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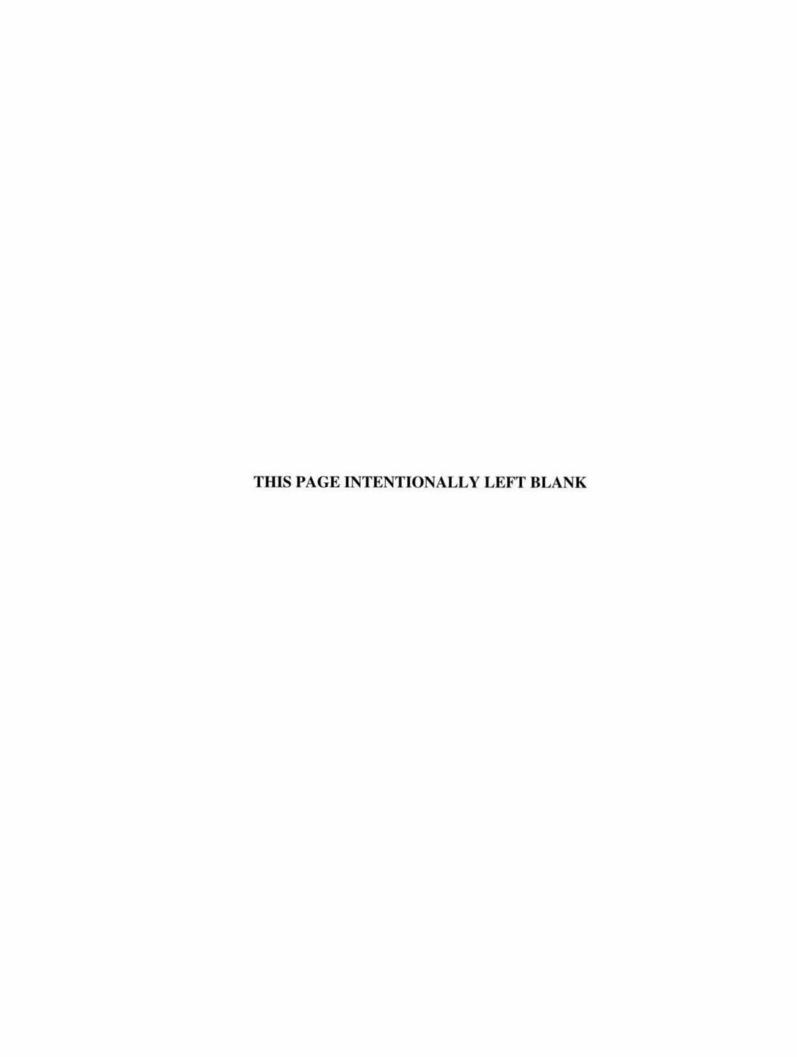
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Top Officials 3 Full Scale Exercise After-Action Report

April 4-10, 2005





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T3 After-Action Report User Guide (A Road Map)

This After-Action Report (AAR) is a compilation of several documents, all of which are related to the design and conduct of the Top Officials (TOPOFF) 3 (T3) series of events. As a comprehensive reference guide to T3, it has been organized and sectioned to enable its users to review or access information relevant to their research interest.

The depth of detail of the report is considered sufficient to build context around core T3 issues and allow interested professionals to consider possible alternatives/improvements to address policy or procedural shortcomings within their respective Department/Agency (D/A). Requests for additional data not included in this report are to be directed through the Acting Branch Chief, National Exercise Division, DHS/FEMA, Ms. Sandra Santa Cosgrove, Sandra.Santa@dhs.gov, or 202-786-9594.

The recommendations offered in the AAR are intended to stimulate action toward improving capabilities and performance or resolving an issue or deficiency. The assessments that went into these recommendations were not intended to have the depth and granularity required to be considered on their own, fully "actionable" prescriptions for an organization or any element within an organization.

Every attempt has been made to avoid redundancy throughout the report; however, given that several of the annexes are stand-alone documents, some redundancy is unavoidable. Two synopses, the *Executive Overview* and the *T3 AAR Summary Report*, are similar in nature; however, due to their development background, have subtle differences. Both of these abridgments provide an excellent outline of T3 issues that surfaced as a result of the Full-Scale Exercise (FSE). The *Executive Overview* is simply an overview written for senior leaders. Its content has been gleaned from a multitude of D/A input. The *T3 AAR Summary Report* is very similar in content, but has been compiled from the AAR and therefore is supported by the findings of the T3 evaluation team.

The following category descriptions supplement the content map below:

I. Exercise Overview

The Overview consists of a summary of TOPOFF series history, information on TOPOFF building block events, evaluation methodology, reconstruction data, and exercise artificialities.

A. Building Blocks

The T3 FSE is the pinnacle of a series of building block events that occurred during the 18 months leading up to the FSE. Each event preceding the FSE and the one follow-on exercise were designed to build upon the stated goals and objectives established by all participating Federal, State, and local D/As.

B. Evaluation Methodology

This section provides a description of the T3 FSE evaluation methodology, based on the approach outlined in *Homeland Security Exercise and Evaluation Program Volume II: Exercise Evaluation and Improvement* (https://odp.esportals.com/login.cfm). This approach provides participants and response agencies with information that they can use to improve their response policies and procedures to incidents of national significance. The analysis also provides information that some organizations may find useful for their internal evaluations.

C. Exercise Event Reconstruction

This section provides a fact-based, time-synchronized, de-conflicted, and meaningful account of what actually happened during the T3 FSE.

D. Exercise Artificialities

This section includes a description of T3 FSE artificialities that represent either deliberate choices made during the design of T3 or are specific to this particular exercise (as opposed to exercises in general). These choices were made with the understanding that they would have impacts on exercise findings. The T3 evaluation team believes that these impacts are accounted for in the exercise analysis.

II. Exercise Goals and Objectives

This is a one-page summary of the objectives of the T3 FSE.

III. Scenario

This section contains an overview of the T3 FSE scenario. The T3 FSE scenario provides an environment for participants—primarily top-level decision makers—to exercise against a credible terrorist adversary that plans and executes multiple attacks employing weapons of mass destruction. Although the scenario is plausible, it contains artificialities necessary to create conditions required to achieve exercise goals and objectives. The chain of events depicted in the scenario is hypothetical, and the terrorist groups and individuals portrayed in the scenario are fictional.

IV. Analysis of Mission Outcomes

This section contains identification of the ten topical areas analyzed including the four issues identified as Broad Mission Outcomes: the Homeland Security Advisory System, Joint Field Office, Resource Requesting/Coordination, and Information Sharing.

V. Analysis of Critical Task Performance

This section of the report reviews performance of critical tasks as identified by the HSEEP Volume II Exercise Evaluation Guide (EEG) including: Stafford Act Declarations, Emergency Public Information, Integrating Responses to Incident of National Significance: Public Health Emergency and the Stafford Act, the Strategic National Stockpile and Points of Distribution, Agent Confirmation and Hazard Area Definition, and Emergency Response Operations under a Unified Command.

VI. Conclusions

This section summarizes the primary issues or observations and recommended courses of action associated with each of the ten analysis topics.

VII. Annexes

Intelligence

This annex provides a For Official Use Only (FOUO) summary of the intelligence element of T3, including the 30-day pre-FSE activities and events.

Private Sector

This annex provides a summary of private sector integration and exercise play assessment. T3 reflected the first major involvement of the private sector in the TOPOFF series.

CT Cyber

This annex provides details associated with the cyber exercise in Connecticut.

NI Cyber

This annex provides details associated with the cyber exercise in New Jersey.

Acronym List

Executive Overview

This annex contains a 24-page summary of exercise issues gleaned from multiple D/A input, and was written for executive leadership review.

International

International play in T3 was primarily focused on the involvement of the United Kingdom (UK) and Canada. This annex provides integration and exercise play assessment of the UK and Canadian events and actions.

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Executive Summary

I. Introduction

This T3 Summary Report summarizes the findings/lessons of T3 After-Action Report (AAR) and provides a list of recommended remedial actions that address deficiencies and recommendations for improved performance. It is intended to provide a brief overview of key issues addressed in greater detail in the body of the AAR. Refer to the full AAR for a more extensive analysis of exercise actions based on information recorded by exercise data collectors located at key Emergency Operation Centers (EOCs) and exercise sites during the Full-Scale Exercise (FSE).

II. Background

T3 was a Congressionally mandated, national counterterrorism exercise designed to identify vulnerabilities in the nation's domestic incident management capability. It exercised the plans, policies, procedures, systems, and facilities of Federal, State, and local (FSL) response organizations against a series of integrated terrorist threats and acts in separate locations in the northeastern United States.

In coordination with T3, the United Kingdom and Canada conducted simultaneous and related exercises (Atlantic Blue in the United Kingdom and Triple Play in Canada) designed to improve mutual response and preparedness against global terrorism. The planning and execution of the three exercises provided an excellent opportunity for international cooperation, networking of key responders, and sharing of information on concepts of emergency operations.

III. Goals

The following objectives were established to direct the exercise design process for T3:

- <u>Incident management</u>: To test the full range of existing procedures for domestic incident management of a weapon of mass destruction (WMD) terrorist event and to improve top officials' capabilities to respond in partnership.
- <u>Intelligence/Investigation</u>: To test the handling and flow of operational and time-critical intelligence between agencies in response to a linked terrorist incident.
- <u>Public information</u>: To practice the strategic coordination of media relations and public information issues in the context of a WMD terrorist incident.
- Evaluation: To identify lessons learned and promote best practices.

With these four objectives as a guide, FSL, tribal, private sector, and other organizations created their own goals and objectives for evaluation through the exercise process. New

Jersey and Connecticut planners identified specific goals that focused the exercise design process on key issues within their respective States.

IV. Scenario Development

The T3 FSE scenario provided an environment for participants—primarily top-level decision makers—to exercise against a credible terrorist adversary that had planned and executed an attack employing WMDs. As described in Homeland Security Exercise and Evaluation Program (HSEEP) Volume III, a scenario for an objectives-based exercise should provide sufficient background and technical information to drive exercise play, yet remain at a reasonable level of complexity to avoid overwhelming the exercise players. Accordingly, the T3 FSE scenario was realistic, plausible, and designed to provide an accurate and comprehensive portrait of real-world threats related to exercise conditions described in the Homeland Security Council's Illustrative Planning Scenarios (IPSs). The T3 FSE scenario accommodated Department of Homeland Security Office of State and Local Government Coordination and Preparedness (DHS/SLGCP)-approved exercise objectives and included credible, hypothetical situations that created an internally complete and consistent world in which conditions influenced player activities and created decision-making opportunities.

Use of real-world intelligence systems to test the handling and flow of intelligence was a primary goal for the T3 FSE. To avoid the legal implications of exercising against actual terrorist groups, networks, or individuals, and to ensure that the exercise remained at the lowest possible classification level, the T3 FSE scenario employed a fictionalized threat—the Universal Adversary (UA). Although the names of UA groups and individuals were fictional, this credible, highly adaptive adversary was based on unclassified intelligence estimates describing known terrorist motivations, capabilities, intentions, organizations, strategies, operations, tactics, techniques, and procedures.

The T3 scenario contained the following elements:

- A biological attack in New Jersey
- A chemical and vehicle-borne improvised explosive device (VBIED) attack in Connecticut
- Multiple VBIED attacks in London
- A salmonella outbreak on a cruise ship in Canada

V. Exercise Artificialities

By their nature, exercises are not real events and, consequently, are influenced by constrained factors that are collectively known as artificialities. Although every attempt is made to mitigate the effects of artificialities, they will occur and can affect the outcomes of the exercise. If the nature and effects of artificialities are not taken into account, the conclusions drawn from the exercise could be incorrect. Artificialities surface in any exercise involving the response to a WMD event. The fundamental issue is that it is often impossible to exercise the full scope of a real-world event—ranging from an actual bomb

detonation to shutting down transportation infrastructure to commanding the full-time attention of top officials. The result is that many exercise events or actions must be notional or simulated, instead of actual. Despite the notional character of some events, governmental agencies and organizations played as though the events actually took place. This allowed the T3 evaluation team to examine decision-making, coordination, and communication issues. The evaluation team accounted for T3 artificialities in the analysis process to ensure proper interpretation of the exercise results.

VI. Evaluation Methodology

A. Introduction

The evaluation of the T3 FSE intended to:

- Assess and enhance FSL terrorism preparation, prevention, response, and recovery capabilities.
- Provide objective observations of complex, multifaceted interactions of FSL entities.
- Provide recommendations for improving FSL counterterrorism incident management policies and procedures.
- Provide a basis for assessing progress and improvement over time and against the backdrop of evolving policies and procedures.

The T3 FSE evaluation focused on high-level FSL coordination, support plans, policies, and procedures. In addition to the evaluation presented in this summary and in the full AAR document, organizations that participated in the exercise were encouraged to conduct their own internal evaluations based on their specific objectives, tasks, and procedures.

B. Methodology

The T3 FSE evaluation methodology is based on the approach outlined in HSEEP Volume II: Exercise Evaluation and Improvement. The overall aim of the evaluation is to document *what happened* during the exercise and explain *why*. This methodology provides participants and response agencies with information they can use to improve their response policies and procedures to Incidents of National Significance (INS). The analysis also provides information that some organizations may find useful for their internal evaluations. Evaluation consists of the following three steps:

- 1. Observation: collecting data
- 2. Reconstruction: determining what happened and when
- 3. Analysis: determining why specific actions or events occurred.

1. Observation

To systematically determine what happened in an exercise, dedicated observers known as data collectors must be assigned wherever exercise play occurs. The number of data

collectors at any one location depended on the scale or intensity of play, number of players, or geographic spread of the location. Analysts were available in each venue to supplement data collectors at key exercise sites, such as State EOCs or Joint Field Offices (JFOs).

Data collectors were not the only observers at the T3 FSE who provided data for analysis. T3 FSE players, controllers, simulation cell (SIMCELL) staff, and the Virtual News Network (VNN) also contributed critical data to the analysis. Players provided data by:

- Completing questionnaires (player feedback forms);
- Providing copies of logs, e-mails, and other documentation developed during the T3 FSE:
- Contributing to their organization's lessons learned; and
- Contributing to relevant Hotwashes.

This input was critical to the analysis, as it represents players' perspectives on the exercise and their actions/decisions. Exercise support personnel provided controller logs, SIMCELL logs, and VNN reports to the analysts.

In addition to data collected during the T3 FSE, a Hotwash was conducted immediately after the exercise in each venue, followed by an After-Action Conference. Data from all of these events were collected to obtain additional player feedback, ensuring a complete and comprehensive overview of the critical aspects of the exercise.

2. Reconstruction

Reconstruction produced a fact-based, time-synchronized, deconflicted, and *meaningful* account of what happened during the exercise. This laborious process is essential for conducting a meaningful analysis. Reconstruction involved the following aspects:

- Independent and parallel reconstruction of events at each location by analysts assigned to one or more locations;
- Group reconstruction of how the events at each location fit in with those at the
 other locations; this step typically engenders considerable revision of the
 individual analyst's initial reconstruction of events at his/her location; and
- Creation of a single, integrated reconstruction report.

The full AAR contains a more detailed account of the reconstruction process. Only an abridged version of the complete T3 FSE reconstruction is provided in this report.

3. Analysis

In this final step of the evaluation process, analysts used the record of events provided by the reconstruction to objectively seek patterns and develop an understanding of why certain issues emerged during the exercise. The analysis of these issues includes detailed descriptions of the issues and, when relevant, potential explanations for the behavior or result. The T3 FSE analysis also identifies areas for improvement and recommends courses of action for strengthening the ability of FSL organizations to respond to emergencies. FSL agencies will use these results to develop improvement plans.

VII. Analysis

In an exercise as large in scope and as complex as T3, the opportunities for analysis were significant. Based on post-exercise meetings among participants, the T3 After-Action Conference, and observations by subject-matter experts during the exercise, 10 elements of the exercise were selected for in-depth analysis. These topics, listed below, are summarized in this report:

- Strategic National Stockpile (SNS) and Points of Dispensing (PODs)
- Homeland Security Advisory System (HSAS), State Threat Conditions, and Associated Protective Measures
- Stafford Act Declarations
- Integrating Responses to Incidents of National Significance: Public Health Emergency and the Stafford Act
- Emergency Response Operations Under a Unified Command (UC)
- JFO Operations
- Agent Confirmation and Hazard Area Definition
- Resource Requesting and Resource Coordination
- Information Sharing in the T3 FSE
- Emergency Public Information

The selection of these topics is not meant to indicate that other issues were not worthy of analysis. Rather, these issues reflect sequences of events that attracted great interest, involved new organizations and procedures, and revealed elements of the exercise that seemed particularly problematic or well-played. Nothing should be presumed about a topic or issue that was not selected for analysis. The brief description of each topic in this document should not be considered authoritative; a standalone section for each topic is included in the full AAR.

A. Strategic National Stockpile (SNS) and Points of Dispensing (PODs)

The release of *Yersinia pestis* (plague) in New Jersey prompted State officials to request SNS support and prompted Federal and State officials to activate nearly 400 PODs throughout the State to provide prophylaxis to all residents. Analysis of the T3 FSE data suggests that this plan was not executable. Distribution of prophylaxis was hampered by the short incubation period of plague, a fragmented Federal and State planning process, and resource management issues.

Comparatively, few problems were observed during the delivery and distribution of the SNS. There was some initial uncertainty about the SNS request and problems integrating Federal plans for SNS deployment with the State; however, the T3 participants successfully resolved these issues.

Throughout the year-long development process for the T3 New Jersey pneumonic plague scenario, a dedicated team from the AMTI prime contractor and the CDC painstakingly developed an epidemiologically sound progression model for the spread of the Plague in New Jersey. Based on this model, New Jersey scheduled a highly ambitious exercise play for its entire state hospital and local health organization infrastructure for the mass distribution of medications to combat the Plague. Based on real life resource constraints, every organization that could play did so and more robust participation was simulated. Had the Master Scenario Events List progression of spreading Plague been allowed to play out as designed, a more orderly medical response would have been anticipated

1. Observations

- The throughput of the PODs fell short of the goal of processing 1,000 persons per hour, which was established in the New Jersey Mass Prophylaxis Manual. The average rate achieved among the 22 New Jersey PODs was approximately 500 people per hour. Reasons for the discrepancy should be identified.
- The plan to conduct prophylaxis on this scale evolved during the course of the exercise and did not appear to reflect a preplanned and carefully integrated Federal and State response.
- It is not clear that the Federal government has a strategy or plan for implementing
 its own system of PODs or for rapidly identifying and supplying staff to support
 State efforts in the event of a large-scale requirement.

2. Recommendations

- States need to work with the Federal government to develop scalable prophylaxis
 plans that address the need to reach very large numbers of people. T3 indicates
 the difficulty of doing this while an event is unfolding.
- Integrate Federal and State planning processes to ensure that mass prophylaxis plans will be executable if needed.
- The Federal government should decide whether it will be in the business of establishing and operating its own PODs in the event of a major public health emergency as occurred during T3.

B. Homeland Security Advisory System (HSAS), State Threat Conditions, and Associated Protective Measures

The Homeland Security Presidential Directive (HSPD)-3 created the HSAS to improve coordination and communication in the event of terrorist attacks. First, the HSAS informs FSL governments and the public of the perceived credibility and imminence of threats. Second, it directs a systematic, coordinated governmental response to such threats to "reduce vulnerability or increase response capability." To date, elevations of the HSAS threat condition to Red have only occurred in response to notional attacks during exercises. The HSAS level has never been elevated to Red in an exercise or real-world setting on a preattack basis.

Implementation of the HSAS, and specifically the Red threat condition, has been closely examined and critiqued in three previous exercises—the T2 FSE, T3 Command Post Exercise (CPX), and SOE FY04-4 *Crimson Dawn*. The T3 FSE demonstrated that the HSAS is still not used in a systematic manner, and therefore it is not effectively achieving the objectives listed in HSPD-3.

1. Observations

- Real-world and exercise elevations of the HSAS level to Orange and Red reveal that implementation of the HSAS is not systematic.
- There does not appear to be a formal mechanism for coordinating, reporting, and tracking changes to HSAS and State threat levels and implementation of associated FSL and private sector protective measures.
- The absence of a mechanism for coordinating the implementation of protective measures under changing HSAS levels contributed to an uncoordinated response.
- Unintended consequences of implementing HSAS Red protective measures were not well-understood.
- Officials in the T3 FSE used the HSAS and State homeland security advisory systems as a means to facilitate emergency response operations more than as threat advisory systems.
- Inconsistent messages and little specific public guidance limited the value of the HSAS as a warning/advisory system.

2. Recommendations

- Develop a formal process for coordinating and tracking implementation of severe (Red-level) protective measures across FSL governmental agencies and the private sector.
- Provide more specific guidance regarding the color-coded threat conditions than
 the general guidance currently provided in HSPD-3, and link the levels to specific
 protective measures.
- Re-examine and refine the desired purposes of the HSAS: public warning/advisory, attack prevention, and/or emergency response.

C. Stafford Act Declarations

There were several declarations and proclamations of emergencies and disasters during the T3 FSE. State and local jurisdictions in both exercise venues invoked their authorities to declare emergencies and also requested Federal assistance under the Stafford Act. These requests led to presidential declarations of a major disaster in Connecticut and an emergency in New Jersey.

As in the T2 FSE, participants discussed the applicability of a major disaster declaration under the Stafford Act to terrorist attacks, especially to attacks that feature nonexplosive

biological weapons. Although the governor of New Jersey requested a major disaster declaration, New Jersey received an emergency declaration.

1. Observations

- It remains unclear whether an incident with a non-explosive biological, chemical
 or radiological weapon would fit the definition of a major disaster under the
 Stafford Act.
- Other Federal programs may provide assistance in lieu of a major disaster declaration; however, the pursuit of these programs diverts State and local resources from other response and recovery activity.
- Provisions within the Stafford Act provide for the possibility of exceeding the \$5
 million limit in assistance funding that would most likely be invoked after a
 terrorist incident.
- Lack of feedback to agency staffs on verbal approvals of presidential declarations caused initial uncertainty regarding the type of declaration and assistance approved.

2. Recommendations

- Determine the applicability of a Stafford Act major declaration to non-explosive incidents involving WMD, particularly those involving a large-scale bioterrorism incident.
- If these types of incidents do not fit the definition of a major disaster declaration, determine whether exemptions within the Stafford Act for emergency declarations and other Federal programs can result in an equivalent level of assistance and are made aware to the States.
- Consider legislation to ensure the Stafford Act major disaster declaration covers all hazards and is applicable to terrorist events.
- Until legislation is passed, that would allow these types of incidents to receive the full range of Federal assistance provided under a major disaster declaration, identify other Federal programs that may be able to provide assistance.

D. Integrating Responses to Incidents of National Significance: Public Health Emergency and the Stafford Act

The Secretary of the Department of Health and Human Services (HHS) declared a public health emergency in New Jersey under the authorities of the Public Health Service Act. As discussed earlier, the president approved Stafford Act declarations for the incidents in New Jersey and Connecticut. Additionally, the T3 FSE tested the recently released National Response Plan (NRP). It was the first opportunity to examine the guidance the NRP provides in coordinating incidents of national significance (INSs).

The T3 FSE revealed that the NRP does not provide adequate guidance for coordination of Federal operations and support under a public health emergency when a Stafford Act

declaration is in effect. Specifically, the processes were unclear regarding the process required to request and coordinate Federal assistance under other Federal authorities in conjunction with a Stafford Act declaration. The relationship between the public health emergency and the Stafford Act declarations was further clouded by HHS' lack of an established process for coordinating Federal-to-Federal support. Additionally, the funding responsibilities of State and local governments under a public health emergency were not clearly defined.

1. Observations

- Neither the NRP nor the HHS concept of operations (CONOPS) provides sufficient guidance for coordinating assistance for incidents covered under a Stafford Act declaration in conjunction with a public health emergency (or other Federal authorities). In some cases, the information conflicts.
- HHS does not have a detailed process for requesting and coordinating Federal-to-Federal assistance.
- Funding capabilities and responsibilities under a public health emergency are unclear.

2. Recommendations

- Clarify the process for Federal-to-Federal support for non-Stafford Act assistance in conjunction with a Stafford Act declaration.
- Develop a transition plan for coordinating incidents that start under non-Stafford Act authorities but later grow to include a Stafford Act declaration.
- Develop a process for Federal-to-Federal support under a public health emergency.
- Clarify the funding capabilities and responsibilities of the State, HHS, and other Federal agencies under a public health emergency.

E. Emergency Response Operations under a Unified Command

The National Incident Management System is the federally-mandated system for managing emergency responses. NIMS uses the Incident Command System (ICS) to integrate an organizational structure that can scale up or down to effectively meet the demands of an incident. It allows for an integrated organizational structure that can scale up or down to effectively meet the demands of an incident. When multiple organizations or jurisdictions have responsibility over aspects of the tactical response, a UC may be formed to link organizations or municipalities together, provide a forum for integrated decision making, and allow a coordinated approach to incident response.

The T3 FSE provided an opportunity to exercise the integrated ICS approach in Connecticut with the formation of a UC.

1. Observations

- There was inadequate integration between the off-site Unified Command Post (UCP) and activities at the incident scene.
- Integration of the UCP with other emergency response organizations and EOCs remains a challenge.
- Concern exists regarding the alignment between the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and NRP, which plays out most significantly at the UC.

2. Recommendations

- Rework the information flow processes involving the UC to include local and State EOCs, even when using direct Federal support or NCP authorities.
- Discuss the development of a National IMAT with interagency membership, as opposed to a Coast Guard-only IMAT
- Expand the NRP to include discussion of the UC—its scope of responsibilities and interactions with other emergency response centers.
- Develop criteria for an IC to use to determine the circumstances under which it is appropriate to stand-up a UC.

F. JFO Operations

The T3 FSE provided an opportunity to exercise the recently codified JFO concept and identify issues that could impede the JFO's ability to support emergency response operations. The events in Connecticut and New Jersey prompted Federal officials to activate JFOs and select PFOs for both States. During the exercise, the JFO and PFO staffs focused their efforts on integrating the Federal and State response efforts by arranging resource support, coordinating response policies and operations, and sharing information.

Observations made during the exercise indicate that JFO operations were problematic in both States. The JFO staff encountered problems coordinating their activities and support with State officials. More prominently, the JFO staff also had trouble coordinating the activities among the JFO staff elements.

1. Observations

- The lines of authority and coordination inside the JFO were unclear.
- The presence of the PFO cell complicated JFO operations.
- The JFO did not always follow standard processes for sharing information internally.
- Resolving these internal structural and process issues would ultimately strengthen
 the JFO's ability to coordinate Federal and State response efforts (i.e., address the
 JFO's external coordination efforts).

2. Recommendations

- Clarify the lines of authority for the PFO, FCO, and JFO cell.
- Document the role and responsibilities of the PFO cell in the NRP and JFO standard operating procedures (SOP).
- Develop and implement processes and procedures that JFO staffs can use to share information internally.

G. Agent Confirmation and Hazard Area Definition

In a chemical, biological, or radiological attack, early identification of the agent combined with clear definition of the hazard area and the potentially exposed population can save lives, speed effective treatment of symptoms, and prevent injury to medical responders. Until recently, there was no single Federal source for collecting data and producing the modeling products used by decision makers. The T3 FSE provided the opportunity to observe the progress made in creating a single authoritative Federal source for plume modeling. It also highlighted issues regarding the coordination of data and information to confirm the agent and define the hazard area.

The T3 FSE highlighted the potential for tension when many organizations participate in the sampling process and when information about the agent is not systematically distributed among response organizations. In Connecticut, the Interagency Modeling and Atmospheric Analysis Center (IMAAC) was the sole Federal source of plume modeling. Observations indicate that this single-source approach resolved much of the confusion about plume models noted during previous exercises. IMAAC products provided authoritative plume predictions that were used by all the response organizations to define the hazard area and make associated decisions; however, problems with version control as well as lack of consolidation and confirmation of model inputs were evident.

1. Observations

- Specialized incident site response units did not exhibit a clear understanding of each other's roles, authorities, and SOPs.
- The lack of a formally defined information flow process from the incident site resulted in premature public messages and decisions regarding the identity of the chemical agent.
- The IMAAC did not appear to have adequate procedures to deal with discrepancies or contradictions in inputs or modeling requests from various agencies.

2. Recommendations

 Clarify response organizations' roles and responsibilities at the incident site, including the timing of those responsibilities and their value to the larger response operation.

- Continue to develop IMAAC processes for receipt and review of other modeling products and establish a protocol for other modeling agencies to distribute to their product and their guidelines for use.
- Clarify the responsibilities, authorities, and mechanisms for the IMAAC to formally disseminate critical information learned through its scientific analysis of the incident.

H. Resource Requests and Resource Coordination

The T3 FSE provided an opportunity to exercise the process of providing Federal support to States that have been overwhelmed by a significant terrorist attack involving WMDs. After the releases of *Y. pestis* and mustard agent, officials in New Jersey and Connecticut, respectively, requested a variety of resources from the Federal government, including medical supplies, healthcare professionals, transportation support, security personnel, mortuary affairs teams, and decontamination units. In addition to these State requests, Federal agencies pushed assets to support the State responses.

Observations indicate that the process of resource allocation was problematic in both States. State and Federal officials were uncertain about what had been requested, who had requested it, and what was being provided. These issues and the delays they caused encumbered the allocation of resource process in the T3 FSE and frustrated participants. Resolving these issues would strengthen the ability of State and Federal officials to match the resource needs of responders with available assets.

1. Observations

- Participants used three different processes for allocation of resources that were not well coordinated.
- Federal and State officials struggled with the implementation of these processes to allocate resources.
- Reliable information about resources was not readily available.

2. Recommendations

- Develop a unified Federal emergency process for the allocation of resources.
- Provide States with a team of subject-matter experts on the allocation of resources.
- Document the mission assignment process within the NRP.
- Clarify the role of the Secretary's Emergency Response Team (SERT) during emergencies that also involve a JFO.

I. Information Sharing in the T3 FSE

Accurate and timely sharing of information and the resulting development of a Common Operational Picture (COP) are critical for the success of an integrated FSL response to domestic emergencies. Despite efforts to improve communications and information

sharing across response organizations, the lack of shared situational awareness and the dissemination of incorrect information remain significant roadblocks to a coordinated emergency response.

Other sections of the AAR touch on information sharing and the coordination problems associated with resource requests and coordination, agent identification, status of advisory levels, and integration of operations centers into the response, among others.

1. Observations

- Information systems used in T3 were largely stove-piped within agencies and/or response communities.
- The vast number of operating centers activated during T3 negatively affected information sharing by increasing the scope and complexity of the problem.
- The use of informal or alternate channels for sharing information caused problems by enabling circular reporting and bypassing authoritative sources.
- The T3 FSE revealed a lack of uniform reporting guidelines and procedures for validating information received from secondary or tertiary sources.
- Agencies and operations centers acted and made decisions on different information.
- Situational awareness was not effectively shared across operating centers and agencies.

2. Recommendations

- Support the development of interoperable information systems and/or a suite of emergency response/management applications that can be used across response communities.
- Assess the role and responsibilities of each EOC and consider reducing their number, consolidating them, or collocating personnel.
- Require that all casualty numbers are attached to a clear description of the information included in the report.
- Identify key terms that are likely to appear during a WMD response, standardize their definitions, and then disseminate the information across the entire response network.
- Establish mechanisms to update and disseminate new definitions during response operations.
- Consider the development of a DHS field operations guide that lists radio frequencies/preferences of federal, state and local responders to expedite the development of communications plans.

- To build an accurate and effective common operating picture, the response network needs to:
 - Identify and define the overlapping critical information required by all the responding communities.
 - Establish specific reporting protocols and guidelines for all levels of government.
 - Identify the authoritative sources for EEIs and which EEIs should be included.
 - Identify an operating center at each level of the response to act as "keeper of the critical information."
 - Develop protocols for horizontal and vertical coordination (i.e., horizontally across one level of government and vertically between levels) to align the operational pictures developed and maintained by different operating centers.

J. Emergency Public Information

The term "emergency public information" reflects an understanding that public information during an emergency might differ from normal, day-to-day public information provided to citizens by the government. In the event of a major disaster or emergency, this often means the coordination, development, and delivery of time-critical, lifesaving information to potentially affected people. In a climate of heightened uncertainty and concern, the timing and content of official statements can save lives. The media and general public are likely to scrutinize these statements, and some statements could incur heightened legal or political liabilities.

The policies, procedures, and mechanisms employed by participating FSL departments and agencies and/or nongovernmental organizations to communicate with the public were aggressively stressed during the T3 FSE. Governmental interaction with media outlets was tested through *VNN Live*; VNN.com; and notional radio, print, and other media outlets (press releases). Other means of reaching the public with official lifesaving information included the use of hotlines, call centers, agency website postings, e-mails, blast faxes, flyers, and reverse 911 to phones of citizens. NRP-related coordination structures and mechanisms used by FSL departments and agencies to develop and deliver messages to the public were examined.

1. Observations

- DHS demonstrated numerous tools that were implemented based on lessons learned from the T2 FSE and were designed to help coordinate a consistent message, including its Ready Room, National Incident Communications Conference Line (NICCL), and Public Affairs Guidance.
- FSL departments and agencies may still not be prepared to provide swift, accurate, consistent lifesaving protective action guidance to the public.
- The operations of multiple Joint Information Centers (JICs) were not always well coordinated, and a Joint Information System (JIS) was not used.

• DHS' preexercise coordination with international participants may offer a model for international public affairs coordination in a terrorist attack.

2. Recommendations

Develop a supporting JIS CONOPS to complement emergency support function (ESF)-15 and Public Affairs Annexes of the NRP and Incident Communications Emergency Response (ICER) to provide more specific operational implementation guidance for executing public affairs in the context of the NRP and NIMS.

- Consider using future exercises to further test and refine protocols and educate stakeholder organizations on how mechanisms for public affairs coordination (e.g., NICCL) can be used to promote a COP and coordinate message content.
- Establish primary information sources early in the incident, such as the State hotlines and websites activated in New Jersey and Connecticut.

VIII. Additional Issues

A. State of New Jersey T3 Cyber Exercise

The New Jersey T3 Cyber Exercise, a one-day interactive tabletop exercise, was conducted on March 30, 2005, at the Office of the Attorney General complex in Trenton, New Jersey. This exercise examined the integration of inter- and intragovernmental actions related to a large-scale cyber attack and synchronized with a terrorist WMD attack in an operational context. The exercise examined disruptions to networks, the consequences of those disruptions, responses, and the implications for protective measures. It was divided into the following three sessions:

- Session 1 exercised a variety of communications paths and explored complex policy questions. New Jersey and Hudson County incident response capabilities and practices were examined.
- Session 2 exercised the players' ability to correlate information to determine complex attack vectors. Players examined their capability to identify remediation actions and potential unauthorized information exposure.
- Session 3 exercised force multiplier effects and assessed their consequences.
 It included a major WMD event for State agencies and a power failure involving key county facilities and networks.

1. Issues/Recommendations

- Develop a leadership mechanism to provide oversight for New Jersey State cyber security and continuity of operations.
- Develop a service agreement to define obligations and expectations of the provider and users, even though an Internet Service Provider resides within the broader State organization.
- Conduct a statewide risk assessment of all IT-related capabilities.

- Create and distribute best practice documentation in areas such as configuration management, acceptable use, and incident response.
- Draft a recovery plan to address the process, priorities, and any exceptions that may be required in the event of a takedown of the entire State network.
- Establish and document a clearly defined threshold for reporting criminal intent or behavior to law enforcement.

B. State of Connecticut T3 Cyber Exercise

The Connecticut T3 Cyber Exercise was conducted on March 22–23, 2005, at the Connecticut Department of Information Technology headquarters in East Hartford, Connecticut. There were approximately 80 participants, including top officials and network operation centers (NOCs) from the Connecticut State Department of Information Technology, Connecticut Department of Transportation, Connecticut State Police, Connecticut Education Network, and City of New Haven.

The NOCs used a simulated network developed by the Institute for Security Technology Studies (ISTS) as the primary source of exercise-related stimuli. The network replicated elements of regional, wide-area networks and an intergovernmental network. The exercise encompassed three cyber attack scenarios, each associated with different aspects of the cyber security problem:

- Scenario 1, *Disjointed Attacks*, featured an "above normal" level of network disruptions. Players reviewed both the internal and external communication flows of their NOCs and discussed relevant cyber security issues.
- Scenario 2, *Coordinated Attack*, was a low-level, coordinated cyber attack against stakeholder organizations. Players addressed response issues and identified the actions necessary to respond to these attacks in a combined manner and resume network operations.
- Scenario 3, WMD Force Multiplier, was an overwhelming, coordinated cyber attack acting as a "force multiplier" for a combined terrorist WMD attack. NOCs addressed the necessary actions to reestablish or maintain network operations to permit crisis and consequence management.

1. Issues/Recommendations

- Connecticut or DHS needs to develop cyber-related plans and procedures associated with HSAS levels.
- Network organizations and their functions, with regard to plans, policies, and procedures regarding cyber-terrorism within Connecticut, need to be identified.
- Doctrine needs to reflect the importance of radio communications and non-voiceover Internet protocol (VoIP).

C. Intelligence Play

DHS made *information sharing* one of four key objectives in the T3 FSE. To ensure that information sharing was appropriately exercised, an Intelligence Working Group (IWG) was formed. The IWG defined and charted the real-world information-sharing channels that presently exist. This enabled T3 planners to create "preventable acts" that could be put into play through streams of intelligence for analysts to evaluate and intercede if the assessment dictated.

The real-world intelligence issues noted during the exercise were primarily related to intelligence channels, disconnects, and other contentious or undefined areas in the intelligence community and information-sharing arena.

1. Issues/Recommendations

- Improve systems used to contribute to and create a common intelligence picture.
- Develop further the validation of interagency processes for information sharing.
- Create and maintain an Interagency Handbook for Information Sharing to enhance interoperability.
- DHS should develop a detailed plan for the intelligence component and information flow under the NRP.
- DDNI/Collection should form a Request for Information (RFI) working group to review processes, review systems, and provide recommendations for enhancing the visibility of RFIs and responses to RFIs between departments and agencies.
 - The establishment of an RFI fusion center at the National Counterterrorism Center (NCTC) should be considered.
- Promote analysts' awareness of and access to the span of interagency tools to "pull" intelligence.

D. Private Sector Integration

The National Strategy for Homeland Security states that the Federal government is responsible for fostering "unprecedented levels of cooperation" between the private sector and all levels of government. HSPD-5 emphasizes "the role that the private and nongovernmental sectors play in preventing, preparing for, responding to, and recovering from terrorist attacks, major disasters, and other emergencies."

Exercise design constraints were a limiting factor in private sector integration for T3. In addition to the stringent requirements placed on participating organizations, initial apprehension at the development of the private sector piece created a need for different levels of participation and a number of artificialities. The following issues were raised in the private sector portion of the exercise:

 Prototype private sector coordination mechanisms: Two private sector coordinating mechanisms were prototyped during the T3 FSE: a Private Sector Liaison at the New Jersey and Connecticut Office of Emergency Management

- (OEM), and a Private Sector Cell at the National Infrastructure Coordinating Center (NICC). As a result of the success of both models, players requested that the models be institutionalized for real-world incidents.
- Public/private coordination and communication: The issues arising from the communication between the government and the private sector dominated the feedback from the private sector players. The issues surrounding the interfacing of public and private fell into three categories: (1) lines of communication, (2) method of communication, and (3) coordination.
- Testing internal emergency response/business continuity plans: For the
 employees of many private sector organizations, T3 raised the level of awareness
 of the critical roles of business functions during an event. The cascading effects of
 absenteeism, especially of critical employees, can shut down organizations and
 subsectors. T3 also provided a useful, realistic opportunity for private sector
 organizations to test their internal response and business continuity plans.
- Cross-sector coordination and communication: The T3 FSE illustrated that the
 current level of coordination and communication between various subsectors of
 the private sector is indispensable to an effective response, but also generally
 insufficient to respond effectively and efficiently to an event of this magnitude.
 The issue of creating an industry analog to the IIMG was offered, particularly as it
 relates to improving cross-sector integration for planning and evaluation.

IX. Conclusion

The T3 FSE was an innovative, challenging, and highly productive exercise designed to stress the system and the agencies responsible for responding to a terrorist attack. The observations, assessments, and recommendations in this summary were garnered from a number of forums and were validated from a practitioner's standpoint.

As the largest and most complex counterterrorism exercise ever attempted, the T3 FSE provided a tremendous opportunity for private sector and FSL governmental participants to test their procedures and push their agencies to their limits. Many departments and agencies were successful in stressing their policies and procedures and identifying potential shortfalls. In addition, the exercise provided many important lessons regarding FSL interagency procedures for communications and the integration of support measures.

Because of the extensive data collection process and the effort to make T3 FSE findings well documented and traceable through a detailed reconstruction of the exercise events, the full AAR provides a baseline on which subsequent TOPOFF and other counterterrorism exercises can build and be rigorously compared.

Part 1: Exercise Overview
Exercise Name:
Top Officials (TOPOFF) 3 (T3) Full-Scale Exercise (FSE)
Duration:
T3 Planning and Relevant Events: June 2003–October 2005
Exercise Date:
April 4–10, 2005 - Full-Scale Exercise
Sponsor:
Department of Homeland Security
Federal Exercise Project Officer:
DHS, Office of Grants and Training, Program Manager - Butch Colvin
Type of Exercise:
Full-Scale Exercise
Funding Source:
Department of Homeland Security Department of State
Program:
Homeland Security Exercise and Evaluation Program
Focus:
X Response X Recovery X Prevention

Classification:

For Official Use Only (FOUO)

Scenario:

Biological and Chemical Release

Location:

Washington, DC, New Jersey, Connecticut, Canada, and the United Kingdom

Participating Organizations:

Canadian Agencies
Agriculture and Agri-Food Canada
Canadian Border Services Agency
Canadian Food Inspection Agency
Canadian Security and Intelligence Service
Citizenship and Immigration Canada
Communications Security Establishment
Department of National Defense
Department of Justice
Environment Canada
Foreign Affairs Canada
Fisheries and Oceans
Health Canada/Public Health Agency of Canada
Industry Canada
Natural Resources Canada
Public Safety and Emergency Preparedness
Canada
Royal Canadian Mounted Police
Social Development Canada/Human Resources
and Skills Development Canada
Transport Canada
Canadian Red Cross
United Kingdom Agencies
Cabinet Office
Department for the Environment, Food and Rural
Affairs
Department of Health

Department for Transport (and TRANSEC)
Foreign and Commonwealth Office
Government Communications Headquarters
Health Protection Agency
Health and Safety Executive
HM Treasury
Home Office
Joint Terrorism Analysis Centre
National Health Service
Ministry of Defense
Office of the Deputy Prime Minister
Office of Science and Technology
Secret Intelligence Service
Security Service
Association of Chief Police Officers
City of London Police
Metropolitan Police
United States Federal Agencies and Organizations
American Red Cross (ARC)
Bureau of Alcohol, Tobacco, Firearms, and
Explosives (ATF)
Centers for Disease Control and Prevention
(CDC)
Central Intelligence Agency (CIA)
Department of Agriculture (USDA)
Department of Commerce
Department of Defense (DoD)
Office of the Secretary of Defense
U.S. Army Corps of Engineers
USNORTHCOM
National Security Agency (NSA)
Department of Education
Department of Energy (DOE)
Department of Health and Human Services (HHS)
Department of Homeland Security (DHS)
Federal Emergency Management Agency
(FEMA)
Department of Housing and Urban Development
(HUD)
Department of Justice (DOJ)
Department of Labor (DOL)
Department of State (DOS)

Department of the Interior (DOI)

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Department of Transportation (DOT)	
Department of Treasury	
Department of Veteran's Affairs (VA)	
Environmental Protection Agency (EPA)	
Federal Bureau of Investigation (FBI)	
Federal Aviation Administration (FAA)	
Food and Drug Administration (FDA)	
General Services Administration (GSA)	
Homeland Security Council (HSC)	
National Aeronautics & Space Administration	
(NASA)	
National Oceanic & Atmospheric Administration	on
(NOAA)	
Nuclear Regulatory Commission	
Occupational Safety and Health Administration	í
(OSHA)	
Office of Management and Budget (OMB)	
Small Business Administration (SBA)	
U.S. Postal Service (USPS)	
U.S. Marshals Service	
Non-Governmental Organizations	
American Red Cross of Central New Jersey	
Emergency Services	
The Salvation Army	
State and Local Agencies	
Kean University	
Middlesex County Office of Emergency	
Management - Emergency Services Center	
Middlesex County Office of the Fire Marshal -	
Emergency Services Center	
Middlesex County Prosecutor's Office	
New Jersey Board of Public Utilities - Bureau	of
Emergency Management	
New Jersey Department of Banking and Insura	nce
New Jersey Department of Community Affairs	Ã.
New Jersey Department of Corrections	
New Jersey Department of Health and Senior	
Services	
New Jersey Department of Health and Senior	

Services - Emergency Medical Services
New Jersey Department of Health and Senior
Services - Emergency Preparedness & Response
New Jersey Department of Health and Senior

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Services - Communications and Risk Information
New Jersey Department of Human Services
New Jersey Department of Labor
New Jersey Department of Laws & Public Safety
- Attorney General's Office
New Jersey Department of Laws & Public Safety
- Office of Counter-Terrorism
New Jersey Department of Laws & Public Safety
- Public Information
New Jersey Department of Military and Veterans
Affairs
New Jersey Department of Transportation
New Jersey Department of Treasury
New Jersey Department of Environmental
Protection
New Jersey Division of Mental Health Services
New Jersey National Guard
New Jersey Network (NJN)
New Jersey Office of Recovery and Victims
Assistance (ORVA)
New Jersey State Fire Coordinator
New Jersey State Medical Examiner
New Jersey Office of Emergency Management
New Jersey State Police - Emergency
Management Section
New Jersey State Police - Homeland Security
Branch
New Jersey Transit
Port Authority of New York and New Jersey
Rutgers University
Union County Division of Emergency
Management
Union County Health Department
Union County Prosecutor's Office
City of Groton Fire/Police
City of New Haven Fire/Police
City of Norwich Fire Department
Connecticut Children's Medical Center
Connecticut Civil Air Patrol (CAP)
Connecticut CT-1 Disaster Medical Assistance
Team (DMAT)
Connecticut Department of Corrections (DOC)
Connecticut Department of Emergency
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Management and Homeland Security (DEMHS)
Connecticut Department of Environmental
Protection (DEP)
Connecticut Department of Mental Health and
Addiction Services (DMHAS)
Connecticut Department of Public Safety
(DPS)/Connecticut State Police (CSP)
Connecticut Department of Public Safety State
Fire Marshall
Connecticut Department of Transportation
Connecticut DHS Immigration and Customs
Connecticut Federal Bureau of Investigation
(FBI)
Connecticut Ledge Light Health District
Connecticut National Guard
Connecticut Occupational Safety and Health
Administration (OSHA)
Connecticut State Fire and Rescue Plan
Connecticut Sub Base Fire Department
Connecticut United States Coast Guard (USCG)
Connecticut Urban Search and Rescue (US&R)
Connecticut U.S. Customs and Border Protection
Connecticut U.S. Department of Homeland
Security Transportation Security Administration
Mashantucket Pequot Tribal Nation Fire
Mohegan Tribal Government Fire/Police
Montville
Mystic Fire Department
New London Fire/Police
New London Health Department
New London OEM
Northern/Southern Tier Hospitals
Pequonnock Bridge Fire Department
Town of East Lyrne Fire/Police
Town of Groton ECC
Town of Groton Police
Town of Ledyard
Town of Waterford Fire/Police
UNCAS Health District
University of Connecticut (UCONN)

Number of Participants:

•	Participants	22,000+
•	Controllers/Evaluators	1,700+
•	Observers	600+

I. Exercise Overview

A. T3 Authorization

The Top Officials (TOPOFF) series of exercises is a Congressionally mandated, national counterterrorism progression of exercises designed to identify vulnerabilities in the nation's domestic incident management capabilities. It actively exercises the plans, policies, procedures, systems, and facilities of Federal, State, and local (FSL) response organizations against a series of integrated terrorist threats and acts in separate locations in the United States.

The TOPOFF exercise series' authorization is anchored in Public Law 106-553. Senate Report 106-404 outlines the program conceptually. TOPOFF events also fulfill a requirement of the National Security Council's Policy Coordinating Committee on Counterterrorism and National Preparedness Exercise Sub-group for the conduct of a large-scale, national-level, counterterrorism exercise.

Whereas TOPOFF 3 (T3) planning began under earlier Presidential Directives, the Homeland Security Presidential Directive (HSPD)-5 articulates the current Federal incident management policy that ultimately provided focus for the exercise event and gave national impetus to the recently adopted and unrehearsed National Response Plan (NRP) and National Incident Management System (NIMS). In conjunction, HSPD-8 provides for the adoption of the following, all of which were incorporated into the T3 series of events:

- National Preparedness Goal, National Planning Scenarios
- Universal Task List
- Target Capabilities List
- Homeland Security Grant Program Guidance
- National Preparedness Guidance

All participating FSL, tribal, private sector, and international (United Kingdom and Canada) authorities were asked to submit exercise objectives to planners at the beginning of the T3 design cycle to ensure that the exercise would support specific participant objectives while also addressing national priorities.

B. Design and Concept

The first TOPOFF exercise (TOPOFF 2000) was a single, no-notice, full-scale exercise (FSE) co-chaired by the Department of Justice (DOJ) and the Federal Emergency Management Agency (FEMA) in May 2000. TOPOFF 2 (T2) was designed as an open exercise in which participants were introduced to the scenario prior to the FSE through a cycle of activities of increasing complexity. T3 (co-chaired by DHS and DOS) was similar to T2 in architecture, although with a less scripted scenario.

T3 was the largest and most comprehensive terrorism response exercise ever conducted in the United States. The exercise scenario, which was played out from April 4–8, 2005, depicted a fictitious, foreign terrorist organization that conducted a simulated chemical (mustard) attack and detonation of a vehicle-borne improvised explosive device (VBIED) in New London, Connecticut, and a release of pneumonic plague (*Yersinia pestis*) in Union and Middlesex Counties in New Jersey. There was also significant 30-day-intelligence play over real-world channels, two cyber exercises, and related terrorist exercise activities in the United Kingdom and Canada.

The United Kingdom (ATLANTIC BLUE) and Canada (TRIPLE PLAY) conducted simultaneous, related exercises with overarching international exercise objectives to improve mutual response and preparedness against global terrorism. The three domestic scenarios were enhanced by incorporating events from the other two countries. The planning and execution of the three national exercises provided an excellent opportunity for international cooperation, networking of key responders, and sharing of information regarding each country's concepts of emergency operations.

T3 included the following seminars and exercises:

- Command Post Exercise (CPX);
- a series of planning conferences including: the Initial Planning Conference, Midterm Planning Conference, Final Planning Conference, and After-Action Conference (AAC);
- a series of national seminars on chemical terrorism, biological terrorism, and public affairs;
- an Advanced Distance Learning Exercise (ADLE);
- a Senior Officials Exercise (SOE) Series (tabletops at the Deputy Secretary level); and
- a Large-Scale Game (LSG) that focused on recovery and remediation requirements (tabletop three-day event series).

Exercise design, exercise play, and exercise review—the three major components of T3—were all cast in deference to the four major objectives of the FSE:

- <u>Incident Management</u>: To test the full range of existing procedures for domestic incident management of a weapons of mass destruction (WMD) terrorist event and to improve top officials' capabilities to respond in partnership.
- Intelligence/Investigation: To test the handling and flow of operational and time-critical intelligence between agencies in response to a linked terrorist incident.
- <u>Public Information</u>: To practice the strategic coordination of media relations and public information issues in the context of a WMD terrorist incident.
- Evaluation: To identify lessons learned and promote best practices.

The purpose of designing an open and unscripted exercise was to enhance its learning and preparedness value through a building block approach, and to enable participants to develop and strengthen relationships in the national response community. Participants at the FSL levels endorsed this methodology as being very beneficial to the validation and coordination of their domestic preparedness strategies.

C. Building Blocks

The T3 FSE was the pinnacle of a series of building block events that occurred over the course of 18 months. Each event preceding the FSE and the one follow-on exercise were designed to build upon the stated goals and objectives established by all participating FSL departments and agencies. During each of these events, key leaders were brought together to identify and address issues pertaining to terrorism preparedness, response, and recovery.

The relevant building blocks began with the National Seminar on Chemical Terrorism, conducted in Mystic, Connecticut, August 25–26, 2004. The seminar was designed to identify critical issues facing FSL, private sector, and international officials following a chemical terrorism attack. The seminar explored preparation strategies for the unique problems created by a chemical terrorism scenario and the best approaches to resolve these issues. The participants included representatives from domestic FSL governments, Canadian and United Kingdom governmental agencies, as well as State and local emergency response agencies from Connecticut and New Jersey.

The National Seminar on Public Affairs was the second T3 national-level seminar, held in Silver Spring, Maryland, October 5–6, 2004. The seminar focused on the ability of the Federal government to coordinate messages across agencies through the NRP. Additional objectives of the seminar included:

balancing real-world and exercise media demands during the T3 FSE;

- maximizing the rehearsal value for participants of T3; and
- examining/developing strategies to effectively communicate with the media and the public during a WMD event.

This seminar was designed to reach Federal-level public affairs and public information professionals.

The third seminar was held in the Meadowlands, New Jersey, December 1–2, 2004. The T3 National Seminar on Biological Terrorism brought together homeland security leaders from FSL departments and agencies, as well as the Canadian and United Kingdom governments. The seminar offered the opportunity to discuss issues regarding the response to a bioterrorism attack. The event was designed to improve relationships and enhance networking between the FSL levels of government, the private sector, and international partners.

The first local or venue-specific seminar was conducted in Union County, New Jersey, December 9, 2004. The New Jersey Seminar on Public Affairs explored the ability of New Jersey's State public information officers (PIOs) to provide pertinent/timely information to the media and the general public during a large-scale health disaster. The one-day seminar provided New Jersey PIOs effective insight into risk communication management and recommended concepts necessary to prepare "public information" responses to a terrorist incident. The audience and program presenters were comprised of FSL government officials and public information professionals.

The Connecticut Seminar on Public Affairs was the second locally-executed venue-specific seminar. It was conducted in Mystic, Connecticut, December 16, 2004. This seminar enabled Connecticut State PIOs an opportunity to discuss the policies, plans, and procedures in place to manage information and effectively communicate in the event of a major health incident. The seminar also addressed the issue of FSL partners working together to manage information during a major incident. The seminar was conducted over one day and included a public affairs training program designed by the U.S. Coast Guard (USCG) and a program comprised of a series of presentations on the different perspectives of risk communications.

The third local seminar was held in Gloucester County, New Jersey, January 21, 2005, and dealt with chemical terrorism. This program explored the specific issues of response and recovery facing New Jersey in the event of a chemical terrorist attack. The goal of the seminar was to enable the target audience to make appropriate decisions during a chemical WMD attack utilizing NIMS principles. The seminar also provided education and training on information and intelligence sharing and increased awareness of the threat assessment process. During the one-day seminar, participants observed briefings and presentations and engaged in a facilitated scenario-based discussion. The participants included Federal government officials and New Jersey State and local emergency response agencies.

The final local seminar was held in New Haven, Connecticut, February 23, 2005, and dealt with "terrorism threat awareness." The program provided background on the terrorist threat facing the United States and, more specifically, the State of Connecticut. The seminar also facilitated the exchange of information regarding the nature of the threat among the State and local agencies represented. One of the program's principal aims was to enhance the knowledge and understanding of the current global terrorist threat, who the terrorists are, and how this background could be applied to homeland security training, exercises, and mission areas. Participants included representatives from Connecticut law enforcement, first responders, and private sector agencies.

A Command and Control Seminar was conducted by means of the ADLE network, which aired via satellite broadcast, January 25–27, 2005. The seminar provided a forum for discussing control and consequence management of complex chemical or biological terrorist events. The ADLE was available to viewers after the satellite broadcast through the Lessons Learned Information Sharing website, as well as CD-ROM.

The final T3 building block event was the T3 LSG. The LSG was conducted four weeks after completion of the FSE and addressed the nation's ability to recover and manage the long-term consequences of a terrorist attack. The T3 LSG was designed based on the scenario, goals and objectives, and actual outcomes of the T3 FSE. The LSG focused on the most pressing recovery issues, ranging from time periods of 30, 90, and 180 days post-incident. Representatives from all FSL government agencies and the private sector who participated in the FSE were included.

To expose the Interagency with challenges they were likely to encounter during the FSE, two SOEs (tabletop exercises) were conducted. The principal objectives for the two SOEs included:

- exercising the implementation of the Homeland Security Advisory System (HSAS), while identifying related protective measures for implementation and
- identification of outstanding issues affecting the readiness posture of the U.S. government to manage complex WMD events.

In addition, these exercises enabled participants to assess information and intelligencesharing mechanisms and to identify the actions required to assure cohesive and appropriate domestic and international public notification. Both SOEs exercised top official decision making relative to an operational response in the context of the NRP and NIMS at a SECRET classification level.

The first exercise, SOE 05-2, *Fierce Squall*, was held February 15, 2005, in Washington, D.C. *Fierce Squall* focused on the issues that senior-level officials would face in the wake of a biological terrorist attack. Participants were presented with the latest information and intelligence pertaining to biological WMD events and provided the opportunity to engage in discussion and decision making around this issue.

SOE 05-3, *Roaring Tempest*, was held March 10, 2005, in Washington, D.C. *Roaring Tempest* was conducted in three moves and addressed new intelligence, VBIEDs and chemical attacks, and expanding response/law enforcement security.

II. Exercise Evaluation

A. Evaluation Methodology

The evaluation of the T3 FSE aims to:

- assess and enhance FSL terrorism preparation, prevention, and response capabilities;
- provide objective observations of complex, multifaceted interactions of FSL entities;
- provide recommendations for improving FSL counterterrorism incident management policies and procedures; and
- provide a basis for assessing progress and improvement over time and against the backdrop of evolving policies and procedures.

The T3 FSE evaluation focuses on high-level FSL coordination, support plans, policies, and procedures. In addition to the evaluation presented in this document, organizations that participated in the exercise were encouraged to conduct their own internal evaluations based on their specific objectives, tasks, and procedures.

The following people and elements collected data for the T3 FSE evaluation:

- Data collectors: Data collectors were provided by participating agencies to record what happened in a particular place or among a particular group of participants. They were knowledgeable about the activities of the players they observed (e.g., firefighter data collectors observed firefighter players). In many instances, the participating agencies also used these data to conduct their own internal evaluations.
- Analysts: Analysts were provided by the exercise support team and were responsible for the oversight and coordination of all aspects of data collection and evaluation. After the exercise, the analysts conducted the reconstruction and analysis in accordance with the evaluation methodology discussed in this document.
- Lead Analyst: The lead analyst reconstructed and analyzed the T3 FSE and wrote the reconstruction and analysis sections of the T3 FSE After-Action Report (AAR).
- Players: Players were FSL agency and department personnel who had active
 roles in the response. They performed their assigned roles and functions in
 response to the situations in the exercise. Players initiated actions that
 managed and mitigated the simulated emergencies.

- Controllers: Controllers, using procedures identified in the control staff
 instructions (COSIN), managed the conduct of the exercise; directed the pace
 and intensity of exercise play; assured the safety of participants, the public,
 and the environment; and maintained the security of exercise participants,
 equipment, and resources. Controllers monitored the sequence of exercise
 events and the pace of activity. In many cases, controllers were drawn from
 the trusted agents who planned the exercise.
- Simulators: Simulators, including actors and role players, were control staff personnel who simulated nonparticipating organizations or role-played key nonparticipating individuals.
- Master Scenario Events List (MSEL): The T3 FSE MSEL was the primary
 exercise control document. It is the chronological list of exercise injects and
 event implementers that was used to stimulate and guide player action. Each
 MSEL inject or implementer specified when, by whom, to whom, and what
 was injected.
- Virtual News Network (VNN): VNN was a mock media production group that supplemented the MSEL. As would be expected during an actual terrorist event, players received public media injects and interactions over VNN.

B. T3 Evaluation Methodology

The T3 FSE evaluation methodology is based on the approach outlined in HSEEP Volume II: Exercise Evaluation and Improvement. The overall aim of the evaluation is to document *what happened* during the exercise and explain *why*. This methodology provides participants and response agencies with information they can use to improve their response policies and procedures regarding incidents of national significance. The analysis also provides information for organizations conducting their internal evaluations. Evaluation consists of the following three steps:

- 1. Observation: Collecting data
- 2. Reconstruction: Determining what happened and when
- 3. Analysis: Determining why specific actions or events occurred

1. Observation

To record what happened in the exercise, dedicated observers known as data collectors were assigned to sites of exercise play. The scale or intensity of play, number of players, and geographic spread of the location determined how many data collectors were present at a given site. Analysts supplemented data collectors at key exercise sites, such as State emergency operations centers or Joint Field Offices (JFOs).

Data collectors were not the only observers who provided data for analysis. Players, controllers, simulation cell (SIMCELL) staff, and VNN also contributed critical data to the analysis. Players provided data by:

- Completing questionnaires (player feedback forms);
- Providing copies of logs, e-mails, and other documentation developed during the T3 FSE;
- · Contributing to their organization's lessons learned; and
- Contributing to Hotwashes.

This input was critical to the analysis, as it represents players' perspectives on the exercise and their actions/decisions. Exercise support personnel provided controller logs, SIMCELL logs, and VNN reports to the analysts.

In addition to data collected during the T3 FSE, a Hotwash and AAC results were collected to obtain additional player feedback and the most complete understanding of the critical aspects of the exercise.

2. Reconstruction

Reconstruction produces a fact-based, time-synchronized, de-conflicted, and *meaningful* account of what happened in the exercise. This laborious process is essential for conducting a meaningful analysis. Reconstruction involves the following:

- independent and parallel reconstruction of events at each location by analysts assigned to one or more locations;
- group reconstruction of how the events at each location fit in with those at the other locations (this step typically engenders considerable revision of the individual analyst's initial reconstruction of events at his/her location); and
- creation of a single reconstruction report.

The T3 FSE reconstruction report was completed before this AAR. An abridged version of the complete T3 FSE reconstruction is provided in this report.

3. Analysis

In this final step of the evaluation process, the analysts use the record of events provided by the reconstruction to objectively seek patterns and develop an understanding of why certain issues emerged during the exercise. The analysis of these issues includes detailed descriptions of the issues and, when relevant, potential explanations for the behavior or result. The T3 FSE analysis also identifies areas for improvement and recommends courses of action that are intended to strengthen the ability of FSL organizations to respond to emergencies. FSL agencies should take these results and use them to develop improvement plans.

III. Exercise Reconstruction

The reconstruction provides a timeline of the T3 FSE. The timeline is an overview of the events and activities that took place during the exercise. The T3 FSE reconstruction product is the result of reviewing the observations in nearly 400 data collector logbooks. These observations were augmented with controller observations and chat logs from the Master Control Cell (MCC) and Venue Control Cells (VCCs). Player-generated data, including more than 2,000 e-mails, briefs, website postings, and notes, were also used. These data sources were compiled into a database with more than 10,000 data entries. The database was then sorted by time, taking into account each venue's specific time zone. Decisions and events were identified and filtered for redundancy.

It is important to distinguish between events that were physically executed and those that were notional. The physical activities involved the participation of:

- top officials and representatives of top officials;
- participating agencies' personnel numbering in the thousands;
- more than 400 "injured" persons in Connecticut, represented by role players and augmented by a few mannequins and on-paper patients;
- thousands of role players acting as NJ patients augmented by on-paper patients and the public at the points of distribution (PODs); and
- VNN broadcasts.

Although these parties' actions were affected to some degree by exercise artificialities, they were real in the exercise sense that somebody physically participated and performed the action, thereby encountering some semblance of realistic time delays, possibility of errors, and the issues that real operations entail.

All other actions—the closures of highways, airports, and ferry systems; orders to the population to shelter-in-place; elevations of the HSAS threat condition; spread of pneumonic plague outside New Jersey, etc.—were done in a notional sense. Also, all requests for emergency powers, changes of alert status, and so on were granted only on an exercise basis.

What follows is a reconstruction summary in a tabular format to lend context to the analysis. The table enables the reader to compare the events of one venue with the events of the other venues. Specific times are indicated based upon the data. They are provided not for the purpose of pinning events or decisions down to the exact minute, because the vast volume of data and multiple observer/participant accounts do not allow for such precision. These times illustrate the overall sequence of key events and decisions. The definitions of acronyms are provided in the Acronym List in this AAR.

A more complete, searchable full reconstruction product is provided separately. The full reconstruction enables readers to understand exactly what happened during the T3 FSE and, more importantly, what types of activities and decisions one could expect to

encounter in a chemical	weapon or	bioterrorism	attack.	It takes	into	account	the	various
perspectives of participa	nts and all g	government le	evels.					

Table 1. T3 FSE Summary Reconstruction

D-Day, Monday, April 4

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
08:00-09:00 EDT	Symptomatic patients presented to hospitals in NJ. SUV discovered at Kean University.		
09:00-10:00 EDT	Scene around SUV at Kean University was secured by law enforcement officials.		UK considered raising its assessment of the threat in the U.S. from "severe" to "critical."
10:00-11:00 EDT	Cases of presumptive diagnoses of plague were reported.		CDC put out a heightened epidemiological alert. USCG boarding of M/V Red Thunder was completed.
11:00-12:00 EDT	FBI received preliminary results of positive plague test on SUV.	Airborne chemical was released over New London Pier in CT.	Interagency Incident Management Group (IIMG) Director convened an emergency Counterterrorism Security Group (CSG) teleconference. Homeland Security Operations Center (HSOC) Public Affairs Office (PAO) activated the NICCL. UK increased its assessment of the threat level in the U.S. to "critical."
	VNN reported a large number hospitals.	er of patients with "flu-like" sym	aptoms reporting to NJ
12:00-13:00 EDT	NJ Governor declared a state of emergency, initiated the activation of the Emergency Operations Center (EOC), and raised the State's threat condition level to Orange.		Secretary of Homeland Security activated the IIMG.
13:00-14:00 EDT		VBIED attack occurred in New London, CT. New London Fire Chief arrived on scene and assumed Incident Command.	Interagency Modeling and Atmospheric Assessment Center (IMAAC) was activated by HSOC.

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
14:00-15:00 EDT		CT Governor declared a state of emergency, activated the State EOC, and raised the State is threat condition level to Orange. FBI Special Agent-in-Charge (SAC) requested support from the Domestic Emergency Support Team (DEST). CT State Police advised the public to shelter-in-place. FBI reported that a private citizen observed a suspicious airplane land at a private airstrip one mile from Deblois, ME. Four unknown subjects left the airfield in a blue late-model Ford 500.	The Secretary of Homeland Security declared the events in New Jersey to be an Incident of National Significance (INS) and designated a Principal Federal Official (PFO). NICC was activated via Emergency Notification System.
15:00-16:00 EDT	Epidemiological Team from U.S. Public Health Service arrived at NJ DHSS.	There was a presumptive confirmation of mustard gas. DMAT was assembled at Camp Rell. Fisher's Island Sound Ferry informed USCG that ferry services were shut down and residents of Fisher's Island Sound were sheltering-inplace. CT Governor requested a declaration under the Stafford Act.	Secretary of HHS authorized the deployment of Strategic National Stockpile (SNS) to NJ. Secretary of Homeland Security declared the incidents in CT to be an INS and designated a PFO. Driver of a suspicious vehicle was detained by the Canadian Border Services Agency. Three men escaped.
16:00-17:00 EDT	NJ requested DMATs, Disaster Mortuary Operational Response Teams (DMORTs), and CDC epidemiologists.	FBI reported that the Joint Operations Center (JOC) designated the New London incidents as terrorist attacks. Unified Command (UC) formally stood up. The CT National Guard (NG) arrived at the Waterford Police Department (PD) for assignment to the Millstone Nuclear Power Plant.	UK issued travel advisory for the U.S.
	Middlesex and Union Coun	urity raised HSAS level to Orango ties, NJ. ed Stafford Act declarations for C	

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TIME	NEW JERSEY	CONNECTICUT	INTERAGENCY AND FOREIGN
17:00-18:00 EDT	PFO requested 10 DMATs and 3 DMORTS on alert in support of NJ. CDC-SNS Technical Advisory Response Unit (TARU) was deployed to NJ.	CT Department of Public Health (DPH) requested the CDC Rapid Response Registry. Federal Coordinating Officer (FCO) arrived at the JFO. JFO is activated. CT State DMAT arrived at the incident site.	Secretary of HHS declared a public health emergency in NJ. Royal Canadian Mounted Police (RCMP) stopped vehicle with four suspects; one was in custody, and three remained at-large. Suspect admitted involvement in CT incident.
	AMTRAK closed passenger	rail service between Washington	, D.C. and Boston.
18:00-19:00 EDT	Elizabethtown Water Company advised consumers to boil water before use.	EPA requested TAGA. HHS SERT arrived at the JFO.	National Response Coordination Center (NRCC) received CT and NJ Governor's requests for Stafford Act declarations.
	All county EOCs in NJ are asked to activate. Preliminary case definitions for plague were issued.		Surrora rect decidations.
19:00-20:00 EDT	NJ EOC informed that SNS is arriving and needs an escort. ARC stopped all blood collections in NJ. All blood collected in NJ and PA within the past three weeks was quarantined.	ATF National Response Team (NRT) was activated for response to the New London incident.	HHS requested 1,000 ventilators for New London incident site.
20:00-24:00 EDT	NJ State Medical Examiner reported 92 deaths to the NJ State EOC. SNS MI arrived at NJ Receipt, Staging, and Storage (RSS) site.	UC turned over incident site to FBI and moved to UCP. CT NG Civil Support Team (CST) field tests showed positive results for mustard. Unified Command (UC) held planning meeting for Incident Action Plan (IAP).	NRCC confirmed a major disaster declaration in CT and an emergency declaration in NJ.

