP 5.1.4	3.1	OPNS	Respond/Recover	Situational Awareness	Percent		99-95	100	94-90	<90
Accuracy of intelligence situation displays maintained with mission-essential information.	OP 5.1.4	3.1	INTEL	Respond/Recover	Situational Awareness	Percent		99-95	100	94-90	<90
Accuracy of mission-essential information maintained on situation displays.	OP 5.1.4	3.1	OPNS	Respond/Recover	Accuracy	Percent		99-95	100	94-90	<90
Of decisions delayed awaiting appropriate data.	OP 5.1.4	3.1	OPNS	Respond/Recover	Competency	Percent		5-10	<5	11-15	>15
Of subordinate forces / other agencies and personnel with current status known.	OP 5.1.4	3.1	OPNS	Respond/Recover	Situational Awareness	Percent		99-95	100	94-90	<90
Of reports processed and disseminated to all agencies within time limits.	OP 5.1.4	3.1	OPNS	Respond/Recover	Competency	Percent		99-95	100	94-90	<90
Number of minutes to access and display shared remote databases.	OP 5.1.4	3.1	COMM	Respond/Recover	Clear Communication	Minutes		15-30	<15	30-45	>45
Percent of time, data presented to decision maker in suitable format.	OP 5.1.4	3.1	OPNS	Respond/Recover	Accuracy	Percent		99-95	100	94-90	<90
Percent of operational data displays are current.	OP 5.1.4	3.1	OPNS	Respond/Recover	Competency	Percent		99-95	100	94-90	<90
To disseminate intelligence updates (upon completion of assessment).	OP 2.5	3.10	INTEL	Respond/Recover	Competency	Hours		1-2	<1	2-3	>3
Minutes to disseminate operational intelligence updates to command group upon completion of assessment.	OP 2.5	3.10	OPNS	Respond/Recover	Accountability	Minutes		20-40	<20	40-60	>60
Minutes to disseminate real time maritime operational intelligence to appropriate subordinate forces /agencies.	OP 2.5	3.10	OPNS	Respond/Recover	Accountability	Minutes		20-40	<20	40-60	>60
Has the Emergency Operations Center intelligence staff established communications paths (established relationships) with all applicable intelligence agencies in the operating area. (Phone numbers, e-mail, web sites, etc.).	OP 2.5	3.10	COMM	Respond/Recover	Clear Communication	Yes / No		Yes		No	
To access current situation and formulate plan of action.	OP 5.2	3.2	OPNS	Respond/Recover	Initiative	Minutes		30-60	<30	61-90	>90
Of time director/senior staff made aware of emerging political, economic, or other event (which could impact operations) from outside source.	OP 5.2	3.2	OPNS	Respond/Recover	Situational Awareness	Instances		1-4	0	4-8	>8
After approval, all guidance and plans received by subordinate forces and supporting agency.	OP 5.1.1	3.3	OPNS	Respond	Competency	Hours		2-4	<2	4-6	>6
Accuracy of data transmitted/disseminated.	OP 5.1.1	3.3	OPNS	Respond	Accuracy	Percent		94-90	>95	89-85	<85
Into future, planning branches have been developed.	OP 5.2.1	3.4	PLANS	Respond/Recover	Competency	Days		4-7	>7	2-3	<2
Of decision points have branches.	OP 5.2.1	3.4	PLANS	Respond/Recover	Adaptability	Percent		99-95	100	94-90	<90
Of forecast branches developed approved by director	OP 5.2.1	3.4	CMDE	Respond/Recover	Leadership	Yes / No		Yes		No	
Forecast branches reviewed for legal sufficiency.	OP 5.2.1	3.4	PLANS	Respond/Recover	Responsibility	Yes / No		Yes		No	
Has the Emergency Operations Center developed branches and squeals as a result reviewing the operational situation?	OP 5.2.1	3.4	PLANS	Respond/Recover	Situational Awareness	Yes / No		Yes		No	

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Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
Of future planning is completed and available.	OP 5.2.3	3.5	PLANS	Respond/Recover	Competency	Days		4-7	>7	2-3	<2
Of decision points have sequels.	OP 5.2.3	3.5	PLANS	Respond/Recover	Accountability	Percent		99-95	100	94-90	<90
Identified sequels with COAs developed are reviewed for legal sufficiency.	OP 5.2.3	3.5	PLANS	Respond/Recover	Accountability	Yes / No		Yes		No	