D+1, Tuesday, April 5

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
24:00-03:00 EDT	SNS push package arrived at NJ RSS site. FEMA informed NJ State EOC that DMORT will arrive in state at 06:00.	SNS ventilators (1,000) and burn/blast kits (1,000) arrived at USCG Station in New London.	CDC reported a total of 36 suspected plague cases in 16 states and Washington, D.C. IMAAC reported that, based on a comparison of field tests with models, sulfur mustard dispersal was both via VBIED and airborne.
03:00-06:00 EDT	NJ NG activated.		VBC News reported multiple patients in UK hospitals with flulike symptoms. UK Foreign and Commonwealth Office asked if consular officials could access sites in NJ and CT.
06:00-08:00 EDT		UC approved the IAP. PFO and JFO approved incident site sampling plan.	USCG raised Maritime Security (MARSEC) level in Port of NY/NJ to MARSEC II.
08:00-09:00 EDT	First request for medical support to a POD was received by the RSS warehouse lead.	FBI reported that chemical precursors to mustard gas were found on M/V Red Thunder. ECA laboratory confirmed presence of mustard.	
09:00-10:00 EDT	FEMA Region II submitted formal request for Defense Coordinating Officer (DCO) to DoD. State RSS shipped medications to Union and Monmouth Counties.	CT State EOC requested DoD Quick Reaction Force (QRF) to replace CT NG at Millstone Nuclear Power Plant. CT Department of Public Health (DPH) reported 195 fatalities, 4,130 sick/injured, and 8,987 worried well.	FBI requested to conduct interviews of the three arrested by RCMP. UK Cabinet Office Briefing Room (COBR) decided to go to "critical" in the UK.
10:00-11:00 EDT	Union and Middlesex Counties schools were closed.	FBI Hazardous Materials Response Team (HMRT) conducted chemical analysis of 55-gallon drum found on small aircraft. Tests were positive for mustard gas.	HHS contacted World Health Organization (WHO) to discuss implications of the plague outbreak.
11:00-12:00 EDT	State RSS shipped medications to Mercer County.	The highway Information Sharing and Analysis Center (ISAC) issued an advisory to all carriers who have been in CT within the past 36 hours.	HHS asked VA to alert all hospitals and clinics in NJ and CT to be prepared to take in patients and to use VA facilities as staging areas for Federal assets.

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
12:00-13:00 EDT	First real POD opened (Union County).	ARC opened a temporary shelter in Groton, CT.	VNN reports that cruise ship passengers from NJ were not screened for plague as they disembarked at Port St. John. FBI reported that a source reports that a shipment of weapons and ammunition is hidden in a car
			being shipped to the U.S. onboard the M/V Black Cloud.
13:00-14:00 EDT		New London City Manager closed the New London EOC.	FAA announced that international flights inbound to JFK and EWR would be diverted to BOS, BWI, and PHL airports.
14:00-15:00 EDT	NJ Governor raised threat condition to Red for entire State.	EPA and CT Department of Environmental Protection (DEP) implemented sampling and monitoring plan.	NRCC received request from HHS to set up 2 alternative care facilities, one in each state. C/S Comet Atlantic arrived in Halifax and was quarantined by Public Health Canada.
15:00-16:00 EDT			DOS reported that British consular officials granted permission to visit NJ and CT.
16:00-17:00 EDT			Report of first case of <i>Y. pestis</i> in Fredericton, New Brunswick, Canada.
17:00-18:00 EDT	NJ Governor announced plan for distribution of prophylaxis to all State residents. Administrative Order issued closing all schools and colleges in the State FBI identified the location of a safehouse and laboratory related to NJ biological attack.	CT OEM requested ARC feeding and mental health support for 10,000-bed ACF. FBI reported USCG tracking M/V Black Cloud off Nantucket, which may have mustard gas onboard.	DHS and HHS requested ESF-13 to identify security requirements for ACF in NJ and CT.
18:00-19:00 EDT			Secretary of Homeland Security raised HSAS level to Red for entire State of NJ.

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
19:00-24:00 EDT		FBI turned incident site over to EPA. CT Governor asked President for QRF.	Secretary of HHS approved Emergency Use Authorization (EUA) for ciprofloxacin, and FDA approved the protocol. HHS announced combined Federal and State POD plan.

D+2, Wednesday, April 6

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
01:00- 09:00 EDT	Expanded NJ State PODs (notional) and Federal PODs (notional) opened (08:00). New Jersey State Police (NJSP) and FBI teams initiated assault on safehouse and bio lab.	QRF arrived at Groton airport to conduct relief-in- place with CT NG at Millstone Power Plant.	Bomb exploded in London, UK financial district. Blister and nerve agents potentially involved (09:00 BST).
09:00- 11:00 EDT	VNN reported that a temporary morgue planned for 5,000 to 10,000 deaths.		HHS confirmed plague deaths in 26 states, mostly near NJ. This report was consistent with a single POD. DOS reported 120 injured and 58 deaths in the UK (18 U.S. citizens injured and 4 U.S. citizens dead). RCMP located a safehouse. Situation was escalated to an armed encounter with three hostages being taken.
11:00- 13:00 EDT	Officials in State EOC decided to lift travel restrictions.	Sampling results confirmed no further contamination to the west and significant degradation due to rain overnight. NRT agreed to provide a panel of technical experts to advise the UC on a plan to decontaminate facilities.	
13:00- 15:00 EDT	NJDA submitted request for 2 Veterinarian Medical Assistance Teams (VMATs). NJ State EOC advised NJSP of decision to lift travel restrictions and to dissolve checkpoints at the State borders.	DOJ approved a search warrant for M/V Black Cloud. EPA and CT DEP concluded sampling efforts at the incident site.	UK Prime Minister made public statement that another attack on UK was imminent.

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
15:00- 17:00 EDT	SERT reported a notional POD throughput of 1,044,750. VNN reported 6,508 dead in NJ. Money allotted for refrigerated trucks changes from \$500,000 to \$5 million. Trucks cannot be rented because once they are contaminated they cannot be used for food again. Notional Federal POD prophylaxis throughput is estimated at 1,194,000.	CT Governor lifted shelter-in-place order. FBI conducted raid on suspected safehouse in CT. Two subjects were taken into custody.	DHS Science and Technology (S&T) reviewed recommendations for deployment of BioWatch detectors to new additional jurisdictions. RCMP prepared to board M/V Castle Maine, which is suspected to have mustard gas onboard. VA responded to requests from HHS to locate 7 VA clinic sites for PODs and provide RNs, LPNs, and physicians for ACF.
17:00- 20:00 EDT	NJ State EOC reported that 456 notional PODs were in operation.	CT Secretary of State sent a letter to HHS Secretary's Operation Center (SOC) declining 5,000-bed ACF.	
20:00- 24:00 EDT	Law enforcement reported the theft of four ambulances from four hospitals.	FBI Hostage Rescue Team (HRT) assaulted the M/V Black Cloud.	

D+3, Thursday, April 7

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
24:00- 08:00 EDT	Total number of deaths reported as 8,070.		
	Emergency Medical Services (EMS) units arrived at two staging areas, the Meadowlands Sport Complex and the PNC Arts Center for Operation Exodus.		
08:00- 10:00 EDT	JFO received the Emergency Declaration amended to include 10 additional counties. A total of 66 EMS/ambulances units were dispatched to hospitals.		
10:00- 12:00 EDT	C130 for Operation Exodus arrived at Newark Liberty International Airport (NLIA).		
	Patients were transported from hospitals to NLIA.		
12:00- 15:00 EDT	Federal PODs closed. The transfer of patients from ambulances to the C-130 begins. Operation Exodus concludes. NJ Governor announced opening of 20 notional family assistance centers.		Bomb exploded at Waterloo Station, London, UK. HHS, Immigration and Customs Enforcement (ICE), and FBI worked to locate and transport injured UK citizens out of the country.
15:00- 18:00 EDT	NJ requested that individual assistance be added to the emergency declaration.		CDC reported 4,600 plague cases and 2,000 deaths in states outside NJ. One American is dead and
			two were injured in Waterloo explosion.
18:00- 21:00 EDT	FEMA Region II Regional Response Coordination Center (RRCC) received letter from NJ Governor requesting the emergency declaration to be changed to a major disaster declaration.		

TIME	New jersey	CONNECTICUT	INTERAGENCY AND FOREIGN
21:00- 24:00 EDT	NJ State PODs closed (23:00).		Copy of FDA EUA for ciprofloxacin was signed and sent to SERT in NJ.

D+4, Friday, April 8

TIME	NEW JERSEY	CONNECTICUT	INTERAGENCY AND FOREIGN
24:00- 09:00 EDT			UK reported nine confirmed plague cases (three dead). RCMP boarded M/V Castle Maine.
09:00- ENDEX EDT	VNN reported 8.8 million NJ residents received prophylaxis.		CDC reported 600 deaths from reactions to doxycycline, 200 deaths from reactions to ciprofloxacin.

IV. Exercise Artificialities

By their nature, exercises are not real events, and no exercise can duplicate the scope and richness of real-world emergencies. Although every attempt is made to mitigate their effects, artificialities will occur and can affect the outcomes of the exercise. If the nature and effects of artificialities are not taken into account, the conclusions drawn from the exercise could be incorrect. This section focuses on the key artificialities noted during the exercise. These artificialities can be placed into the following broad categories:

- those that are inherent to the exercise design process;
- those specifically related to the T3 exercise design; and
- those that arose during actual exercise play.

The net impact of artificialities can be difficult to assess. For example, considerations must be taken into account for questions such as the following:

- Did an artificiality make the response decisions or actions easier than they might have been?
- Did an artificiality unnecessarily complicate the response relative to a real-world operation?

For their part, the T3 exercise designers tried to strike a balance, compensating for one artificiality (e.g., a response team's need, absent a real-world emergency, to take a commercial flight) with another (e.g., the same team's seemingly premature departure).

The two questions to ask when assessing the impact of an exercise artificiality are:

- What difference, if any, did it make to the play of the participants?
- What difference, if any, did it make to the play of top officials?

A. Artificialities Inherent in Exercise Design

There will be artificialities in any exercise involving the response to a WMD event. The fundamental issue is that it is often impossible to exercise the full scope of a real-world event—ranging from an actual bomb detonation to shutting down transportation infrastructure to commanding the full-time attention of top officials. Many exercise events or actions must be notional or simulated, instead of actual. Despite the notional character of some events, governmental agencies and organizations played as though the events actually took place. This allowed the T3 evaluation team to examine decision-making, coordination, and communication issues. As long as they are understood and accounted for in the analysis process, the T3 FSE artificialities should not have a significant impact on interpreting the results of the exercise.

1. Top Officials' Play

The involvement of top officials in T3 was extensive but in real-world emergencies of the magnitude portrayed in this exercise they would be immersed in coping with the emergency, almost to the exclusion of all other activities. In T3, top officials were present only intermittently and largely on a schedule; however, they devoted considerable personal time to the exercise. Some also designated individuals (e.g., a deputy) to play their parts in the exercise when they were not available. The T3 evaluation team believes that top official play during the exercise was relatively unaffected by the artificialities of scheduling, availability, and substitution.

2. Limited Scope of Play

Many effects associated with the intentional release of *Yersinia pestis* and a sulfur mustard agent were not designed into or played in the exercise. Some of the most important include the following:

- exercise play was expanded to include the effects of the releases on states other than Connecticut and New Jersey and
- the potential for population disruption, movement, anxiety, and fear.

3. Notional Actions

Because of limits on the scope of play, the most apparent artificialities were those in which notional (or constructive) actions replaced real ones. Examples include the notional closure of New Jersey borders and roads and the activation of hundreds of notional PODs.

4. Limited Public Involvement

In a real-world event, the public reaction can include clamor for more information, crowds of people fleeing their homes, traffic jams, and disruptive reactions during the public appearances of top officials. Although T3 involved role players acting as patients in New Jersey hospitals and PODs and as persons injured by victims of the blast in Connecticut, the general public was minimally represented. There was no reaction to the emergency from the general public. These reactions could have impacted top officials' decision making and the actions of emergency personnel at the scene; however, precluding their existence was a necessary artificiality.

Many important considerations would include, but not be limited to, those regarding public information, heightened public anxiety, and other psychosocial factors. Such issues would expand beyond the immediate affected communities. For example, other cities in America that were not coping with the ongoing emergency would look for guidance regarding what might later happen in their cities. The lack of involvement from 48 non-affected states and hundreds of non-affected cities is an artificiality that must be taken into account when considering the play of national top officials.

B. Artificialities Specific to the T3 Design Process

The artificialities in this section represent deliberate choices made during the design of T3 or they are specific to this particular exercise. These choices were made with the understanding that they would impact exercise findings. The T3 evaluation team believes that these impacts are accounted for in the exercise analysis.

1. Knowledge of the Scenario

T3 was designed as a building-block process wherein the general exercise scenario was explored in a series of seminars, an LSG, and SOEs. This process was designed to promote learning among the agencies and organizations involved in T3. Indeed, participants felt that they had learned a great deal even before participating in the FSE. It is important to note, however, that while the scenario was widely known, participants did not have access to the MSEL, which drove FSE play.

2. Scope of Participation

A number of important organizations and governments were simulated. Notable examples included the governments of France, Singapore, and Thailand, as well as the real-world media. Additionally, private sector participation was limited. The governments of Canada and the United Kingdom did participate in the T3 FSE; however, their participation was based upon Command Post Exercises (CPXs).

3. Spread of the Pneumonic Plague

During the planning of the exercise, the decision was made not to address the spread of plague outside the borders of New Jersey. Although numbers of plague victims were reported in other states, officials from those states did not simulate the action of requesting assistance (e.g., access to the Strategic National Stockpile (SNS)). In a real-world outbreak of plague, the Federal government would have taken the needs of these states into account when deciding how to support New Jersey's needs, potentially limiting New Jersey's access to Federal resources.

4. Lack of 24-Hour Play

In a real-world emergency, activity would have continued around the clock. During the T3 FSE, some activities functioned around the clock, but others did not. As a result, some participants were occasionally stymied when other participants were not playing at the same time. For example, "overtime" costs limited play commitment from some participants.

5. Prepositioning of Responders

Various assets, such as teams from the DHHS, DoD, FEMA, and the FBI were prepositioned in the venues for reasons of safety, logistics, and cost. The T3 evaluation accounted for advance deployments and ensured that they were accounted for in the subsequent analysis. 6. Varying Participation Schedules

Numerous city, county, and State agencies participated in the T3 FSE at different times during exercise play. For example, the 90+ hospitals participating in New Jersey operated during different time periods. As a result, some activities that would usually occur in a coordinated fashion were disjointed. This resulted in organizations operating under different conditions (e.g., some during the early phase of the disease outbreak and others later), thereby creating some degree of confusion.

Similarly, the PODs that distributed prophylaxis in New Jersey operated on a staggered schedule. Each POD operated for approximately four hours on different days during the exercises.

C. Artificialities Arising during Exercise Play

A number of artificialities arose during the execution of the exercise. In an exercise as large and complex as T3, this is not an unexpected event. These artificialities were properly accounted for in the analysis of the exercise.

1. Flooding in New Jersey

In the days prior to the exercise, New Jersey experienced heavy rains that caused significant flooding. At times, participants had to suspend their participation in the exercise to respond to the real-world flooding emergency. The flooding also impacted the location of some of the State facilities in Trenton, causing minor disruptions. These incidents are accounted for in the analysis.

2. Issues with Control

During the T3 FSE, there were several minor incidents in which controllers took it upon themselves to modify the scenario. There were also instances in which other exercises or unrelated events were briefly believed to be part of T3 play.

In other instances, controllers provided players with information that the players should have been required to obtain through their participation in the exercise. Many players in the infrastructure that support top officials and their PIO staff were uncertain about how to interact in the exercise. In some cases, they requested information from controllers that they were not able to easily obtain through their formal channels. This contributed to a number of conflicting information threads which were fed to top officials, spokespersons, and press releases and were challenged by the *VNN Live* anchors during interviews. Again, these instances were documented and accounted for in the analysis.

3. Notional Play

There is evidence that some participants did not understand the concept of "notional" play. These participants confused their FSE play schedules with real-world constraints. In an exercise, the play schedule of an organization can be quite different from the decision realm—an organization is bound by certain constraints in an exercise environment (such as availability of personnel and costs) that may limit its ability to physically play. However, it can make "notional" decisions that reflect what it would do in real life, even though the organization may not physically play the decision. In the T3 FSE, some organizations made public announcements that some officials interpreted as incorrect because that organization was not physically playing for another 24 hours. For example, a health organization could decide to open a POD on Day 1 even though it may not be physically exercising the POD until Day 2 (if at all). On Day 2, the organization would play as though the POD had already been open for a full day and was in its "second" day of operation.

In the T3 FSE, an announcement on the opening of a POD in Middlesex County led to significant confusion among decision makers who knew that the POD would not really activate until the following day. This led to inconsistent messages by officials that were picked up and challenged by VNN reporters. The inconsistent messages were largely a result of a lack of coordination and understanding of the difference between notional and actual play, rather than any coordination problems that may have existed among the participants in making and publicizing the decision.

4. Choosing Not to Follow Procedures

Some first responders at the incident site in New London, Connecticut chose to forgo some of their normal response procedures, causing widespread confusion regarding protective action guidance. For example, some of the HAZMAT responders at the site of the chemical explosion did not wear personal protective equipment (PPE); meanwhile, the Governor of Connecticut was implementing and emphasizing a strict shelter-in-place order across the city. *VNN Live* footage of responders not wearing PPE led VNN viewers and reporters to question the rationale for the governor's policy decision. This contributed to some apparent conflicts between FSL government emergency public policy decisions, such as whether the shelter-in-place order was still required.

5. VNN

Many of the top officials and spokespeople had never participated in an exercise like the T3 FSE. Many players appeared to not understand that they were to behave as though they were responding to a real-world event. Late-breaking news which was generated as a result of player actions (rather than being pre-scripted as injects) required spokespeople to be knowledgeable on the unfolding incident and the actions of their agencies, as though they were responding to real-world events. A lack of familiarity among spokespersons about the nature of exercise play led to variances in the quality of preparation and interview effectiveness. Of important note, in the State of New Jersey, some public information exercise play was impacted by real-world ongoing flood responsibilities.

Some informational segments on VNN were pretaped and inserted between live coverage. For example, VNN aired footage of frightened citizens using duct tape to seal off their homes, supposedly in Connecticut in response to the shelter-in-place order. At the time the footage aired, the use of duct tape had not yet been specifically recommended by any official. For this reason, it was an artificiality. However, to the extent that it could have represented an undesired response to a public message (which could and does happen in real life), it could have prompted officials to respond with clarifying messages.

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Part 2: Exercise Goals and Objectives

The following four overarching objectives were established to direct the exercise design process for T3:

- <u>Incident Management</u>: To test the full range of existing procedures for domestic incident management of a WMD terrorist event and to improve top officials' capabilities to respond in partnership.
- <u>Intelligence/Investigation</u>: To test the handling and flow of operational and time-critical intelligence between agencies in response to a linked terrorist incident.
- <u>Public Information</u>: To practice the strategic coordination of media relations and public information issues in the context of a WMD terrorist incident.
- Evaluation: To identify lessons learned and promote best practices.

With these four objectives for a framework, FSL and tribal organizations created their own goals and objectives for evaluation through the exercise process. New Jersey and Connecticut planners identified specific goals that focused the exercise design process on key issues within their respective States.

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Part 3: Exercise Events Synopsis

I. Purpose

This part of the report provides a synopsis of the Top Officials (TOPOFF) 3 (T3) Full-Scale Exercise (FSE) scenario.

II. General

The T3 FSE scenario provided an environment for participants—primarily top-level decision makers—to exercise against a credible terrorist adversary that plans and executes an attack employing weapons of mass destruction (WMD). Although the scenario is plausible, it contains artificialities necessary to create conditions required to achieve exercise goals and objectives. The chain of events depicted in the scenario is hypothetical, and the terrorist groups and individuals portrayed in the scenario are fictional.

A. Prelude to the Attack

1. The Point of Friction

After the terrorist attacks of September 11, 2001 (9-11), oil supply disruptions in Venezuela in 2002 and 2003, and the United States (U.S.) armed intervention in Iraq in 2003, U.S. policy has increasingly emphasized diversification of U.S. energy supplies, especially from sources outside of the Persian Gulf. According to Cambridge Energy Research Associates, between 2004 and 2010, West and Central Africa (far closer to U.S. refining centers than the Middle East) will add 2 to 3 million barrels per day to world production. This will account for one in five new barrels of oil (i.e., 20 percent of new production capacity worldwide). This oil will be the low sculpture, light product that U.S. refiners require. To meet projected rising U.S. demand for natural gas, ample new and reliable external sources will also be required. If projects currently under evaluation and development in Nigeria, Angola, and Equatorial Guinea are brought to fruition in the next decade, they will increase West Africa's annual liquefaction capacity from 9 million to 30-40 million tons. (Current worldwide capacity is 115 million tons annually.) The United States will also increasingly rely on imports of refined products, such as gasoline, as U.S. refinery capacity fails to meet growing demand. West and Central African refiners can help to fulfill these needs. 1

Since 9-11, U.S. counterterrorism concerns in West and Central Africa have increased significantly, resulting in heightened and evolving engagement in the region by U.S. intelligence and military personnel. This shift has dramatically reversed the calculation that was born in the immediate aftermath of the Cold War in the early 1990s, in which

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¹ Goldwyn, David L., and Morrison, J. Stephen, "Promoting Transparency in the African Oil Sector: A Report of the CSIS Task Force on Rising U.S. Energy Stakes in Africa," Center for Strategic and International Studies, March 2004, p 4.

West and Central Africa mattered minimally to U.S. global security interests. Indeed, West and Central Africa venues are becoming priority zones in global counterterrorism efforts, evidenced most overtly by the recent, sudden projection south of the U.S. European Command. Current threats and vulnerabilities in this region include:

- indigenous militant Islamic groups that are concentrated in Nigeria and neighboring states and are linked to externally supported local madrassas;
- the southern migration from Algeria and other North African venues of terrorist movements, most notably the Algerian Salafist Movement, which reportedly has established training bases in Mali and Niger;
- increase in the number of Lebanese trading communities, long-standing support networks for Hezbollah, some of which are reportedly engaged in illicit diamond trafficking, money laundering, and the movement of lethal material; and
- a rising number of minimally protected economic installations, especially in the energy sector, that are overtly tied to Western corporate interests.²

Just as it does in the Middle East, oil may eventually form the bedrock of the politics of West Africa over the next few decades as the United States develops the region as an alternative source to the Gulf. A key objective of a global insurgency inspired by the radical Islamist group, el-Zahir, is to deny the United States secure supplies of energy, thereby posing a risk to the U.S. economy.

The expanding threat of international terrorism continues to affect U.S. foreign and domestic security. Both timing and target selection by terrorists can affect U.S. interests in areas ranging from preservation of commerce to nuclear non-proliferation to the Middle East peace process. Complex terrorist networks have developed their own sources of financing, which range from nongovernmental organizations and charities to illegal enterprises such as narcotics, extortion, and kidnapping. In an attempt to challenge the West's conventional military superiority, there is an inexorable trend toward proliferation of WMD or the means to make them. Policy makers are concerned that states designated by the U.S. State Department as sponsors of terrorism—Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria—may have supplied terrorists with WMD capability. Although there is a degree of uncertainty, the possibility of covert transfers or leakages clearly exists.³

2. The Emerging Threat – Universal Adversary (UA)

El-Zahir, first designated as a foreign terrorist organization (FTO) by the U.S. Department of State in October 1999, is the inspiration for an increasingly violent global insurgency. El-Zahir was established by Yemen-born Alim Badi Al Zaman in the late 1980s. Al Zaman's worldview was influenced by several renowned radical Islamist scholars who taught in the Gulf States. His worldview was also significantly shaped by

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² Ibid., p 14.

³ Perl, Raphael, Congressional Research Service, "Terrorism and National Security: Issues and Trends," Updated July 6, 2004.

his experiences in Afghanistan at the end of the Soviet Afghan campaign. Al Zaman returned to Afghanistan in the 1990s to manipulate civil disorder and establish a string of militant training camps.

The infrastructure that el-Zahir established during this time, which was primarily to recruit Muslims to create Islamist states throughout the world, resulted in the growth of a global movement that currently extends directly and indirectly into various countries including: Algeria, Egypt, Turkey, Syria, Pakistan, Malaysia, Indonesia, Saudi Arabia, Yemen, Chechnya, Somalia, Kashmir, Sudan, and Eritrea.

In addition to its core membership, el-Zahir has successfully attracted the support of three other groups of militant Islamists, including groups fighting Islamic rulers believed to have compromised Islamic ideals and interests, groups fighting against oppression and repression of the Muslim population, and groups fighting regimes to establish their own Islamic state. This wide-ranging support structure has enabled el-Zahir to execute a terrorist campaign on several fronts or inspire other militants to execute a terrorist campaign. Furthermore, it allows the "network of networks" to employ a wide range of tactics, from kidnapping and conventional attacks using improvised explosive devices (IEDs) and suicide bombers to unconventional attacks using chemical and biological weapons.

In response to increased U.S. military presence in Central and West Africa, el-Zahir and several of its African-based affiliated and inspired groups have developed a plan to retaliate against the United States and its allies with a series of coordinated strikes against the U.S. homeland and the United Kingdom (UK).

The scale of the attacks is planned to surpass that of the 9-11 attacks. El-Zahir will provide mission support that will include limited financial capital for weaponry, support networks in place in the West, access to front companies, and the recruitment of skilled weapons technicians.

The Fronte Salafiste pour la Liberation de Terre Etrangere (FSLTE), an Algerian-based terrorist organization loosely affiliated with el-Zahir, will provide tactical forces and weapons expertise for this operation. Under the leadership of Ahmed Abdul Aziz (aka "Al Jundi"), the group aims to overthrow the secular government of Algeria and establish an Islamist caliphate that adheres to the Salafist interpretation of Islam. Although the group has denied issuing statements threatening attacks on U.S. assets in Algeria, they are opposed to the U.S. presence in North and West Africa. FSLTE was first designated an FTO by the U.S. Department of State in March 2002.

FSLTE has recruited from the disenfranchised and the embittered. FSLTE has particularly concentrated on recruiting from the criminal fraternity in prisons who have turned to Islam through the work of radical Muslim clerics not necessarily associated with FSLTE or any other noted militant group. Most of the funding for the group's activities is acquired via criminal activities.

To successfully conduct clandestine operations in the West, el-Zahir and FSLTE will rely on two additional organizations. In Europe, they will rely on Nasamaah-At, translated as "active individuals." This movement was established in Egypt in the 1970s by Amir Haleeb. The group began as a highly disciplined movement that was divided into action cells, recruiting groups, and logistic units, and worked toward re-educating the Egyptian population to accept a new community governed by Shari'ah law.

Originally, Nasamaah-At was apolitical and nonviolent. However, after facing growing repression by the authorities, the group was radicalized and ultimately resorted to the use of violence to initiate change within society. Instead of focusing their efforts in the Middle East, Nasamaah-At sent personnel throughout Western Europe to begin their own radical cells deep within Western society. Here, the group has focused on recruiting first-and second-generation Europeans. Thus, Nasamaah-At has evolved into an unstructured entity that is largely ad hoc by nature, but radicalized to the extent that individual cells established throughout Europe have sought to build direct and indirect ties to el-Zahir. Although the group is well-established throughout Western Europe, the United Kingdom is considered the principle transit point for new recruits and a distribution point for the "revolutionary message of jihad."

The movement has attracted a number of well-educated, unemployed youth who are second-generation immigrants from Algeria, Egypt, and Syria who have found themselves alienated from the mainstream culture of their respective European countries. As a result, they have devoted themselves to radical Islam and the global insurgency inspired by el-Zahir.

In the United States, el-Zahir and FSLTE will rely on Mutaki'oun, a loose network of American Islamic radical converts. These operatives were largely recruited from the U.S. prison population through the work of radical clerics. These individuals were almost all born in the United States, but many have traveled extensively throughout the Middle East and Caucasus. Although they maintain a Western lifestyle, they attend mosques where they have developed close relationships with other militant Islamists. Most have undergone paramilitary training either at camps overseas or at "warrior training" camps in the United States.

Mutaki'oun operational cells—called Sutra teams—are oriented around protecting radical clerics at the mosques frequented by these converts. Their training has made them highly capable facilitators of terrorist operations through activities such as intelligence collection, countersurveillance expertise, weapons acquisition, money laundering, and credit card fraud. However, their tactical skills are largely unproven.

3. The Contemporary Operating Environment

a. International

- Anti-U.S. sentiment continues to simmer across the globe.
- U.S. troops continue to be stationed and active in Afghanistan and Iraq, as well as
 other countries throughout the Middle East, Central Asia, and Africa.
- El-Zahir has released several statements through al-Jazeera and through key Islamist websites that contain general threats against the United States and its allies (particularly the United Kingdom, Canada, Italy, and Australia).
- Canada and the United States are exploring new approaches to border security and monitoring under the watchful eye of Canada's new Prime Minister.

b. National

- The nation is in a post-presidential election period, with the administration attempting to address key national concerns, including homeland security, the economy, and foreign policy.
- The U.S. intelligence community has detected an increasing level of "chatter" among known and suspected radical Islamists both inside and outside the continental United States.
- The Homeland Security Advisory System (HSAS) threat level is currently set to Yellow (ELEVATED Significant Risk of Terrorist Attacks).

c. Regional

- In the northeastern United States, State and local law enforcement officials have been engaging with Joint Terrorism Task Forces throughout the region regarding growing concerns over the increasing activities of the Mutaki'oun.
- During the holiday season, ongoing concerns over port and transportation security, combined with a significant spike in Islamist "chatter" noted by the intelligence community, led the DHS to issue an elevation of the HSAS level to Orange (HIGH – High Risk of Terrorist Attacks) for the New York, NY; Boston, MA; and Washington, D.C. metropolitan areas. The rest of the nation remains at HSAS level Yellow.

d. Local

Throughout these areas, including northern New Jersey, State and local
governments were forced to address the economic impact of an elevation in the
HSAS level over the holidays, leading to increased concerns over how to pay for
the fluctuating costs of supporting homeland security measures.

B. The Attack Plan

1. UA Targeting Priorities (Posted on a Radical Islamist Website)

The following is a translation of *The Battar Training Camp (Mu'askar Al-Battar), The 7th Edition, March 2004.* The text below is exactly as it was released. Inaccuracies were not corrected for publication of the T3 FSE scenario.

2. Targets Inside Cities4

Attacks inside cities are considered a kind of militant diplomacy; this kind diplomacy usually is written with blood and decorated with body parts and gunpowder.

These attacks carry a political meaning related to ideological struggle; it is considered a message to several parties. Therefore it is very important to be detailed in selecting targets. A good example of this is the attacks by our brothers, those attacks by the heroes (Khalid Al-Sa'id, Riyad Al-Hajri, Abd-al-Aziz Al-mi'shim and Muslih Al-Shamrani) was the beginning. Their choice for a target was a great success. The building belonged to the CIA. This was the spark that ignited our Jihadi youth and opened the eyes of the nation to the Zionist presence in the land of Mohammad.

Also the attack in east Riyadh in 2003 was a message to the enemy, telling them that here we are, we have attacked you before and we can attack you now, you cannot hide because we are after you and you cannot get comfortable in the land of Mohammad.

Also the attacks by our brothers; Ali Al-Ma'badi and Nasir Al-Sayyari that targeted Al-Muhaya on the Intelligence Center were successful too. This proves that the attacks are diplomatic messages written with blood and decorated with body parts and gunpowder.

3. Religious Targets

It is not advisable to do any attacks against religious targets at the beginning of a Jihadi movement unless one of the following situations applies:

- When groups are involved in converting Muslims to Christianity like what happened in Yemen and what is happening in Iraq. Also in Saudi Arabia where Christians are trying to distribute bibles. In these cases they should be hunted down.
- Intelligence Activity hiding under a religious cover. In the case when it is a
 Muslim that is under cover he should not be attacked because Jihad movement
 can get a bad reaction from the public and it can backfire.

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⁴ From a translation of Abu Hajir Abd-al-Aziz Al-Manun's *The Battar Training Camp (Mu'askar Al-Battar), The 7th Edition, March 2004.* (http://tides.carebridge.org/Translations/TWPR-Al-Battar-7.htm).

- In the case when some priests and rabbis and religious figures attack Muslims or Islam like that American priest that cursed the prophet Mohammad, we ask God to bring our swords closer to his neck. Also when Sayid Nsair killed Kahana who cursed the prophet.
- In the cases where Christian and Jewish figures are conducting financial, moral, and militant campaigns against the Muslims like the previous crusades.

4. Financial Targets

The goal for attacking these kinds of targets is to shake the security and the environment for financial growth like attacking the oil pipelines in Iraq that prevented foreign companies from joining in stealing the Muslims fortunes. Also one of the goals is to get foreign investors to get out of the local market. Also, the affect of these attacks on the financial powers like the attacks in Madrid that damaged the crusaders economy. Here are some practical examples of these financial targets:

- Jewish and Crusaders investment in the lands of the Muslims.
- International companies.
- International Economical experts.
- Attacking imports from crusaders' countries or boycotting them.
- Attacking the crude materials stolen from the lands of the Muslims like oil carriers or pipelines.
- Assassinating Jewish people that work in financial field and teaching those that work with them a lesson.

5. Human Targets

We have to kill the Jews and the Christians. We have to tell everyone that fights Muslims that we are coming to kill you. We should not be divided by geographical borders. The land of the Muslims is our land. We have to turn the countries of the enemies to hell the way they turned our lands to hell. All the cells, where ever they are should be active and disregard any borders that were drawn by the enemy.

- In this case, priority is for Jewish and Christian officials in the land of the Muslims and the goal is not to let them get comfortable. We advise you to target easy targets at the beginning and priority goes to the infidels that directly support the local rejecters of Islam. For example, the targets in Saudi Arabia should be the Americans first and the English second; in Iraq, the Americans; in Afghanistan, the Americans; in Algeria, the French; in Indonesia, the Australians.
- The Human targets are in these categories:
 - Jews, and they are divided in categories, for example The Jews of America and Israel and the Jews of the UK and France.

- Christians are ranked in the following order:
 - Americans
 - UK
 - Spanish
 - Australians
 - Canadians
 - Italians
- These will also be divided into the following categories:
 - o Finance and businessmen, for money is important in this day and age.
 - o Diplomats, politicians, intellectuals and political delegations.
 - Military leaders and soldiers.
 - Tourists and all those that were warned by the Mujahidin.
- Collaborators are good targets and are ranked as follows:
 - Those with close ties to the Christian and Jewish governments like Husni Mubarak of Egypt and the rulers of Arabian Peninsula and their advisors.
 - o The liberals and the seculars who have harassed the faith.
 - Spies and Intelligence, they are shielding and protecting the Jews and the strong-arm of the collaborators rulers.

6. The Goals of Targeting Humans

- To provide clarification of the nature of the conflict. By targeting Christians and Jews it shows that this is a religious struggle.
- To show the main enemy.
- To cleanse the earth of these people and to deter others.
- To spread fear in the enemy and this is a requirement documented in Koran.
- To raise the morale of the Islamic Nation.
- To destroy the image of the government that was targeted. After the 9/11 attacks, America's nose was in the dirt.
- To disrupt the plans of the infidels, like the time when Italy refused to send troops
 to Iraq. Also like what happened in Spain where the challenger of the prime
 minister promised to pull the troops out the Iraq after the attacks in Madrid.
- To punish them for killing the Muslims.

7. The Pros of Attacks in Cities

- Raising the morale of the nation and of the Mujahidin.
- Confirming the credibility of the Jihadi group in the society. People will be able
 to see and the media cannot lie to the public.
- Forcing the regime not to cross red lines.
- Testifying that there is no God but Allah and Mohammad is his prophet and for achieving unity.
- The governments will lose their effective symbols.

- Influencing the economies of those countries.
- The Mujahidin gain experience and qualification that will make them leaders of the nation in the future.
- Study and analysis of mistakes that need to be avoided in the future.
- Preparing the nation and the brothers for future wars and confrontations.
- Winning sympathizers and increasing the popularity of the Mujahidin with every successful operation.
- Forcing the regime to change their policies.
- Shaking the trust and the confidence of the members of the regime. It could also
 cause clashes between the military and political powers in the country and cause
 disagreement among the political parties.

8. The Cons of Attacks in Cities

- The killing of Jihad leaders and members once these attacks are discovered.
- Lots of human and material damage.
- Lowers the morale of Mujahidin in cases of failure. This is why a good leader raises the morale of his people in any case.
- Gives the regime a chance to take advantage of the situation and harm innocents.
- Raises the morale of the members of the regime when they win the battles.
- Some members of the Jihad can be captured and secrets could be uncovered.
- Weakening in the trust between the Jihadi groups and the society in case of repeated failures.

9. UA Specified And Implied Mission Tasks

a. Specified Tasks

- El-Zahir will provide access to weapons material and technical expertise, ideological justification and inspiration, and limited direction and financial support.
- FSLTE will plan and conduct compartmented tactical planning, preparations, rehearsals and execute attacks against New York City and Boston employing a combination of large vehicle bombs, chemical and biological weapons.
- FSLTE will coordinate support activities and train operatives from Mutaki'oun to assist with the execution of Vehicle Borne Improvised Explosive Device (VBIED) and chemical/biological weapons attacks against New York City and Boston.
- FSLTE will conduct compartmented tactical planning, preparations, rehearsals and execution of a chemical attack at specified targets in London, UK.
- Nasamaah-At will conduct a series of attacks against specified targets in London, UK.

b. Implied Tasks

- Operational security will be strictly observed:
 - Tactical elements will remain unaware of each others activities.
 - o Communication with tactical elements will kept to a minimum.
- Individual targets will be selected by FSLTE cell leaders to achieve desired outcomes. Selection criteria will be based on anticipated weapons effects, analysis of security measures, and on the results of reconnaissance and surveillance.

10. Desired Outcomes

- Demonstrate our resolve to fight the United States and their allies with all means available by doing the unthinkable—releasing biological and chemical agents against the general population in the United States and United Kingdom.
- Create mass casualty events to demoralize the general population and create an atmosphere for them to challenge their governments' foreign policies toward Islam.
- Cripple the U.S. economy by disrupting commerce and forcing an increase in security measures nationwide.
- Drive a wedge between the U.S./UK alliance.
- Force the United States to deploy additional forces to Central and West Africa to
 ensure access to oil supplies, further stretching military resources and relieving
 pressure on mujahideen in Afghanistan and Iraq.
- Destabilize the governments of Central and West Africa to facilitate conditions favorable to an expansion of the global Salafist insurgency.

C. Attack Execution Timeline

1. Concept of Operations

Universal Adversary elements are planning to conduct a coordinated strike using WMD on Boston, Massachusetts; New York, New York; and London, United Kingdom. Their concept of operations includes the following:

2. Premission activities

- Infiltrate command and control elements and CW/BW agents into the United States and the United Kingdom.
- Establish safe houses/laboratories in the United States and the United Kingdom.
 The Boston attack will be staged from Connecticut, and the New York City attack
 will be staged from New Jersey.
- Produce and weaponize CW/BW agents.
- Construct vehicle-borne IEDs (VBIEDs).
- Organize support within Mutaki'oun (U.S.) and Nasamaah-At (UK).
- Conduct reconnaissance and surveillance of possible targets.

- Select targets.
- Conduct mission rehearsals.

3. Mission execution

- April 2, 2005: Under the operational control of FSLTE, Mutaki'oun operatives conduct a BW attack against New York City.
- July 4, 2005: FSLTE and Mutaki'oun operatives conduct combined VBIED/CW attacks against Boston.
- July 4, 2005: FSLTE and Nasamaah-At conduct multiple CW and IED attacks against London.

4. Post-mission activities

- FSLTE (U.S.) command and control element exfiltrates through Canada to Algeria.
- Mutaki'oun and Nasamaah-At operatives go underground in the United States and the United Kingdom.

D-400 TO D+7

D-400 (February 29, 2004)

Tribal Areas, Pakistan

El-Zahir releases a statement via their propaganda channels (including the magazine Al Battar) that receive wide distribution in North Africa and Western Europe. The statement discusses the need to bring jihad to the door of coalition members of the U.S.-led Global War on Terrorism as retribution for their continued abuses against Islam.

D-380 (March 20, 2004)

Mauritania, Africa

FSLTE command conducts initial attack planning with Faisal Diya Amid "Al Hakam" (FSLTE Chief of Operations) present. Faced with increased counterterrorism activity in Algeria, the command group meets in Mauritania.

D-375 (March 25, 2004)

Mauritania, Africa

FSLTE uses el-Zahir communications channels to request operational support. Khatib 'Adli (the el-Zahir Operations Coordinator) returns a secure message to FSLTE to meet for further discussion. In anticipation of receiving support from el-Zahir to procure chemical and biological agents, Al Hakam uses secure internal group communications to activate Ismail Husam al Din (FSLTE Chemical Weapons Expert) and Fatima Barakah (FSLTE Biological Weapons Expert).

D-370 (March 30, 2004)

Johannesburg, South Africa

Khatib 'Adli and Al Hakam discuss operational details and how el-Zahir could support the FSLTE-initiated attacks. El-Zahir agrees to facilitate access to biological and chemical agents.

D-362 (April 7, 2004)

Algiers, Algeria

FSLTE releases a statement via their new globally distributed Internet publication. The statement discusses the need to bring jihad to the doorsteps of the coalition members as retribution for their continued abuses against Muslims.

D-355 (April 14, 2004)

Mauritania, Africa (Wahhabi Madrassa)

FSLTE decides to activate U.S.- and UK-based support cells to conduct local target surveys. An FSLTE messenger begins travel to Frankfurt to deliver an activation message to a French-based FSLTE operative, who is to deliver the message to Bilal Id Habib (FSLTE Tactical Leader, United Kingdom) in London. Using an encrypted message, each cell is given a timeline of operations and details for secure communications channels to be used for this operation.

D-350 (April 19, 2004)

Boston, Massachusetts

The FSLTE cell in the United States is activated via human courier by Al Hakam, who will also serve as the U.S. FSLTE Tactical Leader.

Frankfurt International Airport, Germany

The FSLTE UK cell is activated.

Karachi, Pakistan

Fatima Barakah receives *Yersinia pestis* (*Y. pestis*) seed stock from Europe and South America via airmail and begins production.

D-340 (April 29, 2004)

Boston, Massachusetts and New York, New York

Al Hakam activates Mutaki'oun support cells located in Boston and New York City. Al Hakam has established a relationship with radical imams who preach at closed study groups in New Jersey and Connecticut. Al Hakam asks Ismail Al Muhaat (a local imam) to deliver a message to Ali Waddab Bishr (Mutaki'oun Communications, New Jersey). Al Hakam also asks Hanouf Khan (a local imam) to deliver a similar message to Aqil Azhar Kutaiba (Mutaki'oun Security, Connecticut). Mutaki'oun support cells are given limited information apart from the type of support that is needed (e.g., to rent a house, obtain specific supplies, etc.).

Al Hakam also directly activates the New York City operational cell of Mutaki'oun through his personal ties to Zafir Hamal (Mutaki'oun Tactical Leader, New Jersey). The

operational cell is given a targeting package but no dates. Dates will be provided to Mutaki'oun closer to D-Day.

London, United Kingdom

Bilal Id Habib activates Nasamaah-At through an established operational relationship with Basir Imad Rahman (Nasamaah-At Tactical Cell Bravo Leader). The Nasamaah-At operational cell is given an attack timeline and access to an FSLTE secure communications channel. The communications channel will ensure that Rahman's cell has access to all required support necessary to fulfill its mission objectives.

Habib further activates "Tactical Cell Alpha" and the UK Nasamaah-At support cell through Fawzi (FSLTE Spiritual Guide and Commander). Fawzi is given a secure message that he delivers to Alima Durrah Hafa (Nasamaah-At Communications) and Marid Fouad Bakri (Nasamaah-At Tactical Cell Alpha Leader).

D-310 (May 29, 2004)

Boston, Massachusetts

Falih al Hakam Hadi (FSLTE Intelligence and Security, Connecticut) conducts target reconnaissance and surveillance and relays target intelligence to the cell commander, Al Hakam. Hadi also coordinates remote targeting for New York City and builds a targeting package that is to be forwarded to Zafir Hamal by Al Hakam.

New York, New York

Al Hakam forwards the targeting package to Zafir Hamal by posting it to a covert website. After receiving the targeting package, Hamal is ordered to conduct more detailed reconnaissance and surveillance in New York City and choose the most vulnerable symbolic targets. The final list is to be reposted on the covert website for Al Hakam to retrieve.

London, United Kingdom

Marid Fouad Bakri and Basir Imar Rahman conduct target reconnaissance and surveillance and attack planning.

D-280 (June 28, 2004)

Karachi, Pakistan

Fatima Barakah completes production of the *Y. pestis* and departs Karachi for Beirut, Lebanon, where she undergoes plastic surgery to alter her appearance.

D-275 (July 3, 2004)

Algiers, Algeria

Ismail Husam al Din begins the first phase of sulfur mustard (HD) precursor production with chemicals acquired through the el-Zahir network.

D-225 (August 22, 2004)

Algiers, Algeria

Ismail Husam al Din ships HD precursor chemicals to London via Rotterdam for a second phase of processing and prepares to travel to the United Kingdom to oversee final production.

D-212 (September 4, 2004)

Beirut, Lebanon

After successful plastic surgery, Fatima Barakah departs Beirut for New York's Kennedy Airport, via Madrid, Spain, using commercial air.

D-210 (September 6, 2004)

New York, New York

Fatima Barakah arrives at John F. Kennedy International Airport, where she is met by Shihad bin Zaki (Mutaki'oun Security, New Jersey). Barakah is escorted to a safe house south of Iselin, New Jersey.

D-207 (September 9, 2004)

Newark, New Jersey

An FSLTE messenger arrives at the international airport in Newark, New Jersey from Karachi, Pakistan via Madrid, Spain, where he is met by Shihad bin Zaki. The messenger delivers 50 percent of the *Y. pestis* seed stock concealed in the battery compartment of a cellular telephone.

D-200 (September 16, 2004)

London, United Kingdom

Bilal Id Habib relocates to the safe house to oversee equipment procurement and receipt of transshipment of the HD precursor and to prepare for the arrival of Ismail Husam al Din from Algiers.

Middlesex County, New Jersey

Yasir Raja Abdul (Mutaki'oun Logistics, New Jersey) and Fatima Barakah coordinate acquisition of her lab equipment needs.

D-195 (September 21, 2004)

London, United Kingdom

Al Hakam arrives at the FSLTE safe house from Algiers to oversee operational preparations.

D-190 (September 26, 2004)

London, United Kingdom

Ismail Husam al Din arrives at the FSLTE safe house to conduct the second phase of HD production.

D-182 (October 4, 2004)

Newark, New Jersey

An FSLTE messenger arrives at the international airport in Newark, New Jersey from Karachi, Pakistan via Athens, Greece, where he is met by Shihad bin Zaki. The messenger delivers the remaining 50 percent of the *Y. pestis* seed stock concealed in the battery compartment of a second cellular telephone.

D-181 (October 5, 2004)

Middlesex County, New Jersey

Fatima Barakah begins full-scale production of the Y. pestis agent.

D-180 (October 6, 2004)

Newark, New Jersey

Al Hakam arrives in the United States from London to oversee final production of *Y. pestis*, synthesis of HD, and other operational preparations.

D-172 (October 14, 2004)

New London, Connecticut

Al Hakam tasks two FSLTE cell members who are licensed pilots (Jamil Abu al Khayr [FSLTE Communications, Connecticut] and Falih al Hakam Hadi) to develop air routes over populated areas in Boston for aerial dispersal of the HD agent.

D-121 (December 4, 2004)

New London, Connecticut

Rafi' Dhak-wan Aziz (Mutaki'oun Finance and Logistics, Connecticut) procures the agent dispersal equipment.

Middlesex County, New Jersey

Yasir Raja Abdul orders agricultural sprayers.

D-60 (February 3, 2005)

London, United Kingdom

Ismail Husam al Din begins sending the HD precursor material (TDG) to New Haven, Connecticut in four separate shipments.

D-49 (February 14, 2005)

Middlesex County, New Jersey

Yasir Raja Abdul purchases three used sport utility vehicles (SUVs) from private citizens, with cash, at three different northern New Jersey locations for use in the attacks on New York City. They are stored in a warehouse until the agent is ready.

D-45 (February 18, 2005)

London, United Kingdom

Ismail Husam al Din completes weaponization of HD for use on UK targets and boards an aircraft for Hartford, Connecticut via New York, New York.

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D-30 (March 5, 2005)

New London, Connecticut

The first shipment of TDG arrives in the United States from the United Kingdom. It is retrieved by Aqil Azhar Kutaiba (Mutaki'oun Security, Connecticut) and transported to a safe house.

Union and Middlesex Counties, New Jersey

Mutaki'oun operatives begin rehearsing driving routes from New Jersey to New York City in their personal vehicles.

D-20 (March 15, 2005)

New London, Connecticut

Jamil Abu al Khayr and Falih al Hakam Hadi begin rehearsing a flight plan in their timeshare twin-engine Beechcraft Baron (model B-58) over Boston, Massachusetts.

D-13 (March 22, 2005)

Middlesex County, New Jersey

Fatima Barakah completes production of Y. pestis, and weaponization begins.

D-6 (March 29, 2005)

New London, Connecticut

Ismail Husam al Din completes aerial dissemination device.

D-4 (March 31, 2005)

New Haven, Connecticut

0900

Law enforcement and intelligence agencies identify the ship carrying the second shipment of TDG 1,200 nautical miles from the U.S. coast. The subject vessel is identified as Liberian-registered with a foreign crew.

D-3 (April 1, 2005)

Newark, New Jersey

0800

Fatima Barakah boards a commercial flight to Miami, Florida. Her plan is to leave Miami for Brazil on a connecting flight.

Middlesex County, New Jersey

2300

Mutaki'oun operatives load the Y. pestis agent into the sprayers and prepare for deployment as planned.

D-2 (April 2, 2005)

Union and Middlesex Counties, New Jersey 0200

Zafir Hamal, Fatih Yaman Ihsan, and Jibran Al Mash'al drive three SUVs outfitted with biological weapon (BW) dissemination devices toward New York City to execute their mission. As the vehicles are making their way toward the city, a confrontation with an off-duty police officer at a New Jersey Turnpike rest stop, followed by a call to authorities, causes one of the drivers to panic. He believes that the mission is compromised and communicates this to the other drivers while fleeing the scene of the incident. The operatives make the decision to avoid New York City and disseminate as much agent as possible in New Jersey on the Garden State Parkway, US 1/9, and NJ-18/New Jersey Turnpike.

By pure coincidence, April 1 was the final day of an international financial services industry conference held at the Sheraton at Woodbridge Place Hotel in Iselin, New Jersey. Many delegates from the United Kingdom and Canada remained overnight.

Union and Middlesex Counties, New Jersey 0600

The New Jersey tactical team abandons their vehicles. Using a one-use emergency mobile phone provided to him, Zafir Hamal quickly communicates the belief that their mission was compromised to Al Hakam. Hamal describes their hasty actions to avoid capture, and Al Hakam makes the decision to accelerate the Connecticut cell's attack timeline due to the potential for immediate police involvement. He believes that the compromised New Jersey operation will lead the police to the Connecticut cell prior to their planned July attack on Boston, Massachusetts.

New London, Connecticut 0800

Al Hakam requests that the UK-based Nasaamah-At accelerate their timeline as well.

Newark, New Jersey 0900

Fifteen UK nationals who attended the financial industry trade conference at the Woodbridge site board an airplane for Gatwick International Airport. Approximately half of them have been infected, but they are still asymptomatic.

New London, Connecticut 1200

Al Hakam and his accomplices devise their hasty attack plan. After discussions with Ismail Husam al Din, it has been decided that they are incapable of mounting any attack using HD for at least two days. They are not prepared to mount an attack on Boston due to a lack of scheduled public gatherings in the immediate timeframe and incomplete reconnaissance and surveillance. Additionally, they only have one VBIED that is close to completion, and the *Y. pestis* incubation period will likely result in casualties beginning April 4. There is a local festival occurring at the New London City Pier on April 4 that

will present an opportunity for them to use their HD on as many as 10,000 people. Al Hakam makes the decision to attack this festival. The single completed VBIED will be used in conjunction with the aerial contamination to maximize casualties.

Bayonne, New Jersey

1300

A cruise ship departs for St. John, New Brunswick, Canada with six infected, but still asymptomatic, victims on board. The victims were attendees at the financial industry convention at the Sheraton Woodbridge in Iselin, New Jersey. Four are Canadian citizens, and two are UK citizens.

D-1 (April 3, 2005)

New Brunswick, New Jersey 0930

The first victim of the biological attack, a 14-month-old girl, is admitted to Robert Wood Johnson University Hospital.

STARTEX

D-Day (April 4, 2005)

London, United Kingdom

0200 (0700 GMT)

The infected UK attendees of the financial conference in New Jersey go to work at their respective firms as usual.

Union and Middlesex Counties, New Jersey 0800

Three victims are admitted to Union, Trinitas, and Raritan Bay Hospitals. The victim admitted to Union Hospital arrives by Emergency Medical Services and is coughing up blood.

Union County, New Jersey

0900

One of the abandoned SUVs is discovered by local security in a parking lot at Kean University and is reported to police. The agricultural sprayer is still in the SUV. The police quickly determine that this vehicle is the same one involved in the incident on April 2 and send investigators to the scene.

St. John, New Brunswick, Canada

1000

The cruise liner arrives from Bayonne, New Jersey. Four of the six infected passengers, who are now becoming symptomatic, disembark.

New London, Connecticut

1100

Preparations are complete, and Al Hakam orders the operation to be executed immediately. Al Hakam, Ismail Husam al Din, and Jamil Abu Al Khayr bring their weapon to the Groton-New London airport, install it in their aircraft, and take off en route to the target.

New London, Connecticut

1120

As the aircraft approaches New London City Pier, the aircraft disperses its entire HD payload over the area, contaminating the west bank of the Thames River and the downtown riverfront area. Approximately 8,000 people are contaminated with HD. This is a covert release, and people begin departing the area approximately 10 minutes later without knowing that they have been contaminated.

Upon completion of the attack, the plane turns north toward Canada. The operatives' plan is to land the aircraft at a remote airfield in Deblois, Maine, and make their way on land to Canada via the border at Calais, Maine – St. Stephen, New Brunswick.

New London, Connecticut

1300

Victims of the HD attack are becoming symptomatic and are seeking medical attention at the first aid tent on the pier.

Deblois, Maine

1310

As planned, the aircraft carrying Al Hakam, Ismail Husam al Din, and Jamil Abu al Khayr lands at a remote airstrip. The operatives abandon the aircraft and head for the border at Calais, Maine – St. Stephen, New Brunswick with a Canadian accomplice who has crossed into the United States to provide them with transportation to Canada.

New London, Connecticut

1320

As victims of the HD attack begin to form a crowd at the first aid tent on the pier, Falih Al Hakam Hadi detonates his VBIED, martyring himself and destroying the first aid tent at the festival. The VBIED contains the remaining HD that was not used in the aerial attack. The VBIED attack causes the collapse of several structures and results in approximately 200 casualties.

New London, Connecticut

1415

HAZMAT field screening indicates presumptive identification of HD agent.

New London, Connecticut

1430

911 calls begin coming in from around the greater New London area reporting symptoms of HD contamination.

Calais, Maine

1450

Al Hakam, Ismail Husam al Din, Jamil Abu Al Khayr, and their Canadian accomplice cross the Canadian border.

St. Stephen, New Brunswick

1500

The Canadian driver is detained by Canadian authorities, and Al Hakam, Ismail Husam al Din, and Jamil Abu Al Khayr flee the scene in the vehicle.

St. John, New Brunswick, Canada

1600

The cruise liner continues to Halifax with two of the six original victims.

Union County, New Jersey

2000

A presumptive diagnosis of *Y. pestis* is established based on patient epidemiology, laboratory results, and a swab taken from the abandoned SUV at Kean University. This information is communicated to the United Kingdom and Canada via the World Health Authority.

St. John, New Brunswick, Canada 2230

The first victim of the New Jersey biological attack who went ashore in St. John is admitted to a local hospital.

D+1 (April 5, 2005)

New London, Connecticut

0645

Dozens of trucks loaded with food, blankets, medical supplies, and so forth arrive at the blast site, escorted by hundreds of volunteers who want to help. People are milling around the site, and the investigators and first responders are having difficulties containing the eager volunteers and the supplies that they are bringing. People who have already shown up say that many more volunteers and supply trucks are on their way.

Middlesex County, New Jersey

1400

Investigation of the SUV leads to the discovery of the location of the biological weapons production facility used by FSLTE and the Mutaki'oun.

Halifax, Nova Scotia, Canada

1415

The second, third, and fourth cruise ship passengers who are victims of the biological attack in New Jersey present at St. John Hospital.

Middlesex County, New Jersey

1500

Investigation of the SUV leads to the discovery of the location of the Mutaki'oun safe house.

Halifax, Nova Scotia, Canada

1500

The cruise ship arrives in the Halifax area. No victims disembark.

Newark, New Jersey

1800

A second SUV is discovered abandoned on Avenue "C" near the airport.

New London, Connecticut

2300

Law enforcement and intelligence agencies identify the ship carrying the third shipment of TDG in U.S. waters. The subject vessel is identified as Liberian-registered with a foreign crew.

D+2 (April 6, 2005)

New London, Connecticut

0900

An investigation leads to the discovery of the chemical staging facility used by FSLTE and the Mutaki'oun. Evidence discovered in this facility confirms connections to the United Kingdom and suggests an imminent threat there.

London, United Kingdom

1200

The discovery of a VBIED similar in design to the one detonated by the FSLTE in New London, Connecticut, marks the beginning of a series of terrorist attacks in London targeted against the transportation infrastructure.

Deblois, Maine

1800

The abandoned aircraft used in the Connecticut attack is discovered.

D+3 (April 7, 2005)

London, United Kingdom

TBD

An investigation leads to the discovery of the chemical weapons production facility, which contains some of the precursor chemicals previously shipped to the United States.

London, United Kingdom

1200

Chemical devices are activated on mainline trains arriving at Waterloo International Rail Terminal, the station concourse, and the adjacent Underground station. Casualties include U.S. citizens.

D+4 (April 8, 2005)

Yarmouth, Nova Scotia, Canada

1000

The fourth and final shipment of TDG is identified on a vessel currently located in the Atlantic en route from London, United Kingdom to Yarmouth, Nova Scotia.

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Part 4: Analysis of Mission Outcomes

In an exercise as large in scope and depth as T3, the opportunities for analysis are significant. Based on post-exercise meetings among participants, the T3 After-Action Conference (AAC), and observations by subject matter experts during the exercise, 10 elements of the operation were selected for in-depth analysis. The topics discussed in this report include the following:

Broad Mission Outcomes	 The Homeland Security Advisory System (HSAS) Joint Field Office (JFO) Operations Resource Requesting and Resource Coordination Information Sharing 		
Critical Tasks	 Stafford Act Declarations Emergency Public Information Integrating Responses to Incidents of National Significance (INSs): Public Health Emergency and the Stafford Act 		
	 The Strategic National Stockpile (SNS) and Points of Dispensing (PODs) 		
	 Agent Confirmation and Hazard Area Definition 		
	• Emergency Response Operations under a Unified Command (UC)		

The selection of these 10 topics in no way suggests that other issues were not worthy of analysis. Rather, these issues involve sequences of events that attracted great interest; new or developing organizations and procedures; and elements of the exercise that seemed problematic or well-played. Nothing should be presumed about a topic or issue that was not selected for analysis.

This section of the report provides an analysis of the four issues identified as Broad Mission Outcomes and addresses how well the participating agencies/jurisdictions dealt with these significant issues. Mission outcomes are those broad areas of service or functions that the public expects from its officials and agencies. As defined in the Office for Domestic Preparedness' Homeland Security Exercise and Evaluation Program (HSEEP) – Volume II: Exercise Evaluation and Improvement, the mission outcomes include: prevention/deterrence, emergency assessment, emergency management, hazard mitigation, public protection, victim care, investigation/apprehension, and recovery/remediation. Analysis of the more specific issues, identified as Critical Tasks, and the activities and processes that contributed to their results are found in Part 5.

I. The Homeland Security Advisory System (HSAS), State Threat Conditions, and Associated Protective Measures

A. Introduction

President George W. Bush signed Homeland Security Presidential Directive (HSPD)-3, which created the HSAS to improve coordination and communication in the event of a threat of terrorist attacks. The HSAS is meant to "disseminate information regarding the risk of terrorist acts to Federal, State, and local (FSL) authorities and to the American people.¹" The HSAS has two stated purposes: first, it informs Federal, State, and local governments and the public of the perceived credibility and imminence of threats; second, it directs a systematic, coordinated governmental response to such threats to "reduce

vulnerability or increase response capability."

The system uses colors (from Green to Red) to define threat conditions from low to severe. Since its creation on March 11, 2002, the HSAS threat condition has been increased from Yellow (Elevated) to Orange (High) seven times, most recently in July 2005. The threat condition has never been lower than Yellow or higher than Orange. The first full-scale test of an elevation to Red (notional) occurred in the T2 FSE (May 2003). To date, the HSAS has only been elevated to Red during exercises. All such elevations to Red have been in response to attacks rather than being based on preattack threats.

Implementation of the HSAS, and specifically the Red threat condition, has been closely examined in three previous exercises—the T2 FSE, T3 CPX, and Senior Officials Exercise (SOE) 04-4, *Crimson Dawn*. The T3 FSE demonstrated that previously identified issues still persist and underscored some questions regarding the protective value of HSPD-3 as currently implemented through the HSAS. The core issue demonstrated in the exercises that have

SUMMARY OF CONCLUSIONS: HOMELAND SECURITY ADVISORY SYSTEM

- Real-world and exercise elevations of the HSAS to Orange and Red indicate that implementation of the HSAS was not systematic.
- There did not appear to be a formal mechanism for coordinating, reporting, and tracking HSAS and State threat level changes and implementation of associated Federal, State, local, and private sector protective measures.
- The absence of a mechanism for coordinating the implementation of protective measures contributed to an uncoordinated response.
- Unintended consequences of implementing HSAS Red protective measures were not well understood.
- Officials in the T3 FSE used the HSAS and State threat conditions more as a means of facilitating emergency response operations than as a threat advisory system.
- Inconsistent messages and little specific public guidance limited the value of the HSAS as a warning/advisory system.

¹ President George Bush, Homeland Security Presidential Directive-3, March 11, 2002.

² September 10–24, 2003; February 7–27, 2003; March 17–April 16, 2003; May 20–30, 2003; December 21, 2003–January 9, 2004; August 1–November 10, 2004 (Banking/Financial sector only for NY, NJ, and Washington, DC); July 7, 2005–present (mass transit only).

examined the HSAS—most recently the T3 FSE—is that the HSAS is still not used in a systematic manner and therefore is not effectively achieving the objectives detailed in HSPD-3.

B. Background

The HSAS is "intended to create a common vocabulary, context, and structure for an ongoing national discussion about the nature of the threats that confront the homeland and the appropriate measures that should be taken in response." Whereas the HSAS defines the general threat conditions across a risk spectrum, HSPD-3 directs Federal agencies and departments to develop and implement protective measures appropriate to each threat condition.

The general HSAS guidelines for protective measures that Federal departments and agencies should consider under condition Orange, or "High Risk of Terrorist Attacks," include the following:

- coordinate necessary security efforts with Federal, State, and local law enforcement agencies or any National Guard or other appropriate armed forces organizations;
- take additional precautions at public events and consider alternative venues or cancellation if necessary;
- prepare to execute contingency procedures, such as moving to an alternate site or dispersing their workforce; and
- restrict threatened facility access to essential personnel only.

The general HSAS guidelines for protective measures that Federal agencies should consider under condition Red, or "Severe Risk of Terrorist Attacks" include the following:



- increase or redirect personnel to address critical emergency needs;
- assign emergency response personnel and preposition and mobilize specially trained teams or resources;
- monitor, redirect, or constrain transportation systems; and
- close public and government facilities.

The HSAS is only binding for the executive branch of the Federal government. HSPD-3 does, however, encourage governors, mayors, and other leaders to review their organizations and assign protective measures to the threat conditions in a manner consistent with that of the Federal government. Some State and local governments have adopted threat advisory systems based on the HSAS, with specific security measures to be implemented under each of the color codes. Both Connecticut and New Jersey have a threat alert system that is coordinated with the

HSAS.^{3,4} State and local governments can raise their threat conditions independent of the Federal government.

C. Reconstruction

The T3 FSE did not have scripted elevations of the HSAS or State threat conditions. The exercise began with the HSAS and participating State (New Jersey and Connecticut) advisory systems at Yellow (elevated). At 12:14 on Monday, April 4, 2005, the New Jersey governor, in consultation with the Department of Homeland Security (DHS) Secretary, raised the New Jersey State threat condition to Orange following a presumptive diagnosis of pneumonic plague and the discovery of a suspected *Yersinia pestis* dispersal mechanism. Later that day the governor enacted travel restrictions in Middlesex and Union counties, the suspected origins of the attacks.

At 14:12 the Connecticut governor, in consultation with the DHS Secretary, raised the Connecticut State threat condition to Orange in response to the vehicle-borne improvised explosive device (VBIED) and chemical mustard attacks in New London. At 17:00, the DHS Secretary announced the elevation of the HSAS to Orange nationwide and to Red in Middlesex and Union Counties, New Jersey.

At 14:05 on April 5, 2005, the New Jersey governor announced that he was raising the New Jersey State threat condition to Red for the entire State. He issued an order restricting travel to "persons seeking essential medical care, residents traveling to prophylaxis Points of Dispensing (PODs), and essential public and private sector personnel and those people returning home," in part to facilitate movement of emergency responders. The order and accompanying press release stated:

Essential personnel for the purposes of this emergency shall include, but not be limited to the following: State employees bearing State identification designating them as essential employees for the purpose of traveling during this emergency, New Jersey Transit employees, utility contractors, hospital and nursing home personnel, and others providing emergency services or support to those adversely affected by this emergency.

On the evening of April 5, the DHS Secretary raised the HSAS to Red for the State of New Jersey. He considered raising the HSAS to Red for the State of Connecticut as well, but the Connecticut governor convinced him that it might only hinder response efforts.

Over the next two days (April 6 and 7), DHS, IIMG, and New Jersey officials discussed removing the travel restrictions and lowering the HSAS and the State threat conditions for New Jersey. The New Jersey State Emergency Operations Center (EOC) announced that the travel

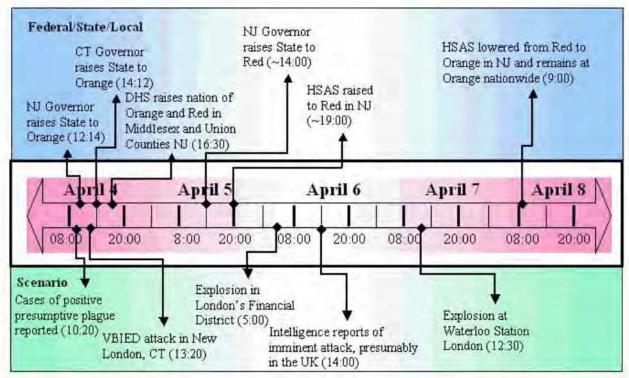
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³ New Jersey website http://www.njhomelandsecurity.com/.

⁴Connecticut website http://www.ct.gov/hls/cwp/view.asp?a=1030&q=255220#Yellow

restrictions were lifted at 10:30 on April 6. However, many Federal agencies remained unclear for several hours about whether the restrictions were still in effect. Late on April 7, DHS and the State of New Jersey began coordinating a joint press release announcing reduction of the State threat condition and the HSAS from Red to Orange. This press release was issued on April 8. When the T3 FSE concluded midday on April 8, both Connecticut and New Jersey were at State and Federal HSAS levels Orange. The remainder of the country also stayed at Orange. Figure I-1 shows the HSAS threat condition timeline.

Figure I-1. HSAS Threat Condition Timeline



D. Analysis

HSPD-3 states that the HSAS was created to serve two primary purposes. First, it is intended to inform Federal, State, and local governments and the public of the perceived credibility and imminence of threats. Second, it is intended to direct a systematic, coordinated governmental response to such threats to "reduce vulnerability or increase response capability." For example, HSPD-3 states that Federal departments/agencies should consider "monitoring, redirecting, or constraining transportation systems" under a Red threat condition (which could reduce vulnerability) and consider "prepositioning and mobilizing specially trained teams or resources" (which would increase response capability).

Although implementation of the HSAS has evolved and become more nuanced, it does not necessarily serve either of these purposes effectively, as evidenced by the issues observed in the

T3 FSE. Further, these purposes could be in conflict at times, as was observed in SOE 04-4, *Crimson Dawn*, as well as during the T3 FSE. In the nearly three years since it was created, FSL government agencies and the public have become accustomed to the system, but implementation of the HSAS and associated protective measures is still not systematic. Issues/observations from the T3 FSE are discussed below.

1. Lack of Systematic Implementation of the HSAS

An examination of the conditions under which, and how, the Orange and Red HSAS threat conditions have been used in real-world and exercise elevations reveals that although some patterns in its usage are emerging, its implementation is still not systematic. This may contribute to varying perceptions and interpretations of the threat levels.

DHS has varied in its approach to the HSAS Red threat condition in response to mock chemical/radiological attacks. In the T2 FSE, the first FSE after the creation of the HSAS, the DHS Secretary notionally elevated it to Red for the city of Seattle in response to the radiological dispersal device (RDD) blast. In the T3 CPX, DHS elevated the HSAS to Red for the States that were affected by chemical attacks. During the T3 FSE, the Secretary proposed elevating the State of Connecticut to Red in response to the notional VBIED blasts and chemical attacks; however, he did not do so in deference to the governor's request.

There has been more commonality in usage of the HSAS in response to biological attacks. In the T2 FSE, the level was elevated to Red for the city of Chicago in response to the mock biological attack, along with six other high-risk (based on the mock intelligence) cities in the second day of the exercise, but no State was elevated to Red. On Day One of the T3 FSE, the Secretary of DHS elevated the HSAS to Red for the two counties most directly affected by the biological attack in New Jersey and extended it the next day to the entire State.

In the T2 FSE, the Secretary ultimately elevated the nation's threat level to Red for a period of two days to prevent additional terrorist attacks. In contrast to each of these past exercises, participants in the four SOEs that preceded the FSE—one of which (SOE 04-4, *Crimson Dawn*) was dedicated to examining the HSAS—indicated they would not recommend raising the HSAS to Red even after two coordinated terrorist attacks. One pattern across these exercises suggests that DHS would not likely elevate the HSAS to Red on a preattack basis.

Some of the inconsistencies in these exercises are due to changing leadership and relative newness of the system (despite growing real-world experience with Orange elevations, many recent ones have taken different, tailored forms and the exercise-oriented Red elevations have been experimental in nature). Even the former Deputy Secretary of DHS, Admiral James Loy observed in congressional testimony that the HSAS has evolved to the point where "today's Yellow is yesterday's Orange." As discussed later in this section, some of this may also be due to

⁵ SOE 04-4, 05-3 and 2

the fact that protective measures for the Red threat condition have not yet been fully defined and their implications are not fully understood.⁶

Interpretation of the very general HSAS guidelines has been evolving with experience. Further consideration regarding the purpose and desired implications (beyond symbolic) of the HSAS is needed. Policymakers should examine the growing body of data on officials' perceptions of the HSAS and how it is applied to inform any changes to HSPD-3.

2. Lack of Formal Mechanism for HSAS

Over the course of seven real-world elevations of the HSAS to Orange, DHS has enhanced its high-level protocols for coordinating changes to HSAS threat conditions with State and local governments. A March 2004 General Accounting Office (GAO) report highlighted the various means by which DHS communicates threat level changes to Federal, State, and local government and private sector leaders, including conference calls from the Secretary of DHS to governors, mayors, and CEOs; e-mails; and coordination through the Homeland Security Operations Center (HSOC) and DHS Office of State and Local Government Coordination and Preparedness (SLGCP).

In the T3 FSE, DHS coordinated directly with top officials from State and local governments on HSAS threat level changes. When DHS raised the HSAS threat condition to Orange, SLGCP contacted State homeland security advisors regarding the Federal HSAS change approximately 20 minutes prior to the change taking effect and approximately 40 minutes before the Secretary's press announcement. The elevation of the HSAS threat condition was widely disseminated within the Federal government and State EOCs prior to the announcement on VNN. When DHS raised the Federal HSAS threat condition to Red for the State of New Jersey, top officials coordinated with the New Jersey governor and the New Jersey State homeland security advisor. DHS and State top officials held conference calls to discuss lowering the HSAS and State threat conditions in New Jersey to Orange, and many agencies over several days reported discussing the changes and their potential effects. 8

Coordination of the threat condition changes at the highest levels of the State and Federal government did not always translate to smooth coordination and understanding at the staff levels. There appeared to be no uniform method or process for transmitting the decisions on the HSAS and State threat levels to State and Federal agencies (and the private sector). In the T3 FSE, this caused some organizations to be unaware that the HSAS had changed, uncertain as to whether associated State threat conditions had also changed, and/or uncertain as to the status of either

⁶ See also SOE 04-4 After-Action Report.

⁷ U.S. General Accounting Office, Risk Communication Principles May Assist in Refinement of the Homeland Security Advisory System, (Washington, D.C.: Mar 16, 2005), http://www.gao.gov/new.items/d04538t.pdf.

⁸ Data did not provide insight into specific effects of threat level changes that agencies discussed.

threat condition. For example, different agencies in New Jersey reported different threat conditions at the same time or incorrectly reported that the entire State had been elevated to Red, though it was only Middlesex and Union Counties. T3 FSE data have similar examples of incorrect notification or reporting of threat conditions among Federal agencies, between Federal and State agencies, and within States among State agencies.

Some of the misunderstandings may have been due to the similarities between State systems and the HSAS. The participating States in the T3 FSE use terminology similar to the HSAS: Connecticut's system is referred to as the "Homeland Security Threat Level," and New Jersey's language and color-coded levels are identical to the HSAS. This further underscores the importance of formal notifications that clearly identify which threat condition (HSAS, State, or local) is being elevated and by whom. Formal notification is especially important with the more tailored elevations of the HSAS threat condition to a specific region or sector. Also, without a formal notification process, it can be difficult to distinguish between authoritative decisions and unconfirmed advance notices, further contributing to misunderstandings.

Misunderstandings on the status of HSAS and State threat conditions due to the absence of formal notification procedures were observed in the T2 FSE (May 2003) and the T3 CPX (May 2004). In a February 2004 GAO report that examined real-world elevations to Orange, it was noted that DHS had not formally documented notification protocols for alerting FSL government departments/agencies of changes to HSAS threat levels⁹. Although notification protocols have

improved considerably over the past two years, more detailed notification protocols at FSL levels regarding the status and implications of the various threat advisories could be helpful.

The T3 FSE data suggest that the protective measures that were implemented (notionally) under the HSAS and State threat conditions of Red were not uniformly tracked. Some Federal agencies generally reported implementing protective measures at HSAS threat conditions of Orange and Red, but most did not provide a list of specific

"The cornerstone of the HSAS is the protective measures that are implemented at each Threat Condition."

Testimony of DHS Deputy Secretary James Loy, ADM, USCG (RET), Before the House Select Committee on Homeland Security, "The HSAS: Improving Preparedness through Effective Warning," February 4, 2004

protective measures. The Interagency Incident Management Group (IIMG) reviewed candidate Federal protective measures in their deliberations related to the HSAS, but the data do not identify which were implemented, with the exception of the transportation sector.

The DHS Protective Security Division developed a set of recommended protective measures for the private sector¹⁰ and passed them to the IIMG. But no listing could be found as to which, if

⁹ U.S. General Accounting Office, *Homeland Security Advisory System: Preliminary Observations Regarding Threat Level Increases from Yellow to Orange*, GAO-04-453R (Washington, D.C.: Feb. 26, 2004).

¹⁰ For critical infrastructure for specific sectors (e.g., energy).

any, were implemented in elevations of the HSAS threat condition. Also, there was no evidence from the data collected at the National Infrastructure Coordinating Center (NICC) that the private sector participants received these recommended protective measures prior to or during the FSE. Although there were instances of collaboration on individual protective measures (such as travel restrictions), there did not appear to be an overarching mechanism for coordinating implementation of FSL and private sector measures.

The transportation sector provided the most comprehensive record of which protective measures were implemented. For example, the Federal Aviation Administration (FAA) implemented Temporary Flight Restrictions (TFRs) for the airports in the incident regions. The U.S. Coast Guard (USCG) elevated their Maritime Security (MARSEC)¹¹ levels in the affected areas consistent with HSAS elevations. The State of New Jersey also provided data on its highway/roadway travel restrictions.

At the local level, Union County, NJ¹² initiated the following protective measures in response to the elevation of the HSAS and State threat conditions to Red:

- closed all schools;
- closed all government offices;
- announced that only essential personnel needed to respond to threat;
- cancelled all major events;
- closed businesses (except for grocery stores);
- initiated Buffer Zone Protection Plans;
- maintained contact with hospital and health officials; and
- initiated travel restrictions.

But even those protective measures that were widely communicated were often incorrectly reported or misunderstood due to the absence of a formal mechanism for coordinating and tracking implementation. For example, the USCG implemented MARSEC II¹³ in Boston, New York/New Jersey, Trenton, and Philadelphia, and MARSEC III in Bridgeport, New London,

protective measures that are expected to be sustained for substantial periods of time and aligns with Orange. MARSEC III aligns with Red with even more protective measures; however, these protective measures, and therefore MARSEC III, are not intended to be sustained for substantial periods.

http://www.uscg.mil/d17/msojuneau/facsec/facility_security_requirements.htm. There are three MARSEC levels that are aligned with the HSAS threat condition color codes. MARSEC I aligns with HSAS Green, Blue, and Yellow with normal security measures to minimize vulnerability to incidents. MARSEC II has additional

¹² Similar measures were reported for Middlesex County. However, the reports of those measures associated them with a state of emergency instead of an elevation in the threat condition.

¹³ Under MARSEC II, access to port facilities is controlled and 25 percent of pedestrians, baggage, and personnel effects are screened. MARSEC III includes the protective measures under MARSEC II, 50 percent of vehicles are screened, and 100 percent of large vehicles are screened. MARSEC III does not mean automatic closure of the port, but can include port closure.

New Haven, and Long Island Sound in Connecticut. ¹⁴ Some agencies erroneously reported the "ports" of New York and New Jersey as closed when they were not. ¹⁵

Similar misunderstandings occurred with airports. The Department of Transportation (USDOT) reported the airports in New York and New Jersey as open and operating throughout the exercise. It asked air carriers to voluntarily cancel flights into affected airports, and many international flights were redirected to other airports primarily in Philadelphia, Boston, and Baltimore. Yet, many FSL agencies were confused regarding the status of the airports and repeatedly asked if the airports were closed, or mistakenly reported them as closed.

3. Lack of Formal Coordination Mechanism

In the T3 FSE, there did not appear to be a formal mechanism for coordinating and tracking the implementation of FSL and private sector protective measures. This may have contributed to the inconsistent application of some measures in the T3 FSE. For example, when New Jersey elevated the State threat level to Red, highway travel in and around the State was restricted to essential emergency personnel and supplies to facilitate response and prevent the spread of plague. However, even after DHS elevated the HSAS threat level to Red for the State, the airports and ports in New Jersey remained open. This could have been problematic for a number of reasons. Under this arrangement, passengers and cargo were permitted to arrive in New Jersey by ship or plane, but not permitted to leave the airport or port facility. It could also have resulted in conflicting messages to the public.

In addition, little guidance was provided regarding what constituted "essential" in these cases. Some EOC personnel in New Jersey expressed concern that the restrictions might apply to their personnel, and that they would therefore be unable to report to the EOC. There is no evidence that instructions were provided to New Jersey State Troopers or local police on how to identify authorized travelers. Further, there is also no evidence that essential medical or other personnel outside the State of New Jersey were provided with instructions regarding the credentialing they would need to cross the State border and travel unimpeded while the travel restrictions were in effect.

The Lead Sector Coordinator for the Healthcare Sector in the DHS Infrastructure Coordination Division believed implementation of movement restrictions could apply to transport of food and water, which could have had an immediate and significant impact on healthcare operations in New Jersey by delaying deliveries. ¹⁶ Additionally, the restrictions on interstate road travel could

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¹⁴ Long Island Sound is located north of Long Island and south of Connecticut and Rhode Island. The entrances to the Port Authority of New York/New Jersey are south of Long Island.

¹⁵ No further details were provided.

¹⁶ Dale Brown Lead Sector Coordinator, Healthcare and Public Health Infrastructure Coordination Division, DHS, Impacts of the shift to RED on the Public Health and Healthcare Sector, memo written during T3 and posted on JFONET, Undated.

have caused severe traffic congestion along the entire East Coast as traffic was diverted around the State of New Jersey, a major passenger and freight thoroughfare. Without more comprehensive and coordinated implementation planning, these restrictions, which were intended to facilitate response efforts, could have severely hampered movement of necessities into the State.

4. Unintended Consequences of HSAS Red

The T3 FSE revealed differing views on whether an HSAS and/or State Red threat condition would help or hinder response. In the SOEs that preceded the T3 FSE, officials who were reluctant to elevate the HSAS to Red mentioned these concerns frequently. As mentioned earlier, the New Jersey governor believed an elevation of the HSAS and State threat conditions to Red would help response efforts, whereas the Connecticut governor was concerned that this threat condition would hinder response efforts. The DHS Lead Sector Coordinator for the Healthcare Sector (Infrastructure Coordination Division) was concerned that the increased security checks and patrols implemented under the elevation of the HSAS and State threat conditions to Red could hinder response. For example, healthcare facilities (such as in-patient care sites other than hospitals) are encouraged to escort contract personnel, increase security patrols, and place guards at entries under an HSAS Red threat condition. But these requirements could necessitate additional security personnel who are already overburdened by other response needs. The data from the T3 FSE did not indicate whether these security measures were even notionally implemented. However, even if they were implemented notionally, the personnel requirements of these security measures were not likely fully recognized. DHS and FAA staff expressed concern that the TFRs imposed over New London, CT, and New Jersey would hamper relief efforts, though the data did not provide insights into their specific concerns.

Discussions by officials at the IIMG expressed concern that extended periods of time with Red protective measures implemented could have negative economic and psychological impacts on the northeast region, and ultimately hamper response efforts. DHS officials worked with the State of New Jersey to reduce and eliminate travel restrictions that would negatively affect the response efforts. Later, the IIMG reviewed Federal Red protective measures and determined that it was not Federal measures that were hindering response activities. They determined that lowering the threat advisory to Orange, while maintaining certain Red protective measures, would not increase the vulnerability to attack.¹⁷

Because few of the HSAS Red protective measures that would be implemented were shared across FSL government agencies, and the private sector and implementation of all of the Red protective measures were notional, it is not possible to assess their full impact on the response efforts. But, the T3 FSE demonstrated that some protective measures intended to facilitate response could potentially hamper response and that more implementation planning and

¹⁷ The data did not provide insight into what specific Red protective measures the IIMG felt could be maintained to enhance security and which could be terminated.

coordination for any extreme protective measures—especially those related to passenger or freight transportation—would be critical to minimizing unintended (and unanticipated) consequences. The T3 FSE also demonstrated that a better understanding of the ripple effects of extreme protective measures is needed. SOE 04-4, *Crimson Dawn*, made similar recommendations to better understand the consequences of extreme protective measures.

5. HSAS Used as a Means to Facilitate Emergency Response Operations

There was a notable difference in the use of the HSAS and State homeland security advisory systems in the T3 FSE from previous exercises. This difference involved the conscious use of Red threat conditions by top officials to facilitate emergency response operations, both in terms of operational coordination and movement. Most of the discussions regarding elevating the HSAS and/or State threat conditions to Red—or downgrading to Orange from Red—focused primarily on these aspects and less on the threat of an imminent attack. This focus is not inconsistent with HSPD-3, which states that the purpose of the HSAS is "to reduce vulnerability or increase response capability." But, it is noteworthy because in other exercises and in real-world applications of the HSAS to date, the focus has been primarily on the threat alert and prevention aspects.

6. Inconsistent Messages and Little Specific Guidance

In the T3 FSE, the elevated HSAS and State threat conditions did not serve as a particularly informative warning or risk communication tool for the public. By elevating the threat conditions after the attacks (even to Orange), the use of the HSAS as a warning tool communicated little to the public that it didn't already know (that the United States had been attacked and was possibly at higher risk for additional attacks). Little information was provided to the public in terms of protective action guidance specifically related to the HSAS and State Threat Level elevations. Also, the HSAS was elevated to Red in New Jersey as a response to the presumed biological attacks, but only to Orange in Connecticut after the VBIED- and covert-airplane-dispersed chemical attacks on New London. No explanation was provided as to why residents in Connecticut were at less risk than those in New Jersey.

Other authorities, granted by such declarations as the State of Emergency and the Federal disaster declaration, as well as a Public Health Emergency in New Jersey, allowed the flow of resources and implementation of protective measures to facilitate response. These activities would have likely conveyed the message that FSL government agencies were actively coordinating response measures. Further, the protective action guidance that was issued in both venues (In New London, CT, residents were instructed to shelter in place to prevent/minimize exposure to the chemical attacks and New Jersey residents were advised to seek prophylaxis treatment in response to the plague outbreak) was not directly related to the HSAS. For these

The DUC Segretary wanted to elevate the State of Connections to Red on well of

¹⁸ The DHS Secretary wanted to elevate the State of Connecticut to Red, as well as New Jersey, but was persuaded not to take this action by the governor who was opposed to it out of concern that it would hinder response.

reasons, the use of the HSAS in the T3 FSE appeared redundant. This, coupled with some of the misunderstandings by officials and the media regarding the status of various threat conditions, could have complicated rather than simplified the public message.

The DHS Secretary did provide some examples of specific protective measures that the Federal government was taking in the initial elevation of the HSAS to Red in New Jersey. This was in contrast to the T2 FSE, in which little to no information was provided to the public on the HSAS elevations to Red. He also referenced "hundreds" of measures routinely taken at Orange, which, although nonspecific, would have likely fostered a perception that the Federal government is acting in a proactive and focused manner to protect the public. This introduction of the Red threat condition to the public represented a marked improvement from previous exercises in which very little information had been given regarding the definition of the "Severe" threat condition. Efforts have also been made to increase the guidance available to the public regarding the HSAS. For example, DHS, with input from the American Red Cross (ARC), has developed "Citizen Guidance on the Homeland Security Advisory System" and has sponsored Ready.gov, among other public awareness initiatives. But, public guidance related to specific HSAS elevations still remains rather general for a variety of reasons, including national security concerns (not wanting to tip off the terrorists) and the lack of uniform procedures for coordinating and tracking implementation of specific protective measures.

Discussions among Federal and State top officials during the T3 FSE regarding elevating the HSAS to Red suggested that the public warning/advisory aspect of the HSAS is heavily considered in decisions to elevate the HSAS, but that the possible effects of a Red threat condition are not well, or at least not consistently, understood. For example, the HSAS and State threat conditions in New Jersey were elevated to Red and highway/roadway travel restrictions were implemented into, within, and out of the State of New Jersey in the belief (at least in part) they would help facilitate response to the biological attack.²⁰ In contrast, the Connecticut governor requested that DHS not elevate the HSAS to Red for any part of Connecticut out of concern that some of the protective measures could hinder response efforts.²¹ The Connecticut governor expressed concern that negative consequences of elevating the HSAS to Red would outweigh the benefits. The Secretary of DHS expressed his belief that elevating the HSAS to Red in response to the attacks was important from a "public perception" standpoint, but deferred to the Connecticut governor's wishes to leave the State's HSAS at Orange.²²

When New Jersey and DHS officials discussed lowering the HSAS and State threat conditions from Red to Orange before prophylaxis operations were completed, the New Jersey governor

¹⁹ http://www.dhs.gov/interweb/assetlibrary/CitizenGuidanceHSAS2.pdf

²⁰ New Jersey Governor Press Release, 20:46, April 5, 2005.

²¹ The data did not provide insight on the governor's specific concerns.

²² No additional or amplifying information was provided.

expressed concern that lowering the threat conditions would send the wrong message to the public. He feared that the public would believe that the threat was over and those who had not yet been prophylaxed would not report to the PODs. Recent SOEs, particularly SOE 04-4, revealed a similar emphasis on the (positive or negative) public perception of an HSAS Red threat condition and that the implications of a Red threat condition are not well understood.

7. Issues from Previous Exercises

Table I-1 depicts the significant exercise decisions and issues/observations since the T2 FSE that are related to the HSAS and State threat advisory systems, with special focus on elevations of the threat condition to Red.²³

Table 1-1. Comparison of T3 FSE with Previous Exercises

T2 FSE	T3 CPX	SOEs 05-2 and 05-3	T3 FSE
	SIGNIFICAN	T DECISIONS	
 Affected local jurisdictions in, Washington State elevated their threat conditions to Red immediately after RDD blast. DHS elevated the HSAS to Red for Seattle that afternoon. DHS elevated the HSAS to Red for seven cities late that evening. DHS elevated the HSAS to Red nationwide the next day in response to both the RDD and biological attacks. 	DHS instituted a regional elevation of the HSAS to Orange from Boston, MA, to Norfolk, VA, in response to intelligence suggesting an imminent attack. DHS elevated the HSAS to Orange nationwide and Red in selected states after simultaneous chemical attacks in CT and NJ. DHS lowered the selected Red States to Orange and nation remained at Orange after all suspects were in custody.	Interagency decision makers expressed consistent reluctance to elevate the HSAS to Red, even in the aftermath of attacks—primarily due to concerns regarding unintended consequences. Some State participants expected their State threat advisory system might be elevated to Red in the event of a compelling threat of, or in response to, an attack.	Affected governors elevated their State threat conditions to Orange shortly after the biological (NJ) and chemical (CT) attacks, and after coordinating the elevation with DHS. DHS elevated the HSAS to Orange for the nation and Red for the two counties in NJ suspected of being the epicenters of the biological attacks. On afternoon of D+1, NJ governor elevated State threat condition to Red for all counties. In the evening of D+1, DHS elevated HSAS to Red for all of NJ. On D+3, DHS lowered HSAS in NJ to Orange.
	ISSUES/OBS	SERVATIONS	
 Agencies do not have or share consistent understanding of formal notification approaches for HSAS status changes. There was widespread uncertainty as to the HSAS status until the nationwide alert on D+1. 		The IIMG, SLGCP, and personal phone calls from the Secretary of DHS to governors/mayors are three mechanisms by which HSAS threat changes would be coordinated with State/local governments.	Coordination of HSAS status changes occurred at the highest levels. This did not translate into smooth coordination among operations centers.
			-
The absence of a mechanism for coordinating the implementation of protective measures			There did not appear to be a formal mechanism for coordinating, reporting, and tracking HSAS and State threat

²³ Issues are depicted in red font; observations in black, and improvements/good practices in green.

T2 FSE	T3 CPX	SOEs 05-2 and 05-3	T3 FSE
across Federal, State, and local governments and private sector can contribute to an uncoordinated response.			level changes and implementation of associated Federal, State, local, and private sector protective measures.
			The absence of a mechanism for coordinating the implementation of protective measures contributed to an uncoordinated response.
*			
 Increased coordination is needed between DHS and States/localities on nature of threats in order to minimize unintended consequences and cost- effectively increase the overall protective posture. 		Consequences of HSAS and State Red-level threat conditions are not well understood.	Unintended consequences of implementing HSAS Red protective measures were not well understood.
-			—
Public information messages regarding HSAS elevations should be clear, consistent, and explain comprehensive Federal, State, and local response actions, as well as recommended actions for the general public.		Public Affairs participants emphasized the need for consistent messaging and specific guidance.	Inconsistent messages and little specific public guidance limited the value of the HSAS as a warning/advisory system.
			Observation of real- world and exercise elevations of the HSAS revealed that its implementation was not systematic.
			Officials used the HSAS and State homeland security advisory systems to facilitate emergency response operations more than as threat advisory systems.
	Decision makers experimented with "Orange Plus" terminology in CPX to refer to a level of Orange with selected Red protective measures but have since abandoned this language.	Decision makers expressed concern over how to define the conditions under which it would be acceptable to lower the HSAS from Red and the mechanics for doing this.	

E. Conclusions

There was a notable difference in the use of the HSAS and State homeland security advisory systems in the T3 FSE from previous exercises. This difference involved the conscious use of Red threat conditions by top officials to facilitate emergency response operations, both in terms of operational coordination and movement. Most of the discussions regarding elevating the HSAS and/or State threat conditions to Red—or downgrading to Orange from Red—focused primarily on these aspects and less on the threat of an imminent attack. The effects on response efforts of raising the HSAS to Red after an attack are unknown, and are tied directly to the specific protective measures that are implemented, as well as how they are implemented. Improved protocols for coordinating and tracking implementation of protective measures—particularly severe protective measures—are needed.

A noteworthy element of the exercise was the increased emphasis on, and influence of, the public warning/advisory element of the HSAS in decisions to elevate or lower the threat condition. More consistent and clear messages are needed to fulfill this purpose of the HSAS. Citing other authorities, such as declarations of states of emergencies, in messages related to emergency response actions—rather than the HSAS—could also clarify the public messaging by delineating between actions taken to facilitate response and those taken to address a threat and reduce vulnerabilities.

Efforts are currently underway with Congress and DHS to review the current purpose and implementation of the HSAS. If the HSAS is retained, substantially more consideration should be given to making it a more robust, but still highly flexible, system that can more effectively serve its two primary purposes of advising/alerting FSL governments, the private sector, and the public to potential threats, and reducing vulnerability to those threats.

1. Recommended Courses of Action

- Develop a formal process for coordinating and tracking implementation of severe (or Red-level) protective measures across Federal, State, and local governmental agencies and the private sector. Build a database of measures by threat and agency to help top officials select the measures best aligned with a given scenario.
- Provide more specific guidance regarding actions recommended under the different color-coded threat conditions and link the levels to specific protective measures.
- Re-examine and refine the potential purposes of the HSAS:
 - o public warning and advisory;
 - o attack prevention; and
 - emergency response.

There may be value in further narrowing and better focusing the purpose of the HSAS to one of these and using means outside of the HSAS to achieve the other purposes, as these can inherently conflict in some cases. Specifically, use of the HSAS should be examined as a means to facilitate response. Although HSPD-3 states that one of its purposes is to enhance response, elevating the HSAS and related State systems after an attack specifically to facilitate response takes the focus

away from their primary role as risk communication and prevention systems, and may complicate emergency response messages. Declarations of States of Emergency, the Stafford Act, the Public Health Service Act, and other emergency powers granted to Federal, State, and local top officials are also associated with facilitating response.

II. Joint Field Office (JFO) Operations

A. Introduction

The T3 Full-Scale Exercise (FSE) provided an opportunity to exercise the recently codified JFO concept and identify issues that could impede its ability to support emergency response operations. The events in Connecticut and New Jersey prompted Federal officials to activate JFOs and select Principal Federal Officials (PFOs) for both States. During the exercise, the JFO and PFO staffs focused their efforts on integrating the Federal and State responses efforts by arranging resource support, coordinating response policies and operations, and sharing information.

Observations made during the exercise indicate that JFO operations were problematic in both States. Two kinds of disconnects were observed. First, the JFO staff encountered problems coordinating their activities and support with State officials. Second, the JFO staff also had trouble coordinating the activities of the JFO staff elements. These internal issues are the focus of this section of the report. The external coordination issues that existed between the JFO and State organizations are addressed in detail in other sections of this report that cover points of dispensing (PODs), resources, and information sharing. This section focuses on identifying the structural and process issues that adversely affected JFO operations during the T3 FSE. The issues included the following:

SUMMARY OF CONCLUSIONS: JFO OPERATIONS

- Lines of authority and coordination among the PFO, FCO, and JFO sections were unclear and hampered unity of effort with the JFOs in both Connecticut and New Jersey.
- The relationship between the PFO and FCO is not formalized, and final authority over the JFO cell was unclear.
- In Connecticut, the PFO cell duplicated much of the capabilities and expertise resident in the JFO sections, but it lacked its own clear purpose or delineated responsibilities. This often resulted in overlapping or competing activities occurring in the PFO cell and the JFO section.
- The JFOs did not follow standard processes for sharing information internally.
- unclear lines of authority within the JFO;
- undefined roles and responsibilities in the PFO cell; and
- a lack of implemented processes for sharing information.

Resolving the internal structural and process issues would ultimately strengthen the JFO's ability to coordinate Federal and State response efforts.

B. Background

The JFO is a temporary facility established locally to coordinate Federal assistance during an incident of national significance. Through the JFO, the Federal government provides a central coordination site for Federal, State, and local response efforts.²⁴

1. Structure of the JFO

The National Response Plan (NRP) divides the JFO organization into three different elements: The JFO Coordination Group, JFO Coordination Staff, and JFO sections. Figure II-1 is a diagram of a nominal JFO organization for a terrorist incident that depicts how the three JFO elements are related.

Principal Federal Official **JFO** FBI Special Agent-in-Charge Coordination **State Coordinating Officer** Group **Federal Coordinating Officer** Senior Federal Officials Chief of Staff **External Affairs** JFO Safety Coordinator Office of Inspector General Coordination Liaison Officer(s) Staff Infrastructure Liaison **Defense Coordinating Officer** Others as needed JFO Sections **Operations Section Planning Section Logistics Section** Finance/Admin Sect.

Figure II-1. Nominal JFO Organization for a Terrorist Incident

a. JFO Coordination Group

Within the structure set forth in the NRP, the JFO Coordination Group directs the activities of the JFO elements and sets the operational priorities for Federal agencies responding to the emergency. The JFO Coordination Group establishes priorities across incidents, resolves policy conflicts between agencies, and provides strategic guidance for incident management activities. The key members of the coordination group are the Principal Federal Official (PFO), Federal Coordinating Officer/Federal Resource Coordinator (FCO/FRC), and State Coordinating Officer (SCO). In a terrorist incident, the Federal Bureau of Investigation (FBI) Special Agent-in-Charge

²⁴ National Response Plan (December 2004).

(SAC), as the Senior Law Enforcement Official, is also a member of the JFO Coordination Group. Other senior Federal officials (SFOs) representing agencies with primary jurisdictional responsibility for some element of the response may also join the group as required. The primary responsibilities of each JFO Coordination Group member are as follows:

- The PFO represents the Secretary of Homeland Security in the field and coordinates the overall Federal response.
- The SAC coordinates criminal investigations and law enforcement activities associated with the incident.
- The FCO manages and coordinates the Federal resource support provided through the Stafford Act.
- The SCO represents the State in the Federal resourcing process by approving State requests for Federal resources provided during the response (e.g., a State may be responsible for 25% of the deployment costs for a disaster medical assistance team).
- SFOs assist in the management of the Federal response as the most senior representatives of their agencies.

b. JFO Coordination Staff

The JFO Coordination Staff supports and advises the officials in the JFO Coordination Group. Typical JFO Coordination Staff positions include a Chief of Staff, Safety Coordinator, Legal Affairs, Equal Rights Officer, Security Officer, External Affairs Officer, Defense Coordinating Officer (DCO), and various liaisons as needed. The JFO Coordination Group selects the personnel who fill the JFO Coordination Staff positions and relies on their subject-matter expertise to inform decisions made by the JFO leadership.

c. PFO Cell

In addition to the JFO Coordination Group and Staff, there is additional staff that directly supports the PFO—the PFO cell. This cell does not appear on the NRP organizational diagram, though it is referenced in the Interagency Integrated Standard Operating Procedures for JFO Activation and Operations. 25 The PFO cell is intended to be a small team of subject-matter experts from various Department of Homeland Security (DHS) components and Federal agencies that may be activated and deployed to provide initial support for the PFO prior to the activation of the full JFO. The PFO cell is designed to function primarily during the preincident phase or the initial response; once a JFO is established, the PFO retains a limited number of staff persons to support scheduling, media relations, and other PFO responsibilities. The remaining members of the PFO cell are reassigned into the JFO Coordination Staff and JFO sections.

²⁵ Interagency Integrated Standard Operating Procedures: Joint Field Office Activation and Operations, Version 6.0, Approved 14 April 2005. This SOP was in draft form during the exercise itself, and had not been widely distributed.

d. JFO Sections

The remainder of the JFO is organized into four sections: operations, planning, logistics, and finance/administration. The NRP defines an area of responsibility for each section as follows:

- Operations coordinates the bulk of the incident management support provided by Federal agencies to the State and local agencies.
- Planning collects, evaluates, and disseminates situational information and develops plans based on this information.
- Logistics manages logistical support for the JFO and other field locations.
- Finance/Administration tracks Federal costs related to the incident response.

These four JFO sections comprise the multiagency coordination center that is intended to accommodate the agencies essential to incident management and disaster response. Although most of the JFO staff represents Federal entities, local and State agencies can send representatives to the JFO. These four sections are commonly referred to as the JFO cell.

In a terrorist incident response, the SAC becomes the Senior Federal Law Enforcement Official (SFLEO) in the JFO Coordination Group. The FBI Joint Operations Center (JOC) becomes a section of the JFO.

At total of 15 emergency support functions (ESFs) provide the bulk of the staffing for the JFO sections. Each ESF is led by a Federal agency that is responsible for coordinating the ESF's activities and identifying individuals/teams to staff the group. For example, the Department of Health and Human Services (HHS) is the lead coordinator for ESF-8, Public Health and Medical Services; this ESF is also staffed with National Disaster Medical System personnel. The ESFs are key resource providers during response operations. ESF staff members play a significant role in the mission assignment process, which is the primary method for providing Federal support to the State during an emergency response operation.

2. Mission of the JFO

The JFO supports Federal, State, and local response efforts during incidents of national significance. The NRP and the Interagency Integrated Standard Operating Procedures for JFO Activation and Operations (JFO SOP) describe the JFO's three primary responsibilities:

- Coordinating the response activities of Federal, State, and local entities (e.g., facilitate the flow of Federal resources to the affected areas).
- Collecting and disseminating information about the crisis and the response (e.g., provide situation reports [SITREPs] to the Interagency Incident Management Group [IIMG]).
- Providing a communication link between the Federal response and State/local officials (e.g., engage State officials on key response issues).

C. Reconstruction

In response to the detection of plague in New Jersey and the release of a mustard agent in Connecticut, DHS activated JFOs and selected PFOs for both States. The JFOs focused on coordinating resources with State officials, whereas the PFO cells tracked key issues and assembled information about the crises. The JFO Coordination Group interacted with top officials from the States, set priorities for the Federal response effort, and interacted with State officials. The PFO cells provided the link between Federal operations in the States and the Homeland Security Operations Center (HSOC) and IIMG.

The NRP calls for various parts of the JFO organization to be identified and agreed upon by the JFO Coordination Group; however, an artificiality of a planned exercise is that players and their locations were assigned prior to exercise play. Thus, the responsibility of the JFO Coordination Group to identify the necessary JFO participants was not fully tested in the T3 FSE.

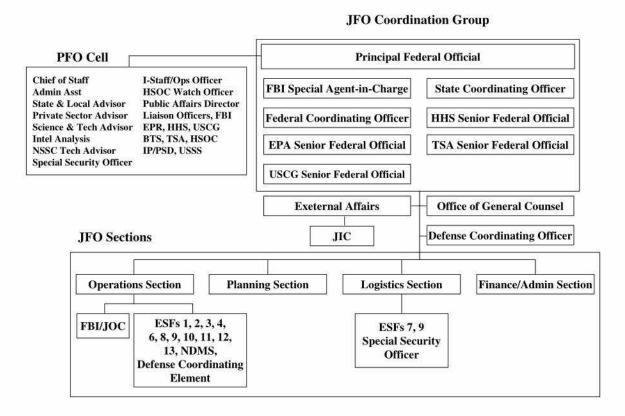
1. JFO and PFO Activities in Connecticut

In response to the explosion in New London on Monday, April 4, DHS and the Federal Emergency Management Agency (FEMA) activated the Regional Response Coordination Center (RRCC) in Maynard, Massachusetts. Shortly thereafter, the FBI redesignated its New London Command Post as the JOC. ²⁶ At 14:20 on April 4, the FBI received approval to coordinate with DHS and FEMA to activate a JFO in Connecticut. The activation began with the deployment of the Emergency Response Team–Advanced Element (ERT-A) by the RRCC. At 16:00, the Secretary of Homeland Security designated a PFO in Connecticut. The PFO support staff, ERT-A personnel, and ESF staffers arrived at the JFO throughout the afternoon. At approximately 20:00 on April 4, the JFO was fully stood-up and had assumed Federal incident management responsibility from the RRCC. Figure II-2 depicts the organization of the Connecticut JFO.

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²⁶ The New London Command Post had been established one week earlier in response to exercise intelligence injects.

Figure II-2. Organization of the Connecticut JFO



The structure of the Connecticut JFO is similar to the notional JFO structure found in the NRP, except that the Connecticut JFO included a substantial PFO cell.

Over the course of the exercise, the JFO Coordination Group participated in daily conference calls with the RRCC, Connecticut State Emergency Operations Center (SEOC), and governor's office. The JFO Coordination Group was briefed numerous times by representatives from the Unified Command Post. There were also at least two conference calls between the Connecticut and New Jersey PFOs, as well as two additional calls between the PFO and the Secretary of Homeland Security. Some of these calls appear to have been an established part of the daily battle rhythm. In addition to daily objectives meetings, the JFO Coordination Group met as needed for conference calls and emerging situations. For the most part, members of this group were on call for meetings and conference calls throughout the day and night.

The PFO was responsible for keeping DHS apprised of the situation in Connecticut. Part of that information flow process was the production of regular SITREPs. These SITREPs reported the actions of participating Federal, State, and local agencies. Over the course of the four-day exercise, the PFO forwarded six SITREPs that detailed events, activities, or findings during the previous operational period. The SITREPs were sent to the Secretary of Homeland Security, IIMG, and HSOC. Eventually the reports were also posted on the Situation Unit's wall in the

JFO to improve situational awareness within the facility. Table II-1 identifies the operational period covered by each SITREP and the PFO's priorities or activities for that period.

Table II-1. Summary of Connecticut PFO SITREPs

Operational Period	PFO Areas of Activity	
April 4, 1400-1700	• There has been an explosion at the Port of New London with an estimated 132 casualties.	
	 The Captain of the Port has closed the Port. 	
	• There is a report that this was an intentional chemical attack.	
	 Connecticut requests a Stafford Act declaration. 	
	• The FBI is coordinating flight restrictions over New London.	
	• Samples are being collected (suspected mustard agent).	
	• Code orange is in effect, and a state of emergency has been declared.	
April 4, 1700-2200	• There have been 1,530 casualties (107 dead).	
	Travel restrictions are in place.	
	 CDC has dispatched Rapid Response Registry. 	
	 Evacuations have occurred near the explosion. 	
	 Connecticut is considering shelter-in-place strategy. 	
	 Connecticut is considering shelter-in-place strategy. Federal support is being staged. 	
	• FBI has discovered a suspicious aircraft.	
	• Connecticut Governor and PFO held a press briefing on VNN.	
	• JFO and Joint Information Center (JIC) are stood-up.	
April 4, 2200-April 5, 0300	PFO continues to monitor the investigation.	
	Rescue operations continue.	
	HHS reports on available assets to support Connecticut.	
	• PFO coordinating with HSOC, NJ PFO, RRCC Region 1, State EOC, and Defense Coordinating Officer.	
	• PFO focusing on public messaging strategy with Connecticut.	
	• PFO expects to develop decontamination strategy with the State.	
	PFO priority is to assess impact on transportation and critical	

Operational Period	PFO Areas of Activity	
	 infrastructure. Coordinating sampling and decontamination strategies is a priority. JFO is working with the State to clarify resource needs. 	
April 5, 0300-1500	 Rescue operations continue. A total of 155 people have died, and more than 6,000 people from Connecticut have presented at hospitals. PFO is monitoring resource needs and resource deployment. FBI JOC is fully activated. PFO continues to focus on public messaging. A priority is to coordinate consistent scientific guidance. Planning for upcoming response needs is a priority. Plume modeling has been received. 	
April 5, 1500-2300	 PFO cell continues to monitor casualties. Investigation continues, and progress is being made. Public messaging will remain a priority. PFO expects to incorporate other SFOs into the JFO Coordination Group. Resource support continues to be provided to Connecticut. There is discussion among Connecticut and New Jersey (Governors, PFOs, and FCOs) regarding increasing the HSAS level in Connecticut from Orange to Red. 	
April 5, 2300-April 6, 1500	 The investigation continues. The current casualty count is 364 dead and 6,391 hospitalized. The PFO plans to implement risk communication strategy with State EOC. The PFO continues to assist State with requests for resources. The common operating picture continues to be refined. 	

Table II-1 provides insight into the priorities of the Connecticut PFO. These priorities included providing consistent and pertinent public information, monitoring the investigation, and facilitating the deployment of Federal support.

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Communications out of the JFO sections appeared to be more sporadic, depending on the needs of the staff. For example, the Situation Unit in the Planning Section was in fairly regular communication with the State EOC and the Situation Unit at the Unified Command Post. The former was given casualty numbers, and the latter was contacted to promote common situational awareness.

2. JFO and PFO Activities in New Jersey

In response to the detection of multiple, suspected cases of plague in New Jersey, the Secretary of Homeland Security declared the situation in New Jersey to be an incident of national significance (at 14:00 on April 4) and designated the New Jersey PFO (at 11:40 on April 4). Members of the PFO cell initially assembled at the FBI JOC and then transitioned to the Port Authority of New York/New Jersey Building in Jersey City, New Jersey where the JFO was established. During the day on April 5, the remainder of the JFO staff assembled at the Port Authority Building. By 16:00 on April 5, the New Jersey JFO was fully activated.

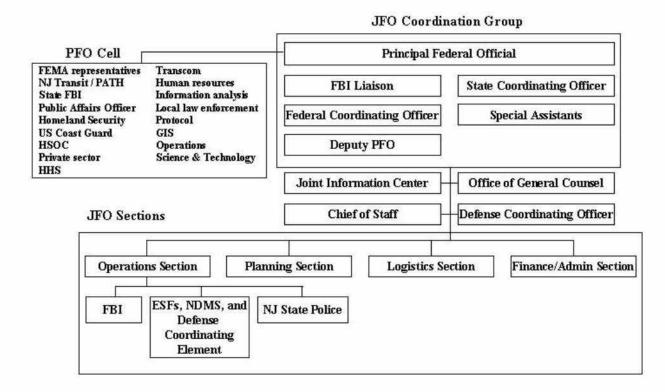


Figure II-3. Organization of the New Jersey JFO²⁷

Figure II-3 is similar to the notional diagram found in the NRP. Like Connecticut, the primary difference between the New Jersey organizational diagram and the NRP diagram is the presence of a robust PFO cell. A difference between New Jersey and Connecticut was that in the former, the FBI JOC was not collocated with the JFO; the JOC was located in the FBI Newark Field Office. The FBI provided a liaison who worked in the JFO Operations Section.

Throughout the exercise, the primary activities of the PFO cell and JFO Coordination Group included collecting information and resolving issues that arose during the response. The types of information they collected on a regular basis included the following:

- status of the investigation;
- number of victims and available hospital beds;
- New Jersey's resource needs;
- number of active PODs; and
- number of citizens who had received prophylaxis.

²⁷ Figure 3 is a composite of several data sources and is intended to provide an overview of the New Jersey JFO

structure. The figure may not document every position or organization in the New Jersey JFO.

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In addition to collecting information, the Joint Coordination Group and PFO cell sought to resolve issues as they arose during the response. The issues on which they worked included the following:

- coordinating the Homeland Security Advisory System (HSAS) and State Alert System color codes;
- supporting the New Jersey POD effort;
- responding to requests from New Jersey to update the Stafford Act declaration;
- maintaining a consistent public message; and
- supporting State requests for resources.

As in Connecticut, the NJ PFO was responsible for keeping the Secretary of Homeland Security informed about the situation in New Jersey. To do so, the PFO distributed a series of SITREPs to Secretary of Homeland Security, IIMG, and HSOC during the exercise. These documents provide insights into the activities of the PFO cell and the issues it deemed significant. Table II-2 summarizes a sample of the PFO SITREPs from New Jersey and highlights the issues and topics that the PFO and JFO Coordination Group tracked during the exercise.

Table II-2. Summary of Selected New Jersey PFO SITREPs

Operational Period	PFO Areas of Activity	
April 4, 10:30-12:30	 New Jersey may be a weapon of mass destruction (WMD) event. Patients are reporting flu-like symptoms. A tank sprayer in a vehicle tested positive for <i>Yersinia pestis</i>. VNN is reporting that many people are ill. This situation could affect infrastructure and the economy. 	
April 5, 23:00-April 6, 15:00	 JFO has been established. There have been 6,508 fatalities, and 3,188 people have been hospitalized. Implementation of the POD plan has begun. HSAS level has been raised to Red statewide, and PFO cell is working to mitigate effects. Travel restrictions are in place. Distribution of antibiotics to heavily impacted counties will occur within 24 hours. The investigation continues (details provided). 	

Operational Period	PFO Areas of Activity	
	JFO is facilitating the flow of resources to New Jersey.	
	An update to the Stafford Act declaration is pending.	
	BioWatch is deploying.	
	HHS is providing resources to New Jersey.	
April 6, 15:00-23:00	• There have been 6,508 fatalities, and 3,877 people have been hospitalized.	
	POD operations are continuing.	
	Travel restrictions have been eased.	
	The requested declaration update has been completed.	
	PFO continues to work HSAS issues.	
	The investigation continues (details provided).	
	JFO continues to facilitate the flow of resources.	
	HHS continues to provide resources to New Jersey.	
	Rail industry remains at Alert Level 2.	
	Port security measures will have economic impact.	
April 7, 08:00-15:00	• There have been 8,070 fatalities, and 4,567 people have been hospitalized.	
	State POD operations continue. Federal PODs have been demobilized.	
	Travel restrictions have been lifted.	
	Operation Exodus has been implemented.	
	PFO cell continues to work HSAS issues with State.	
	The investigation continues (details provided).	
	State requests update to declaration.	
	JFO continues to facilitate the flow of resources.	
	BioWatch results are available (details provided).	
	U.S. Coast Guard continues to work port security issues.	
	• Private sector issues are significant (e.g., tourism, worker absenteeism, and food safety).	
	HHS continues to support New Jersey response.	

The JFO sections staff was located in the Port Authority Building with the PFO and JFO Coordination Group. The principal function of the JFO sections during the T3 FSE was to support the mission assignment process and facilitate the flow of resources to New Jersey.²⁸

D. Analysis

The analysis of JFO operations in Connecticut and New Jersey indicates that a combination of factors made it difficult for the JFO staff to manage its internal processes and maintain situational awareness. These factors included the following:

- unclear lines of authority within the JFO;
- undefined roles and responsibilities in the PFO cell; and
- a lack of implemented processes for sharing information.

Together, these factors adversely affected the operation of the JFO during the T3 FSE and ultimately its ability to support emergency response operations in both States.

1. Unclear Lines of Authority within the JFO

Observations from both New Jersey and Connecticut suggest that the NRP and JFO SOP have not clearly defined the lines of authority inside the JFO. In particular, the line(s) of authority that connects the PFO, FCO, and JFO cell is ambiguous. Clarifying this line of authority would identify who in the JFO Coordination Group is responsible for managing staff and directing activities in the JFO cell.

At first glance, the PFO appears to be the Federal official responsible for the operation of the JFO. The NRP states that the PFO represents that Secretary of Homeland Security as the "lead Federal official." Placing the PFO at the top of the JFO organizational diagram (see Figure II-1) implies that the PFO has authority over the JFO. In addition, there was a perception among many at the Connecticut and New Jersey JFOs that the PFO was responsible for JFO operations. The NRP also states that in cases in which a Stafford Act disaster has occurred, but no PFO has been assigned, the FCO provides overall coordination for the Federal components of the JFO. Despite these statements, it is not clear whether the PFO has authority over the JFO cell. This authority is not assigned to the PFO or to any other official in the NRP or the JFO SOP.

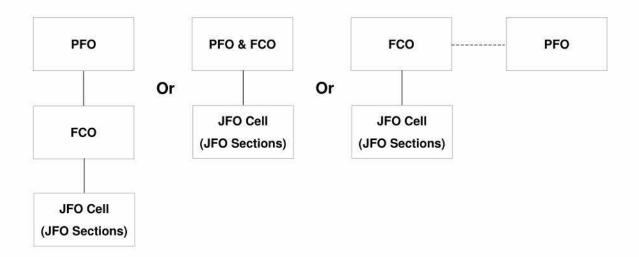
Like the PFO, there are statements in the NRP and observations from the exercise *suggesting* that the FCO has final authority over the JFO cell and the Federal resourcing process. The NRP states that the FCO manages and coordinates Federal resource support. During the exercise, the JFO cells in both States took direction from the FCO.

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²⁸ For additional information on the T3 FSE resourcing process, please refer to the "Resource Requests and Resource Coordination" section of this report.

The description of the relationship between the FCO and the PFO provided in the NRP and JFO SOP is also vague. For example, the JFO SOP states that "the PFO and FCO (in Stafford Act situations in which a PFO is not designated) are responsible for the overall coordination and management of the JFO Coordination Group." In addition, the NRP states that the FCO supports the PFO, but it does not use a term that implies a line of authority, such as "reports" or "directs." The descriptions of the PFO and FCO roles and responsibilities could be interpreted at least three different ways. Figure II-4 shows these three possibilities based on interpretations of what is written in the NRP and JFO SOP.

Figure II-4. Possible Lines of Authority Between the FCO and PFO



Resolving the ambiguous relationships between the PFO, FCO, and JFO cell will help to address the following important questions about the organization and operation of the JFO:

- Who ultimately runs the JFO?
- Who establishes priorities?
- Who reports to whom?
- Who can make JFO-wide decisions?

Resolving these questions would encourage a unity of effort and improve the JFO's internal staff processes.

2. Presence of a PFO Cell with Undefined Roles and Responsibilities

In Connecticut and New Jersey, substantial PFO cells operated through the end of the exercise. Their presence added additional coordination requirements, and their functions overlapped with those of the JFO. In some instances, the PFO cells worked on the same issues as the JFO cells;

however, the PFO cells also focused on policy issues and public messaging responsibilities that were not priorities for the JFO cells. The JFO cells tended to focus on resourcing and operational issues, rather than on policy and public information. Although the presence of the PFO cells increased coordination requirements inside the JFO, these costs may have been offset by the contributions that the PFO cell made in areas not addressed by other elements in the JFO.

In structure and performance, the PFO cell was an additional node in the Federal response structure in both States. According to the JFO SOP, most of the individuals in the PFO cell are part of the deployed PFO support staff, a small interagency team of subject-matter experts who deploy with the PFO to provide initial support until a JFO is established. They are expected to serve as the PFO's expanded advance team and then integrate into the appropriate JFO sections once the JFO stood up. In practice, the PFO cells in the Connecticut and New Jersey JFOs remained a separate entity throughout the exercise. It is unclear exactly why that integration never occurred in Connecticut, though the issue was discussed on April 4, between approximately 22:10 and 22:30. Instead, the decision was made to maintain the cell members in the PFO location as technical advisors. The result of this decision was a virtual standalone capability for the PFO and, by default, for the JFO Coordination Group. They did not rely on the JFO sections for information, expertise, or situational awareness.

In New Jersey, the PFO cell had an independent staff of more than 30 personnel per shift and resembled a command center, rather than an advisory group. Members of the cell manned positions in front of large display screens (i.e., a knowledge wall). These members represented a variety of organizations participating in the response, including the HSOC, FBI, U.S. Coast Guard, FEMA, DHS, HHS, NJ Transit, and private sector. The PFO cell operated as an independent staff. It held regular turnover briefs during which the outgoing shift would update the incoming shift about the numbers of victims, status of the investigation, issues that had been resolved, and tasking that the incoming staff was expected to complete. The PFO cell in New Jersey did not rely on the JFO sections as a primary source of information about the response.

In New Jersey, the PFO and JFO cells worked on an overlapping set of response issues. In some instances, they worked on the same issues. In other cases, the PFO cell worked on issues not addressed by the JFO cell. Table II-3 illustrates the issues on which the New Jersey PFO and JFO and JFO Cells tended to focus:

Table II-3. New Jersey PFO and JFO Cell Issues

NJ Response Issues	PFO Cell Focus	JFO Cell Focus
Resourcing States needs	Yes	Yes
POD operations	Yes	Yes
HSAS	Yes	No
Updating declaration	Yes	No

Public messaging	Yes	No
Reporting to DHS	Yes	No
Travel restrictions	Yes	No

According to Table II-3, the New Jersey PFO cell became involved in several response areas, such as shaping response policy (e.g., HSAS, declarations, and transportation restrictions), developing public messaging, and collecting/reporting information to the Secretary of Homeland Security. Observations made during the exercise indicate that the PFO cell assumed ownership of several response issues, thereby fulfilling a constructive role in the response.

That the PFO cell worked on issues not addressed by the JFO cell indicates a need for reliable coordination inside the JFO, because such issues could have an impact on the activities of the JFO cell. For example, travel restrictions could affect the movement of resources and personnel, and changes to a declaration could affect decisions made in the JFO cell regarding the types of assistance that the Federal government can provide and to whom the assistance can be provided.

Table II-3 also highlights issues on which the JFO and PFO cells both worked. This is not a problem per se, but can become an issue if the staffs do not coordinate their activities. For example, in Connecticut, JFO staff members made the erroneous assumption that if something was known by personnel in the PFO cell, it was also known by their counterparts in the JFO cell. When the PFO and JFO cells work on overlapping issues, a reliable mechanism for intrastaff coordination inside the JFO must be implemented.

In Connecticut, the PFO assigned some tasks to the JFO that should have been addressed at the Incident Command Post level, rather than at the JFO. For example, the preparation of sampling and decontamination plans (see Table II-1) for the Connecticut incident is an aspect of tactical operations that should have been undertaken at the Incident Command Post level. (The PFO/JFO may ask to review such plans, but they should be prepared by the ICP.) This illustrated the need for PFOs to have better training on the difference between the scope of work for JFO and ICP operations.

3. Lack of Implemented Processes for Sharing Information

In Connecticut, there were few and varied efforts to ensure common situational awareness across the facility; however, these efforts were largely ad hoc. There were few, if any, opportunities for JFO-wide briefings. Most information sharing was conducted among small groups. Although the New Jersey PFO cell conducted regular turnover briefs, the JFO as a whole faced information-sharing challenges similar to those observed in Connecticut.

The Connecticut JFO did not hold standard shift-change briefs or situational meetings. Different sections in the JFO met as needed throughout the day. The battle rhythm called for an operations, objectives, strategy, and planning meeting each day at approximately 08:00, 09:00, 13:00, and post-16:00, respectively. It is unclear how often these meetings actually occurred. In fact, much

of the data suggest that these meetings did not occur as scheduled. In particular, data collectors noted that the planned daily operations briefing by the Operations and Planning Chiefs for the entire JFO was missing. Additionally, there were no shift-change briefs/meetings for the JFO as a whole. Rather, turnover was largely left up to individuals in the PFO cell, in the different sections, and in the ESFs.

The Situation Unit of the Planning Section, the group responsible for the common operating picture in the JFO, was at a distinct disadvantage for much of the exercise because it was not present in the PFO workspace and conference room and the flow of information out of that room was poor. ²⁹ For example, the Connecticut PFO cell and JFO Coordination Group were getting fairly regular updates from the JOC about the investigation, but the Situation Unit could only get that information from the State EOC or RRCC.

The Connecticut PFO cell and JFO Coordination Group had no formal method by which to pass information to persons outside of the room. The only individuals who went back and forth between the PFO space and the JFO were the FCO and SCO. Although they relayed some information, they had neither the time nor the processes in place to be the primary conduits. Some agencies had representatives in the PFO room, either in the PFO cell or as SFOs in the JFO Coordination Group. To a certain extent, these agencies were at an advantage because they may have received regular updates from those representatives. But this may have also added to coordination challenges, as those individuals and ESFs knew more than the other staffers in the JFO sections. For example, the HHS SFO involved ESF-8 in much of the dialogue and debate about transferring patients out of the State. But when ESF-8 members tried to coordinate with the Operations Branch, confusion reigned because the latter were not up to date on the situation.

The only concerted effort to share information in the Connecticut JFO appeared to be the consolidation of the twice-daily SITREPs for the IIMG, but this was largely a paper drill for DHS headquarters, with different sections and Federal, State, and local agency representatives submitting their input to the Situation Unit, who then passed it to the HSOC watch stander in the PFO cell. Additionally, the SITREP was a one-way information flow for the most part, with contributors pushing information up, but not making an effort to move information horizontally around the JFO or back down from the PFO. Further, it is apparent from reviewing those SITREPs that little effort was made to confirm inputs or correct errors. Within SITREPs, we find examples of contradictory information. For example, much confusion existed in the JFO Coordination Group at the conclusion of the exercise as to the mechanism used by the terrorists to disperse the mustard agent. The group still believed that the agent came from the truck bomb rather than the aircraft. This is troublesome, considering the FBI had concluded that the aircraft was the device and that the SAC was a member of the JFO Coordination Group. It is evident that

²⁹ The physical layout of the Connecticut JFO included one large room for the JFO sections, a second large room for

the JOC, and a small room off to the side for the PFO sell and JFO Coordination Staff. JFO Coordination Group meetings and conference calls were also held in the smaller room. The two workspaces were divided by a set of doors. Access to the JOC was strictly limited to law enforcement personnel and persons with appropriate badges.

consolidation and clarification of information did not occur. In the same SITREP from 03:00 on April 5, it was reported that:

- the airplane [in Maine] tested positive for precursors to mustard; and
- the airplane [in Maine] was only equipped with normal crop dusting equipment, and all further forensic examinations yielded negative results.

The SITREP from 15:00 on the same day did not clarify the contradictory information. In fact, it reported that:

- per the Transportation Security Administration (TSA), the FBI analysis of the 55-gallon tank aboard the plane yielded no trace of mustard, but rather contained residue of ammonium nitrates; and
- per the FBI, the two drums found on the plane tested positive for sulfur mustard, and additional samples analyzed by Edgewood also tested positive.

It is not surprising that the Connecticut JFO Coordination Group was never clear on the dispersal mechanism. In fact (as is discussed in a later thread), confusion persisted throughout the exercise and across the operations centers. Improved coordination and communication within the JFO, to include the JOC, may have resolved some of the misperceptions.

4. Issues from Previous Exercises

As the T3 FSE had, the T2 FSE exercised the PFO position but not the JFO structure, because the JFO is a recent addition to the Federal response effort. The comparison of these two exercises indicates that there has been little improvement in this area since T2. In at least one area, the issue may have worsened. Table II-4 compares the T3 FSE experience with the PFO with the experience of other exercises and notes if any changes were observed.

Table II-4. Comparison of T3 FSE with Previous Exercises

T2 FSE	SOEs	T3 FSE
	SIGNIFICANT DECISIONS	
 Secretary of Homeland Security designated PFOs and deployed them to Washington and Illinois. It was the first time the PFO concept was implemented. 	The JFO would be established after an incident of national significance (INS) was declared.	Secretary of Homeland Security appointed PFOs in New Jersey and Connecticut. Once an INS was declared in both venues, JFOs stood up in New Jersey and Connecticut.
	ISSUES/OBSERVATIONS	
FSE demonstrated that the new PFO role would need a dedicated staff to be effective.		In Connecticut, the PFO cell duplicated much of the capabilities and expertise resident in the JFO sections, but it lacked its own clear purpose or delineated

		responsibilities. Overlapping or competing activities occurred in the PFO cell and the JFO section.
Roles and responsibilities of the PFO were not well defined relative to the FEMA Regional Directors and FCO.		 Lines of authority and coordination among the PFO, FCO, and JFO sections were unclear and hampered unity of effort. The relationship between the PFO and FCO is not formalized, and fina authority over the JFO cell was unclear.
		The JFOs did not follow standard processes for sharing information internally.
	Participants acknowledged that there would be confusion in the immediate aftermath of an INS prior to the establishment of a JFO. Once the NRP is activated, the JFO must rapidly assume its role as the central point of coordination for Federal, State, and local officials and for the effective use of Federal incident-related response and recovery resources.	

The comparison of the T2 and T3 experiences suggests that there has been little improvement in the process of PFO operations. Although the addition of the PFO cell addresses an issue identified in the T2 FSE After-Action Report, its presence in the T3 FSE adversely affected the PFO's ability to unify the Federal response effort. The need for better defined roles and responsibilities of the Federal officials supporting the response remains.

E. Conclusions

The detection of plague in New Jersey and the release of a mustard agent in Connecticut prompted Federal officials to activate JFOs and select PFOs for both States. The analysis of JFO operations indicates that the JFO staff encountered problems coordinating the activities of JFO staff elements. For example, lines of authority were unclear, and the prominent role played by the PFO cells in both States complicated JFO operations. Furthermore, the JFO staff did not follow standard processes for sharing information internally. Resolving these structural and process issues would improve staff operations and ultimately strengthen the JFO's ability to coordinate Federal and State response efforts.

The analysis of the NRP, JFO SOP, and exercise observations indicates that lines of authority and coordination in the JFO are unclear. The relationship between the PFO and FCO is not formalized, and final authority over the JFO cell is ambiguous. Clearly documenting these relationships would eliminate a potential source of confusion in JFO operations.

The presence of vigorous PFO cells in New Jersey and Connecticut complicated operations in the JFOs. Their presence added additional internal coordination requirements. In some instances, the PFO and JFO cells on an overlapping set of response issues or worked on the same issues. In other instances, the PFO cell worked on issues not addressed by the JFO cell, but the outcomes of these issues could have an impact on activities in the JFO cell. The observations that the PFO operated as a separate node inside the JFO and worked on some of the same issues as the JFO cell indicate a need for a reliable mechanism for intra-staff coordination in the JFO.

Although the PFO cell played a prominent role in the T3 FSE, the NRP and JFO SOP do not provide detailed descriptions of its roles and responsibilities. JFO operations would also benefit from additional information about how the PFO cell is expected to support JFO operations.

Observations from Connecticut indicate that information sharing and dissemination inside the JFO were problematic. There were few, if any, opportunities for JFO-wide briefings, and there was no formal mechanism for establishing a common operational picture. Instead, the sharing of information inside the JFO was largely informal and ad hoc. Formal information-sharing procedures would likely improve the situational awareness of JFO members. Additionally, it may be beneficial to identify an individual whose sole responsibility is the management of the facility and the shared JFO battle rhythm. This person should have no operational responsibilities in the response, but would manage the integration of the JFO itself.

1. Recommended Courses of Action

- Clarify the relationship between the PFO, PFO cell, and FCO, to include the scope of their operational responsibilities and their authorities within the JFO.
- Develop a checklist to manage the integration of the PFO cell with the JFO sections once the latter is fully activated.
- Implement formal information-sharing processes and procedures within the JFO to improve internal situational awareness. Identify, train, and authorize an individual to manage the JFO and the information-sharing processes.

III. Resource Requests and Resource Coordination

A. Introduction

The TOPOFF 3 Full-Scale Exercise (T3 FSE) provided the Federal government an opportunity to exercise the process of supporting States that have been overwhelmed by a significant terrorist attack involving a weapon of mass destruction (WMD). Following the releases of *Yersinia pestis* and sulfur mustard agent, officials in New Jersey and Connecticut requested a variety of resources from the Federal government, including medical supplies, healthcare professionals, transportation support, security personnel, mortuary affairs teams, and decontamination units. In addition to these State requests, Federal agencies pushed assets to support the State responses.

Exercise observations indicate that the resourcing process was problematic in both States. State and Federal officials were uncertain about what had been requested, who requested it, and what

was being provided. The questions were prompted by a combination of factors that included the following:

- participants used three different resourcing processes that were not well coordinated;
- Federal and State officials struggled with the implementation of these processes; and
- reliable information about resources was not readily available.

Delays and uncertainty caused by these issues frustrated participants, who were often uncertain about who had requested what. Resolving these issues would strengthen the ability of State and Federal officials to match the resource needs of responders with available assets.

B. Background

The Federal government can provide support when States are overwhelmed by a major incident. To access these resources, a State must first identify what is needed to support the response. In this step, State officials compare the response needs with the resources that are available from State and local agencies. If unmet needs remain, the State can request additional resources (i.e., both personnel and materiel) from the Federal government.

During emergency operations, local responders are usually the first to arrive on-scene. At that time, the Incident Commander (IC) assesses the response needs and submits resource requests to the local emergency operations center. Requests that exceed local capabilities are submitted through the State's emergency response chain of command to the State Emergency Operations Center (EOC). The EOC will attempt to match the needs of the IC with assets that may exist elsewhere in the State or be accessible through mutual aid agreements with

SUMMARY OF CONCLUSIONS: RESOURCE REQUEST AND COORDINATION PROCESS

- The use of multiple resource processes created uncertainty and adversely affected situational awareness.
- State and Federal officials struggled with the implementation of the Federal resourcing process.
- The role of the HHS SERT was neither well-defined nor understood by participants. At times the SERT duplicated functions performed by ESF #8 in the JFO.
- Information about the status of resources was not readily available and the process lacked transparency.

neighboring States such as the Emergency Management Assistance Compact which was exercised by New Jersey during the FSE. In emergencies that do not have a defined incident site, such as a Statewide disease outbreak, local EOCs and agencies can submit their resource requirements to the State EOC, which will attempt to locate the needed resource somewhere in the State. If it cannot locate the required support, the State can submit its request to the Federal government.

³⁰ The State may be able to access additional resources through agreements with neighboring jurisdictions such as the Emergency Management Assistance Compact which was exercised by New Jersey during the FSE.

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State officials can use two methods to obtain support from the Federal government: (1) support provided under the Stafford Act mission assignment process, coordinated through the JFO, and (2) direct agency support.

1. JFO Mission Assignment Process

During a major incident, States can access Federal resources by engaging the JFO and requesting resources through the mission assignment process. This process requires that States document their requests on action request forms (ARFs), on which State officials describe the assistance they are requesting. Before the JFO can draft a mission assignment, the State Coordinating Officer (SCO), Federal Coordinating Officer (FCO), and the JFO Operations Section Chief review the ARF. If approved, the JFO drafts a mission assignment (a work order) directing a Federal agency to complete a task. For example, a mission assignment could be used to task the Centers for Disease Control and Prevention (CDC) to provide epidemiologists to a State experiencing a disease outbreak.

Once drafted, the mission assignment is assigned to one of 15 emergency support functions (ESFs). ESFs are members of the JFO staff and SMEs on a functional area. Table III-1 lists the ESFs described in the NRP and identifies the coordinator for each.

Table III-1. Emergency Support Functions (ESFs)

ESF No.	ESF Name	Coordinating Department/Agency
ESF #1	Transportation	Dept. of Transportation
ESF #2	Communications	Dept. of Homeland Security
ESF #3	Public Works and Engineering	Dept. of Defense
ESF #4	Firefighting	Dept. of Agriculture
ESF #5	Emergency Management	Dept. of Homeland Security
ESF #6	Mass Care, Housing, and Human Services	Dept. of Homeland Security
ESF #7	Resource Support	General Services Administration
ESF #8	Public Health and Medical Services	Dept. of Health and Human Services
ESF #9	Urban Search and Rescue	Dept. of Homeland Security
ESF #10	Oil and Hazardous Materials Response	Environmental Protection Agency
ESF #11	Agriculture and Natural Resources	Dept. of Agriculture

³¹ See Unit 4 at http://training.fema.gov/EMIWeb/IS/is292lst.asp.

ESF No.	ESF Name	Coordinating Department/Agency
ESF #12	Energy	Dept. of Energy
ESF #13	Public Safety and Security	Depts. of Homeland Security and Justice
ESF #14	Long-term Community Recover and Mitigation	Dept. of Homeland Security
ESF #15	External Affairs	Dept. of Homeland Security

A principal function of the ESF groups is to support the mission assignment process, which provides Federal resources to the State.³² The ESF group responsible for a particular mission assignment will contact the Federal agency and task it to provide the support outlined in the mission assignment. The ESF staff will then coordinate the delivery of the requested support to the State. The tasked Federal agencies can be reimbursed for the costs of providing this support under the Stafford Act if an emergency or major disaster is declared.

2. Direct Federal Agency Support

Some Federal agencies have their own authorities to provide direct support to States. In some instances, the support is provided at the request of the State. In other instances, the Federal agency support is unsolicited, direct support to the State. For example, the Department of Health and Human Services (HHS) may provide epidemiologists and a Secretary's Emergency Response Team (SERT) to a State experiencing a disease outbreak.

The SERT is a deployable team of public health SMEs that "directs and coordinates the activities of all HHS personnel deployed to the emergency site to assist local, State, and other Federal and government agencies as applicable response effort for HHS." The SERT will likely deploy when the HHS Secretary declares a public health emergency. According to the HHS CONOPS, the SERT receives mission assignments, priorities, and objectives from the HHS leadership. These mission assignments will be coordinated with, and may be at the request of, other Federal entities, particularly DHS. Once in the field, the SERT:

- directs and coordinates HHS response assets;
- represents HHS in interactions with local, State, territorial, and tribal government public health and medical incident management authorities, as well as the regional response structure;
- assesses the requirements or potential needs for additional HHS assistance;

³² ESFs also coordinate assistance among Federal agencies.

³³ U.S. Department of Health and Human Services. Concept of Operations Plan (CONOPS) for Public Health and Medical Emergencies. March, 2004.

- facilitates the transmission of incident information from incident authorities to the Assistant Secretary for Public Health and Emergency Preparedness (ASPHEP) through the Secretary's Command Center; and
- provides continuous assessment of the adequacy of the HHS response to the HHS Secretary through the ASPHEP.³⁴

Direct agency support does not use the mission assignment process or require JFO approval. Direct support expenditures are not reimbursed under the Stafford Act. The Federal agency requesting the support usually funds the support.

For additional information about the Stafford Act and the NRP discussion about Federal-to-Federal support, refer to the "Integrating Responses to Incidents of National Significance" section of this report.

C. Reconstruction

The nature of the disasters in Connecticut and New Jersey caused the States to organize their responses differently. These differences affected how the officials in the two States implemented their resource request processes. In Connecticut, there was a definitive incident site containing victims and debris. From a nearby command post, the IC—later the Unified Command—could assess the needs of the tactical units and pass requests for support to State and Federal agencies. In New Jersey, there was no single incident site and no single, designated IC. *Yersinia pestis* was disseminated over areas of Middlesex and Union Counties, and victims were located throughout the State. Unlike in Connecticut, there was no IC to develop resource needs at the tactical level in New Jersey. Agencies, such as county health departments, and organizations, such as hospitals, participating in the New Jersey response coordinated requests for assistance through their local EOC, State EOC, and State Health Command Center (HCC).

1. Connecticut Response Structure and Resource Needs

The sulfur mustard gas attacks in New London resulted in a demand for resources that exceeded the capabilities of the first responders. During the first hours of the crisis, the IC in Connecticut mobilized resources through established agreements for mutual aid or through the New London and State EOCs. Late in the day on April 4, the Unified Command Post (UCP) replaced the Incident Command Post (ICP). The UCP staff included the first responders from the ICP with augmentation from many State and local Federal agencies, including the US Coast Guard, FBI, DHS, EPA, Connecticut Department of Environmental Protection (DEP), National Disaster Medical System, (NDMS) and Connecticut Department of Public Health (DPH). The UCP participated in the resource request and allocation process through the end of the exercise.