Before next phase of a response, director's Priority Information Requirements validated or updated.	OP 2.1.1	3.6	PLANS	Respond/Recover	Responsibility	Hours		12-18	<12	18-24	>24
In advance of collection, intelligence requirements identified.	OP 2.1.1	3.6	INTEL	Respond	Responsibility	Yes / No		Yes		No	
Of PIRs addressed in intelligence update.	OP 2.1.1	3.6	INTEL	Respond/Recover	Preparedness	Percent		95-90	>95	89-85	<85
Of PIRs covered by a collection plan.	OP 2.1.1	3.6	INTEL	Respond/Recover	Competency	Percent		95-90	>95	89-85	<85
Of validated PIRs have collection effort.	OP 2.1.1	3.6	INTEL	Respond/Recover	Competency	Percent		95-90	>95	89-85	<85
To disseminate initial and subsequent PIRs to all components.	OP 2.1.1	3.6	INTEL	Respond/Recover	Communication	Hours		1-2	<1	2-4	>4
To prioritize intelligence collection requirements.	OP 2.1.1	3.6	INTEL	Respond/Recover	Competency	Hours		4-6	<4	6-8	>8
Of PIRs collected in time to meet current operational needs.	OP 2.2	3.7	INTEL	Respond/Recover	Accountability	Percent		99-95	100	94-90	<90
Of time operational decisions supported by information covered by collection plan.	OP 2.2	3.7	INTEL	Respond/Recover	Competency	Percent		99-95	100	94-90	<90
To provide intelligence information reports.	OP 2.2	3.7	INTEL	Respond/Recover	Responsibility	Hours		6-8	<6	8-12	>12
Percent accuracy of operational forecasts and products to include weather effects matrices that aid in operational decision making.	OP 2.2	3.7	INTEL	Respond/Recover	Accuracy	Percent		95-90	>95	89-85	<85
Of collection requirements filled by subordinate forces / other agencies' assets.	OP 2.2.1	3.8	INTEL	Respond/Recover	Accountability	Percent		90-80	>90	79-70	<70
Of collection requirements satisfied.	OP 2.2.1	3.8	INTEL	Respond/Recover	Accuracy	Percent		95-85	>95	84-75	<75
Of PIRs with at least one source yielding intelligence information	OP 2.2.1	3.8	INTEL	Respond/Recover	Accountability	Percent		95-90	>95	89-85	<85
To prepare briefing based on new intelligence	2.4.2	3.9	INTEL	Respond/Recover	Responsibility	Hours		4-6	<4	6-8	>8
Of backlogged support requirements	OP 4.0	4.0	LOG	Respond/Recover	Preparedness	Tons		<70	<50	<90	>90
Of required logistics in place to support requirements.	OP 4.0	4.0	LOG	Respond/Recover	Preparedness	Percent		95-90	>95	89-85	<85
Of supply in area of response	OP 4.0	4.0	LOG	Respond/Recover	Competency	Days		4-5	>5	3-4	<3
Of response forces adequately trained to perform assigned duties.	OP 4.4	4.1	LOG	Respond/Recover	Competency	Percent		94-90	>95	89-85	<85
To identify response forces replacement requirements.	OP 4.4	4.1	LOG	Respond/Recover	Situational Awareness	Days		1-2	<1	2-3	>3
To obtain replacement personnel and provide to respective responding forces.	OP 4.4	4.1	LOG	Respond/Recover	Preparedness	Days		7-10	>7	11-14	>14
Percent of required support material distributed at time and place required.	OP 4.4	4.1	LOG	Respond/Recover	Competency	Percent		94-90	>95	89-85	<85
To access to laundry and bath facilities.	OP 4.4.1	4.2	LOG	Respond/Recover	Accountability	Days		3-5	<3	5-7	>7
Of personal daily water requirement being provided.	OP 4.4.1	4.2	LOG	Respond/Recover	Accountability	Percent		95-99	100	90-94	>90
Of personnel provided with required individual clothing and equipment.	OP 4.4.1	4.2	LOG	Respond/Recover	Accountability	Percent		95-99	100	90-94	>90
Days To determine the required field services in the area of response	OP 4.4.1	4.2	LOG	Respond/Recover	Competency	Days		1-2	<1	3	>3

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Requirement text	OP Number	AMETL #	Organizational Element	Mission Area	Skill Area	Metric	VALUE*	EMA - T2	EMA - T1	EMA - T3	EMA - T4
Of personnel receiving at least one hot meal a day	OP 4.4.1	4.2	LOG	Respond/Recover	Responsibility	Percent		95-99	100	90-94	>90
Delay in search, recovery, identification, care, evacuation of disposition of deceased personnel (due to lack of mortuary affairs capability)	OP 4.4.1	4.2	LOG	Respond/Recover	Accountability	Days		1-2	<1	2-3	>3