³⁴ U.S. Department of Health and Human Services. Concept of Operations Plan (CONOPS) for Public Health and Medical Emergencies. March, 2004.

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The State EOC submitted resource requests to the JFO when the State and local agencies could not meet the needs. To minimize disruption as the JFO stood-up, the JFO relied on FEMA's Regional Response Coordination Center (RRCC) located in Maynard, Massachusetts, to coordinate the mission assignment process during the early hours of the exercise.

Table III-2 lists examples of resources employed in Connecticut during the exercise. These resources are grouped into two broad categories, medical and nonmedical.

Table III-2. Examples of Resources Employed or Requested During the Connecticut Response

Resources Needs	Connecticut	Federal/Other
Medical-related support		
Hospital capacity	Area hospitals	Nationwide 10,000 Bed alternate care facility (ACF)
Hospital census		Rapid Response Registry
Medical personnel	DMAT/Medical Reserve Corps	Disaster Medical Assistance Team (DMAT)
Medical supplies		Ventilators/bronchial dilators (SNS)
Mortuary support	Refrigerated trucks	Disaster Mortuary Operations Response Team (DMORT)
Patient movement	EMS/National Guard	National Disaster Medical System (NDMS)
Nonmedical support		
Animal removal	Local resources	
Decontamination	State resources	
Dive teams	Local resources	
Family assistance/feeding		Red Cross
Ground transportation	Local resources	
Response support	State and local resources	ERT JFO and PFO Cells Defense Coordinating Officer (DCO)
Incident support	National Guard (CST)	Domestic Emergency Support Team (DEST) Emergency Response Team-A and ERT-N
Security	State Police, CTNG (QRF)	Department of Defense Quick Reaction Force (QRF)
Urban search/rescue	Connecticut Urban Search and Rescue (USAR)	MA & NJ USAR

Many resource requirements were met entirely with local or State assets, including:

- transportation assets to remove dead animals;
- · dive teams to search for secondary devices;
- decontamination assistance for two area hospitals; and
- vehicles to support emergency response personnel at the incident site.

UNCLASSIFIED – FOUO This Document Contains Canadian and United Kingdom Information

In other cases, State resources were augmented with Federal assets or those from neighboring States. For example:

- New Jersey and Massachusetts provided USAR teams to assist with rescue efforts.
- The Department of Defense provided a Quick Reaction Force (QRF) to relieve Connecticut National Guard units protecting a local nuclear power plant.
- The American Red Cross (ARC) established a Family Assistance Center (FAC) and provided food at the incident site.
- The FBI requested the deployment of the Domestic Emergency Support Team (DEST), an interagency team of subject matter experts who respond to incidents involving WMD.
- FEMA's RRCC deployed an Emergency Response Team—Advanced Element (ERT-A).

The Federal government also supported Connecticut's efforts to care for the victims of the attack. This support included the deployment of Disaster Medical Assistance Teams (DMATs), Disaster Mortuary Operational Response Teams (DMORTs), and medical supplies from the Strategic National Stockpile (SNS).

2. Resources Needed During the New Jersey Response

The release of *Yersinia pestis* in New Jersey created a demand for resources that exceeded the capabilities of State and local governments. The response activities that placed the greatest demands on the State's resources were Points of Dispensing (POD) operations, treating victims, and mortuary affairs. For example, staffing the State's PODs required thousands of workers. Additional resource demands were placed on the State's healthcare facilities—by April 8, approximately 37,500 residents (sick and dead) had developed plague and many of those had sought treatment. Similar demands were placed on New Jersey's mortuary infrastructure. State officials had to locate facilities to store and dispose of more than 9,500 bodies, prompting a request for Federal assistance. Table III-3 lists examples of these resource needs and identifies the organizations from which resources were requested or provided.

Table III-3. Examples of Resources Employed or Requested in the New Jersey Response

Resources/Assistance	New Jersey	Federal/Other
Medical-related support		
Hospital capacity	Area hospitals	10,000 Bed alternate care facility (ACF)
Agent identification	Hospital labs State labs	CDC labs Epidemiologists (CDC)
POD staffing	Local health departments New Jersey National Guard	Veterans Affairs staff Federal Protective Services staff Postal Service employees
Medical personnel	Hospital staffs Local resources	DMAT NDMS management support team (MST) Emergency Management Assistance Compact (EMAC) Veterans Affairs health professionals
Medical supplies	Local supplies	Antibiotics (SNS) Technical advisory response unit (TARU) Ventilators
Mortuary support	Funeral directors County medical examiners	DMORT Refrigerated trucks
Patient movement	Local ambulances	NDMS personnel (Operation Exodus) 250 ambulances NY Air National Guard C-130 (Operation Exodus)
Nonmedical support		
Veterinary support	Local support	Veterinary medical assistance team (VMAT)
Transportation	Local resources	Helicopters
Response support	State and local resources	FEMA ERT-A deployed to State EOC HHS SERT JFO and PFO Cells DCO
Law enforcement	New Jersey State Police Local law enforcement	FBI

State public info officers	Joint Information Center
County public info officers	Leaflet drop
4 N	50 public information officers
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Although Table III-3 is not exhaustive, it lists the types of resources that were provided by Federal, State, and local agencies during the exercise. To access many of the Federal resources listed in Table III-3, officials in New Jersey exercised the mission assignment process through the JFO. Support for health and some medical support could also be requested through the HHS SERT.

In many instances, the Federal support was notional. Equipment and personnel were identified on paper, but not actually deployed (e.g., refrigerated trucks, the alternate care facility, and many medical personnel); however, some support was real, for example:

- The CDC deployed SNS training pallets to the New Jersey receipt, stage, and storage (RSS) site.
- The TARU team deployed to New Jersey and met the SNS shipments.
- The ERT-A deployed to the State EOC in West Trenton.
- The New York National Guard flew a C-130 to New Jersey and loaded the aircraft with Operation Exodus patients.

The resources that were actually deployed during the T3 FSE were preplanned as part of the exercise.

D. Analysis

The analysis of the State and Federal resourcing efforts indicates that a combination of factors impeded the ability of the two States to access Federal support during the T3 FSE. These factors included:

- Participants used three different resourcing processes that were not well coordinated.
- Federal and State officials struggled with the implementation of these processes.
- Reliable information about resources (e.g., the status of requests) was not readily available.

Together, these factors contributed to a breakdown in the resourcing process, making it difficult for participants to match the State's needs with available Federal resources. In New Jersey and Connecticut, participants were uncertain about what had been requested, who had requested it, and what the status of the request was. Without access to this information, response planners and decision makers could not fully comprehend the complete resource picture.

1. Impact of Resourcing Issues

The comparison of resource awareness presented in Table III-4 indicates that the T3 FSE resourcing process did not meet the needs of the response organizations. The data in Table III-4 demonstrate that responding organizations in New Jersey were often unaware of the activities of their counterparts. This lack of awareness and the inconsistent information provided by and available to these organizations suggests that the process of matching the resource needs of New Jersey with available Federal assets did not function as intended.

The entries in Table III-4 are compiled from T3 FSE authoritative sources. The State EOC entries are based upon copies of ARFs provided by the New Jersey Office of Emergency Management (OEM). The entries under the IIMG heading are based on the IIMG list of "Federal Assets Deployed." The entries under the HHS support heading are based on HHS SITREPs. The JFO/RRCC entries are based on two mission assignment logs compiled and provided by FEMA. These entries indicate that officials supporting the New Jersey response did not have a consistent picture of the resources that had been requested and deployed.

Table III-4. Lack of Resource Awareness in New Jersey

Resource	State EOC	IIMG	HHS Support	JFO/RRCC
Bio Emer. Support Team (BEST)	No request	Deployed	Not listed	No MA*
800 units of blood	No request	Deployed	Not listed	No MA
Relocatable field laboratory	No request	Deployed	Not listed	No MA
Disaster portable morgue unit	2 requested	1 deployed	Not listed	1 assigned
DMORT	8 requested	2 deployed	Deploy all available	2 assigned 2 via NDMS
DMAT	No request	2 deployed 14 staged	5 deployed	No action -10 DMATs staged
VMAT	2 requested	2 deployed	Not listed	1 via NDMS
Management support team	No request	3 deployed	Deployed	No MA
Strategic national stockpile support	Requested by governor	Deployed	Deployed	No MA
Ventilators	2500+ requested	2000 deployed	Not listed	MA issued
1200 US Public Health officers	No request	Deployed	Not listed	No MA
3000 personnel from MRC	No request	Deployed	Not listed	MA issued
Epidemiological teams	No request	Deployed	40 deployed	No MA
HHS ARC mental health team	No request	Deployed	Not listed	No MA

Resource	State EOC	IIMG	HHS Support	JFO/RRCC
10,000 bed alternate care facility	No request	Not listed	HHS direct request	No MA
Alternate care facility staff	Requested	Not listed	HHS direct request	MA issued
Refrigerated trucks/trailers	100 requested	Not listed	Deployed 12–15	MA issued
400 emergency medical techs	No request	Not listed	Deployed	No MA
2 x 250 bed DoD field hospital	No request	Not listed	Requested	No MA
SNS TARU	No request	Not listed	Deployed	No MA
Epidemiologist to NJDHSS	Requested**	Not listed	Deployed	No MA
15,000 POD workers	No request	Not listed	Working	No MA
4,000 POD security personnel-FPS	Requested	Not listed	Not listed	MA issued
DMART	No request	Not listed	Not listed	Requested
2,000 crisis counselors	Requested	Not listed	Not listed	Rejected
100 body handlers	Requested	Not listed	Not listed	Unresolved
250 ambulances	Requested	Not listed	Not listed	Unresolved
500 POD personnel	No request	Not listed	Not listed	Unresolved
12,000 medical personnel	No request	Not listed	Not listed	MA issued
Mobile communications for NJ ME	No request	Not listed	Not listed	MA issued
261 medical personnel	Requested	Not listed	Not listed	Unresolved
50 public information officers	Requested	Not listed	Not listed	Unresolved
Staff for 500 bed facility	Requested	Not listed	Not listed	Unresolved
100,000 N95 respirators	Requested	Not listed	Not listed	MA issued
100 PPE for DMORT	Requested	Not listed	Not listed	No MA
4 helicopters	Requested	Not listed	Not listed	No MA
POD security 1826 personnel	Requested	Not listed	Not listed	No MA
POD security 2350 personnel	Requested	Not listed	Not listed	No MA
50 body trackers	Requested	Not listed	Not listed	No MA
Generators and mobile lights	Requested	Not listed	Not listed	No MA
Leaflet drop	Requested	Not listed	Not listed	No MA

^{*} MA = mission assignment; ** Based upon a request from the NJ Department of Health and Senior Services

The list of requested and provided resources in Table III-4 highlights the impact that the three resource issues noted above (i.e., the use of multiple processes, implementation struggles, and a lack of ready information) had on the T3 FSE resourcing process. In short, this process was fragmented. Most organizations involved in the resourcing process had little insight into what other organizations were doing to provide New Jersey with the resources it needed to respond to the release of *Yersinia pestis*.

The lack of consistent information about resources and uncertainty among those supporting the resourcing process is problematic because:

- Decisions made under such conditions often do not account for key information or address relevant issues.
- Effective planning is dependent on maintaining situational awareness.
- Staff members have to take time to resolve the uncertainties and establish situational awareness.

The time they take to do so will reduce the time they can devote to other response activities, thereby delaying the deployment of needed resources.

2. Multiple Resource Processes Existed Not Coordinated

The T3 FSE resource request and coordination process was actually three separate processes:

- the Stafford Act mission assignment process through the JFO;
- State requests for direct support made through the SERT (New Jersey) and the Unified Command Post (Connecticut); and
- direct support provided by the Federal government without requests from the State.

The process of requesting and coordinating resources broke down (e.g., many State ARFs were not resolved and organizations lost situational awareness) when these three processes became intertwined. In many instances, participants were not clear about which process they were supporting. The employment of all three processes in the T3 FSE hampered resource coordination. In both New Jersey and Connecticut, many resource requests were not addressed and State officials were not aware of assets sent to the States by the Federal government.

a. Resourcing Process #1: Mission Assignment Process

Figure III-1 depicts the New Jersey Stafford Act mission assignment process in which the State's requests for support were submitted to the JFO through the FCO, SCO, and JFO Operations Chief.

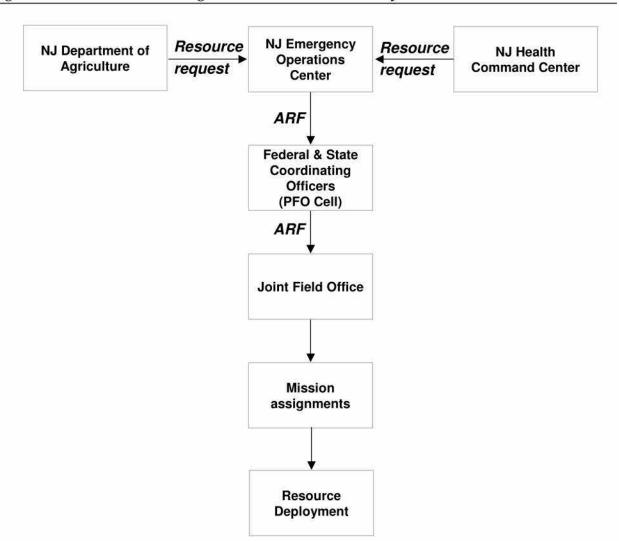


Figure III-1. JFO Mission Assignment Process in New Jersey³⁵

The mission assignment process depicted in Figure III-1 was the primary mechanism used by New Jersey to request support from the Federal government. With the support of the ERT-A, which deployed to the State EOC, New Jersey officials submitted 43 ARFs through the mission assignment process. New Jersey's requests for support originated from the NJDHSS, New Jersey Department of Agriculture, or State EOC. Requests were submitted through the State EOC to the JFO. The State EOC submitted eight ARFs on behalf the NJDHSS and one on behalf of the NJ Department of Agriculture. The remaining 34 ARFs originated in the State EOC.

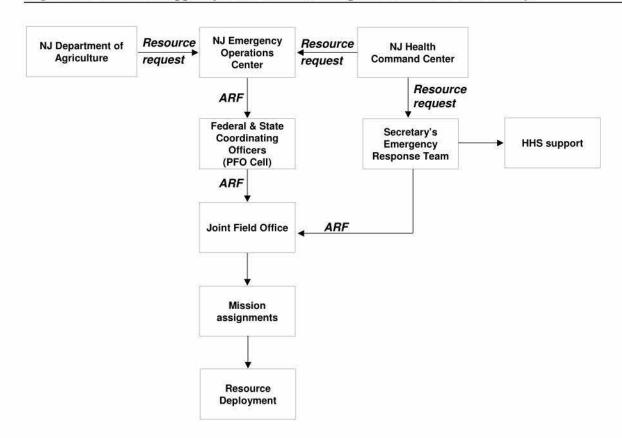
³⁵ A similar process existed in Connecticut.

b. Resourcing Process #2: SERT Process

The presence of the SERT affected the resourcing process in two ways. First, the SERT introduced another resource process, direct agency support. Second, its role in the overall resource process was unclear.

In the exercise, participants merged (albeit unintentionally) the direct support and mission assignment processes into a single resource request structure. Figure III-2 depicts the combination of the two processes with the new connections between the HHS, State Health Command Center, and the JFO.

Figure III-2. SERT Support for the Resource Request Process in New Jersey



The process depicted in Figure III-2 differs from the model mission assignment process depicted in Figure III-1. In the first structure, ARFs are typically assembled by a single State organization, such as the State EOC, passed to the Federal and State Coordinating Officers in the PFO Cell, and then forwarded to the JFO for mission assignments. The T3 FSE experience in New Jersey was different because two different State organizations—the EOC and HCC—submitted resource requests to two different Federal organizations (i.e., the JFO and SERT).

As depicted in Figure III-2, the SERT accepted resource requests from the State under the authority of the public health emergency declaration.³⁶ The SERT deployed to New Jersey to help State officials integrate available Federal medical resources into the State's response efforts. In this capacity, the SERT participated in both the mission assignment and direct support resource request processes. Examples of SERT support for the mission assignment process included helping to arrange the following assets for New Jersey:

- 250 ambulances;
- security for PODs through ESF #13;
- 100 refrigerated trucks; and
- NDMS counseling at the PODs.

The SERT also responded to direct requests from the NJ Department of Health and Senior Services to locate 12,000 medical professionals to support the State's acute care facilities. Supporting both processes simultaneously complicated tracking efforts and tended to blur the SERT's role in the response, rather than facilitate the flow of Federal support.

Participation by the SERT further complicated the New Jersey resource request process because the role of the SERT was not well-defined or understood by the participants. State officials had difficulty distinguishing the roles of the SERT and JFO. At times, the reaction of State officials was to work with both organizations, thereby increasing the likelihood that their request would be fulfilled. This method, however, made it difficult to coordinate the overall resource process.

Uncertainty over the role of the SERT was not limited to New Jersey officials. Near ENDEX, the SERT Operations Chief consulted with ESF #8 staff members in the JFO to resolve outstanding resource requests. The ESF #8 staff asked why the SERT was passing ARFs to ESF #8 to give to the JFO Operations Chief when it appeared to them that the support would be funded directly by HHS. It is not clear whether this exchange was the result of a misunderstanding between officials or a lack of familiarity with the process, but it suggests that the SERT's role in the Federal resource process had not been resolved during the exercise.

One potential concern is that the SERT duplicates the function of the JFO's ESF #8, which is responsible for supporting the mission assignment process. According to the NRP, ESF #8 "provides a mechanism for coordinated Federal assistance to supplement State ... resources in response to public health and medical care needs." HHS defines a similar role for the SERT. The function of the SERT is "to provide assistance to State and local jurisdictions responding to public health emergencies." The primary difference between ESF #8 and the SERT is that ESF #8 can task other Federal agencies to support the State's medical response. During the exercise,

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³⁶ For more information about the T3 FSE declarations please refer to the "Integrating Responses to Incidents of National Significance" section of this report.

³⁷ www.hhs.gov/ophep/presentation/hauer3.html

SERT members helped to staff the ESF #8 in the JFO, further confusing their role in the resource request and coordination process.

c. Resourcing Process #3: Unsolicited Support (i.e., "Asset Push")

Unsolicited support from the Federal government was the third resource process observed in the T3 FSE that further complicated the resourcing efforts of officials in New Jersey and Connecticut. Figure III-3 depicts the deployment of these resources and completes the resource request and coordination process diagram for New Jersey.

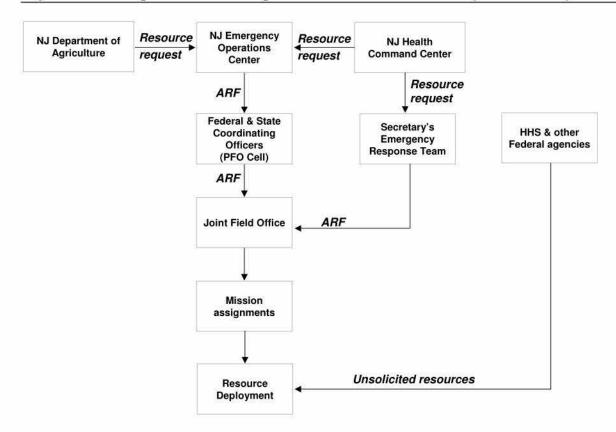


Figure III-3. Complete Resource Request and Coordination Process for New Jersey

During the exercise, the Federal government "pushed" unsolicited resources to New Jersey, including:

- a 10,000 bed alternate care facility (ACF);
- two 250-bed DoD field hospitals;
- several Disaster Medical Assistance Teams;
- 30,000 remains pouches;
- Biological Emergency Support Team;
- 400 emergency medical technicians;
- 800 units of blood;
- 300 military police;
- field laboratory; and
- 20 chaplains.

The most notable of these resources was the 10,000-bed ACF. The States' experience with the ACF highlights the types of resourcing issues that can arise when unsolicited assets are unknowingly pushed to the States. HHS attempted to deploy the ACF to New Jersey without consulting State officials. When these officials learned about the deployment, they requested that the delivery be canceled. The next day, the New Jersey State Medical Director reversed the

earlier decision and requested that the SERT arrange the redeployment of the ACF. HHS also pushed an ACF to Connecticut and expected the logistics to be managed by the DPH ECC; however, Connecticut was not aware of the arriving ACF or the need to manage the logistics. HHS also determined that the facility would be staffed with several out-of-state DMATs, even as the State was trying to distribute these DMATs to various area hospitals. Neither ACF deployment was coordinated with State authorities. The deployment of unsolicited assets can be helpful, but their arrival can also surprise State officials, who must replan on short notice to incorporate the asset into the response.

3. Resourcing in Connecticut

To this point, the resourcing analysis has focused on events in New Jersey; however, resourcing issues also existed in Connecticut. The resourcing structure in Connecticut was similar to the structure observed in New Jersey; in both States, there were three primary resource paths. The foremost difference between the two States was that in Connecticut, the Unified Command Post, rather than the SERT, provided another resource path in addition to the mission assignment and unsolicited support paths. Nevertheless, the result was the same: participants were uncertain about who had requested what.

In Connecticut, observations indicate that the UCP injected itself into the resource request and allocation process. After the transition from the ICP, representatives from the UCP began bypassing the State EOC. The UCP became an independent node in the Connecticut resource allocation process. Rather than submitting resource needs to the State EOC, the UCP assessed Connecticut's needs and submitted requests for support directly to organizations in the Federal government and other States.³⁸ Figure III-4 details the relationships among organizations participating in the Connecticut resource request and allocation process.

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³⁸ Some of the requests sent by the UCP to the JFO were handled appropriately under the National Contingency Plan authority and under the NRP's Federal-to-Federal response mechanism (i.e., a fourth resource process). The addition of another resource request channel increased confusion among the participants.

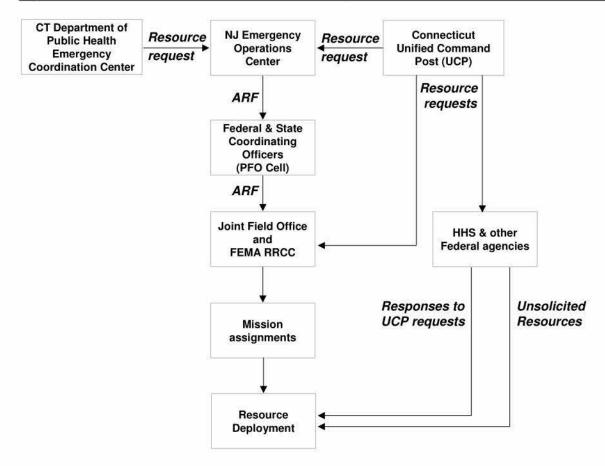


Figure III-4. T3 FSE Connecticut Incident Management Structure

The UCP's participation (i.e., the addition of another node) in the resource request process made it difficult for participants to coordinate their activities. This structure did not facilitate the orderly exchange of requests because there was no mechanism (i.e., a gatekeeper) that could manage all requests, deconflict similar requests, and answer questions. Planners and decision makers had to rely on a patchwork of reports concerning resource requests.

The analysis of the resourcing process in New Jersey and Connecticut indicates that three different processes were used to provide Federal resources to the States and these processes were not well-coordinated. This lack of coordination helps to explain why key resourcing organizations, such as the New Jersey State EOC, IIMG, HHS, and the JFO, had such different resource pictures (refer to Table III-4). In both States, there was no mechanism that managed the flow of requests from the State and the flow of resources from the Federal government.

4. Implementation of Resourcing Processes by State and Federal Officials

Observations made during the exercise indicate that neither Federal nor State officials fully understood the processes for accessing Federal support. When documenting some requests, State officials either omitted key information or requested specific resources, rather than capabilities. Several requests were returned because the State was not familiar with the capabilities of the assets it was requesting. The processing of requests was also problematic and the outcomes of many New Jersey requests remain unresolved. In both States, there was uncertainty about who had asked for what. It is not clear whether the information was communicated to either system.

5. Problems with Request Documentation

Many resource requests were too specific and/or lacked important information. For example, Connecticut requested 3–5 refrigerated trucks to transport/store 100 bodies. Similarly, the Connecticut request for the Quick Reaction Force (QRF) stated a need for a "company size element of Federal troops numbering 100–120." The first request should have included the location(s) of the bodies requiring transport and their destination(s). As for the second request, an appropriate way to request the QRF would have been to describe the requirement to secure a nuclear power plant, rather than requesting a particular unit. The request should also have included details about the expected mission and its duration, which Connecticut did not specify. In several other requests, Connecticut stipulated the source of the asset (e.g., DMORT, DMAT, or DoD security) instead of asking for the type of assistance or capability required. Requests that lacked specifics included one that simply asked for an "additional quantity of supplies from HHS" and one for "mental health counselors, psychologists, and social workers to provide psychological aid in hospital emergency departments." Neither included details needed to fulfill the request, such as the types of medical supplies required, the number professionals needed, the locations, or the expected duration of the mission.

More than once, Connecticut asked for an asset without a good understanding of what capability came with it. In a discussion between the State EOC and JFO about the options for increasing the number of medical professionals, the State EOC had to ask what a DMAT could do. The response to a State request for DMORT to remove 100 dead bodies, 20 of which were contaminated, was that DMORTs do not handle contaminated bodies. Similarly, Connecticut's request for mortuary assistance included both DMORT and refrigerated trucks, although DMORTs bring their own temporary morgue facilities. A request to the National Guard for explosive ordnance disposal support was returned because the National Guard does not have this capability.

6. Officials Unfamiliar with the Processes

At times, State and Federal officials were also uncertain about how to process requests. Despite statements from the Connecticut EOC that all requests for Federal resources would be coordinated through the State EOC, confusion about how to access Federal assets persisted among State agencies. In a teleconference on April 4, a Connecticut Department of Public Health (DPH) representative in the State EOC called the DPH for clarification on how to request HHS

assistance. There was also evidence that Connecticut officials were unfamiliar with the ESF structure and to whom resource requests should be sent at the JFO. One data collector log noted that DPH staff members at the State EOC thought that ESF #8 (Public Health and Medical Services) was a form, rather than part of the JFO. This lack of familiarity may explain why requests were sent directly to different entities within the JFO and PFO cells. The same request for medical support was sent by the State EOC directly to a DoD representative (presumably at the JFO), another to the ESF #8 desk, and yet another to the PFO. In another example, requests were sent directly from representatives in the State EOC to the JFO without the knowledge of the Operations Chief within the State EOC. The result in Connecticut was uncertainty about who had asked for what.

Several of the requests submitted by State officials in Connecticut were not resolved during the exercise. During the T3 FSE, Connecticut officials submitted at least 12 requests, but mission assignments were issued for only 7 of these requests. The remaining 5 requests were unresolved. Table III-5 lists these 12 requests and the outcome of each request.

Table III-5. Matching Connecticut ARFs with JFO Mission Assignments

Resource Requested by State Using an ARF	Federal Action Taken	
State DMAT	Asset provided	
Federal DMAT	Asset provided	
Medical Reserve Corps	Asset provided	
Out-of-state hospital capacity	Asset provided	
Nation-wide hospital capacity	Unresolved	
Rapid Response Registry	Unresolved	
Patient movement in-state	Unresolved	
Patient movement out-of-state	Unresolved	
Ventilators/dilators	Unresolved	
Refrigerated trucks	Asset provided	
DMORT	Asset provided	
Federal Quick Reaction Force (QRF)	Asset provided	

The number of unresolved requests in Connecticut suggests that the mission assignment process was not able to meet the needs of the State's response.

Uncertainty about the resourcing processes may help explain why a large number of State ARFs were not resolved during the exercise. In New Jersey, the State EOC submitted 43 ARFs, but 24

were not resolved during the exercise.³⁹ The JFO made nine mission assignments in response to the New Jersey ARFs. The remaining ten ARFs were canceled, rejected, superseded, or provided by National Disaster Medical System (i.e., outside the mission assignment process). The large number of unresolved resource requests noted in New Jersey indicates that the mission assignment process broke down during the exercise, leaving many State resource needs unmet.

Uncertainty about the resource request and coordination process may have caused officials in New Jersey to submit several ARFs requesting similar resources. It is unclear whether the State was requesting additional resources or simply updating earlier requests. For example, the State submitted three requests for mental health workers to support POD operations. In separate requests, the State requested 2,000, 1,500, and 500 crisis counselors. From these ARFs, it is not clear how many mental health workers the State was requesting. A similar problem arose over POD security. The State submitted six different ARFs requesting POD security. At various times during the exercise, the State requested:

- armed security for the PODs (n = 1,826);
- POD security (n = 2,350);
- POD security (n = 4,000);
- POD security (10 per POD, n = 1,680);
- POD security (20 per POD); and
- security to protect the State's 200 PODs (n = 4,000).

It is unclear exactly how many POD security personnel the State was requesting. The numerous submissions also made it difficult to discuss security resources because, among staff members, it was difficult to discern which requests were being discussed.

Uncertainty about the process was not limited to State officials. In Connecticut, the Operations Chief in the JFO expressed concern that ESF #8 was processing requests made directly to them by the State EOC at the same time that the JFO Operations Branch was processing the same requests. This led to a discussion about procedures and the pronouncement that all requests should be formally made through the FCO.

As in Connecticut, officials in New Jersey were not familiar with the resource request and allocation process. The observations summarized in Table III-6 indicate that staffs at Federal sites in New Jersey encountered problems with the resourcing process.

The daily distribution of ARFs submitted to the New Jersey JFO was: April 4 = 1, April 5 = 4, April 6 = 18, April 7 = 17, April 8 = 0, and Unknown = 3.

Table III-6. Resource Request and Allocation Process Issues at Federal Sites in New Jersey

Time/date	Location	Data Collector Observations	
23:58 April 4	ERT-A	The DMORT request is halted, because the SERT thought that the request had be vetted through HHS. Later clarified that the DMORT is a FEMA asset.	
17:50 April 5	RRCC	The Operations Chief requests that ESF #8 find out what they are doing under HHS funding and what is being done under Stafford Act.	
22:20 April 5	RRCC	There is a disconnect between what is being conducted in the ESFs and what the RRCC Director and Operations Chief are aware of.	
06:30 April 6	JFO	It does not seem that anyone in this section knows the correct way to submit properly filled out ARFs.	
13:45 April 6	JFO	The JFO was trying to figure out how an ARF was submitted and approved for the 10,000 bed facility without consulting the State or FEMA. The SERT indicated that HHS requested the facility for New Jersey.	
16:10 April 6	JFO	The Mission Assignment staff wants to know the origin of the request for the Army Corps of Engineers to provide power and shelter for citizens.	
17:30 April 6	JFO	The Operations Chief is requesting from all Branch Chiefs and ESFs what the latest information is on all mission assignment—wants status on all.	
18:30 April 6	JFO	It does not appear that anyone in this section knows the process for completing and submitting ARFs.	
09:30 April 7	JFO	ESF #7 is being directly tasked by FEMA Headquarters without going through the FCO.	
16:00 April 7	JFO	The JFO staff does not know how HHS fits into the resource allocation process. The ARF/MA process is broken.	
17:45 April 7	JFO/SERT	SERT Operations Chief comes into JFO and introduces himself to the JFO Operations Chief. SERT Operations Chief asks how exactly they can get the items they need.	
17:50 April 7	JFO/SERT	ESF #8 staff consulted with SERT Captain regarding why mission assignments are coming from the SERT if HHS is directly funding these resources. It appears that the SERT is submitting ARFs to ESF #8 to pass to the JFO Operations Chie for items that have already been completed using HHS resources. The JFO want to understand why the SERT is using a FEMA process—confusing.	
08:00 April 8	JFO	JFO Operations Chief is discussing how to clarify the process of receiving ARFs and entering them into a tracking log.	

The observations in Table III-6 indicate that personnel from the RRCC, JFO, and SERT were confused by the operation of multiple, overlapping resourcing processes. This lack of familiarity is problematic because these personnel are expected to manage the Federal resource process in the State. This lack of familiarity with the mission assignment process may explain why so many State requests were unresolved at the end of the exercise.

7. Information about Resourcing Process Not Readily Available

Throughout the exercise, participants from both State and Federal agencies did not have access to current information about the status of resource requests or about the deployment of unsolicited assets. Information that was available about what had been requested, the status of these requests, and the arrival of Federal resources was often incomplete and outdated. This lack of transparency (e.g., the ability to track a request from submission through delivery) made it difficult for State and Federal officials to access information about:

- which resources had been requested and by whom;
- the status of the requests (e.g., received and under review);
- the outcomes of these requests (e.g., denied, approved, or modified); and
- the status of the resource (e.g., mobilizing, en route, or arrived).

Without access to reliable information, response planners and decision makers lacked a key element of situational awareness. For example, the reconstruction of the T3 FSE events indicates that the New Jersey PFO Cell was not aware of many New Jersey resource requests. At a 1500 briefing on April 6, the PFO Cell reviewed the status of resource request submitted by the State. In this meeting, the PFO Cell noted that New Jersey had requested:

- SNS support;
- DMAT;
- DMORT;
- NDMS MST; and
- DPMU.

The PFO Cell's list of requests differs from the list of submitted ARFs provided by the New Jersey State EOC. A review of the State EOC ARFs submitted by 1200 on April 6 indicates that in addition to the items listed above, the New Jersey EOC had submitted additional ARFs for the following:

- VMAT;
- 80–100 epidemiological investigators;
- 12,000 medical personnel to support acute care facilities; and
- 8 pathologists.

Such differences suggest that reliable information about State resource requests was not readily available to officials in New Jersey. Similar issues were observed in the New Jersey JFO Cell. Data collectors noted resource request confusion on at least eight occasions. In Table III-7, several examples of this confusion are provided.

08:00/April 8

Time/Date	Data Collector Observations		
04:03/April 7	There are ten ARFs being played by the DCO with no play from the ESFs. There is confusion over who is doing these ARFs. Nothing has been passed to the Operations Chief about who is handling them.		
04:06/April 7	There are questions regarding who is responsible for purchasing the 100 refrigerated trailers.		
04:50/April 7	The JFO Operations Chief and the Deputy Federal Coordinating Officer were trying to resolve who is in charge of the CDC Vector Control Team and who is paying for them.		
07:00/April 7	The State is sending duplicate ARFs to the JFO forcing the Operations Chief to sort through them to identify those ARFs that are already in process.		
08:00/April 7	The Operations log indicates that new ARFs came in during the night shift, but many are duplicates and some have been returned to be reworked.		
19:15/April 7	NJ EOC had to resubmit an ARF for a VMAT because the first had been lost.		
April 7	ARFs went directly to the ESFs.		

Table III-7. Confusion Regarding New Jersey Resource Requests

receiving duplicate requests.

A lack of understanding about what had been requested at the JFO Cell is particularly troublesome because managing the resource allocation process is the primary function of the JFO.

Several (9) ARFs received at the JFO during the night shift are unassigned. The JFO is still

Similar issues existed in Connecticut. At the operational level, officials realized that information about resource requests had not been adequately maintained and were not readily available. For example, the Logistics Chief at the RRCC remarked to the Operations Chief that it was unclear to him what, if anything, had been done on State resource requests. State officials echoed these sentiments. The Operations Chief at the State EOC commented that he never knew if or when requests were addressed by Federal authorities. The State Logistics Chief added that he could not distinguish new requests from clarifications of previous requests.

Such observations suggest that information about resource requests and deployment was not readily available to officials in New Jersey and Connecticut.

8. Issues from Previous Exercises

Many of the same issues observed during T2 regarding the resourcing process recurred during the T3 FSE. In at least one area, the issue may have worsened. In the T3 FSE, information about the process of requesting resources was not documented in the National Response Plan (NRP). The document that preceded the NRP and was in use during T2, the Federal Response Plan, included a thorough description of the process.

In Table III-8, a comparison of the T3 FSE resourcing process with the T2 experience is provided.

Table III-8. Comparison of T3 FSE with Previous Exercises

T2 FSE	T3 FSE
ISSUES/OB	SERVATIONS
Considerable uncertainty existed at the local and State levels about available Federal assets and the processes for obtaining them. States often requested specific assets—sometimes requesting inappropriate or unnecessary assets by error. States appeared not to be aware of the range of Federal resources potentially available.	State and Federal officials struggled with the implementation of the Federal resourcing process.
State and local agencies requested resources through a number of different channels directly from the Federal departments/agencies and also through the FEMA mission assignment process. Direct requests for Federal assistance occurred before Stafford Act declarations (e.g. Washington State requested assistance from DOE in response to the RDD attack).	The use of multiple resource processes created uncertainty and adversely affected situational awareness.
A complete and consistent source of information about deployed Federal assets was not available.	Information about the status of resources was not readily available and the process lacked transparency.
	The role of the HHS SERT was not well-defined or understood by participants. At times the SERT duplicated functions performed by ESF #8 in the JFO.

The comparison of the T2 and T3 experiences suggests that there has been little improvement in the process of matching State needs with Federal assets.

E. Conclusion

During the T3 FSE, officials in New Jersey and Connecticut requested Federal support; however the resource request process used in this exercise was problematic. At least three different resource processes were used during the exercise and the activities of those supporting each one were not well-coordinated. Officials struggled with implementing the process, many requests were unresolved, and information about the status of requests was not available. Additionally, the role of the HHS SERT was not well-defined or understood by the participants. Together, these factors adversely affected the ability of State and Federal officials to match State needs with available Federal assets. Resolving these issues would clarify the process and strengthen the ability of Federal and State agencies to respond to a major disaster.

The use of multiple resource processes created uncertainty and adversely affected situational awareness. State and Federal efforts would likely benefit from a simplified resourcing process. Developing a unified Federal emergency resourcing process would likely address many of the coordination and situational awareness issues observed during the T3 FSE.

State officials struggled with the implementation of the Federal resourcing process. Integrating a team familiar with the Federal resource allocation process into a State EOC would likely improve the State's ability to access the Federal resources it needs. Such an organization (e.g., ERT-A) already exists, but its impact on the T3 FSE resource process is unclear. The ERT-A is a deployable FEMA organization familiar with JFO operations. In New Jersey, the ERT-A deployed to the State EOC. In Connecticut, the ERT-A deployed to the JFO. The analysis of the T3 FSE observations indicates that officials in both venues struggled with the resource request process. It is not clear that the ERT-A in New Jersey improved the State's ability to access Federal resources. One difference between the two venues is that New Jersey submitted 43 ARFs and Connecticut submitted 12; however, this difference could be caused by a number of factors and exercise artificialities. Nevertheless, observations from the T3 FSE indicate that States require substantial support and guidance on the Federal resource request process.

Information about the resource process(es) was not readily available. Both State and Federal officials would benefit from readily available and clear documentation on the mission assignment process. Although the NRP makes numerous references to the mission assignment process, few, if any, details of the process are provided in the document. Without guidance from the NRP, State and Federal officials must locate other sources of information about how the Federal government provides disaster assistance to States. During such emergencies, officials have little time to thoroughly research the process. In the T3 FSE, State and Federal officials learned about the process while attempting to engage and/or implement it.

The documentation that describes the mission assignment process should be crafted so that even those officials with limited exposure to the process and little time to learn can successfully participate. The information should be clear and concise. Although Federal officials may have many opportunities to participate in and learn about the mission assignment process, State officials will likely have far fewer opportunities to do so.

The role of the HHS SERT was not well-defined or understood by the participants. In the T3 FSE, the HHS Secretary activated the SERT in both New Jersey and Connecticut, despite the fact that a public health emergency was declared only in New Jersey. Observations from New Jersey indicate that its presence adversely affected the resourcing process.

There are at least two alternative roles that the SERT could fulfill during a crisis that involved multiple Federal agencies: augment the ESF #8 or deploy to the State's Department of Health.

The T3 FSE analysis indicates that in situations in which the Stafford Act mission assignment process is being used, both ESF #8 and the SERT do not need to be present because they performed nearly identical functions in the exercise (i.e., coordinate Federal medical resources). This conclusion suggests that when the JFO stands-up and ESF 8 activates, the SERT should either augment the ESF #8 staff or not deploy to the JFO. This approach would benefit the resource allocation process by:

- clarifying the process for accessing Federal resources;
- reducing coordination requirements (one less node in the resource request structure); and
- infusing ESF #8 with an experienced staff of subject matter experts.

The T3 FSE experience indicates that maintaining the SERT and ESF #8 as separate entities, as they were in the T3 FSE, will preserve a source of confusion that will adversely affect the State's ability to access Federal resources during a major disaster.

A second alternative to deploying with the JFO would be for the SERT to deploy to the State's Department of Health or other location at which the SERT could provide subject matter expertise needed for the response, including expertise about Federal medical resources, and advise the State health officials how to request those assets. Such a mission would require the SERT staff to become more familiar with the Federal resourcing process.

Access to information about the status of resources would help the State plan their response; however, such access was not available during the T3 FSE. Throughout the exercise, both Federal and State officials asked a version of the same question over and over again: What is the status of the State's resource requests? Many of those participating in the response had little insight into the process and were not notified when a request was received, approved, denied, or modified. The lack of access to the status of resource requests limited the ability of response organizations to incorporate Federal resources into their response plans.

During the exercise, the JFO maintained at least two logs of mission assignments, but it is not clear the extent to which State officials had access to either log. There are no observations indicating that State officials had access to or used either log. Even if they did, the logs are incomplete; several State requests do not appear in either log. State officials also did not have access to information about the deployment of unsolicited resources from the Federal government.

Access to information about the status of resources requests and the deployment of all resources is an essential element of situational awareness among State and Federal officials during major disasters. During the exercise, these officials devoted large amounts of time and effort to the resourcing process. Documenting this process and its results during the T3 FSE would have contributed important information to the participants' situational awareness.

Providing the information needed to support resource allocation awareness does not require an extensive infrastructure or an elaborate process. A readily available, authoritative spreadsheet containing a few pieces of information (e.g., a description of the requested/deployed resources, a

JFO point of contact, and the status of the request) would provide officials with significant situational awareness. Once again, a simple process and an accessible mechanism for sharing information would be sufficient. For example, the JFO could attach the resource request spreadsheet to a regular update that it e-mails to a large number of State and Federal officials. This authoritative update would become the basis for situational awareness about the resourcing process. Such a simple solution is more likely to be used by State officials who may have few opportunities to learn about the Federal resourcing process and the information sharing mechanism.

1. Recommended Courses of Action

- Develop a unified Federal emergency resourcing process that supports resource requests from the State under the Stafford Act and resource requests for Federal-to-Federal support under other Federal authorities. Include a description of how resource request/status information will flow between the Incident Command Post(s) and the JFO.
- Provide States with a team of subject matter experts, who are knowledgeable on Federal capabilities and the resource requesting process itself.
- Document the mission assignment process more thoroughly in the NRP.
- Clarify the role of the SERT during emergencies. Consider using the SERT to augment ESF #8 at the JFO or deploying it to the State Department of Health to provide subject matter expertise in identifying and requesting Federal medical support.
- Make information about resource requests readily available, including what resources
 or capabilities were requested, who made the request, how the request is being
 funded, and its current status.

IV. Information Sharing

A. Introduction

Accurate and timely sharing of information and the development of a common operational picture are critical for the success of an integrated Federal, State, and local response to domestic emergencies. Despite efforts to improve communications and information sharing across response organizations, the lack of shared situational awareness and the dissemination of incorrect information remain significant roadblocks to a coordinated emergency response, as evidenced by experiences in the T3 FSE.

Previous sections of the AAR touched on information sharing and coordination problems associated with resource requesting and coordination, agent identification, status of advisory levels, and integration of operating centers into the response, among others. The following discussion focuses on some additional examples of inadequate information sharing that affected T3 operations from the tactical to the strategic levels of the response, and then proposes some broad explanations as to why communications broke down in these and other cases.

Analysis of information sharing in T3 suggests a number of contributing factors to the information sharing problems observed during the exercise, including:

- proliferation of stovepiped electronic information systems;
- presence of many nodes in the response network;
- lack of formal information flow processes and the use of alternative channels; and
- lack of uniform reporting guidelines and established procedures for validating information to build shared situational awareness and a common operating picture (COP).

SUMMARY OF CONCLUSIONS: INFORMATION SHARING IN THE T3 FSE

- Information systems used in T3 were largely stovepiped within agencies and/or response communities.
- The vast number of operating centers activated during T3 negatively affected information sharing by increasing the scope and complexity of the problem.
- The use of informal or alternate channels for sharing information caused problems by enabling circular reporting and bypassing authoritative sources.
- The T3 FSE revealed a lack of uniform reporting guidelines and procedures for validating information received from secondary or tertiary sources.
- Agencies and operating centers acted and made decisions on different information
- Situational awareness was not effectively shared across operating centers and agencies.

The result of information sharing problems in the T3 FSE was that shared situational awareness was not achieved nor was a COP developed and effectively shared across the response network. Instead, agencies and operating centers in T3 were often making decisions and acting on different information.

B. Background

Shared situational awareness is the synthesis of information across organizations or among individuals used to generate a common bank of knowledge about an incident or situation. The concept of shared situational awareness does not necessarily imply perfect information, though that is the goal, but rather common information, be it good or bad, shared by all persons or

⁴⁰ See discussion in "Resource Requesting and Resource Coordination."

⁴¹ See discussion in "Agent Confirmation and Hazard Area Determination."

⁴² See discussion in "Homeland Security Advisory System."

⁴³ See discussion in "Joint Field Operations."

organizations. Part of shared situational awareness is building a COP. Most definitions of a COP imply a physical or technological display of information accessible by all the parties. This picture facilitates collaborative planning by visually presenting information relevant to achieve shared situational awareness. Key to developing a COP and shared situational awareness is an understanding of an incident's or operation's essential elements of information (EEIs), or the significant pieces of information that need to be shared. Some EEIs can only be tracked with words, not pictures.

Casualty figures and the means by which contaminating agents were disseminated are EEIs in an emergency response. These data drive decision making at multiple levels and across different communities.

- The numbers of persons injured, sick, and dead are used for predicting resource requirements including hospital beds, ventilators, and mortuary services; for supporting any epidemiological investigations; for determining prophylaxis requirements; and for framing Federal support to a region, State, or locality.
- Information on a contaminating agent and how it was released is used for supporting the criminal investigation, for predicting the spread of contamination, for assessing remediation requirements, and for determining public safety measures.

In a domestic emergency response operation, operating centers and agencies at the local, State, and Federal level develop their own situational awareness of the incident, and then strive throughout to align their knowledge with that held by other centers or agencies. In other words, they create their own operational picture, then constantly update and validate it with information gleaned from other responders, thereby building a COP. The NRP identifies the Homeland Security Operations Center (HSOC) as the national hub for information sharing and tasks that center with maintaining situational awareness.

C. Reconstruction

During the T3 FSE, Operations Centers across the response network frequently held contradictory information about casualty figures and the means by which terrorists released the mustard agent in Connecticut.

1. Victim Numbers

The first casualties from the T3 FSE terrorist attacks appeared in New Jersey at 08:00 on Monday, April 4, when three victims were admitted to hospitals in Union and Middlesex Counties, New Jersey. Showing flu-like symptoms and coughing up blood, these victims marked the first of many casualties from the overnight release of *Yersinia pestis* along the State's highways. Using a credible epidemiologic model, T3 planners were able to project the numbers of plague casualties both temporally and geographically. According to the model, by the end of the first day, over 900 people were sick and another 900 dead from pneumonic plague. Within

four days, over 60,000 State residents were sick, and 9,500 people were dead. Table IV-1 shows the ground truth numbers of plague deaths between April 4 and 8.

Table IV-1. Persons Dead from Plague in New Jersey (Ground Truth)⁴⁴

Date and Time	Total Dead (Cumulative)	
Monday, April 4, Noon	92	
Monday, April 4, Midnight	909	
Tuesday, April 5, Noon	3,077	
Tuesday, April 5, Midnight	5,692	
Wednesday, April 6, Noon	6,509	
Wednesday, April 6, Midnight	8,071	
Thursday, April 7, Noon	8,490	
Thursday, April 7, Midnight	8,839	
Friday, April 8, Noon	9,181	
Friday, April 8, Midnight	9,554	

Figure IV-1 shows the number of fatalities that were reported by various sources in New Jersey, the Federal government, and the media compared to the ground truth as injected by exercise control based on the epidemiological modeling.

⁴⁴ Note that the dates and times are based on planned injects by exercise control. Data is insufficient to prove whether injects occurred precisely as planned.

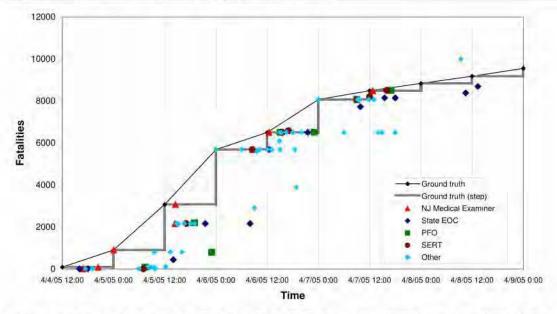


Figure IV-1. Fatalities from Plague in New Jersey

In the chart, the black line bounding the data-points corresponds to the ground truth as injected by the controllers. The gray stair-step line corresponds to what the ground truth would appear to be with numbers injected in 12-hour intervals, as they were once hospital play concluded prior to midnight on April 4. The points on the chart that are not in agreement with the ground truth fall into two main categories—"late" and "other."

The late points are those that match injected ground truth fatality numbers, but were reported after new injects. On the chart, the late points fall on a line horizontal to the inject, but after a stair-step riser indicating a new inject. For example, there are at least eight points that correspond to the 6,508 fatality deaths injected at 12:00 on April 6. These eight points fall on a horizontal leg of the ground truth stair-step line, to the right of the 4/6/05 12:00 and 6,508 point; therefore, these reports were timely and accurate, falling as they do before new numbers were injected into play. The chart shows, however, that there were four more reports of 6,508 deaths, by the FEMA ERT, the CDC, and DHS, all of whom were reporting or working from out-of-date information. Data points that fall under the "other" descriptor are those that do not align with any ground truth data on a horizontal access.

Figure IV-1 indicates that the lack of a common and accurate fatality count in New Jersey was largely an issue of late reporting. Except for a few instances, agencies and operating centers appeared to report fatality numbers that aligned with figures that were, at the very least, accurate at some point during the exercise, if not at the moment they were reported. This suggests a problem with keeping all operating centers and agencies updated with new information.

Victims of the terrorist attack in Connecticut included persons injured or killed in the truck bombing on the New London City Pier and those contaminated by mustard dispersed from an airplane prior to the explosion. Over 100 people were killed and another 300 wounded in the bombing. The mustard attack resulted in the hospitalization of over 5,600 people, with close to 50,000 more filling hospital waiting rooms fearing they had been contaminated. Table IV-2 shows the ground truth numbers of people hospitalized for mustard exposure as a result of the Connecticut attack.

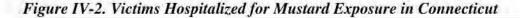
Table IV-2. Victims Hospitalized in Connecticut (Ground Truth)⁴⁵

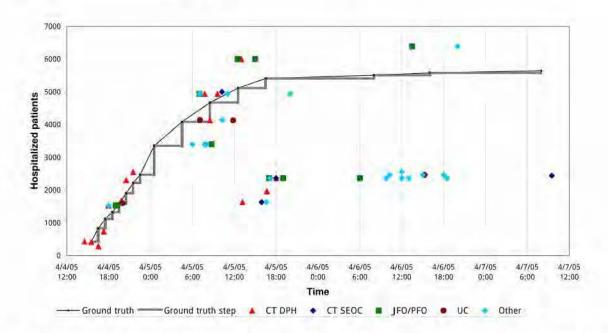
Date and Time	Total Hospitalized (Cumulative)
Monday, April 4, 15:30	429
Monday, April 4, 16:30	835
Monday, April 4, 17:30	1,119
Monday, April 4, 18:30	1,327
Monday, April 4, 19:30	1,587
Monday, April 4, 20:30	1,906
Monday, April 4, 21:30	2,220
Monday, April 4, 22:30	2,469
Tuesday, April 5, 00:30	3,351
Tuesday, April 5, 04:30	4,086
Tuesday, April 5, 08:30	4,674
Tuesday, April 5, 12:30	5,115
Tuesday, April 5, 16:30	5,409
Wednesday, April 6, 08:00	5,508
Wednesday, April 6, 16:00	5,579
Thursday, April 7, 08:00	5,644

Figure IV-2 shows the number of victims hospitalized for mustard exposure as reported by various sources in Connecticut, the Federal government, and the media, compared to the ground

⁴⁵ Note that the dates and times are based on planned injects by exercise control. Data are insufficient to prove whether injects occurred precisely as planned.

truth as injected by exercise control. In the Connecticut portion of the T3 FSE, new casualty numbers were not injected in a consistent pattern as they were in New Jersey.





The reported hospitalization numbers from Connecticut show more discrepancies across reporting agencies and as compared to the ground truth than did the New Jersey fatality data. Few of the differences in casualty reporting in Connecticut appear to be attributable to late reports. Instead, the reported hospitalization numbers are widely dispersed across time and operating centers.

2. Agent Release

The terrorists used two methods to disseminate the mustard agent in Connecticut. First, at approximately 11:20 on April 4, a small aircraft flew over the New London City Pier on the Thames River releasing mustard over the waterfront area. Roughly two hours later, at 13:20, a vehicle-borne improvised explosive device (VBIED), hidden in the back of a truck that also carried mustard, detonated at the head of the pier. Most of the mustard agent present in the truck bomb was destroyed during the explosion, limiting contamination to the immediate vicinity of the detonation, where a pool of mustard had collected prior to the explosion. The aircraft release contaminated a much larger area and had a greater impact on the people attending the festival at the pier.

First responders and hazardous material specialists at the incident site quickly recognized that victims were showing symptoms beyond those expected after a bombing. Most responders assumed that the truck itself was responsible for the contamination. The investigation into the

attack in Connecticut progressed rapidly. Interviews with victims revealed that most reported feeling ill prior to the explosion and remembered seeing a low flying aircraft leaking an unknown substance over the pier roughly two hours before the bombing. This led the FBI to investigate five small aircraft matching witness descriptions that were reportedly in the area on April 4. Over the course of a few hours, law enforcement personnel had contacted and interviewed the owners or pilots of all but one of the aircraft, a Beechcraft Baron 58, owned by three individuals as part of a timeshare. At 14:20, the FBI was advised that an airplane matching that description had landed at a private airstrip in Millbridge, Maine, under suspicious circumstances and with a steel drum inside. At 15:35, the senior investigator at the Connecticut JOC sent agents to Maine to investigate the aircraft. The search of the aircraft began at 17:00, and by 17:13, investigators had located the steel drum and were testing it and the aircraft for signs of mustard. At 22:00, the FBI Senior Agent in Charge (SAC) informed the Primary Federal Official (PFO) and the other members of the JFO Coordination Group that initial tests on the aircraft were positive for mustard, but that definitive confirmation would not be available until the next morning. At 10:00 on April 5, the Connecticut JOC informed the FBI's Strategic Intelligence Operations Center (SIOC) that test results on the aircraft were positive for mustard. The confirmation was briefed within the JOC at 12:00 and posted to the Law Enforcement Online (LEO) system at 14:05.

Unaware of the FBI's investigation into the suspicious aircraft, other agencies hypothesized about the means of dispersal. At 18:08 on April 4, the Connecticut Department of Public Health (DPH) and the treating hospitals reasoned that the timetable in which victims became symptomatic was too quick for the mustard to have been released in the explosion, suggesting the agent was released prior to the explosion (or was not mustard). The next morning, at 06:20, a representative from the Connecticut DPH also expressed skepticism that the ten-gallon container discovered in the debris from the truck bomb could produce the number of casualties being seen at area hospitals. Representatives from the Environmental Protection Agency (EPA), located at the JFO, considered that a blast strong enough to destroy a five-story building would likely have destroyed any mustard present. The Interagency Modeling and Analysis Center (IMAAC) determined from the initial set of field measurements, injected at 19:30 on April 4, that the bulk of the contaminant had to have been released from an airplane; this scientific conclusion was included in Set 4 of the IMAAC products, released at 23:50 on April 4.

Despite these hypotheses, scientific evidence, and the FBI's ongoing investigation, between 03:00 on April 5, and the conclusion of the T3 FSE on April 7, numerous agencies and operating centers incorrectly reported or believed that the aircraft found in Maine had tested negative for mustard and was likely not responsible for the chemical release over the New London City Pier. Table IV-3 identifies the agencies, their incorrect assumptions, and when they were corrected relative to the 10:00 confirmation that the aircraft was positive for mustard.

⁴⁶ Data suggest that the initial genesis of the incorrect information about the aircraft was the result of controller error. However, the spread of bad information and the inability of operating centers and agencies to successfully correct the mistake across the response network are worth analyzing.

Table IV-3. Misinformation about the Aircraft that Released Mustard

Agency/ Operating Center	Time of Incorrect Assumption	Incorrect Information	Time When Corrected	Time Since FBI Confirmed Mustard on Aircraft
CT PFO/ JFO CG	April 5, 03:00	FBI Boston examined aircraft in Maine and determined it was only equipped with normal crop dusting equipment, and that all other forensic tests yielded negative results	April 5, 11:50 ⁴⁷	1 hr, 50 min
UCP	April 5, 04:09	Airplane in Maine was a red herring	April 5, 13:05	3 hrs, 5 min
USCG	April 5, 04:18	FBI reported the inspection of the aircraft resulted in no evidence of mustard	April 5, 16:17	6 hrs, 17 min
IIMG (DHS S&T)	April 5, 07:28	FBI reported positive identification of mustard on the ground in Connecticut but only precursors on the aircraft. Instructed the IMAAC to ignore the aircraft and focus on the truck as the source of the mustard.	April 5, 14:22	4 hrs, 22 min
CT DEP	April 5, 09:45	Local FBI determined the aircraft was a false lead. Requested IMAAC plume analysis for truck-based release.	April 5, 10:53	53 min
HSOC	April 5, 10:27	A drum in the aircraft tested positive for HD. However, on further examination it was determined that the aircraft was only equipped with normal crop dusting equipment. All other forensic examinations yielded negative results.	April 5, 14:22	4 hrs, 22 min
TSA	April 5, 15:00	FBI analysis of the drum on the aircraft in Maine yielded no trace of mustard. (as reported in DHS/PFO SITREP) ⁴⁸	Unknown	
FEMA RRCC	April 6, 09:00	Vehicle bomb appears to be primary dissemination device.	Unknown	
OSHA	April 6, 15:00	Mustard disposition assumptions not established. (as reported in DHS/PFO SITREP)	Unknown	

⁴⁷ Despite data indicating the JFO Coordination Group was told at 11:50 on April 5, that the aircraft tested definitively for mustard, members continued to question the validity of that information through the end of the exercise.

⁴⁸ The 15:00 SITREP from the Connecticut DHS/PFO contained contradictory information, with the TSA section reporting the aircraft yielded no trace of mustard and the FBI section reporting the aircraft tested positive for mustard.

D. Analysis

Shared situational awareness is essential for the successful integration of Federal, State, and local operations during an emergency response. The T3 FSE demonstrated examples of both successful and less than successful information movement and coordination, many of which are described throughout this AAR. To improve on integrated responses to national emergencies, it is important to understand what does and does not work in terms of information flow, where information sharing tends to break down, and what actions or events influence the information sharing processes.

Analysis of information sharing in T3, particularly the movement of casualty figures and the flow of information about the mechanisms used by the terrorists to disperse the contaminating agents, suggest a number of contributing factors to the difficulties observed, including:

- proliferation of stovepiped electronic information systems;
- vast number of nodes in the response network;
- · lack of formal information flow processes and the use of alternative channels; and
- lack of uniform reporting guidelines and established procedures for validating information to build shared situational awareness and a COP.

1. Proliferation of Stovepiped Electronic Information Systems

The purpose of an electronic information system is to facilitate the exchange of information among a select group of individuals. In T3, the audience for different information systems ranged from the very narrow—a single agency—to the very broad—multiple operating centers staffed by different agencies and physically located in three separate countries.

During the exercise, participants were observed using a number of different information systems. In some cases, the participants used secure intranets. In others, they used public websites to share information. T3 responders in New Jersey, Connecticut, at the interagency level, and in Canada and the United Kingdom used the following patchwork of information systems to disseminate time-critical information, pass requests for support, task issues, respond to requests for information, and log events:

- Communicable Disease Reporting System (CDRS). CDRS is an interactive web-based information management application that tracks communicable disease data. With these data, public health officials can generate reports and monitor trends in the spread of a disease. Plague patient data was entered into the NJ CDRS throughout the exercise.
- <u>E-Team</u>. E-Team is a commercial off-the-shelf (COTS) crisis management application that provides personnel with the ability to exchange information, manage resources, track

⁴⁹ See http://sph.umdnj.edu/campus/Dviriglio.pdf

- requests, log events, and monitor deployments.⁵⁰ During T3, the New Jersey State EOC relied on E-Team to support its response to the T3 scenario, whereas HHS used it to support its internal information management.
- Health Operations Tracking System (HOTS). HOTS is an application used to document health-related incidents in New Jersey.⁵¹ During T3, New Jersey State and county health officials used HOTS to exchange information about the spread of plague and the State's response to the emergency. For example, the Health Command Center used HOTS to log significant events as they occurred. County officials used HOTS to request medical resources through their county OEM.
- Homeland Security Information Network (HSIN) International. HSIN International is a
 secure website that allows DHS representatives in U.S. embassies to exchange
 information with the HSOC via event logs, SITREPs, and chat sessions. During T3, it
 connected DHS representatives in the United Kingdom and Canada with Federal
 operations and information in the HSOC.
- Information Control System (ICON). ICON is a Microsoft© Access-based software
 program used internally by the FBI to run large-scale investigations. It allows for Bureauwide communications to manage and share information about a specific investigation,
 including leads and results. During T3, the FBI used ICON to set leads and monitor the
 status of the investigation.
- <u>JFO Net.</u> JFO net is the intranet developed and implemented by DHS to support emergency management activities and information flow across Federal operations centers, including the JFO, PFO cell, HSOC, and IIMG. During T3, JFO net was used to post tactical information from the Unified Command in Connecticut as well as more operational and strategic information from the JFOs and the HSOC in Washington, DC.
- Law Enforcement Online (LEO). LEO is a secure information system maintained by the FBI that provides a communication link for all levels of law enforcement in the United States. Through LEO, authorized users can access a variety of information tools, including an electronic law enforcement library, e-mail, chat, topical web pages, and areas for special interest groups. During T3, the law enforcement community used LEO to document their activities and share information regarding the ongoing investigations in New Jersey, Connecticut, and internationally.
- New Jersey Local Information Network and Communications System (NJLINCS). NJLINCS is a system of public health professionals and electronic public health information that enhances the identification and containment of diseases and hazardous conditions that threaten the public's health. Built on personal computer and Internet technologies, LINCS is a network of 22 strategically positioned local health departments located throughout the State, the New Jersey Department of Health and Senior Services,

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⁵⁰ See http://www.eteam.com

⁵¹ See https://www.hots.nj.gov/

⁵² See http://www.fbi.gov/hq/cjisd/leo.htm

all other local health departments, and public/private organizations working at the community level to protect the public's health. 53

The following list is not exhaustive, but represents the large number of information systems in use during the exercise, as well as how different response communities relied upon their own systems:

- The State health community used HOTS, NJLINCS, ETEAM, HERMIS, and CDRS to coordinate a response to the spread of plague in New Jersey.
- The State emergency response community in New Jersey used E-Team.
- The Federal emergency response community used JFO net and HSIN International.
- The law enforcement community used LEO and ICON.

For the most part, these information systems used by different communities and levels of government have evolved independently. The result is a series of stovepiped systems that compartmentalize information. For example, in New Jersey, the State EOC was often unaware, or belatedly informed, of decisions made in the Department of Health and Senior Services (DHSS) Health Command Center (HCC) that were broadcast across HOTS but not communicated via other means until later. In another example, although the law enforcement community in both States was well informed via LEO of the status of the FBI's investigation, the same cannot be said for members of the medical community or the Federal response apparatus, who had limited or no access to the FBI's information system. This may have contributed to the delay or failure to correct misconceptions about the presence of mustard in the Beechcraft Baron found in Maine. Whereas other operating centers and agencies made decisions and developed plans under the incorrect belief that the aircraft was a red herring, persons with access to LEO could track the FBI's investigation of phone numbers found on the aircraft, the four individuals who exited the aircraft shortly after its arrival in Maine, and the venting/dispersal equipment found onboard during the initial search. In other words, only agencies with access to LEO knew that the aircraft was still under investigation.

The widespread use of information systems can also foster the misperception that information has been widely distributed. However, their use can actually result in persons who need access to the information not having it, and persons with access not knowing new information is available or not having the time to retrieve it. Additionally, because these systems are not interoperable, any inputs or updates retrieved from another system must be entered manually, thereby increasing dissemination time, the likelihood for error, and the potential that information may not be entered at all, particularly as responders get busier during a crisis. The result can be that different communities, agencies, or operating centers are using different information for planning and decision making. The lack of common casualty numbers and the difference in information about the role of the aircraft in the mustard attack are key examples of this.

⁵³ See http://www.state.nj.us/health/lh/lincs/

2. Vast Number of Nodes in the Response Network

The vast number of nodes in the response apparatus complicated the information sharing problem in a variety of ways. First, it takes a tremendous level of effort to keep all agencies and operating centers informed and up-to-date. Second, the more people who touch a piece of information, the greater the chance that that information will be changed in some way. Therefore, the large number of nodes in the response network increases the likelihood that incorrect or time-late information will be passed along. Table IV-4 identifies the 220 operating centers that were part of the T3 FSE domestic response network. Managing information flow becomes even more complex when the roles of international operating centers are taken into account. In effect, the number and variety of operating centers, or nodes, defines the scope of the information sharing problem by establishing the requirements for confirmation of a COP across all the centers.

Table IV-4. Nodes in the T3 Emergency Response

	Connecticut	New Jersey	Interagency
Field	 Incident Command Post Unified Command Post Hospitals (32) 	Hospitals (96)Points of Dispensing (22)	
Local	New London EOC	Local EOCs (22)	
State	 State EOC Area IV Coordinator DPH ECC Governor's Office 	 State EOC DHSS HCC NJ Hospital Association Governor's Office 	
Federal	JFO PFO JOC JIC RRCC SERT USCG	JFO PFO JOC JIC RRCC SERT	 HSC HSOC (DHS) IIMG (DHS) NRCC (DHS) TSOC (DHS) IOC (DHS) NICC (DHS) NICC (DHS) USCG NRC (DHS) SOC (HHS) FDA EOC (HHS) CDC DEOC (HHS) HRSA (HHS) USMS EOC (DOJ) EPA EOC NORTHCOM (DOD) FBI SIOC JTTF (FBI) DOT CMC FAA EOC NCTC OSHA EOC (DOL) ARC HQ DOC VA ROC IMAAC/NARAC

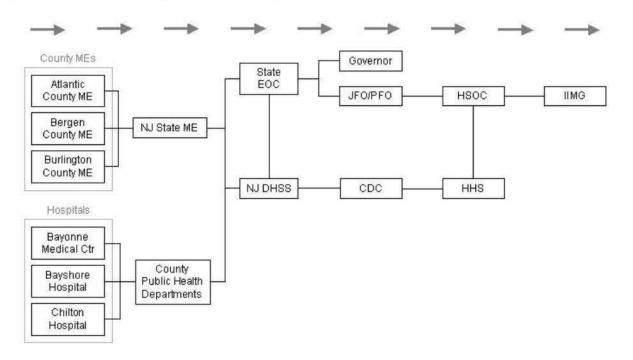
3. Lack of Formal Information Flow Processes and Use of Alternative Means for Passing Information

The proliferation of information systems and the vast number of agencies and operating centers involved in an emergency response expand the means or channels through which information can be shared.

At the field level, incident radio communications procedures could have been improved. First responders spent a significant amount of time developing and de-conflicting an incident communication frequency plan.

Like much of the information relative to the situations in New Jersey and Connecticut, details about victim numbers initiated at a very local level—the incident site and hospitals in Connecticut, and hospitals and county medical examiners in New Jersey. In both cases, data on casualties moved from the local level to one or more State agencies, and then into the emergency response network of operating centers and State and Federal agency representatives. Figure IV-3 shows the expected process for moving victim data on fatalities in New Jersey. Figure IV-4 shows the same process for moving casualty data in Connecticut. The arrows at the top of the figures indicate that the expected flow of movement is left to right, from the local level to the Federal response organizations. The expectation would be an increased time delay in accurate casualty reports the further to the right an agency or operating center appears on the chart.

Figure IV-3. Expected Information Flow for New Jersey Casualty Data



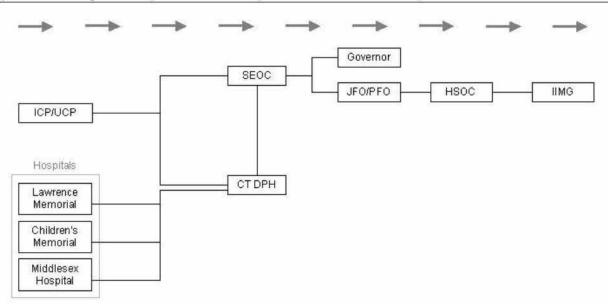


Figure IV-4. Expected Information Flow for Connecticut Casualty Data

Although Figures IV-3 and IV-4 show the expected information flow processes regarding casualty numbers, the data from the exercise suggest a less organized process. Figure IV-5 shows an example of the information flow, as it occurred in Connecticut.