To establish a mortuary affairs operations	OP 4.4.1	4.2	LOG	Respond/Recover	Responsibility	Days		1-2	<1	2-3	>3
Establishment of mortuary collection points, field processing centers, personal effects centers	OP 4.4.1	4.2	LOG	Respond/Recover	Responsibility	Yes / No		Yes		No	
Of required field services for personnel provided by supporting agencies in area of response.	OP 4.4.1.1	4.3	LOG	Respond/Recover	Competency	Percent		95-99	100	90-94	>90
Of planned field services requirements provided in area of response.	OP 4.4.1.1	4.3	LOG	Respond/Recover	Competency	Percent		95-99	100	90-94	>90
To estimate nonmaterial support requirements for state, federal, military, DOD civilian, qualifying contractor, and other personnel in area of response.	OP 4.4.1.1	4.3	LOG	Respond/Recover	Preparedness	Days		2-3	<2	3-4	>4
Of required rate of potable water achieved in area of response	OP 4.4.1.1	4.3	LOG	Respond/Recover	Accountability	Percent		89-85	100-90	84-80	<80
To coordinate bath and laundry operations with medical authorities	OP 4.4.1.1	4.3	LOG	Respond/Recover	Competency	Days		2-3	<2	3-4	>4
To update field service requirements based on changes in area of response population.	OP 4.4.1.1	4.3	LOG	Respond/Recover	Situational Awareness	Days		1-2	<1	2-3	>3
Determine number or required Logistic Support Areas for response	Res.B1d 4	4.4	LOG	Respond/Recover	Preparedness	Days		1	<1	2	>2
Establish required number of LSAs for response	Res.B1d 4	4.4	LOG	Respond/Recover	Competency	Days		2	<2	3	>3
Implement a resource tracking system for LSAs	Res.B1d 4	4.4	LOG	Respond/Recover	Accountability	Days		1	<1	2	>2
Establish communication with LSA	Res.B1d 4	4.4	LOG	Respond/Recover	Communication	Yes / No		Yes		No	
Identify and inventory by type and category all resources available to support emergency operations, including facilities, equipment, personnel, and systems	Res.B1d 5	4.5	LOG	Respond/Recover	Accountability	Days		2-3	<2	3-4	>4
Inventory of available resources updated daily	Res.B1d 5	4.5	LOG	Respond/Recover	Accountability	Yes / No		Yes		No	
Time required to validate support request and task LSA for the request (or appropriate facility)	Res.B1d 5	4.5	LOG	Respond/Recover	Responsibility	Minutes		30-60	<30	61-90	>90
Determine availability of supplies stocked in distribution facilities, national stockpiles, and customer supply centers	Res.B1d 5	4.5	LOG	Respond/Recover	Situational Awareness	Days		1	<1	2	>2
Distribution facilities, national stockpiles, and customer supply centers supplies updated daily	Res.B1d 5	4.5	LOG	Respond/Recover	Responsibility	Yes / No		Yes		No	
Determine need for additional external resources and implement critical resource distribution plan	Res.B1d 3	4.6	LOG	Respond/Recover	Situational Awareness	Days		1	<1	2	>2
Coordinate distribution of national stockpile assets	Res.B1d 3	4.6	LOG	Respond/Recover	Competency	Yes / No		Yes		No	
Coordinate the handling and transportation of affected persons requiring transportation	Res.B1d 3	4.6	LOG	Respond/Recover	Competency	Yes / No		Yes		No	
Track/monitor resource movement into and out of LSAs and/or any additional distribution facility	Res.B1d 6	4.7	LOG	Respond/Recover	Accountability	Percent		89-85	100-90	84-80	<80
Obtain supplies stocked in distribution facilities, national stockpiles, and customer supply centers	Res.B1d 6	4.7	LOG	Respond/Recover	Competency	Days		1	<1	2	>2
Manage transportation asset to distribute resources acquired externally	Res.B1d 7	4.8	LOG	Respond/Recover	Competency	Yes / No		Yes		No	

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Time from request for resource (from distribution facilities, national stockpiles, and customer supply centers) to LSA	Res.B1d7	4.8	LOG	Respond/Recover	Accountability	Hours		6-7	<6	>7	>8