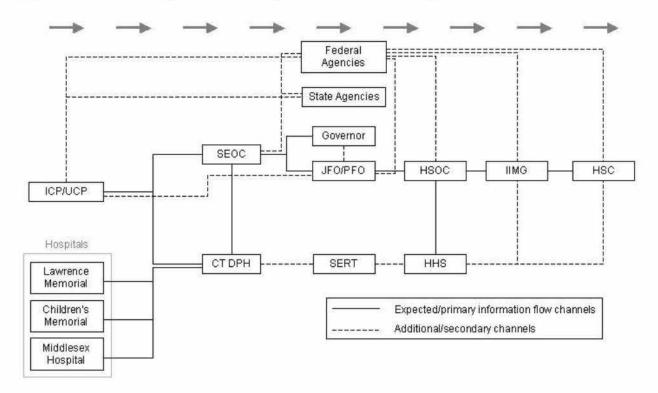


Figure IV-5. Actual Information Flow for Connecticut Casualty Data

With the dashed lines, Figure IV-5 shows some of the secondary, or additional, means by which information moved among the responding agencies. Representatives from State and Federal agencies located at the Unified Command Post, the State EOC, and the JFO pushed casualty data (as well as other information) through their internal agency processes. Local, State, and Federal agencies within the same responder community shared information. For example, medical/public health information was shared among the New London Public Health Office, the Connecticut Department of Public Health, and HHS; information relative to the environmental community was shared among the Connecticut Department of Environmental Protection, the EPA, and the US Coast Guard. Casualty data was shared via conference calls (e.g., between the governor and the PFO). Not shown in this chart, but also a source for information sharing, was VNN, representing all media, which often served to inform agencies and operating centers of new or updated information such as casualty figures. All of these means of information flow are logical, but in the end they often complicate a picture rather than clarify it due to the potential for circular reporting and uncertainty over the authoritativeness of sources and the timeliness of the data. ⁵⁴

⁵⁴ For additional discussions of alternate information flow processes and examples from T3, refer to the chapters on

Emergency Operations under a Unified Command and Agent Confirmation and Hazard Area Definition.

D. Lack of Uniform Reporting Guidelines and Established Procedures for Validating Information to Build a COP

During the T3 FSE, the ill-defined and inconsistent use of language, coupled with the use and forwarding of information from secondary or tertiary sources, led to a limited shared situational awareness across the Federal, State, and local response network.

1. Ill-Defined and Inconsistent Use of Language

The primary reason for the disparity in reported casualties in Connecticut was the use of many different terms to describe the status of victims. The ground truth scenario divided the patients into pools of hospitalized, worried well, and fatalities. A review of the many different situation reports or updates that provided victim numbers in Connecticut revealed players used at least twelve separate descriptors:

- missing;
- · casualties;
- deceased/dead;
- worried well;
- walking wounded;
- injured;
- patients;
- sick:
- treated/released;
- hospitalized;
- awaiting hospitalization; and
- · symptomatic, but not hospitalized.

Definitions of the descriptors were not provided, and exercise participants and operating centers used many of them interchangeably. For example, at 13:00 on April 5, the representative from the HHS SERT at the Connecticut Department of Public Health's Emergency Command Center (CT DPH ECC) reported to his counterpart at the JFO that 6,000 persons had been hospitalized as of 12:30 that afternoon. Ten minutes after that update, at 13:10, the CT DPH representative at the SEOC briefed that 1,632 persons had been admitted to hospitals, and 5,000 were awaiting hospitalization. This is just one example of how two people from the same facility have different numbers as well as different descriptions of how those numbers break out. The result is different information originating from the same source. The effects of differences in how numbers are reported became noticeable by noon on April 6, when some individuals and operating centers appeared to begin differentiating between hospitalized, symptomatic but not hospitalized, sick, and "treated and released." The result was significantly lower numbers of hospitalized patients reported than the ground truth provided. The use of unclear terminology by persons passing information to other operating centers resulted in a very different picture of casualty numbers and the State's associated medical needs. At issue here is not which term best described the

medical status of victims in Connecticut, but rather the fact that all operating centers and agencies were using different descriptors.

The varying use of language to characterize casualties was also a problem in New Jersey, though it did not show up in the fatality data. In that State's response to plague, the terminology problem revolved largely around case definitions, and different criteria for counting plague victims. During the first day of the exercise, the CDC and State of New Jersey had different definitions for a probable plague case. It also appeared that the CDC was reporting confirmed case numbers, while New Jersey was reporting confirmed and probable cases. Data also show evidence of sources reporting different numbers for hospitalized victims versus those sick but not hospitalized. Once again, this contradicts the ground truth scenario, which simply divided the patients into pools of sick and dead.

2. Use and Forwarding of Information from Secondary or Tertiary Sources

The use and forwarding of information from other than primary sources was a particular problem during the T3 FSE. As is indicated by Figure IV-5, information flow from the local to the Federal level always involves secondary sources, or agencies and operating centers that receive information and pass it along through the response network. Problems arise when authoritative information is lost in all the traffic, or when documents labeled as formal and authoritative use information provided by secondary or tertiary sources.

An example of the use of secondary sources and how they can complicate the operational picture is the dissemination of information associated with the aircraft used by the terrorists in Connecticut. Long after the FBI received confirmation that the aircraft tested positive for mustard, other agencies were still reporting time-late, incorrect information. Particularly noteworthy is that the reports by TSA and OSHA were included in the Connecticut PFO's SITREP to the DHS Secretary with contradictory information from the authoritative source. That 15:00 SITREP reports that:

- per TSA, the FBI analysis of the 55-gallon tank aboard the aircraft yielded no trace of mustard, but rather contained residue of ammonium nitrates; and
- per the FBI, the two drums found on the aircraft tested positive for sulfur mustard and additional samples analyzed by Edgewood also tested positive.

As a formal document from the PFO to the Secretary informing him of the status of the situation in Connecticut, the SITREP should not contain secondary information, particularly when the authoritative source is nearby and available. It is unclear why the PFO and JFO Coordination Group continued to be uncertain of the means of dispersal through the conclusion of the FSE, considering the FBI Senior Agent in Charge (SAC), a member of the coordination group, should have served as the authority on the subject, immediately correcting any misperceptions about the source of the contamination. The contradictory information in the 15:00 SITREP offers an example of questionable consolidation and validation of secondary information.

The use of questionable sources and the issue of who is responsible for validating information also influenced the differences in casualty figures observed during the T3 FSE. Particularly at the Federal levels, variation in numbers appeared to be a result of who was providing the data and where in the operating center it was routed. For example, in the Connecticut JFO, both the Situation Unit in the Planning Section and the HHS representative to the JFO Coordination Group were tracking victim numbers, but were reporting different results. Initially, the Situation Unit was getting its data from a variety of different sources, including the FBI, the Unified Command, and the State EOC. ESF #8 and the HHS Senior Federal Official (SFO) received updates from the SERT and from the Connecticut DPH. At the same time, the PFO cell and JFO Coordination Group were receiving casualty updates via conference calls with the State EOC and the Unified Command. Frustrated with the different victim numbers, the JFO Coordination Group sought to correct the problem by tasking the HHS SFO to clarify the casualty situation at 12:20 on April 5. Although that resolved the issue in the short term, it did not fix the underlying process problem, which was that multiple groups and teams in the JFO were requesting and receiving casualty data from various sources. The issue arose again the next day at 13:15, when the JFO Planning Section discussed the most current numbers received from ESF #8, the Unified Command, the State EOC, and the PFO, all of which varied. Recognizing the need for a more permanent solution to the problem of contradictory figures, the Planning Section Chief determined that the SEOC would be the single, authoritative source for updating the JFO's casualty data. This example indicates that exercise participants recognized the need for identifying authoritative sources.

3. Inadequately "Shared" Situational Awareness across Operating Centers

During the T3 FSE, agencies and operating centers were often making decisions and acting on different information. In Connecticut, the Unified Command drafted its initial air and ground sampling plan under the misconception that the truck bomb was the means by which the mustard was dispersed. Top Federal officials responding to the plague crisis in New Jersey had different casualty figures than State and Federal operating centers. These different figures drove the decision to open more PODs than State public health officials initially recommended.

Both of the previous examples originated from errors by exercise controllers. However, it should not matter where bad information originates or how it enters the system; it still needs to be corrected. For example, on September 11, 2001, television news stations reported disturbances on the National Mall in Washington, DC, which were later proven to be false. More recently, initial reports out of London contended that the July 7, attacks were not the work of suicide bombers, information that later proved to be incorrect. Law enforcement officials immediately proceeded to correct the error. Whether incorrect information is from an exercise artificiality, a product of premature reporting, or a result of the chaos of a situation, there need to be methods and means for correcting or updating the information.

Overall, the examples from the T3 FSE indicate failures to adequately validate and consolidate information at all levels of the response. Situational awareness was not effectively shared, nor a COP developed, across responding operating centers and agencies.

At the Federal level, the NRP tasks the HSOC with developing the COP and maintaining situational awareness of the incident and the response. To this end, the HSOC SOP provides specific guidelines for the COP display. The HSOC's COP is an electronic display of a map of the United States embedded with nodes of the national infrastructure. The map contains a variety of icons that allow users to drill down to threat information, SITREPs, and spot reports. The COP is available to operating centers outside the HSOC via JFO Net.

Observations during T3 FSE indicate that the COP described in the HSOC SOP does not adequately support emergency situational awareness across the Federal operating centers. This is evidenced by examples of HSOC desk officers searching through e-mails and querying other desk officers for status of EEIs. The COP did not lend itself to displaying such information because it is largely just a graphical user interface, through which users can post and access situational reports or intelligence provided by other operating centers or agencies. This approach to a COP may be sufficient for daily operations, when the HSOC is monitoring threats or potential threats, but during an emergency response, information is more fluid and the EEIs themselves are different. The HSOC SOP focuses on the picture itself, not the EEIs that need to be tracked. Moreover, not all EEIs can be displayed visually, but they still need to be tracked and shared. As a result, the COP itself became useless.

Additionally, the HSOC SOP does not establish the processes needed to maintain and share the EEIs, including the mechanisms necessary for consolidating and validating information. EEIs to be shared between operating centers and agencies were never clearly defined. During the T3 FSE, the primary means of sharing information among the responding Federal agencies was forwarding e-mails to all the representatives in the HSOC. Each individual was then responsible for developing and maintaining their own knowledge of the state of the incident, to include filtering and consolidating information for movement outside the HSOC itself. This process, or lack thereof, also meant there were no opportunities for group sharing, to support validation or conflict resolution. Finally, no process existed and no effort was made to insure that everyone in the HSOC had common knowledge.

E. Issues from Previous Exercises

The T2 AAR identified two overarching information flow issues:

- lack of formal processes/channels (or understanding of them) for official information and lack of consistent understanding of formal, validated sources for information; and
- use of inconsistent or technical language.

It is clear from the T3 FSE that these issues remain a significant challenge in an emergency response operation.

The prevailing communications issue during the T2 FSE was the lack of formal processes or channels for official information and the prevalence of informal processes, all of which led to difficulties validating information. The T3 observations indicate that although some formal

processes have been instituted, namely the PFO-HSOC-IIMG connection, the informal and internal agency processes continue to complicate the flow of valid information.

The use of inconsistent language proved to be another communications challenge during T2, specifically the interchangeable use of the term "casualties." The T3 FSE revealed continued problems with inconsistent and ill-defined terminology.

Inaccurate reports of casualty figures were also a considerable problem during the T2 FSE play in Illinois, where a plague attack was simulated. Analysis attributed the problems to the complex and multiple ways in which patient data were communicated (e.g., fax, landlines, and cell phones), variation in the descriptors used with the data, and exercise artificialities associated with additional, unscripted injects by an organization outside the T2 planning team and scripted or pretaped media play. The experience in T3 did not suggest any improvement in the accurate and timely reporting of casualty figures. In particular, problems with language, namely inaccurate and inconsistent use of descriptors, were still a significant problem in the T3 FSE.

The T3 CPX revealed little evidence of consolidated information flowing from the HSOC to the other Federal agencies. Additionally, no specific information requirements, or EEIs were developed for the exercise, nor was there a shared COP. These issues continued to be problematic during T3 FSE.

Table IV-5. Comparison of T3 FSE with Previous Exercises

T2 FSE	SOEs	T3 FSE
	ISSUES/OBSERVATIONS	
Lack of consistent understanding of formal, validated sources for information. Inconsistent use of terms/unclear technical language.		Lack of uniform reporting guidelines and procedures for validating information received from secondary or tertiary sources.
 Too many official reporting channels. In some cases, lack of formal processes/channels for official information. Various agencies had their own, independent procedures and redundantly requested updates Hospital data was largely paper-based and disparate reporting processes were 	Lack of a robust system for sustained coordination with FSL governments and private sector partners—especially how to reduce, and not add to, the "white noise" or "fog of war" anticipated in preattack threat stages.	The use of informal or alternate channels for sharing information caused problems by enabling circular reporting and bypassing authoritative sources.
burdensome.		
	Participants discussed the large number of operations centers and coordinating entities that are involved in a response to a terrorist incident.	The vast number of operating centers negatively affected information sharing by increasing the scope and complexity of the problem. Agencies and operating centers acted and made decisions on different information.
	Officials questioned how effectively the large number of operations centers and coordinating entities would share information and the degree to which they would share a "common" picture of the incident.	Agencies and operating centers made decisions and acted on different information. Situational awareness was not effectively shared across operating centers and agencies.
	Concern that information that is shared is not being transmitted in formats or with needed tear lines so that some agencies can use it. What influence (if any) that concern about potential media leaks should have on the release timing and content of unclassified intelligence bulletins (and tear lines).	
	Concern regarding the sharing of information between the incident site, JOC, JFO, and State EOCs.	

F. Conclusions

Accurate and timely sharing of information and the resulting development of a COP are critical for the success of an integrated Federal, State, and local response. Experiences during the T3 FSE indicate that these issues remain problematic for the operating centers and agencies involved in a domestic response.

The information systems used in T3 were largely stovepiped within agencies and/or response communities. Instead of facilitating exchanges, these systems contributed to the compartmentalization of information and a misperception that information was widely disseminated. The entire domestic response community should be working toward interoperability and integration of systems. The Homeland Security Information Network initiative is likely a good starting point, as it works to link at least some of the Federal response operating centers (e.g., JFO, HSOC, and IIMG) and the law enforcement community.

The vast number of operating centers activated to support the emergency response during T3 negatively affected information sharing by increasing the scope and complexity of the problem. The more operating centers and/or agencies involved in the response, the greater the number of operating pictures that need to be aligned with the COP, the more channels are available through which information can pass, and the greater the number of opportunities for errors or changes to be made in the information. Each Federal agency should assess its emergency response operations and consider reducing the number of operating centers activated, consolidating them, or collocating personnel to facilitate better communication during an Incident of National Significance.

During T3, participants made use of informal or alternate processes to move information throughout the response network. This complicated information sharing and the development of a COP by enabling circular reporting and increasing uncertainty over the authoritativeness of information sources.

Ill-defined and inconsistent use of language and the extensive use of information from secondary and tertiary sources indicate a lack of uniform reporting guidelines and procedures for validating information. To preempt inconsistent use of language, the different response communities should identify key terms that are likely to appear during a WMD response, standardize their definitions, and then disseminate the information across the entire response network. Much of this work can be done in advance of any incidents. However, some definitions may need to be revised or developed during an emergency response. For example, during the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003, the CDC and other health agencies around the world developed and revised case definitions throughout the crisis. Therefore, response communities also need to identify mechanisms to update and disseminate definitions during response operations.

Stovepiped systems, the vastness of the response network, the existence of alternate information flow channels, and the lack of uniform reporting guidelines and validation procedures resulted in situational awareness not being effectively shared, nor a COP developed across responding

operating centers and agencies. Instead, agencies and operating centers made decisions and acted on different information. To build shared situational awareness, the response network needs to:

- 1. Identify and define the overlapping critical information required by all the responding communities.
- 2. Establish specific reporting protocols and guidelines for all levels of government.
- 3. Identify the authoritative sources for EEIs.
- 4. Identify an operating center at each level of the response to act as "keeper of the COP
- 5. Develop protocols for horizontal and vertical coordination (i.e., horizontally across one level of government and vertically between levels) to align the operational pictures developed and maintained by different operating centers and agencies.

1. Recommended Courses of Action

- Support the development of interoperable information systems and/or a suite of emergency response/management applications that can be used across response communities.
- Consider development of a DHS field operations guide that lists radio frequencies/preferences of Federal, State, and local responders to expedite the development of communications plans.
- Assess the roles and responsibilities of each emergency response operations center and consider reducing the number of operating centers, consolidating them, or collocating personnel.
- Require that all casualty numbers reported are attached to a clear description of the information included in the report.
- Identify key terms that are likely to appear during a WMD response, standardize their definitions, and then disseminate the information across the entire response network.
- Establish mechanisms to update and disseminate new definitions during response operations.

To build an accurate and effective common operating picture, the response network needs to:

- 1. Identify and define the overlapping critical information required by all the responding communities.
- 2. Establish specific reporting protocols and guidelines for all levels of government.
- 3. Identify the authoritative sources for EEIs and what EEIs should be communicated.
- 4. Identify an operating center at each level of the response to act as "keeper of the critical information."
 - Develop protocols for horizontal and vertical coordination (i.e., horizontally across one level of government and vertically between levels) to align the operational pictures developed and maintained by different operating centers and agencies.

Part 5: Analysis of Critical Task Performance

The number of participants in TOPOFF 3 (T3) makes it impossible to evaluate the critical tasks of every player and organization. Hotwashes and an After-Action Conference allowed players to discuss the exercise and their perceived participation and performance within the exercise. They also gave the evaluation team a chance to focus the topics that would be discussed in this document. The fact that an issue was not selected for analysis does not signify that it is not a critical task in our national Homeland Defense Strategy. Rather, the six items offer a cross-section of the complex nature of the exercise and the various lessons learned. As stated earlier in this report, the items to be discussed in this section are:

Critical Tasks

- Stafford Act Declarations
- Emergency Public Information
- Integrating Responses to Incidents of National Significance: Public Health Emergency and the Stafford Act
- Strategic National Stockpile and Points of Dispensing
- Agent Confirmation and Hazard Area Definition
- Emergency Response Operations under a Unified Command

This section of the report reviews performance of critical tasks as identified by the HSEEP Volume II Exercise Evaluation Guide (EEG). Each critical task was chosen because of the significant effect that these issues had on the exercise participants and the exercise as a whole.

Some topics overlap, but each account is written so that it may stand on its own. The format for discussion of each critical task is provided in accordance with HSEEP Volume II EEG guidance. Accounts begin with a brief introduction to the issue and related EEG task and number, followed by a summary of observations. The summary contains a background discussion of any relevant policies, doctrine, or procedures. This is followed by a reconstruction of key events from the exercise. The analysis section presents the issues that emerged in the exercise, including detailed examples and potential explanations for the behavior or result. The analysis is followed by a comparison of the T3 Full-Scale Exercise (FSE) results with any relevant conclusions from previous exercises. Finally, each account concludes with a review of recommended courses of action.

I. Stafford Act Declarations—Task # III-10: Request State/Federal Assistance

A. Summary of Issue

The issue is whether an incident with a non-explosive biological, chemical, or radiological weapon would fit the definition of a major disaster under the Stafford Act. During the T3 FSE, there were several declarations and proclamations of emergencies and disasters. State and local jurisdictions in both exercise venues invoked their authorities to declare emergencies and also requested Federal assistance under the Stafford Act. These requests ultimately led to presidential declarations of major disaster in Connecticut and of emergency in New Jersey.

In this exercise, just as in the T2 FSE, participants discussed the applicability of a Stafford Act major disaster declaration to terrorist attacks, especially to attacks that feature non-explosive biological weapons. Although the Governor of New Jersey requested a major disaster declaration, an emergency declaration was provided. Under an emergency declaration, there are limitations in the types and amount of assistance that can be provided. The effects of these limitations were not fully explored in the T3 FSE. However, in the T3 Large-Scale Game (LSG), uses of the existing Stafford Act and other Federal programs were identified to make up for the shortfalls in assistance that New Jersey experienced under the emergency declaration. Throughout the exercise, it has been acknowledged that the Stafford Act needs amending to include all hazards, including terrorist acts.

B. Background

Federal declarations made under the Stafford Act generally start with a request from a State Governor. Requests for declarations of both emergency and major disaster must "be based on a finding that the disaster is of such severity and magnitude that effective response is beyond the capabilities of the state and the affected local governments and that Federal assistance is necessary." The Stafford Act defines a *major disaster* as:

any natural catastrophe (including any hurricane, tornado, storm, high water, wind driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this chapter to supplement the efforts and available resources of states, local governments, and disaster

¹ In T3, the President declared an emergency in New Jersey before application was made.

² The Robert T. Stafford Disaster Relief and Emergency Assistance Act, As Amended, 42 U.S. Code (U.S.C.) 5121, et seq., http://www.fema.gov/library/stafact.shtm.

relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

Under a presidential declaration of major disaster, States may be reimbursed for up to 100% of qualifying expenses.

An emergency is defined as:

any occasion or instance for which, in the determination of the President, federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.

Federal assistance under a presidential declaration of emergency is limited to \$5 million for a single emergency except in circumstances in which the President determines that:

- Continued emergency assistance is immediately required;
- There is a continuing and immediate risk to lives, property, public health, or safety; and
- Necessary assistance will not otherwise be provided on a timely basis.³

Differences between a major disaster declaration and an emergency declaration include limitations in public assistance, individual assistance, and hazard mitigation. Table I-1 summarizes the differences in Federal assistance under a major disaster declaration and an emergency declaration.⁴ Exceptions may be made if the President determines that additional assistance is necessary to "to save lives, protect property and public health and safety, and lessen or avert the threat of a catastrophe."

Table I-1. Types of Federal Assistance for a Major Disaster and an Emergency

Type of Assistance	Major Disaster	Emergency
Public Assistance		1-24
Category A: Debris removal	X	X
Category B: Emergency protective measures	X	X
Category C: Road systems and bridges	X	
Category D: Water control facilities	X	
Category E: Public buildings and contents	X	
Category F: Public utilities	X	
Category G: Parks, recreational, and other	X	

³ Section 503 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, 42 U.S.C. 5121.

⁴ Based on comparison sheet faxed to New Jersey State EOC from DHS Emergency Preparedness and Response on April 8, 2005.

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Type of Assistance	Major Disaster	Emergency
Individual Assistance	3.505	275300 - 2760
Housing assistance	X	X
Other needs assistance (e.g., medical, funeral)	X	X
Disaster unemployment assistance	X	
Legal services	X	
Food coupons and distribution	X	
Crisis counseling	X	
Hazard Mitigation	X	

C. Reconstruction

At 12:14 on April 4, 2005, the Governor of New Jersey declared a state of emergency, initiated the activation of the State Emergency Operations Center (EOC), and raised the State's threat condition level to Orange after the presumptive diagnosis of pneumonic plague and the discovery of a suspected dispersal mechanism. At 14:12, the Governor of Connecticut responded to the explosion at the New London City Pier by declaring a state of emergency, activating the State EOC, and raising the State's threat condition level to Orange.

The Secretary of Homeland Security declared the events in New Jersey to be an incident of national significance (INS) at 14:00 and designated a Principal Federal Official (PFO). Later at 16:00, the Secretary declared the events in Connecticut to be an INS and designated a PFO.

The Governor of Connecticut verbally requested a declaration under the Stafford Act from the President at 15:00. This was followed by a faxed written request. At 16:30, the National Response Coordination Center (NRCC), Interagency Incident Management Group (IIMG), Regional Response Coordination Centers (RRCCs), and other operations centers reported that the President had verbally declared emergencies for Connecticut and New Jersey under the Stafford Act. Later, the declaration in Connecticut was corrected to a major disaster. The major disaster declaration covered public assistance Category A (debris removal) and Category B (emergency protective measures). Individual assistance was initially not included in this declaration, even though it was included in the Governor's request. Individual assistance later was approved.

New Jersey faxed a formal request for an emergency declaration under the Stafford Act to the Region 2 RRCC at 16:59. In New Jersey, the emergency declaration provided public assistance for Union and Middlesex Counties. On April 6, the emergency declaration was amended to include 10 additional counties: Bergen, Burlington, Essex, Hudson, Mercer, Monmouth, Morris, Passaic, Somerset, and Sussex Counties. On April 7, the Federal Emergency Management Agency (FEMA) added the remaining nine counties in New Jersey to the emergency declaration and designated residents of all counties eligible to receive individual assistance. Because individual assistance was

approved for New Jersey, the Small Business Administration was able to provide disaster loan assistance. New Jersey requested 2,000 crisis counselors/mental health professionals. On April 8, FEMA denied New Jersey's request, because New Jersey had received an emergency declaration instead of a major disaster declaration. Although the Governor of New Jersey had attempted to have the emergency declaration converted to a major disaster under the Stafford Act, the exercise ended before the Governor's request was addressed.

D. Consequence

Both of the simulated terrorist attacks in the T3 FSE led to presidential declarations under the Stafford Act.

The Stafford Act does not explicitly include events involving non-explosive radiological, chemical, or biological weapons in its definition of major disasters. However, some participants indicated that the Stafford Act may be interpreted to include such incidents under its definition of major disasters. Clarifying this point would reduce debate and confusion during a time of crisis. If these types of incidents are not covered under a major disaster declaration, Congress should consider adding them to the definition.

If it is determined that biological, chemical, or radiological incidents do not fit the definition of a major disaster, subgranting under Stafford Act declarations may provide additional types of Federal assistance. However, this would require the emergency to be linked to another incident involving an active major disaster declaration. Other Federal assistance programs not connected to the Stafford Act may be able to provide additional assistance. Federal agencies should develop a list of what assistance programs may apply and under what circumstances they would apply.

Most likely, Federal assistance to the victims of an attack with a non-explosive biological, chemical, or radiological weapon would exceed the \$5 million limit of an emergency. In the past, Congress has granted exceptions to this limit under such circumstances. Therefore, this monetary limit is unlikely to result in significant impacts on response spending.

E. Analysis

Under the Stafford Act, a major disaster declaration would provide more types and a greater amount of assistance than an emergency declaration. In T3, the primary issue with Stafford Act declarations was the applicability of a major disaster declaration to a biological incident. Because New Jersey received an emergency declaration instead of a major disaster declaration and the additional assistance that comes with a major disaster, Federal agencies worked to provide assistance that was not covered by the Stafford Act Declaration. By the end of the FSE the SBA had provided assistance to New Jersey. Additionally, the use of verbal approvals for the initial declarations without supporting documentation and formal requests caused uncertainty as to what type of declarations

were approved and what types of assistance should be provided. Analysis of T3 revealed that:

- It is unclear whether a major disaster declaration under the Stafford Act can be applied to a biological incident.
- Subgranting under the Stafford Act and other Federal programs may provide for some shortfalls in types of assistance provided under an emergency declaration.
- Because of exception clauses in the Stafford Act, limitations in the amount of monetary assistance under an emergency declaration would probably not result in any substantive real-world impact.
- Verbal declaration approvals and a lack of written requests led the NRCC, both RRCCs, and both State EOCs to be uncertain as to what type of declaration was approved and what types of assistance were granted.

1. Uncertainty about Applicability of a Major Disaster Declaration to Biological Incidents

The incidents in New Jersey were not addressed by a major disaster declaration under the Stafford Act because the circumstances of a biological attack are not explicitly included in the definition of a major disaster. In the initial request for a declaration, the Governor of New Jersey stated that he was aware that "under current application of these provisions [Stafford Act], the spread of an infectious, biologically based disease is not regarded as a major disaster." He asked the President and Congress "to seek revision of the Stafford Act to ensure that appropriate assistance is available." The Governor also requested crisis counseling, legal services, food stamps, and unemployment benefits assistance, which are not covered under an emergency declaration. Later, the Governor of New Jersey asked FEMA to convert the emergency declaration to a major disaster declaration, because the State sought some of the assistance available only under the latter declaration. New Jersey had submitted a specific request for crisis counseling, but did not receive it because crisis counseling is not covered under an emergency declaration.

To clarify the application of a major disaster declaration, the most straightforward solution would be to amend the Stafford Act and update the disaster definition. However, some FEMA participants in the T3 FSE did not believe that amending the Stafford Act was necessary. Instead, they suggested that the language used in the Stafford Act to define a major disaster could be interpreted to include a significant biological attack. ⁵ However, they did not want to set a policy precedent in an exercise.

Because of the differences in the types and amounts of assistance and because of the potential scale and scope of such an incident, it would be preferable to have a major disaster declaration apply to any incidents involving a weapon of mass destruction (WMD). Furthermore, the experiences from the T2 and T3 FSEs indicate that the definition of a major disaster declaration and the range of incidents to which it applies

⁵ These FEMA participants did not specify the details of the reinterpretation, but simply suggested it as a viable option.

need to be clarified to eliminate any uncertainty. It would be inappropriate and ineffective to debate these types of issues during an actual crisis.

2. Alternatives for Shortfalls in Types of Assistance

Because a major disaster declaration did not apply to incidents like the simulated biological attack in New Jersey, T3 participants identified alternative sources to compensate for the shortfalls in the emergency declaration. NJ residents were not eligible for some types of individual assistance that were available to residents in New London. Under the emergency declaration, NJ residents could not receive unemployment disaster assistance, legal services, tax considerations, or crisis counseling. The impact of these shortfalls would not have been felt in the timeframe of the T3 FSE and therefore were not played. However, they were discussed during the T3 LSG.

At the T3 LSG, participants focused extensively on how to make up for a lack of assistance under an emergency declaration. The Human Services group had a lengthy discussion about how to provide crisis counseling and other services to NJ residents without statutory changes to Stafford Act language or supplemental appropriation from Congress. The proposed solution was "subgranting" through the major disaster declaration in Connecticut to provide mental health services in both States.

The subgranting of crisis counseling for an emergency declaration through a major disaster declaration does have a limitation. Using a subgrant to provide crisis counseling requires an active major disaster declaration in a State with a linked situation. Although New Jersey was not one of the sites of the September 11, 2001 (9-11) terrorist incidents, a large portion of the NY workforce lives in the State. As a result, an emergency declaration was issued for the State, along with the major disaster declaration for New York. In T3, the terrorist attacks in Connecticut and New Jersey were conducted by related terrorist groups and during the same timeframe. T3 LSG participants believed that this was sufficient to link the incidents. Connecticut's major disaster declaration fulfilled the requirement of an active major disaster declaration.

Another potential method for augmenting the assistance limitations of an emergency declaration would be to provide funding for crisis counseling through other sources, such as the Substance Abuse and Mental Health Services Administration (SAMHSA) Office for Victims of Crimes (OVC). Other Federal programs also may address the shortfalls related to the types of assistance not provided under an emergency declaration.

A major disaster declaration can provide more types of Federal assistance than an emergency declaration. These types of assistance may be needed by individuals and businesses that are victims of a significant biological attack. Subgrants under the Stafford Act, if applicable, and assistance from other Federal programs could compensate for the

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⁶ The T3 LSG was conducted from May 3-5, 2005, at the National Conference Center, Lansdowne, VA. The T3 LSG focused on recovery issues at 30 days, 90 days, and 180+ days after the T3 FSE scenario. Refer to the section on T3 building block events for more information on the T3 LSG.

limited assistance provided by an emergency declaration. Another option is for Congress to appropriate additional funds to compensate for the limited assistance.

3. Limitations in the Amount of Assistance

Another difference between declarations of emergency and major disaster is the limit on the amount of funding. An emergency declaration has a \$5 million limit on assistance. This limit can be exceeded if the President determines that it is required. As discussed above, the criteria for exceeding limits on Federal assistance are: a continued need for emergency assistance; an immediate risk to lives, property, public health, or safety; and assistance that will not otherwise be provided on a timely basis. The events in New Jersey would have met the criteria for exceeding the funding limits. To obtain additional funding, the President would have to "report to Congress on the nature and extent of the emergency assistance requirements" and "propose additional legislation if necessary."

The Governor of New Jersey stated in his request for an emergency declaration that preliminary "indications of costs are well in excess of \$5 million." Continued assistance would be required. With the exception of a FEMA Mission Assignment log, however, exercise data do not indicate that there was any further discussion of extending Federal assistance to New Jersey or any action taken to address supplemental authorizations.

It is unclear how exceeding the funding limits would have affected response efforts in T3. In previous incidents, Congress granted additional assistance when requested. For 9-11, the President asked Congress to pass emergency appropriations to provide immediate resources for responding to the terrorist attacks. By September 18, 2001, Congress had appropriated \$3 billion in Federal assistance to New York City and followed up with additional appropriations as the scope of the disaster was revealed. The 9-11 experience suggests that the President would request additional assistance and that Congress would act quickly in response. Congress did not play in this exercise, and the exercise was too short to examine the actual impact of the spending limits of an emergency declaration.

For an incident of the size and scope of that in New Jersey, the Federal government would have probably quickly exceeded the spending limits imposed under a Stafford Act emergency declaration. The Stafford Act provides for additional funding based on Congressional approval. However, the T3 FSE did not provide the opportunity to test that approach to funding. It is unclear how difficult or time consuming it would be to ask Congress for additional assistance, but real-world experience suggests that this approach would not have any substantive impacts on the Federal response.

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⁷ Section 503 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, As Amended, 42 U.S.C. 5121.

⁸ GAO report, September 11, Overview of Federal Disaster Assistance to the New York City Area, October 2003, Report number 04-72.

4. Initial Uncertainty about Declaration Type and Assistance

The NRCC and RRCCs first heard about the emergency and major disaster declarations through the announcement of the President's verbal approval of two emergency declarations. The NRCC did not receive the written request until 18:00 on April 4, approximately three hours after the announcement. During the hours between the announcement of the approval and receipt of the written request, representatives at the NRCC tried to locate the formal request and determine what type of declaration was approved and what types of assistance would be provided.

The State EOCs, both RRCCs, and NRCC held conference calls to sort out what was approved. The verbal reports of approval for an emergency declaration for Connecticut conflicted with Connecticut's request for a major disaster declaration. Federal and State agencies were uncertain about what types of public assistance were approved and whether individual assistance had been requested. Although the resulting delay in requesting resources was not substantial, this incident highlights a source of uncertainty and is an example of an event in which the results of meetings held by decision makers were not relayed in sufficient detail for their staffs to execute.

5. Issues from Previous Exercises

In T2 FSE, a large-scale bioterrorism attack did not qualify as a major disaster. It was recommended that future efforts, including exercises, continue to refine the applicability of the Stafford Act to bioterrorism and other non-explosive disasters not explicitly defined by the Act, as well as continue to familiarize Federal, State, and local (FSL) agencies with applying the Act during such disasters (Table I-2).

The T3 Command Post Exercise (CPX) featured a unique application of the Stafford Act. The President signed a declaration of emergency for the area between Boston, MA, and Norfolk, VA. The declaration was based on an imminent threat rather than an actual incident. The exercise prompted department and agency participants to question the use of the Stafford Act as a tool for the Federal government to take preparatory measures in anticipation of a terrorist attack.

In particular, the T3 CPX highlighted the need to clarify policy and guidance for deployment of emergency response assets and funding in anticipation of an imminent terrorist attack. In addition, the CPX suggested the need to examine the ramifications of pre-incident deployments if no incident occurs.

Table 1-2. Comparison of T3 FSE with Previous Exercises

T2 FSE	T3 CPX	T3 FSE
	SIGNIFICANT DECISIONS	
 The President declared a major disaster for Seattle as a result of the radiological dispersal device (RDD) attack. Illinois requested a declaration of major disaster for Chicago and its surrounding counties as a result of the outbreak of pneumonic plague. The President declared an emergency for those locations to include Individual Households Program and Categories A and B under Public Assistance. 	Based on intelligence, the President signed a declaration of emergency for the area between Boston, MA, and Norfolk, VA, in advance of an actual incident.	The President declared a major disaster in Connecticut as a result of the vehicle-borne improvised explosive device (VBIED) and chemical attacks. New Jersey requested and received an emergency declaration for the two most affected counties, later amended twice to include the entire State as a result of the outbreak of pneumonic plague. New Jersey requested that the emergency declaration be converted to a major disaster, but the exercise ended before the request was addressed.
	ISSUES/OBSERVATIONS	
 Despite Illinois' request for a disaster declaration, FEMA determined that "an emergency declaration is [the] most appropriate immediate action." The outbreak of pneumonic plague did not qualify as a "major disaster" within the meaning of the Stafford Act. 	N/A	The Governor of New Jersey stated that he was aware that "under current application of these provisions [Stafford Act], the spread of an infectious, biologically based disease is not regarded as a major disaster." FEMA applies a strictly literal interpretation of the Stafford Act. Because biological attacks are not explicitly included in the definition of a major disaster, only emergency declarations can be applied.
Illinois officials were unaware that the \$5 million limit to assistance under an emergency declaration can be exceeded under certain conditions.	N/A	No evidence of concern about the spending limitations in New Jersey Concerns about the specific types of assistance available in an emergency declaration This problem was accentuated because Connecticut was receiving types of assistance not available to New Jersey as a result of the different declarations.
	Participants questioned the use of the Stafford Act as a tool for the Federal government to take preparatory measures in anticipation of a terrorist attack.	

F. Recommendations

- Determine the applicability of a Stafford Act major disaster declaration to nonexplosive incidents involving WMDs, particularly those involving a large-scale bioterrorism incident.
- If these types of incidents do not fit the definition of a major disaster declaration, determine whether exemptions within the Stafford Act for Emergency Declarations and other Federal programs can result in an equivalent level of assistance and can be delivered with an equivalent level of expediency during an incident. If they can, ensure that States are aware of them.
- If the Stafford Act major disaster declaration does not cover these types of incidents and if equivalent Federal assistance is not available through other means, pursue legislation to address this problem.
- Until legislation is passed that would allow these types of incidents to receive the full range of Federal assistance provided under a major disaster declaration, identify other Federal programs that may be able to provide assistance and ensure that States are aware of them.

II. Emergency Public Information—Task # III-14: Provide Emergency Public Information to Media and Public

A. Summary of Issue

The issue is that FSL agencies may still not be prepared to provide swift, accurate, and consistent lifesaving protective action guidance to the public. The term "emergency public information" reflects an understanding that public information during an emergency might differ from normal, day-to-day, public information provided to citizens by the government. In the event of a major disaster or emergency, this often means the coordination, development, and delivery of time-critical, lifesaving information to all potentially affected people. For this reason, public officials and government spokespersons often find that this aspect of their jobs is different in an emergency environment, and more important. In a climate of heightened uncertainty and concern, the timing and content of official statements can save lives, the media and general public are likely to scrutinize statements more, and some statements could incur heightened political liabilities.

This section examines the use of policies, procedures, and mechanisms employed by participating FSL governmental departments and agencies and/or non-governmental organizations (NGOs) to communicate with the public in response to potential and actual INS in the course of the T3 FSE. This included governmental interaction with media outlets—Virtual News Network (VNN) live television; VNN.com website; and notional radio, print, and other media outlets (press

"Communicating in a major emergency situation, particularly a terrorist event, is very different from communicating about routine matters or smaller crises...In ordinary circumstances, your role is to provide the public with information. This role does not change during the extraordinary time of an emergency, such as a terrorist attack, but the stakes are much higher."

Incident Communications Emergency Reference: A Guide for Communications Professionals

releases). This also included other means of reaching the public with official lifesaving information, including the use of hotlines, call centers, agency website postings, e-mails, blast faxes, flyers, and reverse 911 to telephones and cell phones of citizens. All of the National Response Plan (NRP)-related coordination structures and mechanisms used by FSL governmental agencies during the exercise to develop and deliver messages to the public are also examined.⁹

⁹ Transcript-level notes for VNN; press releases; VNN.com archives; follow-up discussions with media Simulation Cell (SIMCELL), VNN, and public affairs officials; and the T3 FSE searchable reconstruction database, which incorporates agency situation reports and logs and data collector/analyst and media SIMCELL logs served as inputs to this analysis.

B. Background

Public affairs officials have long noted that, with terrorism, a local attack can be national in impact and in importance. Public information emerged as one of the most frequently referenced issues in the T2 exercise cycle, as well as in the Senior Official Exercises (SOEs) under the National Exercise Program (NEP).

C. Accomplishments since the T2 FSE

The Department of Homeland Security (DHS) has led the continued development of a national public affairs framework since the T2 FSE. Major accomplishments in this regard include:

- the development and release of the NRP Incident Communications Emergency Policy and Procedures (ICEPP), comprised of the Emergency Support Function (ESF) #15 (External Affairs) and Public Affairs Support Annexes;
- the development of the associated Incident Communications Emergency Reference (ICER), which provides tactical guidance to Federal incident communications professionals; and
- active participation in the NEP-sponsored SOE process to bring visibility to critical incident communications issues.

D. Development and Release of NRP ICEPP

The ESF #15 Annex to the NRP addresses emergency public information and protective action guidance, media and community relations, congressional and Indian affairs, and tribal/insular affairs. It states that it provides the resources, mechanisms, and structure to implement the NRP ICEPP. The DHS Assistant Secretary for Public Affairs, in coordination with the NRCC, directs activation and implementation of ESF #15. Resources available to support ESF #15 include the Emergency Alert System and other emergency broadcast systems. A DHS/Emergency Preparedness and Response (EPR)/FEMA Public Affairs staff member represents ESF #15 functions at the NRCC. During an INS, ESF #15 activities are coordinated by Office of Public Affairs (OPA) representatives of the Homeland Security Operations Center (HSOC) and IIMG.

The Public Affairs Support Annex outlines the policies and procedures to "rapidly mobilize Federal assets to prepare and deliver coordinated and sustained messages to the public in response to Incidents of National Significance." It describes the entities and mechanisms involved in incident communications coordination, such as Joint Information Centers (JICs). It also describes the types of incident communications coordination that occur at various stages (prevention, preparedness, response, and recovery) of an INS. It

provides a checklist of the types of activities that should be conducted in the first hour, day, and week of a response to an INS. 10

Together, the ESF #15 and the Public Affairs Support Annexes outline organizational roles, tools, and mechanisms available to support incident communications coordination, generally describe these resources and tools, and provide general message development considerations. They do not provide guidance on how these roles, tools, or mechanisms could or should be used by FSL entities to coordinate a consistent message.

E. Development of ICER

The ICER was developed to provide public affairs officials with "basic information on homeland security public affairs organization, communications response activity for an incident and contact information." It introduces readers to the Homeland Security Advisory System, provides guidance for what to do before an incident (such as "Develop a Public Affairs Action Plan," "Develop relationships with responders in your area," and "Train your leadership on your Action Plan," etc). It outlines "message components" such as "expression of empathy" and "clarification regarding steps being taken to obtain more facts," etc. It provides a "First 48 Hours Checklist," which outlines steps such as notification of leadership, "Contact local, State and Federal partners now," and "Connect with the JIC." It encourages early outreach through a basic formal statement to the media and "partners" and encourages sharing "pre-cleared facts," as well as what steps the agency is taking to support the emergency with the public. Finally, it provides a State Public Affairs Contact List and numerous templates (e.g., press release template). It focuses on what steps should be taken to conduct and coordinate public affairs, with less emphasis on how coordination should occur.

F. Participation in the SOE Process

Four discussion-oriented tabletop exercises (TTXs) were conducted for senior Federal officials prior to the T3 FSE. These TTXs covered a range of topics and scenarios. Two exercises, SOEs 05-2 and 05-3, used the T3 FSE scenario. The purpose of the SOEs was to prepare top officials for participation in the T3 FSE. 12

Since the T2 FSE, DHS has also:

 Implemented the DHS Office of Public Affairs Coordination Center, or "Ready Room," which serves as the public affairs "nerve center" in an emergency. There, DHS officials staff the National Incident Communications Conference Line (NICCL), as well as telephone lines dedicated to communications with the State JICs and with DHS intra-agency, international, and special media. The NICCL is

¹⁰ Table 1 of the NRP Public Affairs Support Annex, Interagency Incident Communications Planning Guide

¹¹ ICER Introduction Letter, Susan Neely, DHS Assistant Secretary for Public Affairs.

¹² SOE 05-2 used the bioterrorism scenario and 05-3 used a combined biological and chemical attack scenario.

- a standing conference line maintained by DHS Public Affairs as the primary means for interagency incident communications information sharing during an INS. ¹³ In the Ready Room, DHS personnel also check and record facts, monitor the media, develop talking points, support speech writing, and provide support to other functions as needed.
- Initiated and finalized an international agreement between the United States and
 the governments of Canada and the United Kingdom (UK), pledging mutual
 support to coordinated incident communications efforts in emergencies. DHS held
 two pre-FSE exercises with incident communications offices from Canada (with
 some limited UK participation) in order to strengthen and rehearse the logistics
 supporting this aspect of international collaboration.
- Created the Incident Management Public Affairs Coordination Committee. The
 White House Communications Office and Homeland Security Council (HSC)
 oversee this committee, which is coordinated by DHS OPA and is comprised of
 representatives from 15 Federal departments and 12 Federal agencies/independent
 bureaus. It meets quarterly to exchange lessons learned and to promote teamwork
 within the public affairs community for managing incident communications.
- Actively participated in the Public Affairs Working Group, which involved the FSL public affairs offices that participated in the T3 FSE.

G. Reconstruction

This reconstruction focuses on how the public affairs design elements facilitated exercising incident communications.

The DHS-sponsored TOPOFF exercise series offers FSL and NGO top officials and public affairs professionals the most challenging and realistic environment of any exercise. The T3 FSE incorporated three elements for multi-dimensional incident communications play—VNN Live simulated television coverage, VNN.com simulated electronic print media, and a robust media simulation cell. Together, these entities made more than 1,000 phone calls over five days to nearly 340 public affairs participants. These elements provided top officials and their supporting public affairs staffs with a challenging and realistic opportunity to gain experience interacting with the media during an unfolding disaster or emergency.¹⁴

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¹³ The NICCL is not a tool for coordinating Federal response operations.

¹⁴ Nearly 340 public affairs participants registered to be "pushed" by simulated media. This does not include additional public affairs participants with support roles.

1. VNN Live

VNN Live provided more than 35 hours of original and live coverage during the course of the exercise. It employed five news studios with nationally known television anchors and experienced reporters in each venue who challenged spokespersons in the exercise as they would in a real event. VNN conducted more than 140 live interviews and 13 press conferences during the exercise. The VNN news desks and reporters incorporated department/agency (D/A) press releases, stories that were posted on VNN.com, and news



gathered via the simulated wire services into their interviews with spokespersons, much as would occur in the real world.

2. VNN.com



VNN.com simulated print media through an electronic website that was available to organizations participating in the T3 FSE. Nine news editors located across the five exercise venues posted more than 200 articles throughout the FSE based on information gathered through D/A press releases, press conferences, and

the media simulation cell. A total of 48 FSL and private sector organizations posted more than 130 public messages on VNN.com. ¹⁶ VNN.com also included articles based on interviews with incident communications participants. The website streamed 35 hours of *VNN Live* video over the course of the exercise, providing a wider reach for *VNN Live* coverage. More than 8,000 individual users logged onto VNN.com during the exercise, providing an indication of the widespread use of this media outlet.

3. Media SIMCELL

Acting as a news wire service, five media simulators located in the three domestic venues supplemented *VNN Live* and *VNN.*com by calling FSL Public Information Officers (PIOs) to ask questions and conduct telephone interviews. The intent of the Media SIMCELL was to put "media pressure" on the entire incident communications system in accordance with the objectives of participating D/As. It reached many players who would

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¹⁵ Source: T3 VNN Broadcast Log.

¹⁶ Source: T3 PIO Play Summary Report.

not have otherwise been challenged by incoming calls from reporters. ¹⁷ The Media SIMCELL also followed up on stories that played on *VNN Live* and, in some cases, fed news stories to the VNN News Desk operation based on the information it gathered, much as a wire service would do.

H. Consequence

DHS has initiated a number of initiatives designed to facilitate better coordination of public messages among FSL and international governmental agencies, the private sector, and NGOs. Progress has been made in the provision of guidance (the NRP ICEPP and ICER), tools (NICCL), and other resources (regular dissemination of DHS public affairs guidance in an incident) since T2. Future efforts should seek to further define concepts for how these tools can be better used to promote more consistent messages by FSL governmental agencies. Particular emphasis should be placed on the development of an efficient Joint Information System (JIS) concept.

The provision of early, unified, and accurate lifesaving protective action guidance by top officials in time-sensitive scenarios, such as those examined in the T3 FSE, should be a top priority in public affairs initiatives. This represents a low-cost, yet highly effective, method that could substantially reduce the number of casualties in these types of incidents. Federal officials (in addition to State and local officials) may need to be prepared to provide comprehensive and specific protective action guidance to the public in the event of an attack with widespread implications, such as a bioterrorism attack using a contagious agent.

I. Analysis

Since the T2 FSE, substantial progress has been made in creating coordination mechanisms to promote the release of a more consistent message by FSL governmental agencies. There was no overarching incident communications framework or guidance during the timeframe of the T2 FSE, as DHS had only recently been created. For this reason, incident communications play in that exercise could only be examined in terms of outcomes based on general incident communications principles—how consistent, accurate, and timely were the messages provided to the public by FSL agencies across the various phases of the incident.

The NRP and its annexes, the National Incident Management System (NIMS), and the ICER allow a framework for examination of how incident communications were executed. The T3 FSE is still examined in the context of the outcomes—incident communications principles of consistent, accurate, and timely messages still apply. However, it is recognized that no one agency can guarantee these outcomes across the range of independent authorities and stakeholders delivering messages to the public during an emergency, even if it is taking as many steps as it can to promote coordination.

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¹⁷VNN Live and VNN.com components focused primarily on top officials and were charged with developing and disseminating news stories. They were not staffed to physically visit or call all PIOs who would be operating behind the scenes.

Therefore, the focus of this analysis is on examining the current incident communications framework as documented in the NRP, NIMS, and ICER in the context of the FSE to determine the relative strengths or weaknesses of this framework when implemented and to determine whether and what potential modifications may need to be considered to improve the framework or its implementation. Also, the purpose of this analysis is to provide a wide-angle perspective on the overall messages provided to the public, the potential implications of those messages, and the degree to which the delivery of the messages would have enhanced or detracted from the credibility of the spokespeople as a key element in a successful public notification campaign.

1. Tools Implemented After T2 FSE and Used in T3

The T3 FSE served as a "proof of concept" opportunity to introduce, test, and/or refine new DHS-sponsored public information coordination mechanisms, such as the NICCL and Ready Room. Prior to the exercise, the DHS OPA released informal preparatory guidance via e-mail to agencies participating in the FSE to further raise awareness of the key incident communications support tools that would be available in the exercise and to outline the purpose and usage protocols for the NICCL. ¹⁸ It summarized the lead agencies for the scenario, outlined DHS Public Affairs products that would be prepared and distributed (such as Public Affairs News Updates, Public Affairs Guidance, NICCL updates, and web products), and outlined DHS incident communications contact information. It requested that Federal agencies provide courtesy copies of press releases and encouraged "wide distribution." This helped build awareness of the available coordination tools and encouraged mutual awareness of respective messages that would be disseminated by Federal agencies.

As designed, the NICCL served as the primary tool for interagency public affairs coordination during the exercise. The Federal Core Group convened on a regular basis throughout the exercise via NICCL teleconferences. Data suggest that, using the NICCL, the group coordinated agreements that outlined which agencies would address certain facts and outlined the generally consistent messages that Federal D/A spokespeople would relay to the public regarding Federal assistance to the affected areas, national preparations, protective measures, and Federal law enforcement activities.

DHS provided informational updates up to 10 times a day on this conference call forum and published summaries for tracking purposes. DHS established a fairly regular morning and evening update cycle and announced other periodic updates via e-mail as well as on this line as needed. It was staffed 24/7 so that even outside of the formal, scheduled "updates," callers could obtain information from a DHS public affairs official. DHS disseminated a written "NICCL Update" over e-mail after each of these updates to provide a record of the discussion.

DHS also regularly disseminated Public Affairs Guidance (approximately four times a day and hourly in some cases) to provide the activated incident communications staffs at

¹⁸ E-mail from Jeff Karonis, DHS Public Affairs, to interagency public affairs offices, dated April 1, 2005.

all levels with periodic updates on the evolving facts as DHS understood them. This guidance was intended to support a common information baseline across FSL organizations in a rapidly evolving event and represented a formal, written means of transmitting information. However, because the updates were rather general and did not contain details on specific public message content, it was not clear whether they were effective in promoting a consistent message.

FSL D/As were inundated with general informational updates from other agencies who distributed regular situation reports, including other offices in DHS. The DHS OPA observed that, in the future, it may be more effective to send out sets of more specific "message points" rather than general status updates. The Public Affairs Guidance has the potential to contribute to more consistent messaging. Integrating it with NICCL updates may be another way to further streamline DHS incident communications support to the interagency and enhance its perceived value by establishing it as a definitive "go-to" product during an incident.

More consideration should be given to further refining and formalizing the business processes that define how the new incident communications coordination tools are used. A concept of operations document could be useful to reinforce awareness of these tools and to outline how they can be even better used by Federal agencies (as well as State and local governments) as a backbone to a JIS to promote a more consistent message. Also, it could be useful to expand the NICCL forum to a secure web-based collaboration environment (e.g., using technology similar to that of WebEx²⁰) to enable participants to hear and see updates. Collaboratively maintaining a written file that is periodically updated by participating agencies, and in which facts are mutually vetted, could contribute further to a common operational picture.

2. Agencies Adhered to the NRP and ICER Guidance

a. Public Affairs Mechanisms

By using a variety of means to reach the public, making joint public statements, and actively working to control rumors, agencies adhered to the NRP and ICER Guidance. FSL D/As employed many systems and tools to reach the public. Both New Jersey and Connecticut deployed central information hotlines and websites, which served as cornerstones of multifaceted public information campaigns. Both States activated their hotlines on April 4. Connecticut fielded questions from individuals throughout the first day. New Jersey kept its hotline and associated e-mail operations open all week to receive and respond to inquiries from the public. Both hotlines provided multilingual and

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¹⁹ See related issue and Course of Action (COA) on JICs.

WebEx is an integrated collaborative meeting and audio/visual teleconferencing services provider. More information can be found at http://www.webex.com and http://www.pcmag.com/article2/0,1759,1787545,00.asp.

²¹ The NJ telephone hotline (866-234-0964) was announced via a press release at 13:58 on April 4. The CT hotline (211) was announced via a 17:00 press release on April 4.

text telephone (TTY) services. The telephone numbers were regularly included on press releases produced by the State and, in some cases, local governments.

FSL D/As also provided informational websites and phone numbers, including dedicated resources for mental health support. Some people may have found the volume of public information telephone numbers overwhelming or difficult to track.²² However, the State hotline numbers and the American Red Cross's contact information were the ones most frequently presented. Maintaining and publicizing a centralized list of the various numbers would be useful.²³

b. Message Considerations

Generally speaking, the public messages from top FSL officials satisfied the following guidelines offered in the ICER:

- Expression of empathy
- Clarification of facts
- What is not known
- Steps being taken to obtain more facts
- Call to action (giving the public things to do)
- Referrals (where to go for more information)

In press releases and via VNN, Federal officials provided regular and generally consistent updates regarding Federal assistance to the response efforts in New Jersey and Connecticut. DHS, Department of Health and Human Services (HHS), and Centers for Disease Control and Prevention (CDC) officials consistently directed the public to listen to State and local government officials for protective action guidance and specific informational updates. This is generally consistent with the NRP, which states that:

State, local and tribal authorities take a lead incident communications role in their respective jurisdictions, while the Federal core group coordinates communications covering Federal assistance to the affected areas, FSL D/A response, national preparations, protective measures and Federal law enforcement activities.

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²³ The *Wall Street Journal* and *Washington Post* (among other publications) published consolidated lists of contact information for relief organizations in the aftermath of the December 2004 tsunami.

Sampling of informational numbers, not including websites, provided during the T3 FSE: Connecticut: Hotline (211); Family Assistance Center (800-438-4636). Interagency: American Red Cross (866-446-2600 and 999-867-6333); Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) (888-ATF-BOMB); CDC (800-CDC-INFO); HHS information (866-509-8000); Federal Bureau of Investigation (FBI) (800-FBI-TIPS); Will Backus Disaster Information Line (866-425-3855). New Jersey: Department of Health and Senior Services (DHSS) Hotline (866-234-0964, 609-633-2083, and 866-555-5555); Medical Examiner's Office (201-599-6097 or 292-6468); Victim Hotline (609-292-6468); Mental Health Hotline (800-294-4357); TTY (973-571-1898). Local health departments provided individual numbers.

New Jersey provided some strong public health and law enforcement spokespeople early on, in addition to the Governor, who likely would have helped establish the credibility of government leaders. They provided a comprehensive informational presence regarding the unfolding crisis. The State Epidemiologist established himself early on as a credible spokesperson regarding the unfolding health crisis and made regular and frequent appearances on VNN. The Superintendent of NJ State Police provided authoritative messages regarding law enforcement updates early on as well.

c. Joint Statements

There were also numerous examples of joint appearances and public statements by various combinations of FSL officials, which helped to convey a coordinated response to the public. The Secretaries of DHS and HHS provided joint statements on April 4 at 12:20 and then again at 17:00. State officials in New Jersey and Connecticut also conducted some joint interviews. On April 4 at 15:00 and April 5 at 14:00, the Governor of New Jersey, Commissioner of DHSS, and State Epidemiologist made a joint appearance on VNN. Also in New Jersey, at 13:20 on April 5, the Deputy Superintendent of the NJ State Police appeared with the State Epidemiologist. In Connecticut, the Governor and PFO made two joint appearances and were joined the second time by the FBI Special Agent in Charge (SAC) overseeing the investigation. Senior CT State departmental officials appeared together twice on April 6. Also in Connecticut, key local officials appeared together on VNN. Although there were still problems in the consistency of messages provided by these officials across FSL levels, joint appearances represent one way to convey that the government is working together for a unified response.

d. Rumor-Control Efforts

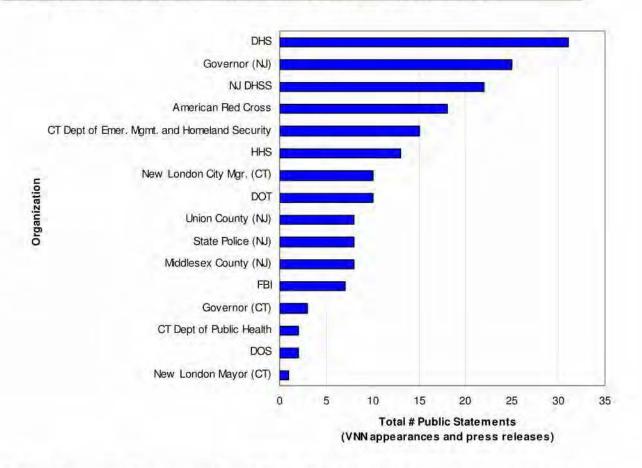
Throughout the T3 FSE, Federal and State D/As acted to correct misinformation or rumors reported through media channels. DHS staffed its Ready Room with a dedicated media monitor to assist with rumor control and to reconcile instances of conflicting information. For example, on April 7, the HSC, in coordination with HHS and CDC, released talking points to correct erroneous statements by other spokespeople referring to the availability of a "vaccine" for plague. In New Jersey, DHSS made "clarifying VNN rumors" one of its top priorities. The State PIO in Connecticut used its 211 hotline to combat rumors. The CT Department of Environmental Protection (DEP) released a press release the afternoon of April 6 to specifically clarify that a rumor "regarding a chemical spill that allegedly occurred in the area of the explosion in New London" was false.

3. Distribution of Domestic Incident Communications Spokespersons/Agencies

The distribution of domestic incident communications spokespersons/agencies reflected NRP ICEPP guidance. Nearly 50 FSL agencies, private sector entities, and NGOs provided messages to the public during the T3 FSE. Of these organizations, DHS provided the most messages in the form of VNN appearances by the Secretary and other officials and press releases reported on by VNN.com reporters. The American Red Cross

and HHS were the next most-visible Federal agencies, followed by the Department of Transportation (DOT) and FBI. Such visibility was consistent with the decisions and response activities occurring at the Federal level. Figure II-1 depicts the total number of public messages made or issued by primary spokesagencies on VNN or via press releases. Figure II-2 shows the total number of VNN appearances by a spokesperson or agency. Figure II-3 identifies the total number of press releases issued by participating domestic organizations.

Figure II-1. Overall Incident Communications (VNN and Press Releases)



In New Jersey, the Governor and top DHSS officials led incident communications in the early stages of the plague outbreak, as evidenced by the number of their VNN appearances and press releases. Their leadership was supplemented by widespread press release activity by localities after the decision was made to execute a statewide prophylaxis strategy. Middlesex County, one of the two hardest hit counties in the State, issued press releases that were especially thorough and informative.

Note that only primary NRP-related agencies are reflected in Figure II-1. Also, only Union and Middlesex Counties in New Jersey (the two hardest hit counties) are included in the summary figures, because most other county press releases were largely focused on providing information or updates regarding points of dispensing (PODs).

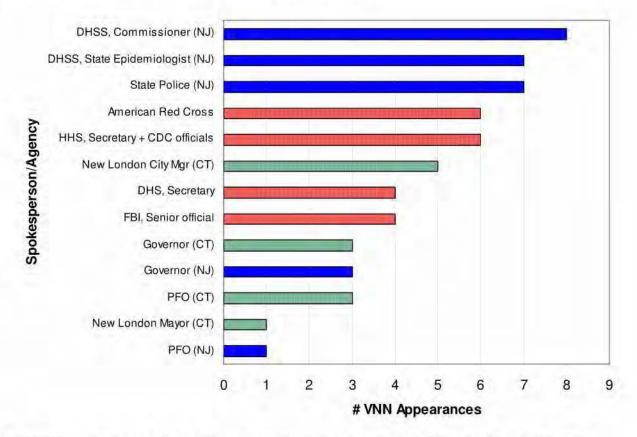


Figure II-2. VNN Appearances by Primary Spokesagencies

It should be noted that the incident communications approach to the prophylaxis strategy in New Jersey in T3 was more State-centric than that of Illinois during the T2 FSE. In that exercise, the city of Chicago and the surrounding "collar" counties assumed more localized control of incident communications when they issued joint press releases with instructions to the public on PODs. 25 This resulted in more consistent messages regarding PODs than occurred in T3, which will be discussed in a later section. However, joint press releases would have been harder to coordinate in New Jersey due to the participation of a large number of counties.

In Connecticut, the Department of Emergency Management and Homeland Security (DOEMHS) provided the most public messages overall, followed closely by the JIC, which was more active than its counterpart in New Jersey. Top local officials, namely the New London City Manager and Mayor and the Governor, led televised public messaging. Health officials were less visible in televised messaging in Connecticut.

The differences in the approaches in New Jersey and Connecticut likely reflected the differing implications of the incidents—a distributed biological attack in New Jersey versus a localized explosion and chemical attack in Connecticut. There were instances of

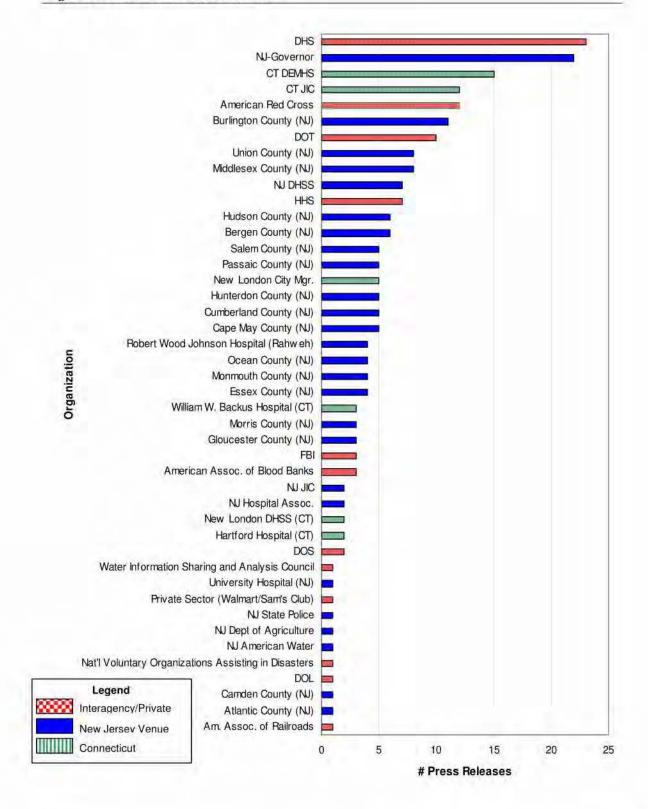
²⁶ See later section on the JICs.

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²⁵ T2 FSE After-Action Report.

inconsistent messages among organizations within each venue, particularly regarding protective action guidance, which will be discussed in a later section. However, the distribution of public messages overall reflects NRP incident communications guidance and indicates that the guidance is flexible enough to accommodate varying implementations.

Figure II-3. Press Releases Issued



4. Top Officials' Difficulty in Providing Protective Action Guidance to the Public

Despite the changes implemented since the T2 FSE, top officials in T3 still were not able to provide timely, accurate, and consistent lifesaving protective guidance to the public. FSL top officials in both venues did not provide a clear and consistent message on recommended protective actions for the public to reduce risk in the early hours and days after the attacks. In many instances, this information was provided only when asked for by a reporter. The inconsistencies and delays in such guidance could have had significant implications on the number of casualties in both venues.²⁷ Early and consistent guidance could minimize the exposure rate and/or degree of exposure to WMD agents.

a. New Jersey

By late morning on April 4, a presumptive diagnosis of plague was confirmed, and a bioterrorism attack was suspected. The agent suspected to be the cause of the first fatalities would have been released from one to six (or more) days earlier. 28 This would have heightened the criticality of a swift and uniform response, at least in terms of preliminary protective action guidance. Officials did not appear to convey the potential magnitude of risk that could be associated with an intentional, covert terrorist release of Yersinia pestis in the first day. This could have been out of a desire to not unduly alarm the public while public health strategies and resources were being mobilized. But, officials may need to assess whether the tradeoffs associated with this approach are worth the risks.

Federal officials were uniform in directing the public to consult State and local officials about specific protective action guidance. This is consistent with the NRP, which recognizes the leadership of State and local governments in directing the response to terrorist attacks. But, the potential for national casualties in the event of a contagious biological attack may call into question whether Federal officials, especially in the early hours, may need to also provide specific protective action guidance at the national level. The public, especially those in potentially at-risk areas that are not at the epicenter of an outbreak where State and local guidance may be more plentiful, may look to Federal spokespersons for uniform protective action guidance.

²⁷ The emphasis here is both on inconsistencies and delays, rather than just inconsistencies in messaging, because effective response to the two scenarios in T3 is so time-sensitive.

²⁸ This range is based on the incubation period for Yersinia pestis. The release time could not be precisely estimated based on a single case.

Some examples of inconsistencies and delays in protective action guidance in New Jersey are provided below to illustrate these points.

 Criticality of the 24-hour Timeframe for Taking Antibiotics after the Development of Symptoms

Initial statements by State officials on VNN did not communicate the criticality of the 24-hour timeframe for receiving antibiotic treatment. On the afternoon of April 4, the NJ Governor mentioned that plague is treatable with antibiotics, but did not specify the criticality of treatment within 24 hours of the onset of symptoms. The DHSS Commissioner noted on VNN on April 4 that plague "has a high fatality rate," but did not clarify that this is true only if someone who is infected does not receive antibiotic intervention within 24 hours from the onset of symptoms, and that otherwise plague is highly treatable. By April 5, subsequent press releases from State and local D/As did begin to emphasize that "early" antibiotic treatment was critical.²⁹

ii. Inconsistent Respiratory Precautions

Also, FSL officials did not widely or uniformly disseminate disease prevention information, such as avoiding symptomatic individuals or wearing surgical masks, to the public on the first day. The Deputy Superintendent for the Homeland Security Branch of the NJ State Police, when asked in a VNN interview on April 4 at 15:10, stated that her office was "staying six feet away from other people." Although this was good protective action guidance, it was not widely provided by other State and local officials or mentioned by other officials on VNN on the first day. ³⁰ In a real event, such early guidance could save lives and reduce the wave of secondary exposures. Due to the potential initial exposure time frame, this could have been critical information for some people.

iii. Uncoordinated and Unnecessary Precautions

Some organizations provided protective action guidance that proved to be unnecessary and was not coordinated through State health officials. This could have undermined the credibility of officials providing critical guidance requiring public cooperation. In one example, the NJ American Water Company issued a "boil water advisory" the evening of April 4 which was not coordinated with State health officials. The DEP initially stated that "a potential or actual threat to the quality of the water being provided currently exists." The State Epidemiologist noted in an interview on VNN on April 5 that plague is not transmissible from water and that he was unclear on the rationale for this order, but that it was "not due to plague." The NJ American Water Company ended its boil water advisory at noon on April 6, describing it as a precautionary measure due to staff shortages resulting from the emergency. The Governor issued a press release that day

²⁹ DHSS issued a press release on April 4 at 21:56 referencing the criticality of the 24-hour window for receiving antibiotics; however, it appeared in the 33rd sentence of the press release after updates on casualty figures, POD openings, and general information regarding plague.

³⁰ Union County mentioned this in a press release on April 5.

stating that there is "no threat of disease transmission from the State's water supply." In this same statement, DHSS reaffirmed that there was no need to boil tap water. These inconsistent messages could have triggered a degree of unnecessary concern among the public.

iv. Uncoordinated POD Guidance

Initial public guidance relating to the PODs and prophylactic treatment was mixed and could have had negative implications on disease spread. First, VNN anchors reported receiving conflicting information from State officials on whether and when initial PODs would be opened the morning of April 5. Officials initially instructed members of the public to report to PODs if they thought they were in the initial exposure area or they thought they were exposed to someone who was. No specific guidance was given as to how a person would know if he or she were in the exposed area (it was not specified) or exposed to someone who was. Initially, VNN reported a strategy of triaging people who were in-processing at the PODs by creating separate lines for symptomatic and non-symptomatic persons. This approach was changed the next day (at which point, symptomatic people were instructed to report to a hospital rather than a POD), but could potentially have exposed people to plague on the first day. Later, this guidance evolved—reflecting a decision by the State to conduct statewide prophylaxis rather than a targeted campaign—and everyone in the State was instructed to go to a POD unless they were symptomatic, in which case they were to report to a hospital.

There were also inconsistencies among local jurisdictions in messages relating to the PODs organized by the State.³¹ Some mentioned the need to arrive with a completed registration form, whereas others did not. In an April 6 press release, Cape May County officials mentioned that the weight for children less than 100 pounds needed to be correctly recorded on the form, whereas other counties did not specifically mention this. A few counties reminded residents in press releases that if they did not speak English, they would need to bring a translator.³² How this message would have been conveyed to those populations was not clear. Gloucester County noted in a press release issued on April 6 that if you have not been exposed and are not ill, "the best thing you can do is stay home." However, no specific guidance was provided as to how to know whether you had been exposed. Also, by this time the State had decided to implement statewide prophylaxis.

Throughput at the PODs was a critical variable in the State's ability to successfully implement its POD plan within the 48-hour timeframe it had established. Incomplete guidance to the public could have negatively affected throughput if people arrived unprepared at the PODs. State governments should develop complementary incident communications plans for Strategic National Stockpile (SNS) distribution and should work closely with all affected localities to ensure that the guidance to the public provided by localities is clear and comprehensive.

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³¹ See also "Strategic National Stockpile and Point of Dispensing."

³² Cumberland and Salem Departments of Health and Somerset County, April 6 press releases.

b. Connecticut

In Connecticut, similar problems arose with the swift, accurate, and consistent provision of potentially lifesaving guidance. Delays in issuing decontamination guidance and cross-contamination warnings could have exposed more people to the agent, worsened the severity of symptoms, or contributed to the overflow of people at hospitals. Some examples of inconsistencies and delays in protective action guidance in Connecticut are provided below to illustrate these points.

i. Delayed Protective Action Guidance

An explosion was reported at the waterfront in New London around 13:20 on April 4. Data suggest first responders almost immediately suspected a chemical agent that could be sulfur mustard. VNN.com reported that, shortly after the blast, State hazardous materials (HAZMAT) workers at the city pier suspected that a chemical agent had been dispersed in the air. Rescue workers told reporters that the victims had been complaining of blistering skin rashes and trouble breathing—common symptoms of mustard exposure. The supervising emergency response coordinator with the State DEP stated, "We were immediately told of the skin blistering by the incident commander, and our workers put on their protective gear." When asked by an interviewer about live footage depicting first responders in personal protective equipment, the New London City Manager first mentioned the word "contamination" on VNN at 14:24 on April 4. The CT Governor, accompanied by the New London Mayor, mentioned the potential use of an unspecified "chemical" in her first press conference to address the attacks at 14:40. Two hours later, the New London City Manager confirmed on VNN the presence of sulfur mustard and the suspicion that it might have been released prior to the explosion, extending both the time window of exposure and the size of the potentially exposed population.

The CDC Fact Sheet on sulfur mustard indicates that the lack of immediate, widespread, self-decontamination guidance and cross-contamination warnings in the early hours of an attack could have had dramatic implications on the severity of casualties. ³³ It indicates that symptoms for the skin, eyes, and respiratory tract can begin as early as one to two hours after severe exposure, increasing the criticality of swift protective action guidance within the first day. It further states that "getting the sulfur mustard off as soon as possible after exposure is the only effective way to prevent or decrease tissue damage to the body." Yet, no specific protective action guidance was offered by State and local officials in these early hours regarding decontamination procedures, no warnings were issued in terms of potential cross-contamination, and no widespread emergency bulletins were issued stating that people at the waterfront during, as well as prior to, the explosion may have been exposed.

³³ http://www.bt.cdc.gov/agent/sulfurmustard/basics/facts.asp

ii. Inconsistent Decontamination/Cross-Contamination Guidance

Officials were also inconsistent in alerting the public to the risks of cross-contamination (which may have put more people at risk) and in issuing decontamination guidance (which may have worsened the severity of the attacks and contributed to the ensuing hospital overflow problems). Shortly after this, the New London Mayor instructed people at the waterfront to "walk away from the waterfront and walk home" if people could not drive or obtain a ride home. The guidance to walk home or drive home would have exposed these individuals to greater risk as the chemical (later reported to be odorless) would have had more time to penetrate clothing and they would have unwittingly cross-contaminated other surfaces such as car seats or their homes. It was not until 16:40 on April 6 that an official (the Commissioner of the Department of Public Health) stated that sulfur mustard was "passable" from one person to another. At this time he also advised that "if you have shoes or clothing that may have contacted outside surfaces, keep [them] in [a] plastic bag outside."

The Secretary of Homeland Security instructed people in his 17:00 press conference on April 4 to "among other things, use soap and water to wash your hands if you were in the vicinity" of New London, but did not mention any other specific guidance. A VNN.com story early in the morning on April 5 quoted a New London City Police sergeant who stated that 911 dispatchers were telling callers that, if they thought they had been contaminated by mustard, "they should shower with soap and water and put clean clothes on before going to the nearest hospital emergency room." Guidance to wash with soap and water contrasted with the CDC Fact Sheet, which states that only "plain water" should be used to wash contaminated areas. Also, the guidance to report to a hospital after showering was unnecessary (showering with water was an effective decontamination procedure) and seemed to contradict the State's efforts to stem the flow of people to hospitals, which were reportedly overrun by this time.

Finally, it was not clear why the Secretary of Homeland Security highlighted this guidance, but did not mention other personal protective action guidance. Federal incident communications experts should determine whether it is appropriate for Federal spokespersons, in addition to leaders of affected States/localities, to issue such guidance. If they determine that such guidance is appropriate at this level (as mentioned earlier in the case of a biological attack), they should prepare officials to provide comprehensive guidance.

iii. Inconsistent Information on Water Risks

There were also some inconsistencies in some of the information provided on sulfur mustard which could have undermined the credibility of officials and caused some confusion for the public. In one example, the Public Health Commissioner stated (on April 7) that sulfur mustard "does not affect the water supply," and that the water supply was "secure assuming it is city water." But, the CDC Fact Sheet states that "people can be exposed by drinking the contaminated water." Also, officials were reporting that environmental testing was being done in the water, implying some potential for

contamination. Yet, other agencies were stating that water neutralized the sulfur mustard agent.³⁴ A health official also stated that this agent "does not cause disease." However, the CDC Fact Sheet states that it can cause chronic respiratory disease. Although this official was likely attempting to contrast this with the contagious plague epidemic, it highlights the importance of clear statements.

iv. Inconsistent Shelter-in-Place Instructions

Finally, officials did not provide comprehensive or consistent protective action guidance in Connecticut regarding the shelter-in-place order issued on the afternoon of April 4 for the New London area. First, the Governor mentioned closing all windows and doors and remaining on an upper floor without windows, as chemical mustard is heavier than air and will settle. An American Red Cross official later stated that windows and doors should be sealed with duct tape and ventilation turned off, stating that oxygen deprivation is "usually" not a problem within the (unspecified) time frames of such orders. The VNN lead anchor later strongly advised against such procedures, noting that it could be dangerous due to oxygen deprivation and citing experiences from 9-11. But, the Public Health Commissioner provided similar and additional shelter-in-place guidance in a press release on April 5, advising the public to "close doors, turn off heating or air conditioning, close fireplaces, go to interior room without windows above ground, and if available, use duct tape and plastic sheeting" to seal all openings.

Even by the next day, State and local officials were not consistent in their messages regarding the potential danger to the public from the chemical exposure. Live VNN footage of the incident scene showed first responders not wearing personal protective equipment on April 5. This led to questions on April 5 as to whether the Governor had lifted the shelter-in-place order and whether it was now safe to walk outside. She clarified on *VNN Live* on April 5 that she had not lifted this order due to the two- to three-day half-life of this chemical. But, local officials were reporting that it was safe to go outside at this time. An urban search and rescue commander stated on VNN around 11:00 on April 5 that the shelter-in-place order was "an extra precaution," but that the incident scene was safe. Shortly thereafter, the New London City Manager stated on VNN that "there is no reason to shelter in place."

Although some of these inconsistent messages were likely due to artificialities of the exercise, they illustrate a problem that can arise when jurisdictions have differing views on what constitutes "safe." In this case, for whatever reason (even if artificiality-induced), local officials felt that the area was safe and began to communicate this in their statements. This conflicted with the position and guidance of the Governor and, at best, would likely have diminished the credibility of these spokespersons. At worst, the failure by officials (primarily at State and local levels as the leaders of public information on this attack) to provide early, accurate, and consistent protective action guidance could have increased the numbers and severity of casualties from the attacks.

³⁴A National Oceanic and Atmospheric Administration (NOAA) official on VNN on April 5 stated that water will "neutralize the agent."

Tables II-1 and II-2 depict the range of protective action guidance offered by officials within the first few days of the attacks. They illustrate the general lack of uniformity of initial protective action guidance across FSL public health and top officials in both venues, as well as the delays in some cases in the most crucial first hours. Although some of the early disparity was due to artificialities, they suggest that officials may be unprepared to respond quickly to time-sensitive scenarios with consistent protective action guidance. Providing swift, accurate, and consistent protective action guidance in the immediate aftermath of an attack with time-sensitive implications (such as a biological or chemical attack) is one of the highest-impact actions officials can take. Providing this guidance should be a primary focus of incident communications initiatives. Of all the actions taken by FSL governments, this relatively simple action can dramatically reduce the scale of casualties and ultimate cost of response.

Table II-2. First-Day Protective Action Guidance for the Biological Attacks in New Jersey

	SHQ	ннѕ	ннs/cdc	HHS/FDA	NJ Governor	NJSP Deputy Superintendent of Homeland Security	NJ DHSS	NJ Attorney General	NJ DEP	NJ Department of Agriculture	Union County Health Department	Middlesex County Health Department
Follow instructions of State and local governments.	4/4, 17:25 (PR)											
Taking antibiotics if you haven't been exposed is not recommended.		4/5, 13:34 (PR)										
If you don't have symptoms and haven't been near anyone exposed, don't go to a POD.		4/5, 13:34 (PR)										
Bacteria can be transmitted by aerosol, direct contact with tissues, body fluids, or bites.										4/4, 17:56 (PR)		
You can reduce the chance of becoming sick if you receive preventive treatment within seven days of exposure.			Fact Sheet				4/4, 21:20 (FAQ)					
People experiencing respiratory symptoms should call their local hospitals prior to visiting a health care facility.					4/4, 17:58 (PR)							
Stay six feet away from people.						4/4, 15:13 (VNN)					4/5, 12:59 (PR)	
Cover mouth when coughing/sneezing.							4/4, 20:54 (PR)					4/4, 16:09 (PR+ VNN)

	DHS	нн	ннѕ/срс	HHS/FDA	NJ Governor	NJSP Deputy Superintendent of Homeland Security	NJ DHSS	NJ Attorney General	NJ DEP	NJ Department of Agriculture	Union County Health Department	Middlesex County Health Department
Wash hands frequently.												4/4, 16:09 (PR+ VNN)
Stay home/avoid contact with others if you don't have symptoms.		4/5, 13:34 (PR)	Fact Sheet				4/4, 18:15 (PR)	4/4, 17:10 (VNN)				4/4, 16:09 (PR+ VNN)
Stay away from other people if they are ill.	,	4/5, 13:34 (PR)	4/5, 13:29 (PR/ Fact Sheet				4/4, 20:54 (PR)					4/4, 16:09 (PR+ VNN)
Wear a tightly fitting surgical mask.			Fact Sheet				4/4, 21:20 (FAQ)					
Use a cloth to cover mouth if surgical masks are not available to avoid contracting pneumonic plague.			Fact Sheet									
If you are ill with pneumonic plague, you must receive antibiotics within 24 hours of symptoms to prevent high risk of death.		4/5, 13:34 (PR)	Fact Sheet				4/4, 21:20 (FAQ)					
If you are ill, cover mouth and nose with tissue or surgical mask when coughing/sneezing.							4/4, 21:20 (FAQ)					4/4, 16:09 (PR)
Do not touch ill or dead animals (or wear gloves).		4/5, 13:34 (PR)	Fact Sheet				4/4, 21:20 (FAQ)					4/4, 16:09 (PR)
Eliminate sources of food/nesting for rodents and seal all openings larger than 2.5 inches.			Fact Sheet				4/4, 21:20 (FAQ)					4/5, 14:38 (PR)
Treat cats/dogs/ homes for fleas.			Fact Sheet				4/4, 21:20 (FAQ)			4/4, 17:56 (PR)		4/5, 19:46 (PR)

	DHS	ннѕ	ннs/cdc	HHS/FDA	NJ Governor	NJSP Deputy Superintendent of Homeland Security	NJ DHSS	NJ Attorney General	NJ DEP	NJ Department of Agriculture	Union County Health Department	Middlesex County Health Department
Do not allow pets to roam outdoors.							4/4, 21:20 (FAQ)					4/5, 19:46 (PR)
Boil water for one minute. Do not drink tap water (even filtered water).							4/4, 20:54 (PR)		4/5, 08:20 (VNN)			
Thoroughly cook and wash fresh produce to reduce plague risk.										4/5, (PR)		
Advise school food providers and food banks to use biosecurity measures to thoroughly clean vehicles and equipment to avoid the spread of disease.										4/5, (PR)		
Hunting in counties affected by plague is not advised.										4/5, (PR)		
Be cautious of blood donation. (Advise blood banks and tissue donor organizations to request deferral of donations from NJ, NYC, and Allentown, PA, which routinely collect blood in NJ and quarantine of donations accepted up to three weeks ago).		4/5, 13:34 (PR)		4/5, 13:34 (PR)								
If you have symptoms of plague, report to the hospital immediately.	4/5, 20:01 (PR)						4/4, 21:56 (PR)				4/5, 14:17 (PR)	4/4, 16:09 (PR)
Apply insect repellant to skin/clothing to prevent flea bites.							4/4, 21:20 (PR)					

Wear gloves, masks, eye protection, and gowns when treating suspect animals.	
	DHS
	HHS
	HHS/CDC
	HHS/FDA
	NJ Governor
	NJSP Deputy Superintendent of Homeland Security
	NJ DHSS
	NJ Attorney General
	NJ DEP
4/4, 17:56 (PR)	NJ Department of Agriculture
	Union County Health Department
	Middlesex County Health Department

Table II-3. First-Day Protective Action Guidance for the Chemical Attack in Connecticut

	DHS Secretary	HHS Secretary	HHS/CDC	CT Governor	New London Mayor	New London Office of Emergency Management	CT Department of Public Health	CT DOEHMS	American Red Cross
Stay inside (shelter in place [SIP])		4/5, 13:34 (PR)		4/4, 14:40 (VNN)					
(SIP) Close windows/doors.		4/5, 13:34 (PR)		4/4, 14:40 (VNN)			4/5, 09:00 (VNN)		4/4, 15:15 (PR)
(SIP) Lock windows/doors.				4/4, 23:28 (PR)					4/4, 15:15 (PR)
(SIP) Head to interior room, without windows above ground.						4/5, 13:34 (PR)			4/4, 15:15 (PR)
(SIP) Close fireplace and damper.		4/5, 13:34 (PR)		4/4, 23:28 (PR)					4/4, 15:15 (PR)
(SIP) Make sure radio is working.									4/4, 15:15 (PR)
(SIP) Turn off all fans/ventilation.		4/5, 13:34 (PR)		4/4, 23:28 (PR)					4/4, 15:15 (PR)
(SIP) Use duct tape and plastic sheeting to seal all cracks and vents.				4/4, 23:28 (PR)					4/4, 15:15 (PR)
(SIP) Have a hard-wired phone in room.				4/4, 23:28 (PR)					4/4, 15:15 (PR)
(SIP) Bring pets inside and bring additional food and water for them.				4/4, 23:28 (PR)					
Walk/drive home from waterfront if you can.					4/4, 17:00 (VNN)				
Use soap/water to wash hands if you were in the vicinity.	4/4, 17:00 (VNN)								
Avoid any exposure.			Fact Sheet	4/4, 17:50 (VNN)					

					yor	ice of agement	of Public		ross
	DHS Secretary	HHS Secretary	HHS/CDC	CT Governor	New London Mayor	New London Office of Emergency Management	CT Department of Public Health	CT DOEHMS	American Red Cross
Don't eat freshly caught shellfish.							4/5, 09:00 (VNN)		
Don't let pets stray into areas where they can contact dusty surfaces.							4/5, 09:00 (VNN)		
Do not touch anyone if you think you've been exposed.		4/5, 13:34 (PR)							
Do not touch dead animals.								4/5, 14:40 (VNN)	g.
Get family disaster kit.						4/5, 13:34 (PR)			4/4, 15:15 (PR)
Continue to shelter in place due to two- to three-day half-life of sulfur mustard.				4/5, 15:00 (VNN)					2:
Quickly remove any clothing that has liquid sulfur mustard on it. If possible, seal the clothing in a plastic bag.		4/5, 13:34 (PR)	Fact Sheet	4/6, 14:04 (PR)					
Seal any bags with contaminated clothes inside a second plastic bag.			Fact Sheet	4/6, 14:04 (PR)					
Immediately wash all exposed areas with soap/water. Then report to a hospital for additional treatment and decontamination.		4/5, 13:34 (PR)	4/4, 7:56 (PR)						
Immediately wash any exposed part of the body (eyes, skin, etc.) thoroughly with plain, clean water. Eyes need to be flushed with water for 5 to 10 minutes. Do NOT cover eyes with bandages, but do protect them with dark glasses or goggles.			Fact Sheet						
If you are showing symptoms of sulfur mustard exposure, contact your health care provider or seek medical attention.		4/5, 13:34 (PR)	Fact Sheet	4/6, 14:04 (PR)					30 -
If someone has ingested sulfur mustard, do NOT induce vomiting. Give the person milk to drink.			Fact Sheet						
People can be exposed by drinking contaminated water or getting it on their skin.			Fact Sheet						•

5. No Evident Use of a JIS

The NRP describes a JIC as "a physical location affairs professionals public organizations involved in incident management activities work together to provide critical emergency information, crisis communications, and public affairs support." The NIMS is supposed to integrate multiple JICs into a JIS

"[The JIS] integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during a crisis or incident operations."

NRP

concept, which is designed to "ensure that Federal, State, and local levels of government are releasing the same information during an incident."35 It states that "The JIS provides the mechanism for integrating public information activities among JICs, across jurisdictions, and with the private sector and NGOs." Although there is evidence of multiple JICs and individual agency incident communications operations across multiple jurisdictions, as well as within the private sector and NGOs, there is no evidence of the use of a JIS in the T3 FSE.³⁶

Substantial evidence exists of the various FSL D/As courtesy copying JICs on press releases and vice versa. This may reflect the current interpretation by many people of the "coordination" role of JICs in the NRP and NIMS. There is also evidence of numerous one-to-one attempts to coordinate or validate information points between D/As. But, there is little evidence in either Connecticut or New Jersey of a structured mechanism for the JICs to receive regular updates from D/As or for the JICs to develop and disseminate message content across all D/As. Exercise data do not reveal how the JICs in each venue coordinated with each other and with D/As to systematically produce a consistent public message. The numerous inconsistencies in some of the core public messages suggest that, if such coordination existed, it was not sufficient.³⁷

There was some evidence that the mock media found that obtaining information from JICs in both venues was slow due to the time-consuming process required to locate and validate answers.³⁸ This caused the mock media to go directly to individual D/As in many cases when quick updates or answers were needed. Other evidence suggests that, in some cases, representatives at the various JICs focused on supporting their D/As' incident communications needs rather than the coordinated message development mission of the JIC. Media SIMCELL logs also show that JIC staffs often did not have up-

³⁵ DHS NIMS Fact Sheet. http://www.dhs.gov/dhspublic/interapp/press_release/press_release_0363.xml.

³⁶ In New Jersey, there was the Joint Field Office (JFO) JIC and a separate State JIC. In Connecticut, there was a JFO JIC and a local JIC in addition to incident-scene public affairs support. DHS hosted a virtual national JIC through the HSOC and its Ready Room.

³⁷ See discussion on protective action guidance issue.

³⁸ Media SIMCELL logs indicate that JIC staffs would take down questions over the phone, seek answers, and return the call once a validated answer had been obtained from the appropriate representative. In many cases, the Media SIMCELL had obtained the answer more quickly by directly contacting FSL D/As.

to-date information or were generally not well informed.³⁹ The information problems in the JICs may have been caused by a lack of colocation with the decision makers, which increased the coordination burden.⁴⁰ This problem may make some D/As reluctant to send their most experienced people to a JIC. For the JIC to fulfill its mission as a "focal point for the coordination and dissemination of information to the public and media," it needs to be closely integrated with the decision makers who are directing incident response, recovery, and mitigation efforts. For example, at the Governor of New Jersey's request, the State EOC established a dedicated State JIC to support his incident communications needs.

Experiences in the T3 FSE and observations from subject-matter experts suggest that the current JIC and JIS concepts could benefit from further examination. The NRP is an overarching guidance document and does not describe a process for how JICs should work together within a jurisdiction or across jurisdictions. Likewise, NIMS refers to the JIS, but does not provide operational guidance for how it should be implemented; who should lead it; and how various JICs, jurisdictions, the private sector, and NGOs should interface with it. DHS is currently working to refine the JIC concept. In July 2005, the department hosted a summit to develop "enhanced JIC leadership/organizational processes."41 The lack of any evidence of the use of a JIS suggests that the JIS concept may need more operational definition. A supporting JIS Concept of Operations could provide amplifying implementation guidance for executing incident communications in the context of the NRP and NIMS. Future FSEs, in addition to reconstructions of realworld responses, could be used to test and refine evolving JIC and JIS concepts. Further examination of JIC implementation during real-world incidents would also help to determine whether the problems seen in T3 are common or the result of an artificial exercise environment.

6. Pre-exercise Coordination between DHS and International Participants

A number of preexercise coordination actions between DHS and the governments of the United Kingdom and Canada helped to enhance public information coordination. First, senior public affairs officials from the three nations successfully negotiated a formal "Communications Agreement regarding the coordination and management of public information and media relations between United States, UK and Canada for the international counterterrorism exercise planned for April 2005." It served as a written agreement and outlined principles and a template for how these three governments would approach public information in this exercise. Although not legally binding, it did serve to formalize agreement on principles such as "sharing key messages, talking points and

³⁹ The reconstruction contains multiple references from the Media SIMCELL of JIC staffs not being well informed, causing reporters to turn to individual D/As for the latest information. They acknowledged relying more heavily on updates from individual D/As once they were active.

Media SIMCELL logs indicate that JIC staff would take down questions over the phone, seek answers, and return the call once a validated answer had been obtained from the appropriate representative. In many cases, the Media SIMCELL had obtained the answer more quickly by directly contacting FSL D/As

⁴¹ DHS OPA memorandum regarding Quicklook inputs, undated.

lines to take relating to the event," and providing "early warning of developing issues which may generate media or public interest."

In addition to this, DHS initiated two pre-FSE exercises with State, local, Canadian, and UK public affairs officials to strengthen and rehearse the logistics of international collaboration on incident communications. Whereas the Communications Agreement documented the desired approach, the pre-FSE workshops enabled public affairs officials in Canada, the United Kingdom, and the United States to gain experience with the various tools that would be available to implement it, and the FSE provided an environment for these officials to practice the coordination.

International coordination on public messaging can be difficult for a variety of reasons, including differing time zones, government information sensitivities, differing approaches/philosophies regarding sharing information with the public, and the larger set of coordinating organizations. But, these initiatives represented important steps toward building relationships and generating mutual agreement on principals that the three nations could agree on.

Senior public affairs officials from Canada and the United Kingdom have indicated that participation in the T3 FSE was valuable in enhancing their real-world coordination efforts.

U.S.-UK incident communications coordination was tested dramatically by the July 2005 terrorist attacks in London. Public affairs officials in both nations credit the T3 FSE experience and the relationships developed during planning phases of the exercise with helping to facilitate incident communications coordination during this difficult time. A Canadian public affairs official stated that the relationships and lessons learned developed through the FSE have already helped to enhance Canada-U.S. communications in several recent incidents.

7. Issues from Previous Exercises

Table II-4 highlights the evolution of incident communications since the T2 FSE.

Table II-4. Comparison of T3 FSE with Previous Exercises

T2 FSE	T3 CPX	SOEs 05-2 and 05-3	T3 FSE
	ISSUES/0	DBSERVATIONS	
 PFOs observed a lack of coordination between FSL D/As and acted to improve this. 	Public affairs coordinated public information among participating D/As based on the draft Incident Communications Emergency Plan procedures.	Officials emphasized the need for coordinated messages.	 DHS initiatives, such as the NICCL, helped to improve coordination between FSL D/As. DHS and HHS released some joint messages.
		Officials emphasized the importance of including medical experts in public messages regarding bioterrorism.	State health officials in New Jersey worked closely with the Governor and were very visible in public messaging regarding the bioterrorism attack and response.
Protective action guidance by State/local officials was not consistent or comprehensive.		Participants stressed the importance of providing clear, lifesaving information immediately to the public. IlMG TTXs emphasized the role of public messaging to identify victims and limit secondary contamination. For example, the public needs practical sulfur mustard specifics: contamination avoidance, decontamination measures, and symptoms.	Protective action guidance by State/local officials was still not consistent or comprehensive. This should become a top priority for public affairs staff.
State and local governments did not appear to have pre- coordinated, off-the-shelf, agent-specific fact sheets and did not appear to use those from the CDC.		Federal officials stated that off-the- shelf fact sheets are needed to provide immediate and, in some cases, lifesaving guidance.	CDC Fact Sheets were more widely cited by State and local D/As in websites than in T2.
Multiple informational phone numbers were issued, but not released as a joint set.			Both States emphasized hotline numbers to streamline public information. But, multiple informational phone numbers were still released in both venues.
 Local jurisdictions in Chicago (plague outbreak) issued joint press releases, which resulted in consistent instructions to the public regarding PODs. 			POD instructions for some local jurisdictions were incomplete and could have slowed throughput. FSL leaders in both venues conducted several joint press conferences or released joint statements.

T2 FSE	T3 CPX	SOEs 05-2 and 05-3	T3 FSE
State and local officials used language that was either too technical or too vague and interfered with clear messaging.			FSL officials generally used clear language when referring to the pneumonic plague outbreak and the chemical attack.

J. Recommendations

- Develop the mechanisms to prepare FSL top officials to provide swift, accurate, comprehensive, and consistent potentially lifesaving protective action during a terrorist attack with time-sensitive implications, such as the scenarios used in T3. Also, while top Federal officials may direct the public to look to State and local leaders for protective action guidance for most scenarios, they (particularly DHS/HHS officials) may need to be prepared to provide comprehensive protective action guidance in the event of an attack with national reach, such as a biological attack.
- Develop a supporting JIC/JIS Concept of Operations (CONOPS) to complement ESF #15 and Public Affairs Annexes of the NRP and ICER to provide more specific operational implementation guidance for executing incident communications in the context of the NRP. Explore virtual means of exchanging information and developing joint messages.
- Consider using future exercises to further test/refine protocols (which could be
 documented in the CONOPS), and educate stakeholder organizations on how incident
 communications coordination mechanisms such as the NICCL can be used to
 promote a common operational picture and coordinate message content where
 appropriate.
- Consider expanding the NICCL to an audio/visual forum that allows collaborative tracking of the evolving facts and message points.
- Expand the DHS Public Affairs Guidance product to provide more specific message points and consider linking it to NICCL updates.
- Establish primary public information sources early in the incident, such as the State hotlines and websites established in New Jersey and Connecticut.
- State governments should develop complementary incident communications plans for SNS distribution and work closely with affected localities to ensure that the guidance to the public provided by localities is clear and comprehensive.

III. Integrating Responses to INSs: Public Health Emergency and the Stafford Act—Task # III-3: Direct and Control Response Operations

A. Summary of Issue

The issue is that neither the NRP nor HHS CONOPS provide sufficient guidance for coordinating assistance for incidents that are concurrently covered under a Stafford Act declaration and a public health emergency. During the T3 FSE, the Secretary of HHS declared a public health emergency in New Jersey under the authorities of the Public Health Service Act. As discussed in the section "Stafford Act Declarations," the President approved Stafford Act declarations for the incidents in New Jersey and Connecticut. Additionally, the T3 FSE was the first test of the recently released NRP and thus the first opportunity to examine the guidance the NRP provides in coordinating INSs.

The T3 FSE revealed that the NRP does not provide adequate guidance for coordinating Federal operations and support under a public health emergency when a Stafford Act declaration is in effect. Specifically, the processes were unclear for requesting and coordinating Federal assistance under other Federal authorities in conjunction with a Stafford Act declaration. The relationship between the public health emergency and the Stafford Act declarations was further clouded by the lack of a clearly established HHS process for coordinating Federal-to-Federal support for public health emergencies. Additionally, the funding responsibilities of State and local governments under a public health emergency were not clearly defined.

B. Background

The NRP is an all-discipline, all-hazards plan that establishes a single framework for the management of domestic incidents. It provides the structure and mechanisms for the coordination of Federal support to State and local incident managers and for exercising direct Federal coordination of Federal authorities and responsibilities. Emergency public health assistance can be rendered under at least two separate Federal acts of enabling legislation: the Stafford Act and the Public Health Service Act.

1. NRP

As the PFO for domestic incident management, the Secretary of Homeland Security declares INSs and oversees coordination efforts for Federal operations and resources. The NRP is the Federal government's plan to respond to an INS. An INS is defined as an incident that meets one of the following four criteria set forth in the Homeland Security Presidential Directive (HSPD)-5 and NRP:

 A Federal D/A acting under its own authority has requested the assistance of the Secretary of Homeland Security.

⁴² Homeland Security Presidential Directive/HSPD-5 Subject: Management of Domestic Incidents, February 28, 2003.

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- The resources of the State and local authorities are overwhelmed, and State and local authorities have requested Federal assistance (such as a Stafford Act declaration).
- More than one Federal D/A has become substantially involved in responding to an incident.
- The Secretary of Homeland Security has been directed to assume responsibility for managing a domestic incident by the President.

For INSs that are receive presidential declarations of disasters or emergencies, Federal support to States is delivered in accordance with relevant provisions of the Stafford Act. Although all declared disasters and emergencies under the Stafford Act are considered INSs, not all INSs require a Stafford Act declaration. As a result, the NRP describes basic concepts for operating under a Stafford Act declaration as well as for INSs covered under other Federal authorities (non-Stafford Act).

2. Processes and Structures for INSs under Other Federal Authorities

The NRP discusses how to coordinate an INS that is a non-Stafford Act incident. The Secretary of Homeland Security designates a Federal Resource Coordinator (FRC) to serve as the Secretary's representative in the field to manage Federal resource support. Federal agencies provide resources under interagency reimbursable agreements or under their own authorities, such as a public health emergency or the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NRP states that for an INS without a Stafford Act declaration, "the JFO serves as the focal point for coordinating Federal assistance to the requesting agency." The NRP has a Memorandum of Agreement (MOA)—Mutual Aid for Incidents of National Significance (Non-Stafford Act)—that creates a framework for interagency mutual aid for Federal-to-Federal support in an INS. Federal agencies that are signatories of the NRP are signatories to the MOA, but the MOA needs to be activated.

3

⁴³ NRP Appendix 6 Overview of Support in Non-Stafford Act Situations.

⁴⁴ See discussion in "Emergency Response Operations under a Unified Command" for more information on the NCP.

3. Stafford Act

The Stafford Act establishes the programs and processes for the Federal government to provide disaster and emergency assistance to States, local governments, tribal nations, individuals, and qualified private nonprofit organizations. The provisions of the Stafford Act cover all hazards, including natural disasters and some terrorist events (explosives, fire). Relevant provisions of the Stafford Act include a process for Governors to request Federal disaster and emergency assistance from the President. The President may declare a major disaster or emergency:

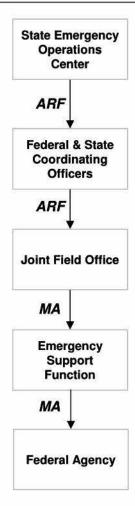
- If an event is beyond the combined response capabilities of the State and affected local governments; and
- If, based on the findings of a joint FSL preliminary damage assessment (PDA), the damages are of sufficient severity and magnitude to warrant assistance under the act. (In a fast-moving or devastating disaster, DHS/EPR/FEMA may defer the PDA process until after the declaration.)

4. Processes and Structures for INSs under the Stafford Act

The NRP discusses the processes and structures for supporting an INS accompanied by a Stafford Act declaration. A Federal Coordinating Officer (FCO), appointed by the Secretary of Homeland Security on behalf of the President, manages and coordinates Federal resource support activities related to Stafford Act disasters and emergencies. The FCO works with the State Coordinating Officer (SCO) to identify requirements and approve requests. Both are located at the JFO. The JFO manages and coordinates requests through ESFs, which provide the mechanisms for Federal support to States, for declared disasters and emergencies. The State submits requests to the JFO via action request forms (ARFs). Once the FCO determines a request is eligible for Federal support (i.e., beyond the capacity of the State to provide), the JFO Operations Section crafts a Mission Assignment (MA) and forwards it to the appropriate ESF. The ESF then coordinates with the relevant Federal agencies and tasks them with the mission assignment. Figure III-1 shows the basic ARF-MA process.

⁴⁵ Robert T. Stafford Disaster Relief and Emergency Assistance Act, 93 Pub. L. No. 288, 88 Stat. 143 (1974) (codified as amended at 42 U.S.C. §§ 5121-5206, and scattered sections of 12 U.S.C., 16 U.S.C., 20 U.S.C., 26 U.S.C., 38 U.S.C. [2002]).

Figure III-1. Stafford Act ARF-MA Process



5. Public Health Service Act

The Secretary of HHS is authorized under the Public Health Service Act⁴⁶ to declare a public health emergency. This declaration enables HHS to delegate its granted authority, release funds and resources to prevent the proliferation of a communicable disease, and plan an emergency medical response in the event of a disease outbreak. HHS is authorized to manage investigative and protective efforts, enter into contracts, assemble grants, disseminate information, and coordinate all other related actions reasonably necessary to respond to the emergency. The act gives HHS and its delegated authorities, such as the CDC and Food and Drug Administration (FDA), wide discretion and independence in the management of such efforts.

A Federal declaration by HHS allows for the release of Federal resources, including money and manpower. However, unlike the Stafford Act, which has funding already appropriated for use in the event of a major disaster or emergency declaration, funds need

^{46 42} U.S.C. 201, et seq.

to be appropriated ad hoc for use in a public health emergency.⁴⁷ These funds should supplement, rather than supplant, other FSL public funds.

HHS has no published detailed operational plan or burden-sharing agreement for coordinating assistance with States or other Federal agencies during a public health emergency. Their CONOPS does include some information on the process. The following statements are included in the HHS CONOPS:

- All requests for HHS assistance will be made to the Secretary through the Assistant Secretary for Public Health Emergency Preparedness (ASPHEP).
- If HHS requires assistance from other Federal agencies, the ASPHEP will make those requests on behalf of the Secretary.
- On behalf of the Secretary, the ASPHEP will provide specific MAs, priorities, and objectives to the Secretary's Emergency Response Team (SERT). These MAs will be coordinated and may be made at the request of other Federal entities, particularly DHS.

These statements lack sufficient detail on how requests will be submitted and coordinated with DHS and other Federal agencies.

C. Reconstruction

The Secretary of Homeland Security declared the events in New Jersey and Connecticut to be INSs on April 4 at 14:00 and 16:00, respectively.

The Governor of Connecticut asked the President for a declaration under the Stafford Act at 15:00 on April 4, which was followed by a faxed written request. At 16:30, the President verbally issued Stafford Act declarations for Connecticut and New Jersey.

The Secretary of HHS declared a public health emergency in New Jersey at 17:30 on April 4. HHS requested assistance from other Federal agencies under the authorities granted by the Public Health Service Act.

Once the Federal government declared the events in New Jersey to be an INS and an emergency under the Stafford Act, the expected Federal response organizations and processes became active. The FCO activated the ARF-MA process (see Figure III-1) and began coordinating the State's requests through ESFs. Under the public health emergency in New Jersey, HHS requested direct support from other Federal agencies. HHS asked for Federal-to-Federal support from the Department of Veteran's Affairs, DHS, and Department of Defense (DoD). Most of these requests went through the NRCC or went directly to Federal agencies with little State input or coordination with the JFO.

⁴⁷ U.S. Department of Health and Human Services, Concept of Operations Plan for Public Health and Medical Emergencies, March 2004.

⁴⁸ Refer to the section on "Resource Requests and Resource Coordination" for more information on the types of resources requested by the States and the channels through which they were processed.

D. Consequence

In the T3 FSE, the terrorist attacks simulated in New Jersey and Connecticut resulted in the concurrent implementation of multiple Federal declarations to provide assistance to the States. The process for requesting and coordinating Federal-to-Federal support under a public health emergency in conjunction with a Stafford Act declaration was not understood. The guidance in the NRP was not sufficient to delineate the processes and responsibilities. Federal and State agencies had difficulty understanding how to coordinate resources and how to pay for them under the differing authorities and funding mechanisms.

The T3 FSE revealed the following:

- Neither the NRP nor the HHS CONOPS provides sufficient guidance for coordinating assistance for incidents that are concurrently covered under a Stafford Act declaration and a public health emergency.
- HHS does not have a detailed process for requesting and coordinating Federal-to-Federal assistance for public health emergencies.
- The funding capabilities of HHS and the funding responsibilities of States and other Federal agencies are unclear under a public health emergency.

E. Analysis

Data indicate that State and Federal agencies were uncertain about how to coordinate response efforts provided via the Public Health Service Act with those provided under the Stafford Act. Such uncertainty was due to the fact that the processes for requesting, tracking, and coordinating assistance provided by the Federal government under other Federal authorities in conjunction with a Stafford Act are unclear. This suggests that neither the NRP nor the HHS CONOPS provides sufficient guidance for coordinating Federal-to-Federal support under a public health emergency when a Stafford Act declaration is also in effect. Additionally, funding responsibilities for States under a public health emergency are unclear.

1. Insufficient NRP Guidance for Coordinating Assistance under a Stafford Act Declaration and a Public Health Emergency

As discussed above, the NRP is intended to be the guiding document for INSs. The NRP describes the processes and structures for Stafford Act incidents and the processes for Federal-to-Federal support for INSs that are covered under other Federal authorities, such as a public health emergency. However, the NRP states that:

In the context of Incidents of National Significance, these supplemental agency or interagency plans may implemented concurrently with the NRP, but are subordinated to the overarching core coordinating structures, processes, and protocols detailed in the NRP [emphasis added]. In this case, the department or agency with primary responsibility for execution of the supplemental agency or interagency plan is also responsible for ensuring that all ongoing activities conform to the processes and protocols prescribed in the NRP. [emphasis added]

Because the NRP describes structures, processes, and protocols for Stafford Act INSs and for INSs under other Federal authorities, the question is which of those are in effect during concurrent implementation of both Stafford Act and other Federal authorities.

Figure III-2 shows the relationship among INSs, Stafford Act incidents, and incidents covered under other Federal authorities. In the case of incidents that are covered under the Stafford Act and other Federal authorities, the NRP says little about how to request and coordinate Federal resources.

Stafford Act

Other Federal
Authorities
(e.g., Public Health
Emergency)

Incidents of National
Significance

Covered in the NRP

Figure III-2. Relationship Between INS and Incidents Covered Under Other Federal Authorities

The NRP says:

Federal departments and agencies supporting the NRP are activated and engaged using either a mission assignment process for events supported by Stafford Act funding or through interagency agreements or other direct funding sources when implemented using other authorities. [emphasis added]⁴⁹

The NRP does not specifically cover the case of an incident that is addressed concurrently by the Stafford Act and other Federal authorities. The NRP does not explicitly state that Stafford Act processes should be used for resources being requested under a public health emergency (or other Federal authorities) that is concurrent with a Stafford Act declaration. It also does not state that Federal agencies should submit requests for Federal-to-Federal support through the JFO for a non-Stafford Act INS. The NRP simply calls for agencies to coordinate operations through the JFO, without sufficient detail as to how that coordination should occur. The HHS CONOPS also discusses coordination without detailing how it should be done. Both documents lack sufficient guidance for coordinating assistance for incidents covered concurrently under the Stafford Act and Public Health Service Act.

⁴⁹ National Response Plan (December 2004).

2. Coordinating Federal-to-Federal Assistance Under a Public Health Emergency

This lack of guidance in the NRP led to several problems with resource requests and coordination during T3.⁵⁰ The Stafford Act process is a bottom-up approach in which requests originate at the State and local levels, are coordinated at the JFO, and then are tasked to the appropriate Federal agency. To provide resources during the T3 FSE, HHS implemented a top-down approach that was not well defined or well understood by the response organizations. Consistent with its authorities under the Public Health Service Act, HHS requested support from other Federal agencies. Some requests were made directly to the other agencies, and some requests were submitted through the NRCC, which would then forward them to the appropriate Federal agency. For example, HHS submitted a request for a 10,000-bed alternative care facility to DHS through the NRCC, while requesting a 250-bed field hospital directly from DoD.

Further complicating the process, HHS used the same top-down approach to provide resources in Connecticut, where a public health emergency had not been declared. For example, HHS requested a 250-bed alternative care facility and patient-movement assets for 1,000 patients directly from DoD and requested a 10,000-bed alternative care facility directly from DHS without coordinating with the State or JFO.

In addition to using different paths for resource requests, HHS did not have an established process to coordinate its efforts with the JFO and the other Federal support being provided. States were often unaware of HHS requests until after they had been made. Lack of notification placed an unexpected logistical burden on the States.

HHS lacked a clear process for coordinating Federal assistance under a public health emergency and did not follow the established Stafford Act process in Connecticut, where no public health emergency was declared.

3. Funding Capabilities and Responsibilities Under a Public Health Emergency

Under the Stafford Act, funds are set aside to pay for Federal assistance. The Stafford Act creates a cost-sharing agreement between the affected State and the Federal government, whereby the State is liable for up to 25 percent of the resource expenses. When a mission assignment is drafted, it includes the State's burden share, so the SCO knows what the cost liability is prior to receiving Federal assistance.

Under a public health emergency, HHS can authorize spending but has no funds set aside for such a purpose. A supplemental appropriation is needed to reimburse any funds spent in response to a public health emergency. Additionally, HHS has no process for burden sharing with States. As a result, States are uncertain of their cost responsibilities for support obtained under a public health emergency.

During the T3 FSE, Federal and State agencies were uncertain about who would be paying for requests originating from HHS. The JFOs thought HHS should pay for the

⁵⁰ These problems are discussed in the section on "Resource Requesting and Resource Coordination."

medical support it was requesting under the public health emergency. Many Federal participants erroneously believed that funds were readily available to cover Federal assistance under the public health emergency. The States were uncertain as to what part of the costs they would incur. During a conference call on the morning of April 6, representatives from HHS, DoD, NRCC, RRCCs Region 1 and Region 2, CT JFO, and NJ JFO discussed who was requesting the 10,000-bed alternative care facility and the 250-bed field hospital and who was going to pay for these resources. Connecticut did not want the 10,000-bed alternative care facility or the 250-bed field hospital if the State had to pay for it. They wanted assurance that HHS would incur the financial liability. HHS did not have a process in place to provide any information to the States on what would be their financial liability or what resources they would have to provide to support the Federal assets.

Although HHS has spending authority under a public health emergency, no funds are set aside in advance. HHS and other Federal agencies have to use their own operating funds and/or request supplemental appropriations. State and local funding responsibilities under a public health emergency are unclear. During the T3 FSE, this resulted in hesitancy on the part of the States to accept any HHS-directed resources.

4. Issues from Previous Exercises

In the T2 FSE, no problems were noted with respect to the declaration of a public health emergency. In fact, the T2 After-Action Report (AAR) stated that "the declaration of the public health emergency in the Chicago area was enacted with little confusion or difficulty in execution." The primary difference between the two exercises was that during the T2 FSE, the NRP was not in effect. Additionally, HHS initially acted alone during the T2 FSE, because the public health emergency in Illinois was declared about 20 hours before the Stafford Act declaration was made. The Stafford Act declaration was approved with only 20 hours remaining in the exercise (Table III-1).

⁵¹ T2 Full-Scale Exercise After-Action Report, September 30, 2003, draft.

Table III-1. Comparison of T3 FSE with T2 FSE

T2 FSE	T3 FSE
SIGNIFICAN	T DECISIONS
After consulting with State officials and receiving confirmation of pneumonic plague, the Secretary of HHS declared a public health emergency in Illinois. The declaration came approximately 24 hours after the first disease clusters became apparent in the State. This declaration was made 20 hours before the Stafford Act declaration for the State was made.	After a presumptive diagnosis of pneumonic plague, the Secretary of HHS declared a public health emergency in New Jersey. This declaration came approximately nine hours after the initial clusters of patients began presenting to NJ hospitals. A Stafford Act emergency declaration was issued shortly before the public health emergency declaration was made.
ISSUES/OB	SERVATIONS
No problems or difficulties with the public health emergency declaration were evident. However, it is not clear whether any entity actually tried to request resources through this act. Potential problems resulting from concurrent implementation of a Stafford Act declaration and a Public Health Emergency Act declaration did not arise because of the timing of the declarations.	
	Neither the NRP nor the HHS CONOPS provide sufficient guidance for coordinating assistance for incidents that are concurrently covered under a Stafford Act declaration and a public health emergency. HHS does not have a detailed process for requesting and coordinating Federal-to-Federal assistance for public health emergencies.
	The funding capabilities of HHS and the funding responsibilities of States and other Federal agencies are unclear under a public health emergency.

F. Recommendations

- Clarify the process for Federal-to-Federal support for non-Stafford Act assistance in conjunction with a Stafford Act declaration. Determine whether the ARF-MA process can be used to request resources under other Federal authorities and how to coordinate those requests with the JFO.
- Develop a transition plan for coordinating incidents that start under non-Stafford Act authorities but later grow to include a Stafford Act declaration.
- Clarify the process for Federal-to-Federal support under a public health emergency. Include how HHS should coordinate with other Federal agencies, determine who is best suited for coordinating and tracking requests (e.g., HHS or FEMA), and determine what responsibilities other Federal agencies have to report to HHS.
- Clarify the funding capabilities and responsibilities of States, HHS, and other Federal agencies under a public health emergency.

IV. The Strategic National Stockpile (SNS) and Points of Dispensing (PODs)—Task # III-8: Direct and Control Distribution of Supplies and Equipment

A. Summary of Issue

The issue is that the plan to conduct statewide prophylaxis evolved during the course of the exercise and did not appear to reflect a pre-planned and carefully integrated Federal and State response. It is not clear that the Federal government has a strategy or plan for implementing its own system of PODs or for rapidly identifying and supplying staff to support State efforts in the event of a large-scale requirement.

The release of Yersinia pestis in New Jersey prompted State officials to request SNS support. The release also prompted Federal and State officials to notionally activate nearly 400 PODs throughout New Jersey for the purpose of providing prophylaxis to every resident of the State.⁵² Analysis of T3 FSE data suggests that this plan was not executable. Distribution of prophylaxis to every State resident was complicated by the short incubation period of plague, a fragmented Federal-State planning process, and resource management issues. The announcement that 8.8 million residents had received prophylaxis during the exercise overlooks these issues and is based on other factors such as unrealistic POD throughput rates and activation timelines. Staffing was the primary resource constraint in successfully executing the proposed mass prophylaxis plan.⁵³ To operate hundreds of notional PODs, officials had to identify and process thousands of workers. Observations made during the exercise indicate that such large numbers of workers are not presently available.

Without the current capability to provide prophylaxis to every State resident, senior officials will have to focus on targeted prophylaxis (i.e., determining as quickly as possible the potentially exposed population). Under this scenario, the possibility exists that some residents who need prophylaxis may not receive it. The alternative is to develop an infrastructure (one component of which would include increasing the number of available and trained workers) that can support statewide prophylaxis; however, this approach could require a significant investment.

⁵³ Other constraints that potentially could have affected execution, such as transportation and parking, could

not be examined.

⁵² The State announced a plan to supply prophylaxis within 48 hours to all residents of the State plus those who had worked in New Jersey since March 28. This announcement was made by the Governor's office at 17:45 on April 5.

Comparatively few problems were observed during the delivery and distribution of the SNS. There was some initial uncertainty about the SNS request, and there were problems integrating Federal plans for SNS deployment with the State; however, the T3 participants successfully resolved these issues. Major observations from the exercise include:

- New Jersey successfully received, broke down, and transported components of the SNS to PODs.
- New Jersey set up and operated 22 real PODs using the guidelines of the New Jersey Mass Prophylaxis Manual and was able to assess issues of throughput, as well as setup and logistics.
- In response to the outbreak of pneumonic plague, New Jersey attempted prophylaxis on a very large scale—effectively trying to reach 8+ million people under the very short epidemiological time frame associated with the disease. The State opened and operated an additional 200 notional PODs.
- The Federal government established its own system of PODs—opening more than 160 notional sites at postal facilities, Veterans Affairs (VA) hospitals, and Health Resources and Services Administration (HRSA) community centers. This action was meant to support the rapid expansion of prophylaxis undertaken by the State, but also appeared to reflect Federal government efforts to get out in front of the developing epidemic.
- The Federal government did not appear to consider at least one of the approaches being considered in the HHS Cities Readiness Initiative (CRI)—i.e., delivering medicine to people instead of having people come to the medicine—but instead relied entirely on fixed PODs.

B. Background

1. SNS

The SNS is an extensive inventory of medical supplies (e.g., antibiotics, vaccines, bandages, and ventilators) configured for rapid deployment in response to a potential or actual mass casualty event. The SNS is managed by the CDC for the DHS.

The SNS is divided into two components: push packs and managed inventory. Each of the 12 push packs contains a wide range of medical supplies designed to meet a variety of scenarios. The push packs contain approximately 50 tons of medical supplies and are staged at transportation hubs throughout the United States. In response to a mass casualty event, the CDC can deploy a push pack to an affected area within 12 hours of the request. If additional medical supplies are required, the CDC can deploy additional push packs or ship managed inventory within 24 to 36 hours. Managed inventory refers to large stockpiles of medical supplies that can be used to augment the contents of the push packs. Instead of deploying additional push packs that may contain supplies that are not needed, the CDC uses the managed inventory to meet the specific medical needs of an affected area.

For example, the CDC could respond to a State request for SNS support during an anthrax outbreak by deploying a push pack, because push packs can be delivered rapidly and contain the antibiotics needed to treat the infection. If the contents of the deployed push pack were not sufficient to meet the needs of the affected population, the CDC could use managed inventory. The managed inventory would arrive later, but the shipment would contain large quantities of the medical items needed to treat anthrax victims (e.g., antibiotics and ventilators). In this example where the medical needs are clear, turning to managed inventory would be preferable to deploying additional push packs, because the latter contain many items that are not typically used to treat anthrax infections (e.g., bandages and splints). Unlike the prepackaged push packs, shipments of managed inventory can be configured to meet the specific medical needs of the affected population.

The Technical Advisory Response Unit (TARU) accompanies SNS deployments and provides guidance on its use. The TARU consists of subject-matter experts (e.g., logisticians and emergency responders) familiar with the contents of the SNS and procedures that govern its employment. For example, the TARU has exercised the distribution of SNS medications to PODs and can provide details of the push pack contents.

2. PODs

Health officials can use PODs to rapidly distribute medical supplies from the SNS to large numbers of potentially exposed but asymptomatic people. During a public health emergency, people can be directed to a local POD where health care professionals would screen them to determine if the medication is appropriate and safe for them to take. If prophylaxis is warranted, individuals receive the medication or vaccine that will prevent them from becoming ill.

The total number of people who can receive prophylaxis is a function of three factors: length of time the PODs are active, throughput rate, and the number of active PODs. The window of opportunity for distributing prophylaxis to an affected population begins when the disease and the potentially exposed population have been identified and ends when people living in the hazard areas are no longer likely to contract the disease. Other considerations of great importance not examined in this exercise include such issues as transportation access to the POD and available parking.

Throughput rate refers to the number of patients that a POD can process in a fixed period of time (typically about an hour). This rate can be affected by the size of the staff and the standard of care provided by the staff. A larger staff will support a higher hourly throughput rate (if the physical space is large enough); however, locating large numbers of medical, security, and support staff on short notice during a public health emergency is challenging. "Standard of care" refers to the services provided at the POD.

Whereas the minimum standard of care service would be to simply distribute medication to patients, the NJ plan, like others, prescribes a higher standard of care that includes:

- education about the disease (e.g., plague) and the antibiotics (e.g., doxycycline);
- medical assessment to identify those requiring additional treatment;
- transportation of symptomatic patients to a hospital;
- translation services;
- medical screening to identify people for whom the treatment is contraindicated (e.g., a person who is allergic to antibiotics); and
- mental health counseling.

Increasing the standard of care without implementing corresponding increases in staffing and logistical support will reduce the throughput rate and increase the required logistical support. Each service requires additional staff, a larger physical space, and additional materials (e.g., forms, masks, and rubber gloves), and it increases patient time in the POD. Patients remaining for longer periods of time may create backlogs inside the facility and traffic jams outside, further reducing the throughput rate.

Increasing the number of PODs can increase overall throughput, but doing so would create additional logistical challenges. Each POD would need to have an identified site and would have to be supplied, secured, publicized, and staffed. Each of these steps would have to be completed before prophylaxis distribution could begin.

In preparation for the T3 FSE, the NJ DHSS developed the *New Jersey Mass Prophylaxis Manual*. In this document, NJ DHSS highlights key elements of its mass prophylaxis plan, including the following:

- PODs will be supplied with FSL supplies.
- A mass prophylaxis effort will require several types of workers, including nurses, pharmacists, counselors, security, translators, administrators, and support personnel.
- PODs that distribute oral medication require a staff of 183 personnel for each eight-hour shift.
- POD throughput rates will be 1,000 people per hour for oral prophylaxis.
- It is recommended that PODs operate 16 hours per day (24-hour operations are possible).
- The standard of care in New Jersey will include an education and screening process to identify individuals who should receive the prophylaxis and those who are contraindicated.

During the T3 FSE, New Jersey planned to activate 22 real PODs throughout the State. One POD would be activated in each of the following counties and municipalities:

Essex County	Ocean County
Gloucester County	Passaic County
Hudson County	Somerset County
Hunterdon County	Sussex County
Mercer County	Union County
Middlesex County	Warren County
Monmouth County	
	Gloucester County Hudson County Hunterdon County Mercer County Middlesex County

Cumberland/Salem Counties Morris County

As part of the exercise, each of these 22 PODs was scheduled to operate for approximately four hours during one day of the exercise. During these hours of operation, the PODs would function as they would during a real public health emergency. Law enforcement officers would provide security, and staff would process volunteers simulating patients. Notionally, these 22 PODs could operate throughout the duration of the public health emergency and additional PODs could be opened as needed. Representatives from the NJ DHSS indicated that, in an actual event, the State could operate a maximum of five PODs per county for a statewide total of approximately 100.

C. Reconstruction

The release of *Yersinia pestis* in New Jersey prompted a request to the Federal government for the SNS and eventually the decision to activate a large number of PODs throughout the State. Figure IV-1 depicts the sequence of activities discussed in this section.

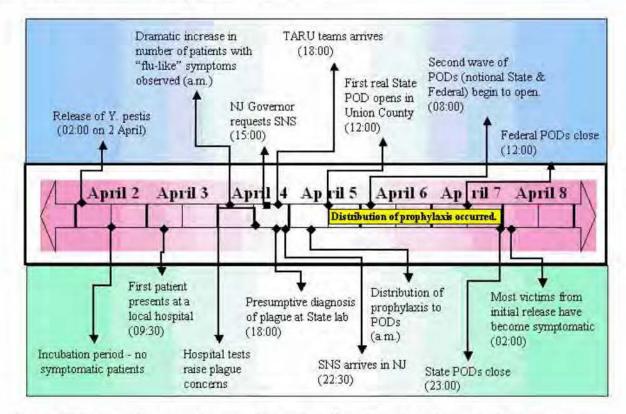


Figure IV-1. Timeline of NJ SNS and POD Activities

As part of the exercise scenario, terrorists notionally released the bacteria along sections of the Garden State Parkway, U.S. Route 1, and NJ Route 18 in northern New Jersey during the early morning hours of April 2. The release began at 02:00 on April 2 and ended shortly thereafter. Approximately 24 hours later on the morning of April 3, the first patient presented at a local hospital complaining of "flu-like" symptoms.

During the day on Monday, April 4, evidence began accumulating that New Jersey was facing a public health emergency caused by the deliberate release of a biological agent. At 10:20 on April 4, hospital officials notified the NJ DHSS that they had patients with symptoms consistent with plague. A presumptive diagnosis of plague was made based upon initial lab tests of patient samples. In response to this information, the NJ Governor requested the SNS from the CDC and ordered the activation of PODs throughout New Jersey. Despite some initial uncertainty about the request, the Secretary of HHS authorized the deployment of the SNS to New Jersey at 15:15.

The first SNS shipments, the managed inventory, arrived at the NJ State receipt, stage, and store (RSS) site at approximately 21:30 on April 4. The second SNS shipment, the push pack, arrived approximately five hours later. ⁵⁴ The two shipments contained a total of 10 million courses of treatment (primarily of doxycycline). Overnight, the RSS staff

⁵⁴ During a real emergency, push packs are more likely to arrive first; however, an exercise artificiality caused the managed inventory to arrive before the T3 push pack.

and TARU team began preparing the SNS shipments for distribution to the county RSS site and PODs.

POD operations involved both real and notional sites. The first real POD opened in Union County at 12:00 on April 5. Additional real PODs opened on the following days, and each operated for several hours. During the day on April 5, NJ officials began planning to greatly expand the number of distribution sites in the State. At 17:45 on April 5, the NJ Governor announced that the State had decided to distribute prophylaxis to all residents and those who had worked in the State. Initially, the Governor announced that New Jersey would open 456 more notional PODs (400 at high schools and 56 at colleges). This number was subsequently reduced to approximately 200 notional PODs later in the planning process. These notional sites were reportedly operational at 08:00 on April 6.

To augment the State's efforts, the Federal government decided to open a large number (more than 160) of notional PODs in the four hardest hit counties: Middlesex, Union, Hudson, and Essex. These PODs would be located at U.S. Postal Service (USPS) facilities, VA hospitals, and HRSA Community Centers. In a series of conference calls during the night of April 5, NJ, FEMA, and HHS representatives discussed the Federal plan. HHS indicated that Federal PODs would begin operations by 08:00 on April 6; all were reported open four hours later at 12:00. The Federal PODs would be under the direction of the NJ PFO and would be staffed by USPS volunteers and other personnel provided by the Federal government. State and Federal sites operated continuously until they closed, with the Federal sites closing at 12:00 on April 7 and the State sites closing 11 hours later. At that time, officials announced that all 8.8 million residents had received prophylaxis.

D. Consequence

The T3 experience highlights the dilemma that decision makers may face when dealing with the deliberate release of a biological agent on a large scale. In real-world public health emergencies, as in the exercise, political leaders will have to choose between focused or widespread distribution of prophylaxis. Both policies carry risks for these leaders. A more focused, or targeted, approach is less resource intensive, but requires accurate determination of the potentially exposed population and a carefully crafted public message. It carries the risk that some individuals who need prophylaxis may not receive it, but it exposes fewer people to potentially adverse effects. A much wider-scale effort, like the one attempted in New Jersey, may encounter logistical and resource limitations that constrain the number of PODs the State can operate, increase the time it takes to distribute prophylaxis, expose a higher number of people to the potentially adverse effects of antibiotic treatment, and possibly leave some residents in the most affected area without prophylaxis. The T3 FSE experience highlighted the difficulties of not having the planning and resources at the Federal and State levels to rapidly execute a large-scale prophylaxis plan.

E. Analysis

The T3 FSE exercised both the deployment of the SNS, as well as the POD setup and distribution processes. Relatively few issues were noted during the delivery and distribution of the SNS; however, the exercise did highlight significant issues with the decision to provide prophylaxis to all of the residents of New Jersey.

1. SNS

At 15:00 on April 4, the Governor of New Jersey made a public statement in which he requested deployment of the SNS. However, this verbal request was not immediately followed up with a written request from the State to the CDC. The first indication of a formal request from New Jersey did not appear until several hours later at 18:30. The lack of supporting documentation appeared to create ambiguity about the request. State and Federal officials were not certain if the State had actually requested the SNS or how the CDC would react to a verbal request without supporting documentation. In the exercise, the CDC deployed managed inventory to New Jersey prior to a formal request at the direction of the Secretary of Health and Human Services.

Observations made during the deployment of the SNS indicate that State officials were not fully integrated into the planning efforts and had to react to deployment decisions made by Federal officials. For example, State officials were not aware of the arrival of the TARU or the requirement to transport the unit to the RSS site until shortly before the TARU arrived in New Jersey. In addition, the arrival times of the managed inventory and push pack changed with little notice. NJ planners successfully reacted by rescheduling escorts and RSS staffing to accommodate the changes. Despite these disconnects, the deployment proceeded because State officials were able to replan and reschedule the State's support for deployment of the Federal asset.

2. PODs

The plan to distribute prophylaxis to every resident in the State was complicated by the short incubation period of plague, a fragmented Federal-State planning process, and resource management issues. These observations indicate that the plan to distribute prophylaxis to the entire population of New Jersey was not executable.

a. Time: A Limiting Factor

Most individuals exposed to an aerosolized release of *Yersinia pestis* will become symptomatic within one to six days. ⁵⁶ This provides a theoretical window of five days or

⁵⁵ The governor's comments were made under the assumption that the press conference would be taped and

broadcast later in the day.

56 The exact timeline depends in part on the dose an individual receives and the physical condition of that individual.

fewer to provide antibiotics to exposed individuals.⁵⁷ This window of opportunity is reduced by the time it takes to determine that the initial cases are actually plague and that the infection is a public health threat rather than an isolated case. The time available to distribute prophylaxis is further reduced by the need to request and receive the SNS and execute the State/local prophylaxis plan. These factors may reduce available time for distribution to less than three days.

Figure IV-1 depicts the timeline of the NJ response. Some of these times were affected by exercise artificialities and would vary from event to event. For example, the length of time between the first patient arriving at a hospital and the request for SNS could be affected by many factors, including the following:

- length of time the patient has to wait to be seen by a physician;
- diagnostic skills of the physician;
- workload of hospital and State labs;
- level of suspicion of health care providers and public health personnel;
- speed with which State health officials determine that the initial case is not an aberration; and
- State leadership's familiarity with the SNS process.

The timing observed in the T3 FSE was artificial, because participants were aware of the exercise and many knew that pneumonic plague was the disease. Observation of the timeline in Figure IV-1 suggests that the first notional PODs could have opened at approximately 08:00 on April 5, leaving a total of 66 hours (08:00 on April 5 through 02:00 on April 8 when most originally exposed individuals would have become symptomatic) to distribute prophylaxis to 8.8 million residents. As the exercise evolved, the stated goal was to complete the distribution by 23:00 on April 7.

Fragmented Federal and State Planning

Over the course of the exercise, two separate POD systems developed: State and Federal. At times, the existence of the two systems created confusion among the participants, possibly reducing the effectiveness of the plan to physically exercise 22 PODs while planning for the activation of additional notional PODs resulting from player action..

As the scope of the public health emergency in New Jersey widened, NJ officials became aware that HHS and DHS were concerned that the State plan to distribute prophylaxis would not cover enough residents. In discussions with the PFO cell, the NJ DHSS reported that New Jersey could operate as many as five PODs per county if conditions warranted that number; however, New Jersey officials felt that the number of victims as of April 5 at most warranted two to three PODs per county.

⁵⁷ This timeline assumes that the detection of the release occurs because sick patients arrive at hospitals, rather because the terrorists releasing the pathogen are caught.

Officials from HHS and DHS preferred a more aggressive prophylaxis program and began the process of establishing PODs at Federal facilities in New Jersey. HHS planned to supplement New Jersey's prophylaxis plan by opening more than 160 notional PODs. The Federal goal was to distribute prophylaxis to 2.8 million individuals in the four most affected counties.

In response to the Federal government's concerns and the growing number of plague victims, the NJ Governor announced a plan to expand the distribution of prophylaxis to include every resident and everyone who visited the State during a specific period of time. During the afternoon of April 5, New Jersey began executing plans to increase the number of PODs to 478 (i.e., 22 real and 456 notional ones). The number of notional State PODs was subsequently reduced to approximately 200. These additional State sites would operate under the guidelines of the *New Jersey Mass Prophylaxis Manual* and would be staffed by a mix of State personnel and personnel provided by the Federal government.

Federal and State prophylaxis efforts were not closely coordinated. Implementation of the Federal plan surprised many State officials. Likewise, the State decision to activate additional PODs did not appear to have an observable impact on Federal planning. State and Federal officials also disagreed on standards of care and staffing levels. NJ officials insisted that distribution sites follow the *New Jersey Mass Prophylaxis Manual*, which provided a higher standard of care (e.g., education, screening, and counseling) and required a larger staff (i.e., 183 personnel per shift) than the Federal plan for New Jersey. Federal officials opted for a lower standard of care (i.e., literature and medication distribution, rather than personal screening) and a smaller staff (i.e., as few as 10 per shift). When Federal and State officials reached an impasse, Federal officials indicated that they would operate the Federal system separately.

Additionally there is no plan in place to deliver medical supplies to Federally operated PODs. The State's Receipt, Store and Stage (RSS) site did not have the capability to handle the volume of medical material required to supply both the State and Federal operated PODs, nor did they have the transportation assets to deliver the material. To supply the Federally operated PODs with prophylaxis would have required a sufficiently equipped and staffed warehouse, adequate trucks and drivers and a logistics management system to maintain the supply chain.

With two systems operating, reliable information about either one was difficult to obtain. Many NJ officials were unaware of the Federal sites until after they began operations. For example, the State Epidemiologist stated on VNN that 46 PODs were open at 09:33 on April 6. Moments later, a NJ DHSS Deputy Commissioner, also being interviewed on VNN, stated that 40 were operational. According to the Federal plan, the 163 Federal sites were beginning operations during these two interviews.

c. Inconsistency in the Reported Number of PODs

Planning issues extended beyond sharing information about the operation of the two systems. Among the State and Federal participants, there was little consistency on a basic, but essential fact—the number of PODs operating in New Jersey. The timeline described in Table IV-1 provides insights into this issue.

Table IV-1. Insights into the Level of POD Awareness Among Participants

Date	Time	Event		
April 5	16:52	NJ PFO is notified that the State will activate 456 additional PODs (at 400 high schools and 56 colleges) for a total of 478 PODs.		
April 5	18:46	Governor's Office announced that New Jersey has taken control of 400 high schools and 56 colleges to be used as PODs. They open by April 6 at 08:00.		
April 5	21:30	In a POD planning teleconference call that brought together RRCC, NJ Public Health, NJ Office of Emergency Management (OEM), HHS, PFO, DoD, and the Governor's Office, it was announced that the postal PODs would begin opening at 08:00. All 163 would be open by noon on April 6. New Jersey announced an increase in the number of PODs from 22 to 104.		
April 5	23:00	HHS announced its plan to augment the 200 State PODs with 163 Federal PODs.		
April 6	09:33	VNN report: The State Epidemiologist stated that 46 PODs were open.		
April 6	09:45	VNN report: Deputy Commissioner Blumenstock (NJ DHSS) reported that 40 PODs are operational.		
April 6	14:50	NJ EOC shift-change brief notes that there are 160 PODs operating in Essex, Union, Middlesex, and Hudson counties.		
April 6	15:15	According to the NJ PFO, there are currently 280 PODs active in New Jersey.		
April 6	16:30	SERT announces that 300 PODs are active in New Jersey.		
April 6	18:57	Displays in the Emergency Response Team – Advance Element (ERT-A) indicate that there are 285 active PODs in New Jersey, including 163 USPs sites.		
April 6	21:15	NJ DHSS states that, as of 18:30 on April 6, 456 State and Federal PODs were operating (211 at high schools, 56 at colleges, and 189 by HHS).		
April 6	21:30	The NJ State Police-OEM situation report (SITREP) #12 stated that 456 PODs are active in New Jersey.		
April 7	08:30	State EOC briefing noted that 129 USPS PODs are active.		
April 7	10:15	Briefing from the Governor's Office indicated that 267 (211 high schools and 56 colleges) and 189 Federal PODs are active.		
April 7	10:40	Health Command Center (HCC) reports that the following PODs were open: 163 post offices, 7 VA hospitals, 19 HRSA community health centers, 20 community Local Information Network and Communications System (LINCS) (Federal total = 209). A total of 248 State PODs were open.		
April 7	10:58	OEM and Governor's Office are using the following POD figures: 189 Federal and 267 State (from NJ Health Operations Tracking System		

Date	Time	Event
		[HOTS] log).
April 7	12:00	All Federal PODs were demobilized (other reports indicate that the Federal PODs closed at 02:00 on April 7).
April 7	14:00	HCC list of active PODs included: 248 schools, 163 post offices, 7 VA hospitals, and 19 HRSA community health centers (total = 437).
April 7	18:30	NJ governor's office reported that New Jersey had opened PODs at 211 high schools and 56 colleges. HHS had opened 189 PODs at post offices (total = 456).
April 7	19:30	Defense Coordinating Officer (DCO) brief at the JFO reported that 248 State and 189 Federal PODs were active.