Percent of approved requests met and filled accurately during the response	Res.B1d7	4.8	LOG	Respond/Recover	Accuracy	Percent		95-90	>95	89-85	<85
Required procedures for for acquiring and managing resources, including reconciliation, accounting, auditing, and inventorying are followed	Res.B1d7	4.8	LOG	Respond/Recover	Accountability	Yes / No		Yes		No	
Pre-positioned Disaster Supply containers deployed (if appropriate)	Res.B1d7	4.8	LOG	Respond/Recover	Preparedness	Days		2-3	<2	3-4	>4
To release information about a breaking news story.	OP 5.8	5.0	PA	Respond/Recover	Competency	Minutes		30-60	<30	60-90	>90
To provide PAG (after crisis event).	OP 5.8	5.0	PA	Respond	Competency	Days		2-3	<2	3-4	>4
To transmit print journalist stories during response (from receipt).	OP 5.8	5.0	PA	Respond/Recover	Responsibility	Hours		3-6	<3	7-9	>9
To prepare for and conduct first news conference on crisis or major event.	OP 5.8	5.0	PA	Respond	Responsibility	Hours		4 -6	<4	6-8	>8
Of media support requests answered.	OP 5.8	5.0	PA	Respond/Recover	Accountability	Percent		95-90	>95	89-85	<85
For staff to research and respond to media questions.	OP 5.8.1	5.0	PA	Respond/Recover	Responsibility	Hours		12-18	<12	18-24	>24
Activate Joint Information Center (JIC), to include nongovernmental and private-sector partners as appropriate	Res.B1f5	5.1	PA	Respond	Competency	Hours		2-4	<2	4-5	>5
Coordinate and integrate the resources and operations of external affairs organizations to provide accurate, consistent, and timely information through the JIC	Res.B1f5	5.1	PA	Respond/Recover	Accuracy	Yes / No		Yes		No	
Implement routing and approval protocols for release of information	Res.B1f5	5.1	PA	Respond/Recover	Accountability	Yes / No		Yes		No	
Correct misinformation before the next news cycle	Res.B1f5	5.2	PA	Respond/Recover	Competency	Yes / No		Yes		No	
Provide command group with bad news/breaking information in a timely manner (after receipt)	Res.B1f5	5.2	PA	Respond/Recover	Situational Awareness	Minutes		15-20	<15	20-30	>30
Prepare Director for media questions concerning breaking/bad news story	Res.B1f5	5.2	PA	Respond/Recover	Accountability	Minutes		35-40	>35	40-50	>50
Time in which public information hotline is established and activated	Res.B1f5	5.2	PA	Respond	Responsibility	Hours		4-5	<4	5-6	>6
Public information hotline provided updated information	Res.B1f5	5.2	PA	Respond/Recover	Responsibility	Yes / No		Yes		No	
Of subordinate forces and supporting agencies notified of new and developing information as it is authenticated	Res.B1f5	5.2	PA	Respond/Recover	Clear	Percent		95-90	>95	89-85	<85
To establish and activate a public access website with releasable information about an event or operation.	OP 5.8.1	5.3	PA	Respond/Recover	Responsibility	Days		2-3	<2	3-4	>4
Provide scheduled updates and conduct regularly scheduled media conferences	OP 5.8.1	5.3	PA	Respond/Recover	Accountability	Yes / No		Yes		No	
Of media tracked for contacts and public inquiries, listing contact, date, time, query and outcome	OP 5.8.1	5.3	PA	Respond/Recover	Accuracy	Percent		95-90	>95	89-85	<85

Requirement Text describes the requirement of each measure. The OP number denotes the source document for the measure ('OP' indicates the measure is from the DOD UJTL while a 'Res' prefix denotes that the source document is the DHS TCL). The AMETL# indicates the AMETL task the measure is assessing. The mission area indicates which of the 4 mission areas that the measure is associated with. The skill area is an additional assignment for special staff. The metric is the attribute for the measure and the standards are annotated in the T1-T4 columns. The observed value of each measure is placed in the 'Value' column.

Endnotes

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- ¹ Stephen Flynn, *The Edge of Disaster* (New York: Random House, 2007): 9.