Table IV-1 clearly indicates that uncertainty about the number of active PODs was common and widespread. This inconsistency suggests that the planning process was incomplete and that information about the two systems was not being shared among Federal and State agencies. For example, representatives from the JFO were unable locate the list of State PODs. In addition to the evidence in Table IV-1, there are no indications that a complete list of PODs existed. The list assembled by the NJ State EOC contained the location of 124 post offices and 456 State PODs operating at NJ high schools and colleges. However, it omitted the 22 real PODs and 39 notional PODs (13 post offices, 19 HRSA facilities, and 7 VA hospitals). Ready access to accurate information from such a list is critical to the response, because this information would be used to inform SNS delivery staff, POD workers, and residents on where to go.

d. Management of Staff Resources

The POD plan developed during the exercise was incomplete and did not address the staffing needs required to provide prophylaxis to every State resident. Officials in New Jersey did not establish a staffing requirement or develop a mechanism for integrating the additional workers into the two POD systems. Without these elements, Federal and State officials could not develop an executable plan for the two systems. In many respects, these problems reflect problems associated with attempting to carry out this scale of prophylaxis for the first time right in the middle of the public health emergency.

Uncertainty about the number of workers per shift and the number of PODs needing to be staffed frustrated efforts to define the staffing requirement. Estimates of the number of personnel varied from 10 per shift at the USPS PODs to 183 per shift as prescribed in the *New Jersey Mass Prophylaxis Manual*. Without an agreement on the staffing levels at the PODs or the number needing to be staffed, it was difficult to establish a requirement or track progress made toward staffing them.

The existence of State and Federal systems created additional problems for those responsible for staffing the PODs. When officials would identify a group of medical

professionals or security personnel staff, it was sometimes unclear whether these resources would be used to staff Federal locations, State locations, or both. The State submitted one ARF in which the State EOC requested security personnel for both State and Federal PODs. Table IV-2 documents the ad hoc search for workers that occurred during the exercise.

Table IV-2. Uncertainty Surrounding the Staffing of NJ PODs

Date	Time	Event		
April 5	17:00	HHS is looking into a memorandum of understanding (MOU) with the USPS about delivering medications. HHS indicated that 3,300 health care workers are available. HHS determines USPS MOU is not feasible.		
April 5	19:50	ESF-8 directs SERT and DoD to provide all available personnel to staff PODs with VA, DoD, DHS, National Disaster Medical System (NDMS), and Medical Reserve Corps (MRC). The requirement is to provide 15,000 personnel.		
April 5	20:30	In a teleconference between State officials and HHS, HHS indicates that it has 1,400 personnel ready to staff PODs (five public health officers per shift to support USPS staff).		
April 6	09:50	NJ officials state that 15,000 POD workers will be trained Wednesday morning (April 6) and then be assigned to PODs.		
April 6	10:14	The FEMA ERT-A is trying to arrange security for 400 NJ PODs.		
April 6	10:37	At the morning brief, the ERT-A Ops chief, FCO, and SCO note that 163 Federal PODs will be open today and staffed by the MRC.		
April 6	12:00	The RRCC reports that Federal PODs are almost completely staffed, and the Federal Protective Service is providing security (potentially augmented by NJ National Guard).		
April 6	15:01	In an e-mail, the IIMG and DHS staffs were observed attempting to resolve confusion over which organization (e.g., Federal Protective Service, NJ National Guard, or U.S. Postal Inspectors) would provide security at the Federal PODs.		
April 6	16:10	FEMA has received an official request from New Jersey for 4,000 POD security personnel and 200 POD logistic elements.		
April 6	16:55	There is a request to provide 2,000 POD workers from the American Red Cross.		
April 6	18:11	There is an ARF for armed security at the PODs. The ARF is a request to provide 10 armed security personnel per Federal POD, for a total of 1,680.		
April 6	21:15	In a LINCS e-mail, NJ DHSS states that staffing at the State PODs included school nurses, NJ National Guard (three to four soldiers per shift), Emergency Management Assistance Compact (EMAC) from 20 States, 15,000 State workers, local law enforcement, and 4,200 community emergency response team members.		
April 6	21:30	The NJ State Police-OEM SITREP #12 states that Oklahoma will send two 16-		

Date	Time	Event	
		person teams to assist PODs with distribution of pharmaceuticals.	
April 7	09:10	The FEMA Emergency Services Branch Chief is in contact with NJ State Police to backfill 4,000 officers for POD security.	
April 7	09:45	NJ National Guard needs clarification on a request to provide security to 248 PODs.	
April 7	09:54	An MA from FEMA to DoD to provide POD medical personnel is pending.	
April 7	13:00	The NJ Department of Military and Veterans Affairs (DMAVA) informs the State EOC that it will assign four soldiers on two shifts to provide security at the State's 267 PODs.	
April 7	13:02	HHS plans to release 1,200 Public Health Service staff from supporting PODs and use them to help fulfill the NJ request for 12,000 health care professionals.	
April 7	14:15	Federal POD prophylaxis has been completed. The personnel (1,200 U.S. Public Health Commissioned Corps and 3,000 MRC) were reassigned to State PODs.	
April 7	16:30	ARF 20 (requesting 4,000 law enforcement officers for POD security) is still being worked by JFO Emergency Services.	

The impromptu nature of the staffing process highlighted in Table IV-2 illustrates the difficulty of staffing hundreds of PODs with thousands of workers within a short period of time without the benefit of a detailed pre-incident Federal-State plan covering this possibility.

The data also suggest that State and Federal officials were still identifying staffing sources (e.g., American Red Cross, MRC, and NJ National Guard) on the last full day of the exercise. For example, the Federal Protective Services (FPS), which was responsible for coordinating security forces for ESF #13, received confirmation of a NJ request for 4,000 security personnel to support operations at 11:50 on April 7 (11 hours before the State PODs were scheduled to close). It is unlikely that the FPS could have processed such a request and provided the requested level of support by the time that all State PODs would have closed.

The conclusion that statewide prophylaxis was completed by midnight on April 7 is based upon the operation of a large number of notional PODs; however, the data in Table IV-2 indicate that an executable staffing plan for these PODs had not been developed by this deadline. Even if a staffing requirement had been established and a mechanism to integrate Federal and State resources was available, the lack of readily available workers would have adversely affected activation timelines and throughput rates.

Theoretically, it was possible to meet the stated goal of distributing prophylaxis to every NJ resident by 23:00 on April 8. Table IV-3 summarizes the potential throughput of the NJ PODs during the exercise.

.2 million

13.0 million

7 VA Hospitals

Notional Total

PODs	Maximum	Hours of Op	Assumed	Total	
	Begin	End	Hours	Throughput (per Hour)	Throughput (Notional)
State PODs 58					
22 Planned PODs	08:00 Apr. 5	24:00 Apr. 7	64	1,000	1.4 million
200 High Schools/Colleges	08:00 Apr. 6	24:00 Apr. 7	40	1,000	8.0 million
Federal PODs 59					
137 Post Offices	08:00 Apr. 6	12:00 Apr. 7	28	750	2.9 million
19 HRSA Centers	08:00 Apr. 6	12:00 Apr. 7	28	1,000	.5 million

Table IV-3. Notional Statewide Prophylaxis

Table IV-3 indicates that the plan adopted by New Jersey and the Federal government made it theoretically possible to process 13 million residents through the State and Federal POD systems. This outcome would have depended upon the rapid activation of POD sites and throughputs of 750 (at USPS sites) and 1,000 (at all other PODs) people per hour among numerous factors.

12:00 Apr. 7

28

1,000

08:00 Apr. 6

Activation timelines depicted in Table IV-3 were unrealistic. The personnel needed to staff the 385 PODs had not been identified by the end of the exercise; therefore, they could not all have opened by the stated times. To meet the stated timelines, both the State and Federal POD activation processes had to be completed less than 18 hours from the point at which the decision to open the sites was made. Activation requires site preparation, staffing, delivery of supplies, and public notification. The staffing process includes identifying, notifying, and transporting qualified personnel. As noted earlier, the necessary workers were not in place when PODs were scheduled to open. Some Federal resources, such as the MRC, may not be currently available.

The *New Jersey Mass Prophylaxis Manual* states that a staff of 183 is required to process 1,000 people per hour (the plan also assumes an eight-hour shift). Using this standard, State and Federal planners would have to identify, notify, and transport more than 210,000 workers to operate the 385 PODs 24 hours per day. Operating them with only

⁵⁸ The actual number of State PODs was never definitively established. Available data suggest that approximately 222 (200 notional and 22 real) State PODs were activated.

⁵⁹ The list of PODs provided by the NJ State EOC contained 124 POD postal facilities; however, the numbers used in this table were widely cited during the exercise.

⁶⁰ This also assumes that the right mix of skills is present and that the staff has been properly trained.

10% of the planned staffs (e.g., 27 staff members per 12-hour shift) would have required approximately 21,000 workers. It is not clear that the Federal and State governments could have even met the 10 percent threshold.

Identifying sources of staffing is just the first step in a process that could take several days. After identifying the source, the organizations have to be tasked and the workers have to be notified. Once notified, the workers may have to travel significant distances. For example, workers from EMAC were drawn from 20 States. These observations suggest that many of the notional PODs did not have the required staffs and could not have opened. Many of those that could open would have been minimally staffed. These understaffed PODs would have been unlikely to process 1,000 POD visitors per hour.

e. POD Throughput Rates Lower than Target Goals

Observations made during the exercise at the 22 real PODs suggest that the target throughput rate of 1,000 people per hour greatly overestimated the actual rate. Table IV-4 summarizes the throughput observations made during the exercise by data collectors assigned to these PODs. In some instances, the data collectors counted the number of patients processed. They also noted numerous instances in which "bottlenecks" and "backups" slowed the processing of POD patients.

Table IV-4. T3 FSE POD Throughput Observations

Locale	Hours of Operation	Total Throughput	Hourly Throughput	Data Collector Observations on POD Throughput
Atlantic	3.0	935	311	"Overwhelmed," "jammed-up," and "very backed-up"
Bergen	2.5	No data	No data	No comments
Burlington	1.0	No data	No data	"[The POD is] too small for 500 patients per hour."
Camden	2.5	282	113	No comments
Cape May	3.0		300	"Long lines" and "stalling"
Cumberland/ Salem	3.0	784*	261*	"Backing up"
Essex	3.5	No data	No data	"Long lines," "backing up," "excessive numbers in line," and "little movement"
Gloucester	3.0	388*	129*	"Long lines," "backup," and "backlog of more than 50"
Hudson	2.5	1,949*	780*	"Huge bottlenecks" and "backlog"
Hunterdon	4.5	No data	No data	"Backing up" and "bottleneck"

⁶¹ Data about the staffing levels at the PODs were not available.

Locale	Hours of Operation	Total Throughput	Hourly Throughput	Data Collector Observations on POD Throughput
Mercer	4.5	545*	121*	"Long lines," "back-upped," "overwhelmed," and "much confusion"
Middlesex	3.0	420	140	No comments
Monmouth		No data	No data	No comments
Morris	2.0	No data	No data	No comments
Newark	4.5	655	146	"Bottleneck"
Ocean	2.0	No data	No data	"Congestion" and "backup"
Passaic	1.0+	No data	No data	No comments
Paterson ⁶²	2.0	120	60	"Confusion" and "problems"
Somerset	2.5	No data	No data	"Backlog"
Sussex	2.5	No data	No data	"Overwhelmed" and "backed-up"
Union	3.0	1,223*	408*	"Backlog" and "backing up" "Patient flow slowed to nonexistent."
Warren	2.5	No data	No data	"Backup" and "bottleneck"

^{*} These numbers indicate the patients that received medication. Some individuals would have been sent home without medication or sent to a hospital for treatment.

Throughputs observed at the PODs were significantly lower than the planning factor of 1,000 people per hour that was used to model prophylaxis progress in the exercise. However, the rates observed in the T3 FSE are not inconsistent with throughputs observed at exercises designed to test throughput at a POD. An exercise in which residents of Washington, D.C., were exposed to the plague found that a POD staff of 57 (not including security) could process (i.e., screen patients and distribute antibiotics) approximately 111 patients per hour. In April 2003, Arlington County, VA, in conjunction with HHS, tested the CDC model smallpox mass vaccination clinic and found that a staff of 47 (not including security) could process approximately 104 patients per hour. The results from these studies and others, as well as the observations,

⁶² Paterson POD experienced a real-world bomb scare during exercise play which may have affected throughput numbers

⁶³ Monica Giovachino, Thomas Calhoun, Neil Carey, Briant Coleman, Gabriella Gonzalez, Bernard Hardeman, Brian McCue. Optimizing a District of Columbia Strategic National Stockpile Dispensing Center. *Journal of Public Health Management and Practice*, 2005, 11(4), 282–290.

⁶⁴ Brian G. McCue and Monica J. Giovachino, A Field Test of the CDC Smallpox Vaccination Clinic Model, The CNA Corporation, IPR 10847, April 2003.

⁶⁵ See additional studies cited in Brian G. McCue and Monica J. Giovachino, A Field Test of the CDC Smallpox Vaccination Clinic Model, The CNA Corporation, IPR 10847, April 2003.

indicate that the planning throughput of 1,000 people per hour probably overestimates the number that could be processed.

f. Weighing Trade-offs When Making Prophylaxis Decisions

During the exercise, the decision was eventually made to distribute antibiotics to the entire population of New Jersey. NJ public health officials preferred targeted prophylaxis that would concentrate distribution efforts in areas most affected by plague. Public health officials were concerned that the State could not staff the number of PODs needed to distribute prophylaxis to New Jersey's 8.8 million residents. These officials also noted that distributing prophylaxis to everyone in areas where there were few cases of plague would have a marginal impact on the spread of the disease. Finally, they were concerned that prophylaxis distribution on this scale would divert resources away from areas heavily impacted by the disease and would endanger some residents (e.g., those living in areas with few plague cases) who were allergic to antibiotics. Despite these concerns, the political leadership pressed ahead with this decision.

The T3 FSE cannot be used to assess the technical details concerning which prophylaxis approach (i.e., widespread or target distribution) was the correct choice; however, the exercise did illuminate important issues associated with the decision.

Logistical and resource requirements associated with a more targeted prophylaxis would have been significantly less than the requirement for statewide prophylaxis. Choosing targeted prophylaxis would have simplified the POD planning process and applied the available resources to areas with the greatest need. The decision to pursue statewide prophylaxis increased the complexity of the planning process and created resource demands that could not be satisfied by the combination of State and Federal agencies.

Although targeted prophylaxis requires fewer resources to execute, it does require significant data collection and analysis capabilities. When the release of a biological agent is suspected, response personnel and decision makers use epidemiological models, perhaps coupled with physical dispersion models, to determine the likely exposure location and to identify the at-risk population. Building accurate dispersion models requires information about the weather conditions, type of agent, method of dissemination, type and purity of the agent, time of the release, and extent of contamination (e.g., ground sampling results) for the case of an outdoor release of an aerosolized agent. These data are collected by several different organizations and are often incomplete during the initial phases of the response.

Epidemiological models require a case definition and information from patients who present at health care facilities. During major disasters (e.g., terrorist incidents or public health emergencies), health officials assemble individual case definitions to identify clusters of victims. Patient data may be held by different organizations (e.g., multiple hospitals and private physicians) and are often incomplete during the initial stages of a public health emergency. To construct an accurate epidemiological model, public health officials must collect and analyze these data.

Dispersion models that are consistent with clusters of victims provide strong evidence that response officials have identified the release area. With dispersion models and epidemiological case information, officials can identify the release area and identify populations that are most in need of prophylaxis. In contrast, the primary pieces of information needed to support the decision to distribute prophylaxis to everyone are the identity of the agent and a definition of the target population (i.e., what constitutes a "resident").

Targeted prophylaxis has different public information requirements. In their public messages, officials must differentiate between the at-risk population and those who do not need prophylaxis. Furthermore, the public message must allay the concerns of those who should not receive prophylaxis. Otherwise, PODs may be overwhelmed by the arrival of too many individuals. The public message needed to support statewide prophylaxis can be less sophisticated; it simply needs to direct everyone to visit a POD as soon as possible.

Early-warning biological detection systems, such as BioWatch,⁶⁶ are intended to notify public health experts of the presence of a biological release and then assess the geographic extent of the contamination. Such information would aid officials in identifying the population most at risk and in determining which prophylaxis policy to pursue. Biological sensor systems could provide indications of the presence of plague 24 to 36 hours sooner than relying on symptomatic case identification.

Although a more focused prophylaxis effort may increase the possibility that some residents who need prophylaxis do not receive it, it can also reduce the distribution of prophylaxis to people for whom it is contraindicated. A prophylaxis effort of the scale notionally exercised in New Jersey will unnecessarily expose many more of these persons to potentially adverse effects, particularly if the standard of care is reduced in response to staffing shortages.

3. Issues from Previous Exercises

Like T3, T2 also exercised the SNS requisition process and the distribution of prophylaxis. Participants also raised related concerns during SOEs 05-2 and 05-3. Table IV-5 highlights issues across these exercises.

⁶⁶ http://www.milnet.com/wh/DoHS/BioWatchFactSheetFINAL.pdf (downloaded July 17, 2005)

Table IV-5. Comparison of T3 FSE with Previous Exercises

T2 FSE	SOEs 05-2 and 05-3	T3 FSE
	SIGNIFICANT DECISIONS	
 HHS directed CDC to pre-deploy SNS push packs (prior to formal requests for SNS) to Illinois. The State also requested follow-on managed inventory supplies. After issuing medications to first-responder population, SNS sites opened to target population by Day 4. After some discussion over the ability to conduct mass prophylaxis, local jurisdictions agreed on a common, targeted prophylaxis strategy. 	N/A	NJ Governor requested SNS on Day 1 upon awareness of a plague outbreak. NJ Governor decided to execute a statewide prophylaxis strategy, though State health officials recommended a targeted approach. First State POD opened in one of the two most-affected counties by noon on Day 2. The Federal government, concerned about the State's ability to execute its plan swiftly enough, decided to supplement the State PODs with more than 160 of its own sites located at postal facilities and private HRSA centers.
	ISSUES/OBSERVATIONS	
Multiple requests for SNS from local jurisdictions; uncertainty about request procedures (via FEMA or CDC)	N/A	Single request from Governor directly to CDC
Significant uncertainty about amount of medications in SNS	Lack of consistent understanding among Federal D/As regarding capabilities (limitations of current national medical health care resources)	
Concerns expressed by local jurisdictions regarding tradeoffs of targeted or mass prophylaxis strategies Some counties favored the targeted approach because they lacked the resources for mass distribution; those favoring a mass approach were concerned about being flooded with people from jurisdictions using a targeted approach.	Concern regarding ability to securely and swiftly breakdown and distribute the SNS on a massive scale (i.e., statewide prophylaxis strategy)	Throughput of real State PODs fell short of assumed rate of 1,000 people/hour, a key assumption behind the mass prophylaxis decision adopted by the State. Resources required to staff the nearly 400 State and Federal PODs were not identified and were probably unavailable in the time frame of interest. The plan to conduct mass prophylaxis evolved during the exercise and did not appear to reflect a preplanned, carefully integrated Federal-State response. Not clear that the Federal government has a strategy for implementing its own system of PODs or for rapidly identifying and supplying staff to support State efforts for large-scale requirement
	Concern regarding emergency authorizations for new drugs or use of drugs for non-approved use	

F. Recommendations

- States need to work with the Federal government to develop scalable prophylaxis
 plans that contemplate a requirement to reach very large numbers of people. T3
 indicates the difficulty of doing this while an event is unfolding.
 - These plans will most likely require a combination of approaches, including fixed sites and delivery of prophylaxis directly to individuals.
 - There may be a requirement for flexible standards of care associated with different levels of prophylaxis.
 - States will need to clearly identify what Federal resources, if any, would be required to support these plans.
- Careful integration of Federal and State planning processes is required to ensure that mass prophylaxis plans will be executable if needed.
 - The new HHS Regional Emergency Coordinators who report through the Office of the Assistant Secretary for Public Health Preparedness are well situated to facilitate this process.
 - Prophylaxis/planning practices and tools developed under the CRI should be expanded to include regions and cities not currently covered.
 - Options (including the appropriate mix of PODs plus other prophylaxis delivery techniques) for conducting large-scale prophylaxis should be studied, and guidelines should be developed.
- The Federal government should decide whether it will establish and operate its own POD systems in the event of a major public health emergency like the one that occurred during T3.

Even if it is not the intention of the Federal government to establish and operate its own POD systems in the event of a major public health emergency, plans should be made to quickly identify and provide staffing resources to States facing a need to carry out prophylaxis on a large scale, should their own resources prove inadequate.

IV. Agent Confirmation and Hazard Area Definition— Task # IV-6: Direct Agent Release Mitigation Efforts

A. Summary of Issue

The issue is that specialized response units did not exhibit a clear understanding of each other's roles, authorities, and standard operating procedures. Additionally, the lack of a formally defined information flow process from the incident site resulted in premature public messages and decision making about the identity of the chemical agent.

In a chemical, biological, or radiological attack, early identification of the lethal agent, combined with clear definition of the hazard area and the potentially exposed population, can save lives, speed effective treatment of symptoms, and prevent injury to medical responders. These essential elements of information drive decisions made by top officials at FSL levels. Information critical to rapid and effective response activities includes understanding what lethal agents were released, where they were released, and where the contamination is likely to spread. Scientists have developed plume models, which make use of available data to predict atmospheric transport of pollutants and to define spread of the agent. Models may also provide information that can help identify the timing and initial location of the agent release. Until recently, there was no single Federal source for collecting data and producing the modeling products used by decision makers. The T3 FSE provided the opportunity to observe progress that has been made in creating a single authoritative Federal source for plume modeling, while highlighting issues that remain in coordinating data and information to confirm the agent and define the hazard area.

The T3 FSE highlighted the potential for tension when many organizations participate in the sampling process and when information about the agent is not systematically distributed among the response organizations. The response in Connecticut exercised the use of the Interagency Modeling and Atmospheric Analysis Center (IMAAC) as the sole Federal source of plume modeling during INSs. Observations indicate that the single-source IMAAC approach resolved much of the confusion about plume models noted during previous exercises. IMAAC products provided authoritative plume predictions that were used by all the response organizations to define the hazard area and make associated decisions; however, problems with version control as well as lack of consolidation and confirmation of model inputs were evident during the exercise.

Although the T3 FSE provided opportunities in New Jersey and Connecticut to learn about agent confirmation and hazard area definition during a major disaster, this analysis focuses on the observations and issues in Connecticut. Whereas plume modeling would be an important element of a real-world response to a plague release, exercise designers chose not to include it as part of the NJ exercise program; therefore, the IMAAC processes were not exercised in New Jersey and the IMAAC did not produce any official products for the plague release.

B. Background

During WMD events, identification of the agent and definition of the hazard area provides information that governmental agencies can use to tailor the response and protect at-risk populations. Without ready access to this information, response organizations must make guesses about the type of agent and the boundaries of the hazard area, thereby reducing the effectiveness of the response and possibly endangering the responders and residents.

1. Agent Identification and Confirmation

Various FSL agencies have the capacity and responsibility to test for the presence and identity of WMD agents. Fire department personnel, specialized HAZMAT units, environmental agencies, and law enforcement personnel may perform environmental sampling. Medical personnel may collect samples from individuals to provide additional data about the agent. The overarching goal of all agencies is to identify the agent used in the attack and the extent of its spread. However, these agencies represent three different areas of interest: (1) first responders, (2) law enforcement, and (3) environmental remediation. Each interest group uses the results from the sampling differently and largely operates during different response phases: initial response to the emergency, criminal investigation, and clean up. Although the term "response phase" indicates a change in focus as a response progresses, there really are no clear lines of demarcation between the phases. Rather, overlapping and integrated operations occur across phases, with the understanding that priorities change over time.

Fire and emergency medical services (EMS) personnel use the testing results to determine immediate treatment protocols and the appropriate personal protective equipment to use during the response period. Health care officials use the identification information to determine the best treatment for patients. Law enforcement uses results of the tests to support the investigation and prosecute suspects. Environmental agencies use sampling to determine the extent of contamination and the best methods for remediation. Fire/EMS/medical personnel and environmental specialists could be grouped together based on their public health focus, with the former being concerned with immediate health effects, and the latter with a long-term perspective on the issue. To support their missions, all interest groups have developed and fielded the ability to collect samples and identify unknown agents.

2. Hazard Area Definition

When the presence of a chemical, biological, or radiological agent is suspected, response personnel and decision makers may use plume modeling and case definitions to determine the likely hazard areas and identify at-risk populations. With this information, responders can tailor their response to the scenario and decision makers can begin to craft policies that best address the circumstances of the release.

Plume models provide scientific predictions of how an agent will disperse given weather conditions and other factors. Initial plume predictions may be of limited value due to lack of knowledge about the means of dispersal, amount of agent released, and composition of the agent. However, these products still give decision makers some baseline information from which to craft a response. As more evidence is collected and field measurements are obtained, models are refined with this empirical data to produce more accurate analyses of the extent and spread of contamination. Model products are displayed via Geographical Information Systems (GIS) with affected population counts and detailed maps. With these products and reach-back support from modeling experts, top officials can make informed decisions about protective actions and response needs.

At the Seattle, WA, RDD site during T2, the collection and analysis of data by multiple agencies at all levels of government resulted in inconsistent and potentially conflicting plume products. That experience prompted DHS and the HSC to create the IMAAC as the single source of Federal plume modeling and analysis in the event of an INS. The IMAAC is intended to be the center or facility where all agencies who support hazard area modeling for different consumers can co-locate representatives to participate in analysis and reach consensus on products. Under the MOA that established the IMAAC, agencies with particular customers, such as the Defense Threat Reduction Agency (DTRA), continue to deliver products to their customer(s) but coordinate with the other agencies in the IMAAC to reach a consensus on the assessments during an INS. The National Atmospheric Release Advisory Center (NARAC) at Lawrence Livermore National Laboratory (LLNL) in California currently functions as the interim IMAAC facility. The IMAAC accepts inputs and product requests from any of the Federal agency signatories to the MOA, any State or tribal organization, and any FSL emergency response organization. End users can download the IMAAC products from the NARAC secure website or can request receipt over e-mail. The goal of the IMAAC agreement is to reduce confusion and uncertainty among response organizations about the plume models. By providing an authoritative, single source for plume predictions, IMAAC can contribute to a shared situational awareness among response organizations.

The IMAAC policy was codified in the NRP and in an MOA sponsored by DHS. The signatories to the MOA include the Department of Energy, Department of Commerce, DoD, Department of the Interior, National Air and Space Association (NASA), Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA), and DHS.

C. Reconstruction

The T3 FSE provided an opportunity to learn about the response mechanisms that officials use to identify and confirm unknown WMD agents and define hazard areas during an incident response. In Connecticut, officials were responding to the release of a fast-acting sulfur mustard agent, from which victims exhibited symptoms within hours of exposure. The terrorists used two methods to disseminate the mustard agent in Connecticut. First, at approximately 11:30 on April 4, a small aircraft flew over the New London City Pier on the Thames River releasing mustard in a gaseous form over the waterfront area. Roughly two hours later, at 13:20, a VBIED, hidden in the back of a

truck that also carried sulfur mustard detonated at the head of the pier. Most of the mustard agent present in the truck bomb was destroyed during the explosion, limiting contamination to the immediate vicinity of the detonation, where a pool of mustard agent had collected prior to the explosion. The aircraft release contaminated a much larger area and had a greater impact on the people attending the festival at the pier.

1. Agent Identification and Confirmation in Connecticut

The New London Fire Department first responders arrived within five minutes of the blast, and recognized immediately that the victims at the pier were suffering from more than just the effects of a truck bomb. Their initial monitoring and metering revealed the presence of a chemical agent. From there, the Incident Commander (IC) coordinated all the HAZMAT and specialized units that arrived on scene to test for the agent. With the FBI WMD Coordinator advising, the IC developed a testing plan that increased in sophistication as it progressed while limiting contamination of evidence and duplication of effort. First, the CT State Police Emergency Services Unit (ESU) entered the scene to conduct paper tests, which revealed the area to be positive for a blister agent. Next, the CT National Guard Civil Support Team (CST) was sent to the perimeter of the site to monitor air and wind movements to make sure the wind did not shift and contaminate the first responders. Based on the paper tests, air monitoring, and victim symptoms, a presumptive positive assessment of mustard agent was made at 15:37 and passed to operating centers and decision makers. At this time, there was no scientific evidence of mustard agent. 67 The next test, by the CT DEP HAZMAT Unit, used a gas chromatograph mass spectrometer (GCMS) to survey the clothing of one of the victims. This test came back negative, an artificiality of the exercise that may have changed the course of the testing plan if not for the controller intervention. Fourth, the National Guard CST used a second, more advanced GCMS to test a clothing sample. Per the Master Scenario Event List (MSEL), this test at 20:17 was positive for mustard. Although the equipment used by the DEP and CST is virtually identical to that used in a sanctioned laboratory, the environment is not considered pristine enough for definitive testing, particularly for a criminal investigation. Field tests are usually considered preliminary results, with definitive testing occurring in a laboratory. Very early on in the response, the CT State Police ESU collected a sample for the FBI to send to the Edgewood Chemical Activity (ECA) in Aberdeen, MD, for definitive testing. At 08:40 on April 5, the ECA confirmed that the samples contained mustard.

Concurrent with the efforts at the incident site, the CT Department of Public Health (DPH) initiated its own line of testing to confirm the identity of the chemical agent. CT DPH received notification of the preliminary mustard identification, but questioned the source and accuracy of the information. Not knowing about the airplane dispersal, which occurred two hours prior to the explosion, CT DPH and the treating hospitals reasoned that the contaminant could be lewisite, rather than mustard, because of the apparently

⁶⁷ Although it is possible that the initial tests and victim symptoms would have led responders to suspect mustard, it is unlikely that they would have been as certain in their diagnosis if not for the artificiality of the exercise. All participants knew ahead of time that the agent being simulated was mustard.

short time span between victims being contaminated via the truck bomb and victims becoming symptomatic. Using skin and blood samples from patients, the CT DPH laboratory confirmed the presence of mustard at 01:34 on April 5.

2. Hazard Area Definition in Connecticut

Even before the agent was identified, officials in Connecticut implemented two approaches to define the hazard area: plume modeling and environmental sampling.

The IMAAC was alerted to the explosion by VNN shortly after the bomb detonated. Once alerted, the IMAAC began modeling the potential effects of a chemical release in the event that such a release had occurred concurrent to the explosion. At 13:40, the IMAAC Operations cell began conducting sample runs of a plume model using mustard as the agent. The DHS Science and Technology (S&T) Division watch officer at the HSOC activated the IMAAC at approximately 13:53. IMAAC was asked to produce an initial set of plume products based on VNN reports, with more detailed information to be included as it became available. The IMAAC released the first plume product via the NARAC website at 14:36. Figure V-1 shows the initial plume prediction.

Although the fortuitous use of mustard in the earliest run model was likely an artificiality of the exercise, the fact that IMAAC began modeling even before formal notification is not unusual. IMAAC operations personnel report that learning of any bombing, accidental release or spill, or national emergency would activate an informal IMAAC modeling response in the event that formal activation occurred.

Set 1: Max 10-min Air Conc over Period Set 1: Initial Explosion of Mustard Gas (Short-Term Population Effects) Automated Report - Assessment Effects or contamination from 04 Apr 2005 17:25 UTC to 04 Apr 2005 23 25 UTC at or near ground level Acute (Short-Term) Effects Population Casualties (mg/m3) Area Description Extent **Fatalities** >AEGL-2: Serious health effects or impaired ability to 8.979 0.3 km2 n/a n/a take protective action. 20 d 11.268 -AEGL-1 Minor reversible 0.5 km2 health effects. Possible odor m/a nia Note: Areas and counts in the table are cumulative. Casualties include both Fatal and Non-Fatal effects. Source Location: 41,360000 N, 72,092500 W Material: MUSTARD GAS Comments: Hypothetical release of 2.2833 kg/s starting at 04/04/2005 17:25:00 UTC for 2 min T3-IMAAC Approved

Figure V-1. Initial IMAAC Plume Model Released at 14:36 on April 4

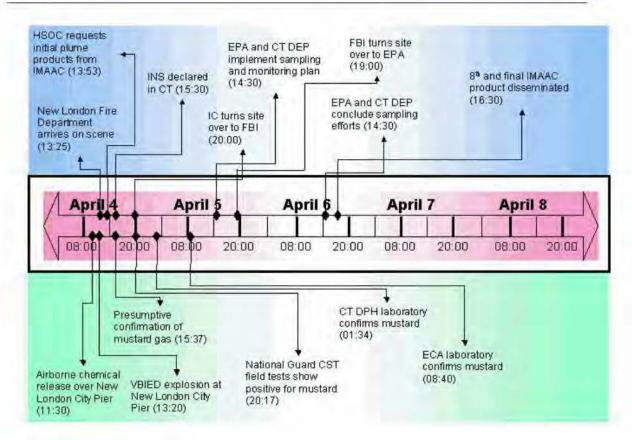
At 15:30 on April 4, the Secretary of Homeland Security declared the events in Connecticut an INS and by default identified the IMAAC as the single source for Federal plume models of the effects. Over the next four days, the IMAAC released seven additional sets of plume products, as well as some revisions to specific model runs within the sets.

AC VICTOR STORY

Under the authority of the NCP, the EPA, U.S. Coast Guard (USCG), and Connecticut DEP developed a sampling and monitoring plan to detect the continued presence of mustard agent and delineate the extent of contamination. On April 5, sampling and air monitoring teams comprised of personnel from the Connecticut DEP HAZMAT Team, EPA Region 1 HAZMAT Team, EPA Superfund Technical Assessment and Response Team (START), and USCG National Strike Force/Atlantic Strike Team (NSF/AST) implemented the plan in the areas immediately surrounding the incident site. Early evening on April 5, the teams received access to the hot zone at the incident site for testing purposes. Field operations concluded at 14:36 on April 6, with a total of 36 samples taken. The results from these field samples were sent to the IMAAC and contributed to the development of more accurate plume products.

Figure V-2 shows key events in the Connecticut incident and response.

Figure V-2. Key Events for Agent Identification and Hazard Area Definition in Connecticut



D. Consequence

Exercise play in Connecticut presented response organizations with an opportunity to exercise the coordination processes required for identification of the chemical agent and definition of the hazard area. Overall, these activities appeared more coordinated, efficient, and successful than in T2. In particular, the T3 FSE also showed how much improvement has been made since T2 in coordinating and developing analysis products to support top officials' decision making about the hazard area and the effects of contamination on the population. Despite these success stories, T3 showed that room for improvement still exists.

T3 illustrated the potential for tension when many organizations participate in response activities without a clear understanding of the roles, standards, and operating procedures of other responders on site. This tension is neither new nor unexpected. However, such issues take on added weight when they have repercussions that reverberate up the entire response chain. In Connecticut, these tensions manifested themselves onsite in disagreements between different chemical sampling units and communities. Among the

results was a delay in top officials receiving essential elements of information to help with decision making and the contamination of evidence that could be needed for criminal prosecution.

Play in T3 duplicated that of T2 in terms of a breakdown in information flow from the incident site to the other organizations and operating centers in the response chain. In T3, this was evidenced by many incorrect and unconfirmed reports of the agent being mustard. T3 showed that a systematic process for releasing information from the site does not exist. The result is presumptive and potentially incorrect information being used by decision makers and given to the public. In the T3 FSE, responders were fortunate that the rumors and preliminary reports were accurate. In the future, responders may not be so fortunate. Information about the contaminating agent, and any other essential elements of information that may drive FSL actions as well as public responses, needs to come from a single authoritative source that is acknowledged as such by the entire response chain.

The use of the IMAAC in T3 as the single authoritative source for Federal plume products resulted in dramatically less confusion regarding such products than in previous exercises. The few problems that occurred involving version control and non-IMAAC analyses were insubstantial and could be attributed to technology issues. That being said, the IMAAC processes for receipt and review of other modeling products may need to be reclarified, and a protocol may need to be established for other modeling agencies to distribute to their consumers on the purpose of their products and the guidelines for redistribution.

Events in T3 indicate that the creation of IMAAC as the single source for plume products was a good decision. Now, however, processes associated with providing data and requesting products may need to be reexamined. The IMAAC is not equipped to consolidate the inputs it receives and resolve discrepancies among them. Serious consideration should be given to the decision to allow multiple agencies at FSL levels to have direct access to the IMAAC operations cell. The response flexibility granted by such access should be weighed against the potential for conflicting inputs or requests. Procedures need to be developed on how the IMAAC should handle discrepancies in data inputs and requests that do not align with previously provided inputs or scientific evidence. Finally, the IMAAC needs the authority and access to more effectively inject its evidence into top officials' decision-making processes.

E. Analysis

The T3 FSE play in Connecticut provided an opportunity to learn about agent identification and hazard area definition during a major disaster. The exercise highlighted the potential for challenges when many organizations participate in the sampling process and when information about the agent is not systematically disseminated among the response organizations. The exercise also provided an opportunity to exercise the IMAAC MOA and observe its impact on the response. Although room for improvement exists, the use of the IMAAC appeared to reduce the amount of conflicting plume information received by decision makers in previous exercises.

Response agencies and organizations in Connecticut accurately identified mustard as the agent used by terrorists. The actions taken and decisions made with respect to the agent identification and confirmation process revealed areas of concern associated with:

- the coordination of emergency responders, law enforcement, and environmental responders at the incident site; and
- the flow of information about the contaminating agent.

The use of the IMAAC as the single source for plume models successfully reduced the number of conflicting products provided to decision makers and contributed to a common picture across the various response organizations and command centers. Although T3 showed significant improvement over T2 in this respect, there remains room for more improvement, particularly with:

- continued availability of additional plume products and analysis;
- managing contradictory requests for the IMAAC products; and
- coordination of emergency responders, law enforcement, and environmental responders on scene.

1. On-Scene Coordination of Emergency Responders, Law Enforcement, and Environmental Responders

Events at the Connecticut incident site highlighted the potential for confusion or tension when many organizations participate in the sampling process without clear understanding of each other's roles, authorities, and standard procedures.

First responders in Connecticut quickly recognized that there was a potential WMD component to the attack. They appropriately made note of the symptoms they were seeing, and recognized that victims complaining of garlic smells and exhibiting blisters were beyond the expected repercussions of a simple explosion. Based on these reports, WMD-specific responders arrived on the scene quickly, and testing of the agent progressed at a rapid pace.

Multiple State and Federal agencies dispatched HAZMAT units to the scene shortly after it was identified as a WMD event. Data show that the local FBI requested that agency's specialized units and the State Police ESU, and the Governor activated the National Guard CST. The HAZMAT units from the USCG, Connecticut DEP, and EPA arrived under their NCP authorities. Within two hours of the explosion, at least five specialized units were on site with the capability of testing for contamination and supporting agent identification efforts. Over the course of the four-day exercise, nine specialized units, with different primary responsibilities, supported efforts on scene associated with agent confirmation and hazard area definition. Table V-1 identifies the agencies and units that responded to the scene, the day they arrived, and an assessment of their focus based on T3 observations.

Table V-1. Agencies Supporting Sampling at the Incident Site in Connecticut

Responding Agency/Unit	Focus	Date of Arrival
New London Fire Department	Emergency response	April 4
CT DEP HAZMAT Team	Emergency response and remediation	April 4
National Guard CST	Emergency response	April 4
U.S. Navy Groton Submarine Base HAZMAT Team	Emergency response	April 4
FBI WMD Coordinator	Law enforcement/criminal investigation	April 4
CT State Police ESU	Law enforcement/criminal investigation	April 4
EPA Region 1 HAZMAT	Remediation	April 4
USCG Atlantic Strike Team	Remediation	April 4
FBI Boston HAZMAT Response Team (HMRT)	Law enforcement/criminal investigation	April 5
FBI HAZMAT Response Unit (HMRU)	Law enforcement/criminal investigation	April 5
EPA START	Remediation	April 6

The initial emergency response phase of the operation, during which responders focused on immediate situational assessment and victim recovery, lasted just seven hours—from the time the VBIED detonated to 20:00 on April 4, when the IC turned over control of the site to the FBI. The investigation phase lasted until early evening on April 5, or approximately 24 hours, when the FBI concluded its evidence collection efforts and turned the site over to the EPA and Connecticut DEP for sampling. Initial remediation efforts, predominantly sampling and monitoring to determine the extent of contamination at the site and in surrounding areas, began almost immediately and lasted through the end of the exercise. Long-term remediation and recovery efforts would have continued beyond the T3 FSE conclusion.

As Table V-1 indicates, most of the specialized units that responded to the scene arrived on the first day of the response effort. Although it was clear that efforts on April 4 were focused on emergency response and victim recovery, there were some instances of tension among sampling units concerned with public health concerns and those concerned with the criminal investigation. Some of this tension may have been a result of the artificiality of the exercise, but a lack of understanding appeared to exist across all the

units about standards and operating procedures followed by other responders and interest groups carrying out their own respective duties and responsibilities.

For example, law enforcement HAZMAT specialists, represented in Connecticut by the FBI and the State Police ESU, have two primary concerns during the initial emergency response phase. First, they seek to minimize damage to or contamination of evidence on scene. To this end, the FBI WMD Coordinator worked with the IC and first responders to identify the least damaging routes in and out of the site and oversaw collection of a small number of pristine evidence samples before emergency personnel entered the detonation area. Second, law enforcement personnel strive to maintain control of all potential evidence or data for future prosecution of the perpetrators. To this end, the FBI WMD Coordinator attempted to influence the type of field tests performed and the order in which they were conducted to minimize the possibility of contradictory results that could be used later by a defense counsel. Law enforcement personnel are also concerned with the chain of evidence and maintaining positive control of evidence at all times. In suspected terrorist incidents, all samples are evidence, even those being used by HAZMAT personnel, medical workers, and environmental units to assist with medical treatment, decisions about protective gear, or definition of the hazard area. To support this responsibility, the WMD Coordinator assigned CT State troopers to accompany all samples that went for testing. This practice became problematic when the National Guard CST collected samples for testing in its mobile field unit. Although the test the team performed on the sample is standard, the mobile unit itself is classified, and the State trooper did not have the clearance required to enter. This disrupted the evidence chain, from a control standpoint and in terms of having someone available to testify to the results later.

The T3 experience leads to questions regarding the presence of multiple assets with duplicative capabilities at the site, particularly those without specific responsibilities or authorities. Although the speed with which they all arrived in the T3 FSE is likely unrealistic, the fact remains that the presence of multiple units with similar capabilities can easily lead to duplication of effort, lack of understanding of different units' responsibilities or authorities, and counterproductive jurisdictional issues. The onsite presence and early activities of so many testing and sampling assets may be redundant in the first 12 hours of the response. However, some experts argue that having more assets available to support testing efforts gives the IC and senior law enforcement officials more flexibility in designing a test plan to support the needs of public health and the criminal investigation. In the exercise, that flexibility allowed the test plan to build in sophistication from paper testing indicating a blister agent to the use of advanced GCMSs that are virtually identical to the equipment used by accredited laboratories.

A second issue was associated with access to the incident site itself. The FBI took control of access to the site shortly after arriving early in the afternoon on April 4, though the IC still controlled operations. This allowed law enforcement to admit units or deny access to units. The National Guard CST, under orders from the Governor to report to the incident scene and support the IC, was denied access to the site and the Incident Command Post (ICP) for approximately two hours on April 4, when responders were still in the

emergency phase of the response. The data do not provide details on why the CST was initially denied access or why the decision was eventually reversed. Additionally, on April 5, there was poor coordination about when the remediation units would receive access to the site for field measurements, an issue of key interest to officials at all levels of the response. The initial sampling plan called for remediation units to begin testing on site the morning of April 5. However, that morning, the FBI informed the rest of the FSL agencies present that law enforcement's control of the site would continue for most of the day, and that sampling units would not be allowed to begin their on-scene efforts until evidence collection had concluded. For most of the day, the remediation units were limited to sampling outside of the FBI's perimeter.

The discussion over access progressed all the way up to the JFO Coordination Group and the PFO for deliberation during a 14:30 meeting on April 5. At that level, the communities are largely divided into two groups: law enforcement and public health, with the latter also including environmental assessment and remediation. Although the law enforcement community recognizes the priority of emergency response over the investigation, the same is not true of remediation efforts, which are considered lower priority than the investigation. However, the sampling conducted by the USCG, EPA, and CT DEP was aimed at more than just long-term cleanup. The sampling results contributed to the IMAAC plume models and were essential for decisions about sheltering-in-place, school and business closings, and mass care needs. The delay in getting complete results did not seem to be well understood by decision makers at the State and Federal levels.

2. Flow of Information About the Contaminating Agent

Information that mustard was the chemical agent used in the attack did not filter up to decision makers and out to the public in an organized and controlled process. Instead, top officials began making decisions and statements to the public based on unconfirmed information and did not consider alternative hypotheses. For example, initial data from the Connecticut DPH showed that other agents, such as lewisite, could have been the source of victims' symptoms. If the early rumors about mustard had proved false, this could have had significant impact on response operations, including decontamination efforts, victim treatment, and public guidance. Immediate acceptance of presumptive confirmations of the agent in T3 may have been due, in part, to exercise artificiality. Exercise participants had advance knowledge of the agent being simulated, and as a result, may have been more inclined to accept unconfirmed hypotheses as fact. However, data still show the lack of a clear process for communicating and controlling such key pieces of information, and the potential for rumor to quickly become accepted as fact during a crisis.

In Connecticut, the first test-based confirmation that a mustard agent was released at the incident site occurred at 20:17; however, reports on the presence of mustard occurred well before that preliminary confirmation. As previously noted, first responders in Connecticut quickly recognized that there was a potential WMD component to the attack. Initial assessments of the situation were based on victim reports and symptoms.

Therefore, before conclusive testing, responders suspected a chemical blister agent like mustard. These suspicions quickly took on the appearance of fact as the information left the incident site. Table V-2 lists all the mustard agent reports prior to the 20:17 field test and an assessment of whether the report was based on information available at the time.

Table V-2. Reports of Mustard Agent Prior to the 20:17 Confirmation on April 4

Time of Report	Report of Mustard Agent	
14:20	FBI WMD Coordinator tells IC that symptoms suggested mustard.	Yes
14:50	IC tells 911 dispatcher and New London EOC that the contaminating agent was mustard.	No
14:55	VNN broadcasts an unconfirmed report of mustard found at the incident site.	Yes
15:05	Operations Chief in State EOC briefs that mustard is suspected but awaiting confirmation.	Yes
15:13	City Manager in New London EOC confirms that mustard was used in the incident.	No
15:33	IC allows the PIO on scene to release reports of mustard.	No
16:27	State Police reports to the State EOC that the presence of mustard has been confirmed.	No
16:58	IC informs the PIO that mustard has not been confirmed, but is suspected.	Yes
17:02	On VNN, Secretary of Homeland Security announces confirmation of the presence of mustard at the CT site.	No

The only public safety agency or operating center that appears to have hesitated to accept these unconfirmed reports was the CT DPH. At the DPH Emergency Control Center (ECC), the toxicologist and other health professionals on duty discussed the rapidity of the onset of symptoms. They determined that the symptoms appeared too quickly for the agent to be mustard if the truck explosion was the means of release. These officials initially suspected that the agent was lewisite. The public health community was concerned with an accurate confirmation of the agent, because mustard and lewisite have different treatment protocols and decontamination requirements. Therefore, if hospitals were treating patients for mustard exposure, their efforts would have been less than

optimal if the contaminant turned out to be lewisite. As a result, at 15:22, the CT DPH advised the State EOC not to release information about mustard until its presence had been confirmed. Even after the preliminary confirmations of mustard by the FBI were issued, the CT DPH continued to question the result until the State laboratory or the CDC verified it, which occurred early in the morning on April 5.

Complications in the flow of information about agent confirmation highlights another seam between the public health and criminal investigation communities, and their requirements as to what it takes for an agent to be "confirmed." For the law enforcement community, "confirmation" has legal ramifications, whereas for the rest of the responder community, confirmation drives public health and continuity of operations decisions. The FBI considers all instrumented monitoring tests conducted in the field to be preliminary. They use these results as guidelines for packaging evidence and practicing the appropriate safety precautions. Onsite testing is not definitive and cannot be used to support the prosecution of those responsible for the release. As a result, the FBI was reluctant to confirm the presence of mustard until it received results from ECA. Although the other organizations that collected samples immediately confirmed the presence of mustard, the FBI waited until 18:39 to report its suspicions to the JFO Coordination Group, Unified Command, and State EOC. As late as 23:15 on April 4, the FBI JOC told the State EOC that it was still not willing to announce confirmation of mustard to the press.

In general, the language used in reference to agent identification and confirmation is not specific enough to distinguish between the nuanced definitions of "confirmed" required by different responding communities and top officials. During T3, clear guidance was not available about the differences between confirmations that were presumptive, preliminary, or definitive. Nor did there appear to be widespread efforts to appropriately label confirmations as such. Instead, there appeared to be a lack of shared understanding at different levels of the response as to the definitive nature of the early reports from the site. The result was having preemptive, and at times incorrect or contradictory, reports flow up and down the response chain and to the public.

Ambiguous language is not the only explanation for the unclear status of agent identification and the release of information before it is confirmed. In the end, the problem comes down to having clear, explicit channels for information flow—channels that responders at all levels can rely on to send and receive valid information.

The T3 FSE highlighted legitimate gaps in the process of moving information from the incident site to the various command centers. Specifically, it was never clear:

- who was responsible for official confirmation of the contaminant, both to the public as well as to FSL agencies involved in the response;
- · when that information should be pushed out; and
- how that information should be disseminated.

The NRP establishes a theoretical information flow from the ICP through the local and State EOCs, up to the Federal responders in the JFO, then on to the HSOC and IIMG. But the reality in Connecticut was much more complex considering the large number of FSL agencies represented at the incident site, the activation of an off-site Unified Command with predominantly Federal membership, and the very realistic demand for information from decision makers and the media. Information was being pushed and pulled from all directions. Although much of the preemptive agent confirmations and notifications in the exercise could be attributed to the artificiality of an exercise in which everyone knows the agent ahead of time, the fact remains that the situation is rife with the potential for miscommunication, rumors, and ambiguous statements from the scene. Information not clearly and systematically disseminated with the necessary level of detail and clarification may be misused or misunderstood.

3. Presence of Additional Plume Products and Analysis

T3 showed marked improvement over T2 in the use of plume products to support definition of the hazard area in Connecticut. The single-source IMAAC approach resolved much of the confusion about plume products noted during T2; however, the existence of additional plume products in T3 still caused some problems.

a. Version Control of IMAAC Products

During the exercise, decision makers faced some challenges concerning the number of IMAAC model runs completed and products distributed during the exercise—essentially a problem of version control. These products had differences ranging from slight revisions to different driving assumptions. Early model runs were not effectively taken out of play or retired, and it was often unclear which model run was the most current. As a result, there were instances in which command centers or participants not co-located were referring to different products. Problems with version control are a common result of distribution processes and the time lag between receipt and onward distribution of updates.

The IMAAC operations cell used two methods to disseminate its products:

• Products were posted on the NARAC website. Individuals located at the New London EOC, State EOC, JFO, and HSOC, as well as various agency headquarters and operating centers, could download the plume analysis from the NARAC site and display it on a choice of GIS maps. ⁶⁹ NARAC account holders in the key operating centers were identified prior to the exercise, and the IMAAC had a process in place to quickly set up new accounts as needed. Account holders received an e-mail notification whenever a new model run was posted.

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⁶⁹ The broad selection of GIS maps means it is possible for users to be looking at the same IMAAC results but in different perspectives and with varying levels of underlying detail. This may have caused some confusion at times in T3.

 An electronic slide presentation of the IMAAC model results with explanatory information was sent via e-mail to all the NARAC account holders and any other individuals who requested the products over the course of the response.

Users accessing the IMAAC data via NARAC required some level of training to download the analysis and generate products using the web-based GIS maps, but once trained, they could view the results on their preferred maps. Users relying on the electronic slides sent via e-mail received ready-to-view products with an identifying set number to distinguish them from previous products. These products could not be manipulated and arrived approximately 20 minutes later than the e-mail notifying NARAC system users of new product postings. This time delay could explain some of the instances when individuals referred to different products.

Additionally, not all command centers and officials have their own NARAC accounts. In Connecticut, the Geospatial Laboratory representative at the State EOC was tasked with downloading IMAAC products and posting them to the State web portal for multiagency use. Although this worked for the most part, it could have led to delays in some State and local agencies or operating centers receiving products. For example, the posting of the second set of plume products to the State intranet did not occur until 17:30, though the product was released by the IMAAC at 16:06. Moreover, it appears that some State agencies were either unaware of this service or unable to access the portal. Data indicate that on April 4, the State Police and CT DPH were without plume products at 20:00 and 20:23, respectively, although by that time the IMAAC had released three sets of products.

Another potential explanation for version control problems is the fact that due to available technology, products are widely distributed so quickly that records do not exist for everyone who may have received past products. Therefore, there is no way to ensure that all those individuals or agencies receive updates. The IMAAC does record all outgoing e-mails so that anyone who received previous versions will also receive new products. But, once the data pass that first link in the communications chain, there is no way to manage updates and version control across the board.

b. Non-IMAAC Products

The declaration of the CT bombing as an INS made the IMAAC the single Federal source for plume models. However, this did not stop other Federal agencies from modeling the effects. Per the MOA, other agencies may continue to model for their particular consumer, but must forward their products to the IMAAC and seek consensus. With one exception, this approach worked. At approximately 11:16 on April 5, the DTRA issued a document purporting to explain some discrepancies in the IMAAC product. The DTRA report caused some confusion among players because it contradicted the single source approach to modeling, but it did not appear to drive any decision changes.

The DTRA product that made its way around operating centers in Connecticut was not disseminated by the agency itself. Rather, it appears that DTRA issued the product to its consumer, DoD Northern Command (NORTHCOM), who then distributed it to the

DCOs and other military representatives in the various operating centers. From there, as with the IMAAC products, the document was pushed outside of its distribution chain. DTRA and other agencies modeling hazard areas can only control the list to which they send products. The MOA does not cover any further distribution that may overlap with IMAAC.

During the T2 FSE in Seattle, WA, the existence of multiple plume products resulted from independent modeling efforts by various agencies at FSL levels. During that exercise, local and State EOCs and local and State public health departments generated plume predictions. These varying products, coupled with the predictions generated by four Federal agencies, complicated decision making at all levels. The MOA establishing the IMAAC as the sole source for Federal plume products largely eliminated half of the problem experienced in Washington: that of conflicting Federal predictions. The complications generated by State and local products was never an issue in T3 because there are no data indicating that New London or the State of Connecticut had initiated or had attempted to initiate its own modeling capabilities. Rather, the State went immediately to the IMAAC for plume products.

4. Managing Contradictory Requests or Inputs to the IMAAC

Over the course of the four-day exercise, the IMAAC Operations Cell produced and released eight sets of plume products, as well as some revisions to specific inputs within the sets. The IMAAC produces new model runs when one of two things happens—either the cell receives a specific request for an updated product, or the cell receives new input or data that the modelers know will impact the plume picture. Table V-3 identifies when each set of products was released, the requesting or inputting agency, and the different assumptions used in developing the set.

Table V-3. IMAAC Model Runs Produced for Connecticut

Set #	Time of Release	Requesting Agency	Input Assumptions
1	14:36, April 4	DHS S&T (HSOC)	55-gallon drum of mustard exploded with 100-kg HE
2	16:06, April 4	CT DEP (State EOC)	 Confirmed location at New London City Pier Refined explosion source and details
3	19:17, April 4	NOAA (HSOC)	Aircraft release with west to east flight path
4	23:50, April 4	T3 SIMCELL ⁷⁰	 Calibrated with 13 field measurements Aircraft release of 300 kg of mustard Updated festival population data
5	08:00, April 5	CT DEP (State EOC)	Combined 60-kg aircraft release and 10-gallon ground release
2P	09:35, April 5	DHS S&T (HSOC)	Same as set 2, but with updated festival population data
6	14:30, April 5	CT DEP (State EOC) and IIMG	Combined 274-kg airborne pure-vapor release and 18.8-kg evaporation release from truck
7	16:00, April 5	CT DEP (State EOC)	 Added 10 gallons to airborne release Controller-confirmed location of explosion Ground-based sprayer source Calibrated with 87 field measurements
7A	23:00, April 5	IIMG	Same as set 7, but with reduced amount and assumed duration of group evaporation release
8	16:00, April 6	DHS S&T (HSOC)	Combined airborne (droplet and vapor) release and truck spill Calibration with 158 field measurements

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⁷⁰ The T3 SIMCELL injected data representing the results of field measurements taken by the joint sampling teams. At the time of the first inject, the sampling activities were still notional, and specific teams or leaders had not been identified. Later, field measurement injects were provided directly to the sampling teams, who passed the information through their respective reporting chains, EPA and CT DEP, and onto the IMAAC.

As can be seen from Table V-3, the agencies providing inputs and requesting models were about evenly split between Federal and State agencies. All the requests made by Federal agencies were actually made by agencies' watch officers in the HSOC on behalf of the IIMG. Connecticut made its requests through the CT DEP Geospatial representative in the State EOC. The State was more active in making requests than the IMAAC operators expected. By design, the IMAAC can accept inputs and requests from any of the Federal agencies designated as Authorized IMAAC Requestors (AIRs), any State or tribal organization, and any FSL emergency response organization. For the latter group, IMAAC must request authorization from the HSOC S&T Officer, but will conduct the analysis in parallel to the authorization effort. All of this flexibility means that IMAAC is able to respond rapidly to a situation even before the rest of the Federal response apparatus is fully activated.

However, the IMAAC's ability to coordinate with response organizations at all levels and locations means consolidation of inputs and requests is only happening at the IMAAC itself. The IMAAC CONOPS document prepared for T3 states:

> When an Incident of National Significance is declared, the IMAAC will be the single point of distribution for Federal plume products. IMAAC will support the DHS-designated PFO (if appointed) and his Joint Field Office Coordination Group or the Federal Coordinating Officer (FCO) through distribution of products and technical expertise to State and local response. 71

This seems to suggest that the IMAAC would work through the JFO Coordination Group to provide analytical services to the State. However, the CONOPS also states:

> The IMAAC will work directly with Federal, State, and local agencies technical assets and regional or national incident response teams to provide the most accurate, reliable, and timely estimates of plume hazard predictions and impacts possible. The IMAAC will continue to refine products based on newly obtained data, improved input information, and the use of additional simulation tools.

The latter statement suggests that during the T3 FSE, local and State agencies were not required to work through Federal representatives to provide inputs or request model runs. In fact, the CT DEP Geospatial representative in the State EOC had a direct line to the IMAAC and requested half of the analyses produced. This approach is consistent with the role of the Federal government in support of a State response and is part of what makes the IMAAC so flexible and responsive. The concern is what the IMAAC should do if it receives inputs and requests from one level or agency of government that vary from those

Operations Manager, LLNL, National Atmospheric Release Advisory Center).

⁷¹ Memorandum dated March 30, 2005, Department of Homeland Security Interagency Modeling and Atmospheric Analysis Center (IMAAC) Concept of Operations for the 2005 TOPOFF3 Exercise, from Bruce A. Davis (Interim IMAAC Director, DHS S&T, EPR) and Ron Baskett (Interim IMAAC

received from other parts of the government, or if it receives requests that will not produce a valid output based on scientific evidence.

For example, in the initial requests for a plume product, the IMAAC Operations Cell received inputs from three different sources regarding the location of the explosion—the State Pier, the City Pier, and Fort Trumbull. The third location was an artificiality of the exercise, but the confusion over the pier site is realistic. The IMAAC Director had to delay release of that initial plot while he sought clarification from his sources on this critical element of information.

In another example, the IMAAC determined from the initial set of field measurements, injected at 19:30 on April 4, that the bulk of the agent had to have been released from an airplane; this scientific conclusion supported the FBI's investigation of the crop duster in Maine and was released in set 4 of the IMAAC products. However, the next day, the IMAAC Operations Cell continued to get requests for products that did not incorporate an airplane dispersal: the CT DEP requested an updated model run based on a ground release, and the DHS S&T representative to the IIMG instructed the IMAAC to produce model runs that did not include the airplane dispersal. In the Connecticut JFO, decision makers sought plume products that assumed either an air release or a ground release, but not both. They wanted to compare the hazard areas of each because of the apparent uncertainty over the dispersal mechanism. In Connecticut and Washington, D.C., players reported being unclear on the role of the suspect plane in the chemical release. A clear statement from the IMAAC on the scientific verification of an aerial release may have helped alleviate such confusion. The scientific verification of an aerial release may have helped alleviate such confusion.

Variation in inputs and requests may be a function of a lack of a common operating picture across the response organizations, or may be due to a real need for a different picture or focus. The concern for future applications of the IMAAC is the lack of detailed procedures regarding how to handle discrepancies, whom should be responsible for resolution and deconfliction, what authority or responsibility the IMAAC has to discuss the rationale for requests with a requesting agency, and how the IMAAC can more effectively inject scientific evidence into top officials' discussions and decision making.

5. Issues from Previous Exercises

came up in previous exercises was the presence of multiple, competing plume products. During the T2 FSE, the conflicting information provided in the many different plume predictions caused problems from the incident site all the way to the Secretary of Homeland Security. That experience led to the creation of the IMAAC and the MOA directing that the IMAAC serve as the single source for plume products. The result in T3 was a more consistent picture of the hazard area shared across different operating centers, and a common plume picture shared by responders on the ground up to the HSC in the

The most significant issue relative to agent confirmation and hazard area definition that

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⁷² Confusion among participating agencies and operating centers regarding the role of the airplane in the mustard attack is discussed in greater detail in the Information Sharing chapter of the AAR.

White House. However, it should be noted that competing plume products in T2 were generated by FSL agencies. Although the IMAAC agreement appeared to reduce Federal products in T3 to those generated by a single source, the T3 FSE did not test potential complications from State or local agencies producing their own predictions.

A second issue identified in T2 was minimal coordination of data collection efforts among agencies at the incident site. The result of the onsite coordination failures in T2 was that no one agency at the site had all the sampling data and that many collection efforts were repeated. Onsite coordination of sampling in T3 seemed to go much better than in the preceding exercise, with the IC and FBI WMD Coordinator directing the initial sampling efforts, and the EPA, USCG, and CT DEP developing and implementing the follow-on sampling plan. The result was minimal redundancy in actual testing activities, except when required by exercise design. This improvement in coordinating sample collection efforts did not eliminate the broader T2 finding: no one agency had a complete operational picture. The same result occurred in T3, as evidenced by the contradictory requests issued to the IMAAC and the breakdowns in the flow of information about the contaminating agent. Similarly, although the onsite sampling activities in T3 appeared more coordinated, tension resulting from competing demands for access and duplicative capabilities suggests that coordination can be further improved.

Finally, events in the T2 FSE illustrated problems with the distribution of analysis products to decision makers. Although there were some complaints during T3 about delays in receipt of products, they were not significant. For the most part, all of the operating centers and top officials had immediate access (via technical representatives and/or e-mail) to IMAAC products. Time delays could largely be explained by the chosen mode of receipt (i.e., download vs. e-mail) and how far removed an individual was from the initial distribution list.

Table V-4 summarizes the improvements observed between T2 and T3 in the areas of agent confirmation and hazard area definition. Note that the T2 issues were those identified in that exercise's AAR and may not be all inclusive.

Table V-4. Comparison of T3 FSE with Previous Exercises

T2 FSE	SOE 05-3	T3 FSE
	ISSUES/OBSERVATIONS	
 Different agencies and jurisdictions used one or more plume models to generate predictions, which led to confusion and frustration among top officials in Washington State and Washington, D.C. FSL agencies used different and incomplete data to develop plume products and deposition maps. Decision makers did not understand the differences between predictive plume products, empirical data products, and deposition maps. Decision makers were not well informed of the limited usefulness and lifetime of the plume predictions or the need to run updates using empirical data. 	N/A	IMAAC successfully provided a common picture of the plume for use by FSL officials. IMAAC received inputs and requests that varied and/or contradicted with those received from other agencies or jurisdictions. IMAAC received inputs and requests that would not produce a valid output based on scientific evidence. FSL agencies/operating centers did not recognize the IMAAC products as a source for information beyond predictive plume products. IMAAC did not appear to have adequate procedures in place to deal with discrepancies in inputs or contradictions in modeling requests.
Agencies at the incident site and at off- site locations did not coordinate collection and analysis of radiological data.	Officials agreed that rescue operations are always the top priority and predicted that there would be no conflict between law enforcement, decontamination, and public health/medical response efforts.	Specialized incident site response units did not exhibit a clear understanding of each other's roles, authorities, and standard operating procedures. The lack of a formally defined information flow process from the incident site resulted in premature public messages and decision making about the identity of the chemical agent.
	Some officials expressed concern about lab shortages for a widespread chemical release. Officials emphasized the importance of summarizing technical information in layman's terms to support decision makers.	

F. Recommendations

- Clarify and disseminate the various response organizations' roles and responsibilities at the incident site, to include the timing of those responsibilities and their contribution to the larger response operation.
- Clarify the formal information flow procedures from the incident site to the rest of the response organization and assert the authoritativeness of formal processes over informal information movement.
- Clarify the IMAAC processes for receipt and review of other modeling products and establish a protocol for other modeling agencies to distribute to their consumers on the purpose of their product and the guidelines for redistribution.
- Develop procedures on how the IMAAC should handle discrepancies in data inputs or product requests and identify a process to aid the IMAAC in deconflicting inputs.
- Clarify the responsibilities, authorities, and mechanisms for the IMAAC to formally disseminate critical information learned through its scientific analysis of the incident.

VI. Emergency Response Operations under a Unified Command— Task # IV-2: Establish IC Unified Command

A. Summary of Issue

The issue is that the Unified Command's scope of responsibilities was not clearly understood. Doctrinal details were insufficient regarding concurrent implementation of the NRP and NCP and regarding the resulting duplication of roles, competition for resources, and coordination of information.

The National Incident Management System (NIMS) directs the Incident Command System (ICS) as the Federally recommended organization for managing emergency responses. It allows an integrated organizational structure that can scale up or down to effectively meet the demands of an incident regardless of the complexity of the situation. Traditionally, the most senior person present from the primary agency overseeing the local response acts as IC and handles the command and coordination function. When multiple organizations or jurisdictions have responsibility over aspects of the tactical response, a Unified Command may be formed to link organizations or municipalities together, provide a forum for integrated decision making, and enable a coordinated approach to incident response.

The T3 FSE provided an opportunity to exercise the integrated ICS approach in Connecticut with the formation of a Unified Command. The exercise revealed:

- poor integration between the off-site Unified Command Post (UCP) and activities at the incident scene;
- challenges for integrating the Unified Command with other emergency response organizations and operating centers;
- concern over lack of alignment between the NCP and NRP, which plays out most significantly at the Unified Command; and
- limited understanding of the scope of Unified Command responsibilities.

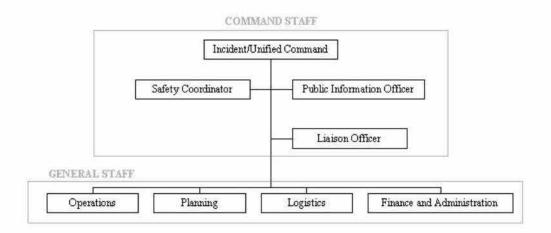
The analysis indicates that implementation of the Unified Command concept would be improved by further defining the roles and responsibilities of the Unified Command, developing standard operating procedures, and detailing these in the NRP and other supporting doctrine, such as NIMS. Additionally, the external information flow processes used by the Unified Command need to be reconsidered to ensure State and local coordination, particularly when the Unified Command's focus shifts to Federal-to-Federal support and NCP responsibilities.

B. Background

NIMS codified the concept of the ICS and the establishment of a single IC or a Unified Command to oversee response operations. Per the NIMS, a single IC is used when an incident occurs within a jurisdiction with no jurisdictional or functional agency overlap. The IC has overall incident management responsibility. A Unified Command is

implemented when a response involves multiple jurisdictions or agencies, each with its own functional responsibilities for an aspect of the response. The Unified Command uses a collaborative approach to make decisions and establish priorities. In both constructs, the Command develops incident objectives, approves Incident Action Plans (IAPs), and approves resource requests. Figure VI-1 shows the notional organizational chart for an IC or Unified Command per the ICS.

Figure VI-1. Notional Response Organization under the ICS



Per the NRP, the IC or Unified Command coordinates its needs through the local EOC as depicted in Figure VI-2. The exception to this model is a Federal-to-Federal response situation, in which the JFO provides direct support to the Federally established ICP/UCP. In that case, the NRP permits direct coordination of information between the ICP/UCP and the JFO, as indicated by the dashed line in Figure VI-2.

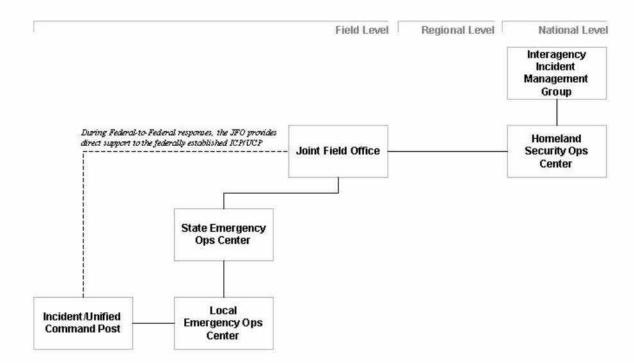


Figure VI-2. Notional Coordination Flow from ICP/UCP

An IC's focus is direct control of tactical operations. As the multijurisdictional or multiagency replacement for the IC, the Unified Command's purview is also tactical operations on scene and the response efforts related to management of the incident site. Traditionally, the local EOC handles all other local concerns that fall outside the response objectives established by the IC/Unified Command.

The Unified Command concept is introduced in the NIMS as an alternative or transitional option from a single IC. It is not given much consideration in the NRP, which only defines it as an option.