 - ² *Dictionary.com*. <http://dictionary.reference.com/search?r=2&q=resiliency> (accessed October 9, 2007).
 - ³ *National Preparedness Guideline*, Department of Homeland Security (September 2007), 1.
 - ⁴ *Homeland Security Presidential Directive/HSPD-5, Management of Domestic Incidents* (Office of the Press Secretary, The White House, February 28, 2003) http://www.nimsonline.com/presidential_directives/hspd_5.htm (accessed October 12, 2007)
 - ⁵ *Security Presidential Directive/HSPD-8, National Preparedness* (Office of the Press Secretary, The White House, December 17, 2003) http://www.nimsonline.com/presidential_directives/hspd_8.htm (accessed August 22, 2007)
 - ⁶ *National Strategy for Homeland Security* (Office of the Press Secretary, The White House, October 9, 2007).
 - ⁷ *Target Capabilities List, a Companion to the National Preparedness Guidelines* (U.S. Department of Homeland Security, September 2007), 3.
 - ⁸ *Ibid.*, 4.
 - ⁹ *Ibid.*, 1.
 - ¹⁰ *Ibid.*, 6.
 - ¹¹ *Homeland Security Exercise and Evaluation Program*, https://hseep.dhs.gov/pages/HSEEP_Home.aspx (accessed 17 October 17, 2007).
 - ¹² *National Incident Management System* (Department of Homeland Security, March 1, 2004), 6.
 - ¹³ *Ibid.*, 9.
 - ¹⁴ *Georgia Emergency Operations Plan* (State of Georgia Office of Homeland Security, February 2006), i.
 - ¹⁵ *Universal Task List 2.1* (Department of Homeland Security, 1 February 2007) <https://www.llis.dhs.gov> (accessed October 25, 2007).
 - ¹⁶ *Homeland Security Exercise and Evaluation Program*, [https://hseep.dhs.gov/support/Critical %20Resource%20Logistics%20and%20Distribution%20-%20Final%20EEG%20Version%201.1.DOC](https://hseep.dhs.gov/support/Critical%20Resource%20Logistics%20and%20Distribution%20-%20Final%20EEG%20Version%201.1.DOC) (accessed October 17, 2007).
 - ¹⁷ *Homeland Security Exercise and Evaluation Program*, Volume III, https://hseep.dhs.gov/pages/HSEEP_Home.aspx (accessed October 23, 2007).
 - ¹⁸ *CJCS Guide 3501, The Joint Training System, A Primer for Senior Leaders* (Department of Defense, October 6, 2006), 3-4.
 - ¹⁹ *Joint Training Manual for the Armed Forces of the United States*, CJCSM 3500.03B (Chairman of the Joint Chiefs of Staff Manual, August 31, 2007), C-8.
 - ²⁰ *Ibid.*
 - ²¹ *Joint Training Policy and Guidance For The Armed Forces Of the United States*, CJCSM 3500.01D (Chairman of the Joint Chiefs of Staff Manual, May 31, 2007), GL-9.

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- ²² Ibid., GL-4.
- ²³ *Joint Mission Essential Task List (JMETL) Development Handbook* (Chairman of the Joint Chief of Staff, September 2002), 11.
- ²⁴ *Joint Training Program* (Joint Forces Headquarters, Georgia National Guard, October 1, 2006), 7-8.
- ²⁵ *Universal Joint Task List* (Chairman of the Joint Chiefs of Staff Manual, CJCSM 3500.04D) August 1, 2005) A-2.
- ²⁶ *Joint Training Manual for the Armed Forces of the United States*, C-10.
- ²⁷ *Universal Joint Task List*, B-A-2.
- ²⁸ Ibid., B-B-1.
- ²⁹ *Joint Training Policy and Guidance for the Armed Forces of the United States*, GL-9.
- ³⁰ Analytical Hierarchy Process available from http://en.wikipedia.org/wiki/Analytical_Hierarchy_Process (accessed February 18, 2008).
- ³¹ M.C. Nesselrode, *Developing a Repeatable and Reliable Methodology to Determine Return-On-Investment* (Virginia Modeling, Analysis, and Simulation Center, Old Dominion University, 2008).
- ³² M.C. Nesselrode, interview by author, Suffolk, VA, February 14, 2008.
- ³³ Ibid., March 14, 2008.
- ³⁴ Ibid., February 14, 2008.