The Unified Command is discussed in greater detail in the NCP, which establishes the coordinated FSL response to the accidental or intentional release of hazardous substances, oil, pollutants, and contaminants into the environment. A Unified Command is the designated response structure per the NCP. The dominant agencies in the NCP-driven response are the USCG and EPA at the Federal level, environmental agencies and health departments at the State level, and emergency responders on scene.⁷³ The NCP proposes the Unified Command as the:

Basic framework for the response management structure...that brings together the functions of the Federal government, the State government, and the responsible party to achieve an effective and

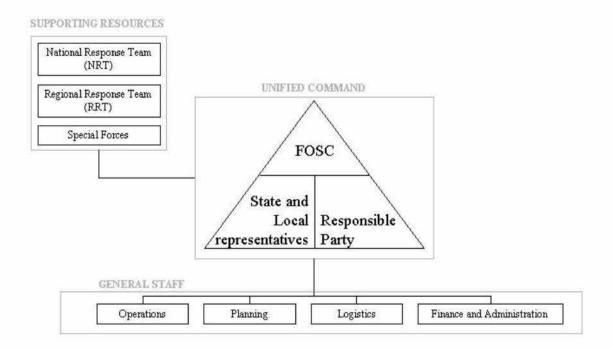
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⁷³ In situations in which the release involves private corporations or facilities, the responsible parties will also be part of the response.

efficient response, where the [On-Scene Coordinator] OSC maintains authority. 74

In a response managed under NCP authority, the Federal On-Scene Commander (FOSC) holds primary responsibility for directing response activities and coordinating efforts related to the detection and mitigation of the release. Except in limited situations, the FOSC is a regionally based official predesignated by the EPA or USCG. The State is usually represented in the Unified Command by its environmental agency. The notional organizational structure of the Unified Command in an NCP response is shown in Figure VI-3.

Figure VI-3. Notional Unified Command in an NCP Response



The supporting resources depicted in Figure VI-3 include two permanent elements, the National Response Team (NRT) and Regional Response Team (RRT). These two elements are responsible for planning and preparedness activities, and for providing advice and support in the event of an incident. NRT membership consists of representatives from USCG, EPA, FEMA, DoD, Department of Justice (DOJ), Department of Energy (DOE), U.S. Department of Agriculture (USDA), Department of Commerce (DOC), HHS, Department of Interior (DOI), Department of Labor (DOL), Department of Transportation (DOT), Department of State (DOS), the Nuclear Regulatory Commission (NRC), and General Services Administration (GSA). RRT membership consists of designated representatives from each of the Federal agencies

⁷⁴ U.S. EPA, National Oil and Hazardous Substances Pollution Contingency Plan, §300.105(e).

participating in the NRT, as well as State officials. If agreed on by the States, local government representatives may also participate. Regional representatives from the EPA and USCG co-chair the RRT, except during activation, when the chair is a representative from the agency providing the FOSC. 75

The RRT is the regional coordination element for NCP planning and implementation. During a response, the RRT advises and supports the FOSC by monitoring the situation, providing subject-matter expertise and recommending specific actions. The NCP calls for the FOSC to consult regularly with the RRT as appropriate. Incident-specific RRTs may be activated upon request from the FOSC, from any RRT member, or by the RRT chair. Such activation is likely if the incident exceeds the response capability of the FOSC, if it transcends State boundaries, if it poses a substantial threat to public health or the environment, or if it is a worst-case discharge as described by law.

The authorities and responsibilities referenced in the NCP are required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Public Law 99-499 and by section 311(d) of the Clean Water Act (CWA), 33 U.S.C. 1321(d), as amended by the Oil Pollution Act of 1990 (OPA), Public Law 101-380. Response actions undertaken via CERCLA and the NCP do not require declaration of an INS or a Stafford Act declaration, but rather have their own notification mechanism and funding stream. As a result, the FOSC has independent authority under the NCP to respond to HAZMAT incidents and initiate response activities. The FOSC has the authority to go directly to the Federal agencies identified in the CERCLA to request assistance and resources in their respective areas of expertise. To obtain support not otherwise available under the NCP, the FOSC may request Federal assistance from DHS via the Federal-to-Federal support mechanism available under the NRP.

The NRP and NCP acknowledge the potential for concurrent implementation. In the event that an NRP response is underway, the plans call for the FOSC to carry out his/her responsibilities under the NCP while coordinating with the FCO to ensure consistency with other Federal disaster assistance activities. The NRP contains two annexes that address concurrent implementation of the two plans:

- ESF #10—Oil and Hazardous Materials Response Annex, which applies when ESF #10 is activated; and
- Oil and Hazardous Materials Incident Annex, which applies when ESF #10 is not activated.

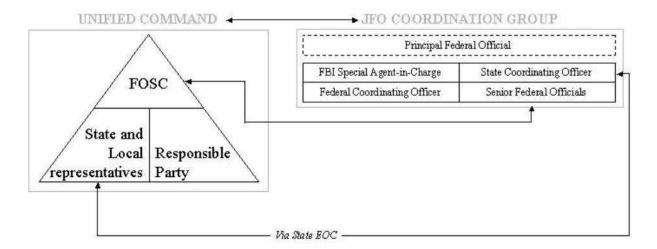
Federal agency may be identified as the lead and will designate its own FOSC.

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⁷⁵ The FOSC is the Federal official pre-designated by the EPA or the USCG to coordinate and direct the NCP response, with EPA taking the lead for inland incidents (or those affecting inland and coastal areas) and USCG taking the lead for incidents occurring on or near the coast. In limited situations, another

Most INSs involving the release of oil or hazardous materials will include Stafford Act declarations and the resulting activation of ESF #10. In those situations, the FOSC coordinates NCP response activities with the Federal actions via ESF #10 and the ESF #10 Senior Federal Official (SFO) in the JFO Coordination Group. If the INS does not include a Stafford Act declaration, the agency leading the NCP response provides an SFO at the JFO through whom activities will be coordinated. Either way, the FOSC typically communicates with the SFO, who coordinates with the PFO and/or FCO. In both cases, the NCP-style Unified Command communicates with the JFO Coordination Group. The lines of connectivity between the Unified Command and JFO Coordination Group are illustrated in Figure VI-4. The graphic does not illustrate the coordination effort between the Unified Command's General Staff and ESF #10.

Figure VI-4. Connectivity Between UC and JFO Coordination Group During Concurrent NRP and NCP Implementation



C. Reconstruction

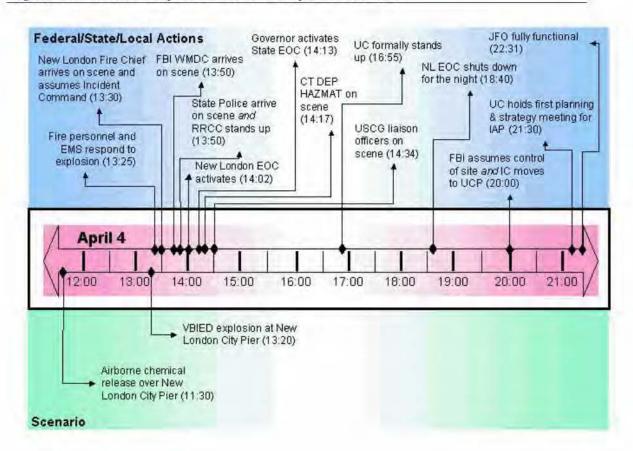
At 13:20 on Monday, April 4, a truck exploded at the City Pier in New London, CT. Local emergency personnel responded to the incident site shortly after the explosion. At 13:30, the New London Fire Chief arrived on scene and established an IC to direct a coordinated response of fire, police, and EMS personnel. As other agency representatives arrived on scene over the next two hours, they checked in with the IC to determine how best to provide support. At 14:20, the IC initiated activation of an off-site command post to be staffed according to ICS guidelines, with operations, planning, logistics, and finance and administration branches. Command and control formally shifted to a Unified Command at 16:55, and plans were made to move to the off-site UCP to be located at the National Guard Armory a few miles away from the incident site. At 19:45, the IC announced his demobilization strategy for local assets on site, determining that once all patients were treated, the initial responders would depart, the FBI would take control of the scene, and the Unified Command would transition to the off-site UCP. The last live victims were removed from the incident site at 20:00, after which EMS and local fire

personnel demobilized, and the FBI began setting up its crime scene. The Unified Command fully activated at the armory at 21:30 with a planning and objectives meeting of the principals.

Concurrent to the response and ramp-up on site, other emergency response organizations at the FSL levels were activated. The New London EOC stood up at 14:02 and established communications with police officers at the incident site and with the Area IV Coordinator for the State. The Governor activated the State EOC shortly thereafter at 14:13. The FEMA Region 1 RRCC stood up at 13:50, while the JFO assumed control of Federal response coordination at 22:31.

Figure VI-5 illustrates the key events in the ramp-up to a Unified Command.

Figure VI-5. Transition from an IC to a Unified Command



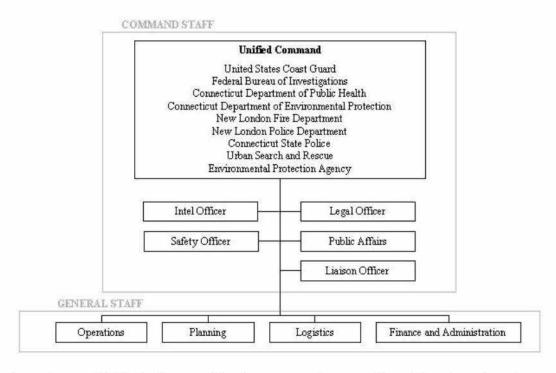
The agencies represented in the Unified Command on April 4 were:

- New London Fire Department
- New London Police Department
- CT State Police
- CT DEP
- CT DPH
- DHS/USCG
- FBI

On April 5, Urban Search and Rescue (USAR) joined the Unified Command to coordinate its recovery operations at the incident scene. EPA joined to facilitate the assumption of responsibility for remediation of the chemical release.

The Unified Command general staff was comprised of representatives from the USCG, EPA, CT DPH, U.S. Public Health, and NDMS among others. Figure VI-6 shows the organizational chart for the UCP during the T3 FSE.

Figure VI-6. CT Unified Command Organizational Chart as of April 5



Once activated, the Unified Command's focus turned to setting objectives for the response effort and planning activities for the upcoming operational period. Following the 21:30 strategy meeting, members drafted an IAP to start at 08:00 on April 5 that included an air monitoring and sampling plan to begin testing for the extent of the contamination. The IAP was approved at 06:30 on April 5, during the morning meeting

of the Unified Command. At that time, the FBI notified planners of the need to rework the sampling plan to account for site closure for evidence collection. At 14:30 that afternoon, HAZMAT units from EPA, USCG, and CT DEP notionally began executing their sampling plan in the neighborhoods around the incident site. Actual sampling efforts continued onsite until 14:36 on April 6, when the hazard area was fully understood and test results indicated greatly reduced concentrations of mustard.

D. Consequence

The Unified Command concept adds flexibility to an incident response by providing the construct for integrated decision making and coordinated operations. The response in Seattle, WA, during the T2 FSE resulted in the establishment of an onsite Unified Command; however, no detailed analysis of that organization was completed to allow comparisons with T3. Experiences in the T3 FSE suggest additional clarification of roles, responsibilities, and processes is required to make the Unified Command a more effective participant in response efforts.

The following areas were problematic for the Unified Command during the T3 FSE:

- maintaining oversight and awareness of activities at the incident site;
- integrating with the other emergency response operating centers;
- aligning response efforts pursued under the authorities of the NCP with the NRP activities and structures; and
- understanding the scope of its responsibilities.

Maintaining oversight and awareness of activities at the incident site was an issue for the Unified Command for three key reasons. First, there was no formal process in place to share information between the incident scene and the UCP. Instead, the Unified Command relied on direct reporting from senior representatives of the agencies still on the scene. Second, agency presence and participation in the off-site UCP was inconsistent, particularly among agencies still operating at the incident site. Third, there appeared to be a lack of buy-in or understanding among all responding agencies as to the purpose and operating mechanisms of the Unified Command. These explanations indicate the need for full-time agency representation in the UCP and/or specific processes for moving information from the site to the command post and vice versa. More discussion and documentation of the Unified Command concept at the Federal level may help promote support for and understanding of the ad hoc field organization.

Poor coordination between the Unified Command and the local EOC resulted in the virtual exclusion of the latter from the response effort and the use of alternate information flow processes for coordination with the State. This may have been partially due to an exercise artificiality, but there are also indications that the Unified Command's focus of effort may have contributed to the problem. During the T3 FSE, the Unified Command primarily used Federal-to-Federal coordination and its NCP authorities to meet its needs. The processes for those approaches do not require any action from or coordination with local authorities. The NRP needs to reconsider the information flow processes that are set

up when a Unified Command implements the NCP and Federal-to-Federal support. As the alternative to the local IC, the Unified Command must also communicate with the local authorities and keep them apprised of the situation at the scene, even if their resources are no longer required. In particular, when an incident progresses beyond the capabilities of the local municipality and the State, and when the UCP is comprised of predominantly Federal agencies, there may be a tendency to bypass the local and State authorities; the Unified Command and State government need to make concerted efforts to keep local authorities involved in the response process.

Although the T3 FSE did not appear to have any significant problems attributed solely to the concurrent implementation of the NCP and NRP, participants and observers expressed concern that current doctrine does not sufficiently address the potential for duplication of roles, competition for resources, coordination of information, and transition from an NCP-only response to a joint NCP-NRP effort. The NRP annexes associated with concurrent implementation of the two plans require clarification and additional detail in the areas stated above. Furthermore, experiences in the T3 FSE suggest that the relationship between the RRT and ESF #10 is unclear. Further clarification as to the role of the RRT and its relationship to ESF #10 is needed.

Finally, efforts pursued by personnel at the UCP, objectives established by the Unified Command, observations made by data collectors and subject-matter experts, and comments by participants themselves indicate that the role of Unified Command is not clearly understood or sufficiently defined. Operators require a better understanding of the Unified Command's scope of responsibilities and role in the response operation relative to the local and State EOCs and the JFO.

E. Analysis

The focus of the analysis section is the role of the Unified Command as it relates to:

- the lack of integration between UCP and activities at the incident scene;
- poor coordination with State and local operations centers;
- concern about lack of alignment between NCP and NRP; and
- poor understanding of the scope of Unified Command responsibilities.

1. Lack of Integration Between UCP and Activities at the Incident Site

Evidence suggests there was minimal coordination between the UCP and activities at the incident scene. Agency representatives to the Unified Command were not always present or available at the UCP, and communications between the UCP and the incident site were insufficient once the local IC left the scene and turned the site over to the law enforcement investigation. This led to ineffective and wasted planning efforts at the UCP and tension among some Unified Command agencies.

For example, overnight on April 4, the DHS/USCG, EPA, and CT DEP drafted a site sampling and monitoring plan as part of the Unified Command's first IAP. That plan

assumed the HAZMAT specialists would have access to the site the next morning. However, there was no FBI presence in the UCP overnight, and the agency representatives charged with drafting the plan were concerned about scheduling remediation activities without FBI input. They attempted to reach the FBI Unified Command representative at the JOC overnight, but without success. When the FBI's representative to the Unified Command reviewed the plan on April 5, he informed the rest of the FSL agencies present that FBI control of the site would continue for most of the day, and sampling units would not be allowed to begin their on-scene efforts until evidence collection had concluded. Discussions about access to the site went to the JFO Coordination Group and PFO for resolution.⁷⁶

Analysis suggests three possible explanations for the poor coordination between the UCP and activities at the incident site. First, there did not appear to be a coordinated process in place to share information between the incident scene and the UCP. When the UCP formally activated at 21:30 on April 4, the only agencies at the incident site were FBI, State and local police, and USAR. The FBI and USAR representatives to the Unified Command returned to the UCP a few times each day to give updates and check in with the other agencies, but they were not present for most planning meetings or to support IAP development. As part of pre-exercise planning, the Unified Command developed an information flow plan for moving information from the UCP to other agencies, but it does not appear that such thought was given to the incident site. Rather, UCP members seemed to assume that those agencies with personnel still at the scene would provide sufficient representation in the UCP to facilitate coordination.

The second potential explanation for poor coordination between the UCP and site activities is that agency presence and participation in the UCP varied throughout the exercise. The local fire and police representatives stood down at 15:00 on April 5, when all emergency operations at the incident scene had concluded, and the departments had no assets still participating in the response. The State Police and FBI did not have personnel in place to staff the off-site UCP 24 hours each day. Instead, the FBI Supervisory Special Agent (SSA) for the incident site was dual-hatted as the FBI representative to the Unified Command. His responsibilities of managing the FBI efforts at the scene would not permit him to commit to a full-time presence at the off-site UCP. This was especially problematic, considering the FBI was the lead response agency once the local IC demobilized his assets and the response shifted from emergency efforts to evidence collection. Senior representatives from CT DEP, CT DPH, EPA, and DHS/USCG appeared to be present in the UCP throughout the duration of the response, and as a result, they drove the UCP efforts toward their focus areas. The UC anticipated the presence of other agencies on a full-time basis which did not occur.

Finally, the coordination problems may have been the result of a lack of buy-in by all agencies to the Unified Command concept in general and the establishment of an off-site UCP in particular. There was disagreement about the need for an off-site UCP and the

⁷⁶ Other implications of this issue are discussed in the chapter on Agent Confirmation and Hazard Area Definition.

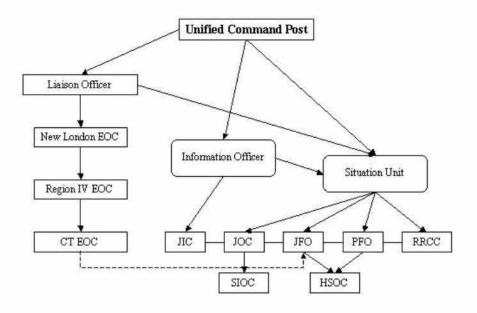
potential overlaps between its activities and those of other operating centers in the response. For example, the FBI SSA appeared to be surprised to learn of the existence of the UCP at the armory, expressing to a data collector his impression that "The UCP was at the JOC." This reveals a lack of understanding about the scope of the Unified Command and about the difference between the JFO/JOC and the Incident Command Post, which is further discussed in a later section of this chapter. The Incident Management Assist Team (IMAT) composed only of Coast Guard members, was the driving force behind the organization of the UCP and UC staff. Several other agencies were invited to participate in the UC staff, but did not send representatives.

2. Poor Coordination with Local and State EOCs

Information about plans, activities, and resource needs did not filter up from the Unified Command through the local and State EOCs, as designed by the NRP. Instead, once the Unified Command stood-up, the New London EOC was largely excluded from the response effort. Interactions and communication between the State EOC and the Unified Command appeared to be primarily through agency representatives present in both locations or through the JFO.

In accordance with the NRP, the ICP/UCP coordinate, through the local EOC, official state/local requests for Federal assistance as depicted in Figure VI-2. Prior to the start of the T3 FSE, the FOSC oversaw development of an information flow plan for the Unified Command that expanded on the NRP's structure for both Federal-to-State and Federal-to-Federal responses. That plan called for a liaison officer in the UCP to serve as the primary point of contact with the New London EOC. The plan is illustrated in Figure VI-7.

Figure VI-7. T3 Information Flow Plan, Designed by the Unified Command



Although the initial plan provided a means of communication from the UCP to the New London and State EOCs, the reality was that the New London EOC was largely shut out of the Unified Command's response efforts, and information flow to the State instead went through State agencies represented in the UCP (e.g., CT DPH and CT DEP). This may be partially because the local EOC closed at 18:40 on April 4, almost three hours before the UCP fully activated. Therefore, the UCP was forced to bypass the locals from the beginning and to find alternative ways of moving information to the State. By the time the New London EOC reopened on the morning of April 5, the alternative information flow processes were already in place.

A second potential explanation for the lack of communication and coordination between the UCP and the local and State EOCs may lie in the Unified Command's focus of effort. When the IC turned over control of the site to the FBI, field activities shifted to evidence collection, and efforts at the UCP itself shifted to remediation planning. The FBI and State Police coordinated their evidence collection onsite, and the remediation efforts fell under both the Federal-to-Federal response category in the NRP and the EPA/USCG authorities of the NCP. As was illustrated by the dashed line in Figure VI-2, in a Federalto-Federal response, the NRP calls for the UCP to coordinate directly with the JFO. The NRP also requires direct coordination between the FOSC and ESF #10 in the JFO. Per the NCP, coordination of remediation activities with the State is meant to occur at the agency level, usually by the State environmental agency. It is not unusual, therefore, for that agency to serve as the conduit of information to the State's leadership in an NCP response. All three of these doctrinally established communication and coordination processes do not include direct links with the local EOC. This may have resulted in communication difficulties during the exercise. The result for the T3 FSE was that, while it would have been appropriate to inform the local EOC of what was going on, the Unified Command's primary efforts did not require any action from the New London authorities, and allowed for alternative information flow processes per doctrine.

It should also be noted that the New London EOC, as is likely with most local governments, does not have the personnel to provide liaisons with the State or Federal command posts/operating centers. During the initial stage of the response, the New London EOC was apprised of the situation and the actions being taken by the local police and fire department personnel on the scene and the 911 dispatcher. Once those elements left the scene and left the response effort as a whole, the locals had no formal representation anywhere in the response chain. The result was not just exclusion by the UCP, but also by the State and JFO. The situation was exacerbated in Connecticut by the lack of a direct line of communication between the local EOC and State EOC. Instead, all communications flowed through an Area Coordinator. The New London EOC made numerous resource and information requests of the State through the Area Coordinator, but responses were consistently slow or nonexistent. For example, a request for all-terrain vehicles took almost two hours to reach the State EOC, which responded that the request would take six hours to fulfill—well outside the needed response timeframe. Another example of poor communication between operating centers and the local EOC is the fact that the New London EOC learned via VNN when the Governor raised the threat level, declared a state of emergency, and issued the shelter-in-place advisory in New London.

3. Concern About Lack of Alignment Between NCP and NRP

Limited evidence from the T3 FSE exists to suggest there were problems with concurrent implementation of the NRP and NCP. This evidence largely focuses on confusion over the role of the RRT, resource request processes, and information flow. This evidence, combined with concerns expressed by exercise participants and observers over the alignment of the two plans, suggests the need for clarification and greater detail regarding how the two plans intersect, how to better integrate NCP response mechanisms with those of the NRP, and how to better coordinate the response efforts. Although ambiguities in these areas may not have caused noticeable problems during the T3 FSE, they appear to be of concern to the responding agencies and therefore merit further consideration.

a. Role of the RRT and its relationship with ESF #10

The ESF #10—Oil and Hazardous Materials Response Annex to the NRP—describes the relationships among the ESF #10, RRT, and FOSC as ones of support and coordination. But little detail is provided as to how this support and coordination would occur. The annex states:

- "During a response, RRTs deploy their respective agency response resources and provide assistance and advice to the Federal OSC(s)."
- "During an incident, the RRTs coordinate with the NRT and provide support to the Federal OSC."
- "To the extent possible, support agency representatives to ESF #10 should be those personnel also assigned to the NRT or RRT(s)."
- "Either the EPA or DHS/USCG Co-Chair of the RRT serves as the regional lead for the ESF [#10], depending upon which agency is primary agency."
- "The regional lead for ESF #10, in coordination with the OSC, consults the RRT for advice or assistance, and establishes appropriate mechanisms for the RRT to coordinate with the JFO during an incident as needed."
- "Upon identification of actual or potential releases of oil and hazardous materials, the regional lead for ESF #10 closely coordinates with the OSC(s) and the RRT (if convened) to develop and implement a response strategy."

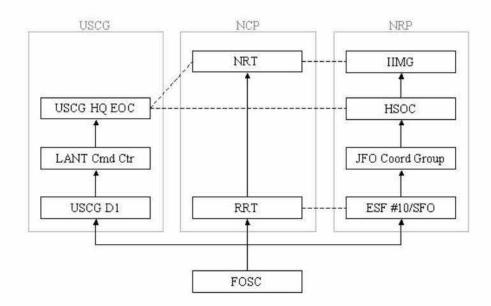
These six statements represent all of the guidance that the annex provides regarding the relationship between the RRT and ESF #10. Yet the two teams are very similar on paper. They both include representatives from EPA and USCG, as well as any other agencies with responsibilities in oil and hazardous material releases. They both provide guidance and subject-matter expertise to the FOSC. ESF #10 alone serves as the coordination point for the FOSC to align NCP response activities with the rest of the Federal efforts, whereas the RRT connects NCP efforts on the ground with policy and strategy decisions by the NRT.

The lack of understanding of and clarity on the role of the RRT caused confusion for the USCG FOSC in terms of reporting requirements and where to go to seek guidance. The FOSC was under the impression that he had to keep both the RRT and ESF #10 updated

on the situation—a dual reporting burden for his staff. Additionally, he was concerned with seeking technical advice from both organizations and potentially receiving conflicting guidance. A late afternoon conference call on April 4 between the ESF #10, FOSC, and RRT attempted to clarify the role of the RRT and the means of coordination among the three groups. The decision was made to integrate the RRT into the response process via the SFO in ESF #10. Despite this apparent resolution, uncertainty persisted. On April 6, the FOSC forwarded a request to the RRT, suggesting that it coordinates with ESF #10 to establish a panel of experts to advise the Unified Command on the environmental effects of mustard and the remediation requirements. This justification for the request was to reduce the reporting requirement and the possibility of conflicting recommendations.

In fact, the FOSC in the T3 FSE had a triple-stranded reporting requirement—his internal agency chain, the NCP reporting chain, and the NRP strand. These three reporting chains are shown in Figure VI-8. The dashed lines represent points where the NRP Annex suggests there should be coordination.

Figure VI-8. FOSC Reporting Chains During T3 FSE



The lack of understanding on the role of the RRT and its relationship with ESF #10 caused confusion. The activation of both the RRT and ESF #10 appeared redundant, which increased confusion, raised concerns over conflicting advice, and appeared to add to the FOSC's reporting burden.

b. Overlapping Funding Streams and Resource Requests

The NCP implements the response authorities and responsibilities granted by the CERCLA. Agencies leading NCP response efforts have access to CERCLA funding and the authority to request additional Federal support as needed. NCP actions do not require

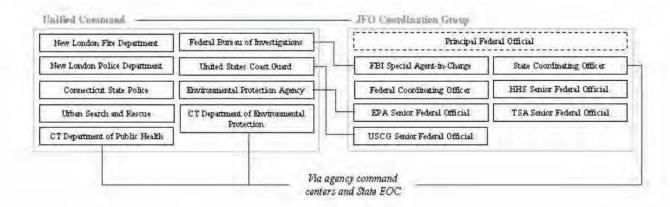
Stafford Act funding or approval by the FCO via the FEMA ARF-MA process, As a result, there is the potential for duplicate resource requests from the NCP agencies at the UCP and from the FEMA structure at the JFO, as well as the potential for the FOSC to direct Federal resources controlled by the FCO. The process in place to prevent such overlaps is UCP coordination via ESF #10, as discussed in the NRP annexes and referenced previously. The T3 FSE data reveal no specific examples of competition for resources between the FOSC and FCO or dual requests. However, requests for resources by the Unified Command under NCP authorities and under the Federal-to-Federal request process of the NRP did add to the confusion among the various operating centers regarding what assets were being requested, who was requesting these assets, and the status of those requests.⁷⁷ This suggests that coordination of resource requests by the Unified Command via ESF #10 either did not occur or was insufficient. Internal AARs, exercise observations, and comments to data collectors note the potential for problems and indicate that additional clarification of authorities and coordination mechanisms are needed for FOSCs and FCOs to avoid conflicts in directing Federal resources and to maintain awareness of each other's resource requests.

c. Coordinating Mechanisms and Information Flow

The way the NCP was implemented in this exercise changed the information flow and coordination processes established in the body of the NRP. Figure VI-2 highlighted the basic principle of NRP information flow from the IC or Unified Command through the local EOC, to the State EOC, and on to Federal agencies at the JFO. Activation of the NCP inserts a different information flow process into the mix, from the Unified Command directly to the JFO.

Figure VI-9 applies the connectivity construct developed in the NRP annexes to the UC and JFO in Connecticut during the T3 FSE.

Figure VI-9. Connectivity Between the Unified Command and JFO Coordination Group in Connecticut



⁷⁷ This issue is discussed in greater detail in the Resource Allocation chapter of the AAR.

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The NRP annexes associated with NCP implementation with and without ESF #10 activation are the only location in the former document where it indicates that the Unified Command should be coordinating and communicating directly with the JFO and JFO Coordination Group. The information flow process implemented during concurrent NRP and NCP implementation has too many points of connectivity between the UC and the JFO Coordination Group, while potentially excluding the local and State EOCs. For example, on April 5, the UCP made a direct request of ESF #10 to assist in the relocation of small businesses affected by the incident. This request did not go through the State EOC or the normal JFO route. The presence of so many nodes can lead to poor information control and could confuse the operating picture.

4. Limited Understanding of the Scope of Unified Command's Responsibilities

The focus of an IC is direct control of tactical operations. As the multijurisdictional or multiagency replacement for an IC, the common assumption is that the Unified Command's purview is also tactical operations on scene and the response efforts related to management of the incident site. Traditionally, all other local concerns fall to the local EOC. Neither NIMS nor the NRP specifies any change in the Unified Command's purview in WMD responses; when a "site" may not be clearly defined or identified; when tactical operations may rapidly conclude; or when State and Federal organizations may play a larger role.

Per the ICS and NIMS, IC/Unified Command are responsible for establishing priorities and objectives for the incident response. The IC's focus in Connecticut was on treating victims and securing the scene. The response by emergency personnel involved medical triage, victim recovery and transport, verification of the presence and identity of a contaminating agent, and decontamination of victims and personnel. The New London Fire Chief supervised and directed local emergency responders and State and Federal assets in the relevant activities to meet these objectives. Once the emergency response concluded the night of April 4, the focus of the Unified Command shifted from emergency response to evidence collection and remediation. The Unified Command laid out its objectives in IAPs covering the planned activities over the next operational period (24 hours).

Many of the response activities and support pursued by Federal and State agency representatives at the UCP appeared to go beyond tactical operations at the incident site. UCP representatives from the U.S. Public Health Service Commissioned Corps and the NDMS were involved in tracking victim numbers, resolving bed availability issues, and facilitating requests for Disaster Mortuary Operational Response Team (DMORT). Members of the UC developed a risk communications plan in case of an evacuation, and issued recommendations for the public to the State EOC and JFO with regards to outdoor activities. On April 6, the Unified Command established a new team in the Operations Section to evaluate Maritime Security (MARSEC) measures on commercial shipping and develop responses to adverse effects.

In general, the role of the Unified Command is not well understood in an NRP response effort. The Unified Command concept is introduced in NIMS as an alternative or transitional option from a single IC. But it is not given much consideration in the NRP, which simply defines it without explaining the transition from IC to Unified Command, the determination of membership, the coordinating functions, the avenues for conflict resolution among members, or the scope of its responsibilities. The lack of a clear definition of the Unified Command's scope was apparent in the UCP activities in T3 and in comments from participants during and after the exercise.

5. Issues from Previous Exercises

Table VI-1 summarizes the observations from SOEs and the T3 FSE with regard to emergency response operations under a Unified Command. Note that the T2 AAR did not identify any issues with respect to response operations under a Unified Command.

Table VI-1. Comparison of T3 FSE with Previous Exercises

SOEs	T3 FSE
ISSUES	OBSERVATIONS
Officials expressed general concern about the concurrent implementation of the NRP and NCP.	 Doctrinal details were insufficient regarding concurrent implementation of the NRP and NCP, and the resulting duplication of roles, competition for resources, and coordination of information. Activation of both the RRT and ESF #10 appeared to be redundant and complicated matters for the FOSC.
	The Unified Command did not maintain clear oversight and awareness of activities at the incident site to ensure effective planning.
	 Agencies in the Unified Command did not have full-time representation at the UCP, which hampered integrated planning and coordination of operations.
	Response operations pursued by the Unified Command bypassed the established information flow process through the local and State EOCs.
	The Unified Command's scope of responsibilities was not clearly understood.

F. Recommendations

- Encourage members of the Unified Command to provide full-time representation in the UCP.
- Establish clear procedures for information sharing and coordination between the UC at the Incident Command Post, the JFO Coordination Group, and state/local EOCs (separate from procedures for processing resource requests)
- Develop standard operating procedures for concurrent implementation of the NRP and NCP that expand on the coordination methods identified in the NRP annexes. Include how to transition between an NCP-only response and a concurrent NCP-NRP effort.

- Clarify and document the role of the RRT and its relationship with ESF #10.
- Expand the NRP to include discussion of the Unified Command, its scope of responsibilities, and interactions with other emergency response centers.
- Expand NIMS to include more detail on the Unified Command.
- Develop standard operating procedures for the Unified Command that detail the transition from a single IC, the determination of membership, the coordinating functions, the avenues for conflict resolution among members, the determination of location (e.g., offsite or on-site), and the scope of its responsibilities.
- Develop criteria for an IC to use to determine the circumstances under which it is appropriate to stand-up a Unified Command.
- Recommend position-specific Incident Commander training for all potential Incident Commanders.
- Discuss the development of a National IMAT made up of interagency members, instead of a Coast Guard-only IMAT.

Part 6: Conclusions

This section summarizes the primary issues or observations and recommended courses of action associated with each of the ten analysis topics. Next to each recommended course of action is a designation of whether this is a National Response Plan (NRP)-related issue, policy issue, procedural issue, planning issue, organizational issue, information-sharing issue, or public information issue.

I. Homeland Security Advisory System (HSAS), State Threat Conditions, and Associated Protective Measures

Issues/Observations

- Real-world and exercise elevations of the HSAS level to Orange and Red indicate that implementation of the HSAS is not systematic.
- There does not appear to be a formal mechanism for coordinating, reporting, and tracking changes to HSAS and State threat levels and implementation of associated Federal, State, local (FSL), and private sector protective measures.
- The absence of a mechanism for coordinating the implementation of protective measures can contribute to an uncoordinated response.
- Unintended consequences of implementing HSAS Red protective measures are not well understood.
- Officials in the T3 Full-Scale Exercise (FSE) used the HSAS and State threat conditions as a means of facilitating emergency response operations more than as a threat advisory system.
- Inconsistent messages and little specific public guidance limit the value of the HSAS as a warning/advisory system.

- Develop a formal process for coordinating and tracking implementation of severe (or Redlevel) protective measures across FSL government agencies and the private sector. (Procedural)
- Provide more specific guidance regarding actions recommended under the different colorcoded threat conditions and link the levels to specific protective measures. (Information Sharing)
- Re-examine and refine the potential purposes of the HSAS: (1) public warning and advisory, (2) attack prevention, and (3) emergency response. (Policy)

II. Joint Field Office (JFO) Operations

Issues/Observations

- Lines of authority and coordination among the Principal Federal Official (PFO), Federal Coordinating Official (FCO), and JFO sections were unclear and hampered the efforts of the JFOs in Connecticut and New Jersey.
- The relationship between the PFO and FCO is not formalized, and final authority over the JFO cell was unclear.
- In Connecticut, the PFO cell duplicated many of the capabilities and much of the expertise
 resident in the JFO sections, but lacked its own clear purpose or it delineated
 responsibilities. This often resulted in overlapping or competing activities occurring in the
 PFO cell and the JFO sections.
- The JFOs did not follow standard processes for sharing information internally.

- Clarify the relationship between the PFO, PFO cell, and FCO, including the scope of their
 operational responsibilities and their authorities within the JFO. (NRP)
- Develop a checklist to manage the integration of the PFO cell with the JFO sections once the latter is fully activated. (Procedural)
- Implement formal information-sharing processes and procedures within the JFO to improve internal situational awareness. Identify, train, and authorize an individual to manage the JFO and information-sharing processes. (Procedural)

III. Resource Requests and Resource Coordination

Issues/Observations

- The use of multiple resource processes created uncertainty and adversely affected situational awareness.
- State and Federal officials struggled with the implementation of the Federal resourcing process.
- The role of the Department of Health and Human Services (HHS) Secretary's Emergency Response Team (SERT) was not well-defined or understood by participants. At times, the SERT duplicated functions performed by Emergency Support Function (ESF)-8 in the JFO.
- Information about the status of resources was not readily available, and the process lacked transparency.

- Develop a unified Federal emergency resourcing process that supports resource requests from the State under the Stafford Act and resource requests for Federal-to-Federal support under other Federal authorities. (NRP)
- Provide States with a team of subject matter experts who are knowledgeable on Federal capabilities and the resource requesting process. (Organizational)
- Document the mission assignment process more thoroughly in the NRP. (NRP)
- Clarify the role of the SERT during emergencies. Consider using the SERT to augment ESF-8 at the JFO or deploying the SERT to the State Department of Health to provide subject matter expertise in identifying and requesting Federal medical support. (Organizational)
- Make information about resource requests readily available, including what resources or capabilities were requested, who made the request, how the request is being funded, and its current status. (Information Sharing)

IV. Information Sharing

Issues/Observations

- Information systems used in T3 were largely stovepiped within agencies and/or response communities.
- The vast number of operating centers negatively affected information sharing by increasing the scope and complexity of the problem.
- The use of informal or alternate channels for sharing information caused problems by enabling circular reporting and bypassing authoritative sources.
- The T3 FSE revealed a lack of uniform reporting guidelines and procedures for validating information received from secondary or tertiary sources.
- Agencies and operating centers acted and made decisions on different information.
- Situational awareness was not effectively shared across operating centers and agencies.

- Support the development of interoperable information systems and/or a suite of emergency response/management applications that can be used across response communities. (Information Sharing)
- Consider development of a DHS field operations guide that lists radio frequencies/preferences of federal, state and local responders to expedite the development of communications plans. (Information Sharing)
- Assess the roles and responsibilities of each Federal operations center and consider reducing the number of operating centers, consolidating them, or co-locating personnel. (Organizational)
- Require that reports of casualty numbers include a clear description of the information being conveyed. (Information Sharing)
- Identify key terms that are likely to appear during a Weapons of Mass Destruction (WMD)
 response, standardize their definitions, and disseminate the information across the entire
 response network. (Information Sharing)
- Establish mechanisms to update and disseminate new definitions during response operations. (Information Sharing)
- Identify and define the overlapping essential elements of information (EEIs) required by all the response communities. (Information Sharing)
- Establish specific reporting protocols and guidelines for all levels of government.
 (Procedural)
- Identify the authoritative sources for EEIs and what EEIs should be included. (Organizational)
- Identify an operating center at each level of the response to act as the "keeper of the critical information." (Organizational)
- Develop protocols for horizontal and vertical coordination (i.e., horizontally across one level of government and vertically between levels) to align the operational pictures developed and maintained by different operating centers and agencies. (Procedural)

V. Stafford Act Declarations

Issues/Observations

- It remains unclear whether an incident with a non-explosive biological, chemical, or radiological weapon would fit the definition of a major disaster under the Stafford Act.
- Other Federal programs may provide assistance in lieu of a major disaster declaration.
- The Stafford Act provides for the possibility of exceeding the \$5 million limit set for an
 emergency declaration; therefore, reaching that limit is unlikely to result in significant
 impacts on response spending.
- Lack of detailed information to agency staffs on verbal approvals of presidential declarations caused initial uncertainty at the National Response Coordination Center (NRCC), Regional Response Coordinating Centers (RRCCs), and State Emergency Operations Centers (EOCs) in Connecticut and New Jersey.

- Determine the applicability of a Stafford Act major disaster declaration to non-explosive incidents involving WMD, particularly those involving a large-scale bioterrorism incident. (Policy)
- If these types of incidents do not fit the definition of a major disaster declaration, determine
 whether exemptions within the Stafford Act for Emergency Declarations and other Federal
 programs can result in an equivalent level of assistance. If they can, ensure that States are
 aware of them. (Policy)
- If the Stafford Act major disaster declaration does not cover these types of incidents and equivalent Federal assistance is not available through other means, pursue legislation to address this problem. (Policy)
- Until legislation is passed that would allow these types of incidents to receive the full range
 of Federal assistance provided under a major disaster declaration, identify other Federal
 programs that may be able to provide assistance, and ensure that States are aware of them.
 (Procedural)

VI. Emergency Public Information

Issues/Observations

- Numerous tools, prompted by lessons learned during the T2 FSE, were implemented in T3, including a Ready Room, National Incident Communications Conference Line (NICCL), and public affairs guidance.
- FSL agencies used a variety of means to reach the public; made joint public statements; and actively worked to combat rumors, consistent with the NRP and Incident Communications Emergency Reference (ICER) guidance.
- In New Jersey, public messaging occurred largely at the State level with little coordinated local visibility. Local top officials were more visible in Connecticut.
- FSL agencies may still not be prepared to provide swift, accurate, consistent lifesaving protective action guidance to the public.
- The operations of multiple Joint Information Centers (JICs) were not always coordinated, and there was no evidence of use of a Joint Information System (JIS).
- DHS' pre-exercise coordination with international participants may be a model for coordinating international incident communications in a terrorist attack.

- Develop the mechanisms to prepare FSL top officials to provide swift, accurate, comprehensive, and consistent potentially life-saving protective action in a terrorist attack with time-sensitive implications such as the scenarios used in T3.
- Develop a supporting concept of operations (CONOPS) to complement ESF-15 and Public Affairs Annexes of the NRP and the ICER, and to provide more specific operational implementation guidance for executing incident communications in the context of the NRP.
- Consider using future exercises to further test/refine protocols (which could be documented
 in the CONOPS), and educate stakeholder organizations on how incident communications
 coordination mechanisms, such as the NICCL, can be used to promote a common
 operational picture and coordinate message content when appropriate.
- Expand NICCL to an audio/visual forum that allows collaborative tracking of the evolving facts and message points.
- Expand DHS Public Affairs Guidance product to provide more specific message points, and consider linking it to NICCL updates.
- Establish primary information sources early in the incident, such as the State hotlines and websites in New Jersey and Connecticut.
- State governments should develop complementary incident communications plans for SNS
 distribution and work closely with all affected localities to ensure that the guidance to the
 public provided by localities is clear and comprehensive.

VII. Integrating Responses to Incidents of National Significance: Public Health Emergency and the Stafford Act

Issues/Observations

- Neither the NRP or the HHS CONOPS provides sufficient guidance for coordinating assistance for incidents that are concurrently covered under a Stafford Act declaration and a public health emergency.
- HHS does not have a detailed process for requesting and coordinating Federal-to-Federal assistance for public health emergencies.
- The funding capabilities of HHS and the funding responsibilities of States and other Federal
 agencies are unclear under a public health emergency.

- Clarify the process for Federal-to-Federal support for non-Stafford Act assistance in
 conjunction with a Stafford Act declaration. Determine whether the action request formmission assignment (ARF/MA) process can be used to request resources under other Federal
 authorities and how to coordinate those requests with the JFO. (NRP)
- Develop a transition plan for coordinating incidents that start under non-Stafford Act authorities, but later grow to include a Stafford Act declaration. (NRP)
- Clarify the process for Federal-to-Federal support under a public health emergency. Include
 how HHS should coordinate with other Federal agencies, who is best suited for coordinating
 and tracking requests (e.g., HHS or the Federal Emergency Management Agency (FEMA))
 and what responsibilities other Federal agencies have to report to HHS. (Procedural)
- Clarify the funding capabilities and responsibilities of States, HHS, and other Federal
 agencies under a public health emergency. (Policy)

VIII. Strategic National Stockpile (SNS) and Points of Dispensing (PODs)

Issues/Observations

- The throughput of the real PODs fell short of the goal of 1,000 persons per hour, which was established in the *New Jersey Mass Prophylaxis Manual*. That goal was an important assumption behind the massive prophylaxis campaign adopted by the State.
- Timelines for establishing and staffing additional (notional) State and Federal PODs were most likely not achievable.
- The resources required to staff the nearly 400 State and Federal PODs were not identified and were probably unavailable in the given timeframe.
- Proposed locations of the notional Federal PODs were problematic. Postal facilities do not appear to be good candidates, and the Health Resources and Services Administration (HRSA) Centers are privately owned, not government owned.
- The plan to provide prophylaxis statewide evolved during the course of the exercise and did not appear to reflect a pre-planned and carefully integrated Federal and State response.
- It is not clear that the Federal government has a strategy or plan for implementing its own system of PODs or for rapidly identifying and supplying staff to support State efforts in the event of a large-scale requirement.
 - o Efforts to coordinate the Federal and State distribution systems were ineffective.
 - Federal and State PODs followed different standards of care, with State PODs using more rigorous and resource-intensive standards.
- The use of fixed distribution sites as the sole approach to providing prophylaxis for a large number (millions) of people may be impractical.
- Some combination of fixed sites and other means of distribution, such as those being developed for the City Readiness Initiative (CRI), could be necessary to reach large numbers of people.

- Develop joint Federal and State scalable prophylaxis plans that address a requirement to reach very large numbers of people. Plans need to include a combination of approaches, including fixed sites and direct delivery of prophylaxis. (Planning)
- Expand the prophylaxis/planning practices and tools developed under the CRI to include regions and cities not currently covered. (Planning)
- Develop options and guidelines for conducting large-scale prophylaxis. (Planning)
- Determine whether the Federal government should be prepared to operate its own POD system in the event of a major public health emergency. (Policy)
- Develop Federal plans for quickly identifying and providing staffing resources to States to support large-scale prophylaxis implementation. (Planning)

IX. Agent Confirmation and Hazard Area Definition

Issues/Observations

- Specialized incident site response units did not exhibit a clear understanding of each other's roles, authorities, and SOPs.
- The lack of a formally defined information flow process from the incident site resulted in premature public messages and decision making about the identity of the chemical agent.
- The Interagency Modeling and Atmospheric Assessment Center (IMAAC) successfully provided a common plume picture for use by FSL officials.
- The IMAAC did not appear to have adequate procedures in place to deal with discrepancies or contradictions in inputs or modeling requests from various agencies.

- Clarify the various response organizations' roles and responsibilities at the incident site to include the timing of responsibilities and their value to the larger response operation. (Organizational)
- Clarify the formal information flow procedures from the incident site to the rest of the response organization and assert the authoritativeness of formal processes over informal information movement. (Information Sharing)
- Clarify the IMAAC processes for receipt and review of other modeling products and establish a protocol for other modeling agencies to distribute to their consumers on the purpose of their product and the guidelines for redistribution. (Information Sharing)
- Develop procedures on how the IMAAC should handle discrepancies in data inputs or product requests and identify a process to aid the IMAAC in deconflicting inputs. (Procedural)
- Clarify the responsibilities, authorities, and mechanisms for the IMAAC to formally
 disseminate critical information learned through its scientific analysis of the incident.
 (Information Sharing)

X. Emergency Response Operations under a Unified Command (UC)

Issues/Observations

- The UC did not maintain clear oversight and awareness of activities at the incident site to ensure effective planning.
- Agencies in the UC did not have full-time representation at the Unified Command Post (UCP), which hampered integrated planning and coordination of operations.
- Response operations pursued by the UC bypassed the established information flow process through the local and State EOCs.
- Doctrinal details were insufficient regarding concurrent implementation of the NRP and National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the resulting duplication of roles, competition for resources, and coordination of information.
- Activation of both the Regional Response Team (RRT) and ESF-10 appeared to be redundant and complicated matters for the Federal On-Scene Coordinator (FOSC).
- The UC's scope of responsibilities was not clearly understood.

- Encourage members of the UC to provide full-time representation in the UCP. (Organizational)
- Discuss the development of a National IMAT with interagency membership, as opposed to a Coast Guard-only IMAT. (Organizational)
- Establish processes for regular sharing of information with personnel at the incident site when an off-site UCP is established. (Information Sharing)
- Rework information flow processes involving the UC to include the local and State EOCs, even when using Federal-to-Federal support or NCP authorities. (Information Sharing)
- Develop standard operating procedures (SOPs) for concurrent implementation of the NRP and NCP that expand on the coordination methods identified in the NRP annexes. Include how to transition between an NCP-only response and a concurrent NCP-NRP effort. (NRP/Procedural)
- Expand the NRP to include discussion of the UC, its scope of responsibilities, and interactions with other emergency response centers. (NRP)
- Expand NIMS to include more detail on the Unified Command. (NIMS)
- Develop SOPs for the UC that detail the transition from a single Incident Commander, determination of membership, coordinating functions, avenues for conflict resolution among members, determination of its location, and scope of its responsibilities. (Procedural)
- Develop criteria for an Incident Commander to use to determine the circumstances under which it is appropriate to stand-up a UC. (Policy)

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Top Officials 3 (TOPOFF 3) Full-Scale Exercise (FSE)

Executive Overviewof Preliminary Findings and Assessment

(Classification consideration derived from DHS SCG SLGCP-001, January 2005)

July 8, 2005

Annex A: Executive Overview

I. Introduction

Top Officials 3 (TOPOFF 3) was a congressionally mandated, national counterterrorism exercise designed to identify vulnerabilities in the nation's domestic incident management capability by exercising the plans, policies, procedures, systems, and facilities of Federal, State, and local response organizations against a series of integrated terrorist threats and acts in separate locations in the northeastern United States.

The United Kingdom (ATLANTIC BLUE) and Canada (TRIPLE PLAY) conducted simultaneous, related exercises with overarching international exercise objectives to improve mutual response and preparedness against global terrorism. The three domestic scenarios were enhanced by incorporating events from the other two countries. The planning and execution of the three national exercises provided an excellent opportunity for international cooperation, networking of key responders, and sharing of information on each country's concepts of emergency operations.

The following report summarizes the preliminary findings/lessons of TOPOFF 3 and suggests remedial actions to address identified shortfalls. An official TOPOFF 3 After-Action Report (AAR) will be promulgated on September 30, 2005, providing a more extensive analysis of exercise actions against information recorded by exercise data collectors located at key emergency operation centers and exercise sites.

Major sources supporting this review included:

- Master Control Cell Interagency Hotwash
- Connecticut and New Jersey Venue Hotwash Comments
- United Kingdom and Canada Comments
- After-Action Conference (AAC) Out-Brief (Player and Planner)
- **HSC Comments**
- **DHS I-Staff AAR**
- **IIMG/HSOC** Comments
- **DoD Comments**
- T3 Quick-Look Report
- Large-Scale Game (LSG) Quick-Look

Exercise design, exercise play, and exercise review—the three major components of TOPOFF 3, were all cast in deference to the four major objectives of the Full-Scale Exercise (FSE):

<u>Incident management</u>: To test the full range of existing procedures for domestic incident management of a weapons of mass destruction (WMD) terrorist event and to improve top officials' capabilities to respond in partnership.

- <u>Intelligence/Investigation</u>: To test the handling and flow of operational and timecritical intelligence between agencies in response to a linked terrorist incident.
- <u>Public Information</u>: To practice the strategic coordination of media relations and public information issues in the context of a WMD terrorist incident.
- Evaluation: To identify lessons learned and promote best practices.

The issues presented here are divided into four broad categories:

- topics related to Federal, State, and local coordination;
- topics related to the execution of procedures detailed in the National Response Plan;
- topics related to environmental considerations resulting from a WMD incident; and
- topics related to international communications, coordination of response, and role responsibilities resulting from a WMD incident in the United States.

All have been validated as concerns worthy of remedial action/effort by the sources above and, in most cases, multiple sources.

The format used herein is:

- *Issue* (presented in abbreviated, but recognizable, form)
- **Discussion** (circumstances surrounding the issue)
- Recommendation (actions suggested as remediation for identified problem)

The collective of most of the resources listed above are posted on the DHS ESP portal in the T3 library documents section. Additional information can be gained though review of these sources or by contacting the SLGCP Exercise Director.

II. Executive Summary Overview

A. Federal, State, and Local Coordination Process

1. Emergency Declaration Process

Issue: Stafford Act declarations require comprehensive review.

Discussion: Entitlement differences between "emergency" and "major disaster" are inconsistent when applied against a multiple WMD attack.

Recommendation: Impose the more encompassing "major disaster" declaration for all significant terrorist events.

2. Coordination of Strategic National Stockpile

Issue: There was a perceived lack of coordination between FSL mass prophylaxis plans.

Discussion: Rapidly rising casualty numbers required officials to develop an ad hoc process to augment State prophylaxis plans.

Recommendation: Initiate interagency effort to examine existing SNS distribution plans.

3. Coordination of Federal and State Medical Response Plans

Issue: Perceived limitations exist relating to medical provider surge capability in response to WMD incidents.

Discussion: Gaps in organizational plans related to deployment of medical personnel affected the response to the incidents.

Recommendation: Initiate review of Federal, State, and local plans to validate medical surge capabilities.

4. Homeland Security Advisory System (HSAS)

Issue: Elevation of HSAS levels raised persistent questions, triggering critical time-consuming coordination hurdles.

Discussion: Operational consequences of the elevation of HSAS conditions need to be balanced against general public perception/public good.

Recommendation: DHS, in coordination with the HSC, should study the implications of revising the HSAS to align it more directly with the operational requirements surrounding the implementation of protective measures.

5. Private Sector Integration

Issue: Concerns were raised regarding communication between governmental and private sector organizations.

Discussion: Reported informational disconnects between FSL governmental entities and private sector suggests a need to accelerate recognition of the private sector in U.S. HLS effort.

Recommendation: Consider a more robust private sector integration strategy to facilitate full use of private sector resources in the national HLS effort.

6. Critical Infrastructure/Key Resources

Issue: Concerns surfaced over compatibly of Federal and State efforts in applying protective measures for land, sea, and air infrastructure and transportation resources.

Discussion: There appears to be inconsistency between Federal and State responses to the HSAS elevation as it affects Critical Infrastructure/Key Resources.

Recommendation: Revalidate Federal and State protection plans, especially regarding the transportation sector.

B. National Response Plan Issues

1. Statutory Authority

Issue: Concerns were raised regarding alignment of statutory authorities that predate DHS and the NRP.

Discussion: Uncertainty exists whether NRP guidance has been fully integrated into Federal procedures that predate DHS.

Recommendation: Conduct a review of all Federal statutes and agency response plans related to terrorist incidents and ensure the NRP guidance is fully integrated.

2. JFO/PFO Decision Making

Issue: The level of effectiveness of the PFO in facilitating coordination between Federal and State government in question.

Discussion: After-action assessment of exercise suggests a lack of understanding of the role of the PFO by key response personnel at all levels.

Recommendation: Direct enhanced NRP training for critical staffs (i.e., IIMG, HSOC).

3. JFO Integration

Issue: The PFO cell appeared isolated within the JFO.

Discussion: Full functionality of the PFO within the JFO was not realized in the area of coordinated Federal/State/local (FSL) messaging and deconfliction of interagency policy.

Recommendation: Further refine the definition of PFO roles and responsibilities. As necessary, review and revise the structure supporting the PFO and JFO. Develop/implement expanded staff training.

4. PFO Selection Process

Issue: The selection of a PFO already holding a key position within an affected region can prove detrimental to the response effort.

Discussion: The PFO selection process must compare the ramifications of having a qualified leader with existing relationships selected from the affected region with assigning a qualified individual from outside the region.

Recommendation: Develop a decision matrix that weighs all the pros and cons associated with the PFO selection.

5. Incident Reporting Requirements

Issue: The incident reporting process lacks standardization across the interagency realm.

Discussion: The misalignment and/or misinterpretation of the vital information being passed among "top officials" provides senior leadership with an ill-defined operational picture.

Recommendation: DHS to refine internal reporting process and lead a Federal coordination effort.

6. Information Management Systems

Issue: Shortfalls were evident in the information management processes used to support the response effort.

Discussion: The Homeland Security Information Network (HSIN) was clearly underused.

Recommendation: HSIN should be reviewed to consider its intuitiveness and user distribution.

C. Environmental Issues

1. Bio Watch Detection Timeline

Issue: The Current Bio Watch assessment process is labor-intensive.

Discussion: Improved Bio Watch monitors could possibly accelerate confirmative agent identification.

Recommendation: Initiate an evaluation of existing technologies for automated bio agent detection.

2. Bio Watch Monitor Coverage

Issue: Coverage for high-risk areas is limited by the number and placement of monitors.

Discussion: Bio Watch coverage is incomplete in areas evaluated as high-risk.

Recommendation: Consider expanding the number of monitors and review placement strategies.

3. WMD Contamination Management

Issue: Common WMD decontamination and cleanup standards have not been adopted across the Federal, State, and local realm.

Discussion: States and local jurisdictions affected will likely request Federal guidance/assurance.

Recommendation: DHS should accelerate development of consensus-based standards.

D. International Perspectives

1. International Incident Management Communications

Issue: Challenges were noted related to integrating domestic and international incident communications.

Discussion: The exercise demonstrated the importance of having the U.S. embassy serve as the focal point for international discussions, especially during a crisis response.

Recommendation: Clarify the role of the State Department in support of the context of incident management, enhancing international incident management communications.

2. Alert and Advisory Systems

Issue: Uncertainty existed regarding each nation's alert/advisory system.

Discussion: The impact of U.S. HSAS changes has a cascading effect on many international issues

Recommendation: Establish a working group to review and integrate international alert/advisory systems.

3. International Aviation Issues

Issue: Exercise incidents resulted in numerous aviation issues related to transportation and commerce.

Discussion: "How clean is clean?" remains a challenging question given dissimilar international protocols and procedures, especially with regard to aviation issues.

Recommendation: Establish common international standards of "cleanliness" related to aviation during incidents of WMD terrorism.

III. Executive Overview Issues

A. Federal, State, and Local Coordination

1. Emergency Declaration Process

Issue: The authorities, processes, and assistance eligibilities associated with Stafford Act declarations require a comprehensive review in the context of terrorism incidents, specifically bioterrorism. (Recommendations about amending the Stafford Act were offered in the evaluations of the TOPOFF 2000 and TOPOFF 2 events. Although slightly different in nature, a fundamental shortfall in the Stafford Act has been identified for remedial action.)

Discussion: The Stafford Disaster Relief and Emergency Assistance Act provides for two types of declaration, "emergency" or "major disaster." These declarations result in different levels of Federal relief/assistance to State and local governments. Emergency declarations are available in any instance in which the President determines Federal assistance is necessary to supplement State and local efforts to save lives and protect property, public health, and safety, or to lessen or avert the threat of a catastrophe. Both the Connecticut and New Jersey T3 Full-Scale Exercise events met this definition.

"Major disaster" assistance is available only for natural catastrophes or, regardless of cause, any fire, flood, or explosion, per 42 USC 5122. The Connecticut exercise scenario involving a vehicle-borne improvised explosive device met the requirements of a major disaster. The New Jersey biological exercise scenario did not meet this definition. During TOPOFF 3, after Stafford Act declaration requests were received from both governors, the president, following the statutory guidelines of the Stafford Act, declared a "major disaster" for Connecticut and an "emergency" for New Jersey.

As a result the legal constraints associated with each declaration acted to define the support limits available to State and local governments. For example, New Jersey businesses were ineligible for the Small Business Administration's disaster loan program until the Presidential Declaration of Emergency was amended. Other Federal disaster programs remained unavailable to New Jersey residents. The declaration in New Jersey actually made incident management more cumbersome for authorities and led to a public perception that New Jersey's crisis was less important than the event in Connecticut. New Jersey's public reaction was captured by the media and preceded official government messaging regarding this issue.

Further, the authorities of the Secretary of Health and Human Services (HHS) under the Public Health Services Act have not been reconciled with those of the Stafford Act in response to a WMD event.

Recommendation: Review the Stafford Act and propose an amendment to allow for a declaration of "major disaster" for all significant terrorist events.

2. Coordination of the Strategic National Stockpile

Issue: During TOPOFF 3 FSE, the effort of the Federal government and the State of New Jersey to provide mass prophylaxis to the State's entire population following the biological attack revealed notable shortfalls in effectiveness. The speed and scale of the challenge (i.e., to put medications in the hands of the affected population in a secure and timely manner) is clearly not being met fully by existing plans.

Discussion: Shortly after New Jersey initiated its five-day SNS distribution plan, rapidly rising casualty figures prompted the Federal government to rapidly accelerate and augment New Jersey's distribution plan. Staff from DHS, HHS, and New Jersey worked quickly to develop an ad hoc process to supplement New Jersey's planned distribution centers with additional Federal centers located in the most severely affected counties. This plan, relying upon the rapid deployment of large numbers of Federal health care workers and other Federal personnel with material resources, effectively reduced the distribution timeline to only two days. Some level of preliminary FSL planning occurred, yet few participants from that planning effort were completely satisfied with the outcome. Participants cited a number of concerns related to the overarching SNS. Included were:

- the adequacy of State and local jurisdiction plans to make effective distribution on a massive scale;
- the adequacy of State and local jurisdiction plans to determine which segments of the population require prophylaxis;
- whether the State and local jurisdiction plans have been exercised to ensure that mass distribution of SNS materials can be readily accomplished with State and local indigenous resources;
- whether to provide priority prophylaxis to health care workers and responders;
- the ability to provide targeted distribution strategies (e.g., intensive efforts to localize geographically by risk);
- the optimal method to provide security for the supply convoys and distribution sites; and
- whether the Public Health Security and Bio-terrorism Preparedness and Response Act of 2002 funding increased SNS distribution capability at the State and local level.

Recommendation: DHS and HHS should partner to initiate an interagency/intergovernmental effort to coordinate Federal and State plans for medical response planning for tasks related to the distribution of the SNS.

3. Coordination of Federal and State Medical Response Plans

Issue: The national health support structure was not engaged to obtain appropriate assistance in dealing with the catastrophic incident presented.

Discussion: The status of the State and organizational plans as they relate to the deployment of medical assets in support of efforts of this magnitude, translates as a limiting factor in response efforts (i.e., How can the numbers of potential personnel available to assist be maximized? and

How can their related operational readiness be assessed?). Appendix 6 of the NRP-Catastrophic Incident Supplement (CIS) defines deployment timetables and suggests template components for consideration in designing a State and local strategy to deal with large-scale crises.

Planning factors relevant to this exercise were:

- the availability of hospital beds and specialized care equipment for WMD victims;
- the capability to rapidly transport both response resources to an incident site and large numbers of victims to health care facilities;
- lack of decontamination capability for numerous victims prior to hospital intake;
- inadequate personnel to rapidly triage, shelter, and treat large numbers of victims at receiving hospitals, as well as the inability to provide enough doctors, nurses, and medical technicians on-scene.

Recommendation: DHS should initiate an aggressive effort to encourage all States to design medical surge strategies based on the templates and support mechanisms outlined in the CIS.

4. Homeland Security Advisory System (HSAS)

Issue: Reacting to changes of the HSAS Threat Condition during TOPOFF 3 presented participating international, Federal, State, and local officials with persistent critical time-consuming challenges.

Discussion: HSPD-3, amended by HSPD-5, promulgated the HSAS as the primary framework for setting and communicating risk conditions and directing or recommending protective measures. Although the HSAS Threat Condition has been elevated to *Orange* on six occasions, it has never been elevated to *Red* outside of an exercise environment. Exercise activities have not clearly defined the ramifications of an elevation of the HSAS level to *Red*.

During the initial hours of the exercise, officials spent an inordinate amount of time attempting to resolve the issue of elevating the HSAS Threat Condition to *Red* following recognition of confirmed terrorist attacks. These difficulties continued later in the exercise as senior Federal officials perceived that there could be negative effects from the State-mandated protective measures that were activated when the State's threat condition was raised to *Red*. These perceptions should be explored and, if negative effects are likely, they should be addressed.

Many complications surfaced during the exercise that impacted decisions about the elevation and reduction of the HSAS Threat Condition. There appeared to be insufficient understanding among the Federal departments and agencies about what actions each might take at *Red*—leading to unanticipated negative consequences when the decision to go to *Red* was made. The consensus of opinion suggests that DHS, in coordination with the HSC, should revisit the HSAS and align it more directly with the operational requirements surrounding the implementation of protective measures while assessing its utility as a public messaging tool.

Decisions surrounding HSAS Threat Condition elevation was driven by the need to send a consistent and effective message to the public rather than the need to activate the appropriate protective measures required to prevent or mitigate the effects of further attacks. For example:

- Senior Federal leaders felt obliged to raise the threat condition to *Red* despite concerns about its effect on the response due to public expectations that the highest threat condition must be appropriate following an actual terrorist attack—"If not *Red* now, then when?"
- The debate over HSAS Threat Condition elevations tended to be focused more on its
 public warning and public messaging purpose than on the evaluation of the appropriate
 protective measures required to prevent or mitigate the effects of further attacks.
- As the exercise progressed, protective measures were increasingly de-coupled from the HSAS Threat Condition (e.g., a set of proposed measures was alternately labeled "Orange Plus" or "Red Minus," without changing the proposed set, depending on an anticipated HSAS Threat Condition decision.

Recommendation: The HSAS should be reviewed to consider aligning it more directly with the operational requirements surrounding the implementation of protective measures. Its utility as a public messaging tool should be examined to determine if disseminating the level of protective measures taken is properly interpreted by the public and elicits the intended response.

5. Private Sector Integration

Issue: Although TOPOFF 3 provided private sector organizations and associations a tremendous opportunity to test emergency response and business continuity plans in conjunction with Federal, State, and local response agencies, inconsistency existed in passing information between the government and private sector participants.

Discussion: TOPOFF 3 marked a significant increase in the involvement of the private sector in the exercise process. The private sector was successful at gaining access to incident response channels, but they were less than completely successful at gaining accurate and useful information to satisfy their situational awareness requirements.

The private sector owns 85 percent of the nation's infrastructure and has the potential to play an enormous role in the response to a credible threat, or in support of the nation's critical infrastructure after a terrorist attack. The U.S. government has committed to exercise and assess its ability to successfully communicate and coordinate with the private sector. Exercises such as TOPOFF 3 provide an excellent opportunity to identify the critical links between all levels of government and Critical Infrastructure/Key Resources sector-oriented private sector organizations required during the response and recovery from a WMD incident.

Recommendation: DHS should expand communication/coordination efforts with private sector entities in future TOPOFF series exercises to include formalizing the Private Sector Cell prototype at the National Infrastructure Coordinating Center (NICC). Permanent implementation would enable private sector representatives who have responsibility for the nation's critical infrastructure and key resources to carry out their NRP-defined roles during an incident of national significance.

6. Critical Infrastructure/Key Resources

Issue: Federal, State, and local governments and private sector entities encountered difficulties in coordinating the application of transportation sector protective measures to land, sea, and air arteries in response to changing HSAS Threat Conditions.

Discussion: Federal, State, and local governments and private sector entities have made some inroads to develop protective measures corresponding to the HSAS Threat Conditions, with a specific focus on the Critical Infrastructure/Key Resources sectors identified in HSPD-7, "Critical Infrastructure Identification, Prioritization, and Protection." The IIMG maintains detailed protective measures listings, mapped against key homeland security mission areas, which are updated following operational periods and exercise events involving a HSAS Threat Condition change. As DHS officials attempted to implement these measures in response to T3 exercise events and threat condition changes, they found themselves in conflict with the measures that State authorities had also taken in response to threat condition changes.

Protective measures taken by the transportation industry (State and private sector) across New Jersey in response to the declaration of HSAS Threat Condition *Red* were seen by IIMG analysts reporting to the IIMG as overly restrictive and potentially adversely affecting the provision of life-sustaining services and the national economy. State-initiated security measures, including such actions as closing all interstate highway traffic and banning most forms of travel; had the potential to increase the negative effects of the terrorist incident well beyond the benefits to the effort to contain the biological event.

An example of the Federal and State governments working at cross purposes was the situation at the Newark International Airport. The Federal government considered the airport open and operational, while its non-Federal staff had been released from work by the acting governor's threat condition *Orange* and *Red* declarations. As a result, Federal authorities anticipated that, in an actual event, the ability to deploy emergency assets could have been limited.

Recommendation: DHS should initiate an interagency effort to re-examine and further refine the coordination of Federal and State plans for development and implementation of protective measures with a specific focus on the Critical Infrastructure/Key Resources sectors, especially in the Transportation sector.

B. National Response Plan Issues

1. Statutory Authority

Issue: The NRP provides a framework designed to integrate and focus the entire nation's capabilities. Concerns exist, however, regarding statutory authorities that predate the statutory authorities that established DHS and the operational constructs of the NRP.

Discussion: Opinions differ regarding whether these pre-NRP requirements have been fully integrated, reconciled, or updated to reflect the role of DHS and the NRP. Many Federal departments and agencies have preexisting mandates, structures, rules, and procedures associated with national disasters and potential terrorist events that predate the DHS and NRP.

Recommendation: Consensus suggests that an interagency-wide comprehensive review and reconciliation may be needed for the various statutes, authorities, directives, policies, and SOPs that relate to the range of incident types described in the NRP.

2. Joint Field Office/Principal Federal Official Decision Making

Issue: Despite the presence of a PFO at both exercise venues, after-action observations suggest coordination of information and operations between Federal and State governments did not meet the needs/expectations of each level.

Discussion: During TOPOFF 3, the PFO in New Jersey experienced a number of instances where key decisions were made by Federal and State officials without the appropriate consultation and, typically, with negative results. The New Jersey PFO TOPOFF 3 AAR cites the following examples:

"The PFO lacked involvement with the Point of Dispensing (POD) negotiations between HHS headquarters and the DHS IIMG. The IIMG sent down a compromised strategy, apparently negotiated with HHS and/or the State which allowed for the implementation of an unworkable and unrealistic Federal plan.

The PFO was unaware until late in the exercise of several conversations between the governor's representative and the SLGCP regarding a number of issues [including coordinating HSAS Threat Conditions] being worked at the JFO."

In Connecticut, the PFO/JFO and State EOC interchanges were affected by the establishment of a "Unified Command Post" (UCP). The UCP was sanctioned under the Oil Spill Contingency Act. Additionally, due to assumed exercise constraints, the UCP was fully established and operational far earlier than it would have been had this been a real attack. As a result, activities/issues that would have stressed the layers of management (local, regional, State, etc.) were managed at the UCP.

Although the role of the PFO is defined in the NRP, the actual process of its integration with the other participants at the State and Federal levels continues. Similarly, although there is still room for improvement in the communications infrastructure within the PFO cell, this problem is not principally the result of telecommunications shortfalls. The root cause of confusion about the PFO is most likely the lack of training and experience with the NRP for personnel staffing the key incident management nodes. Few of the exercise participants have sufficient actual or training experience in incident management under the NRP in response to large-scale terrorist attacks such as that in the FSE scenario.

Recommendation: DHS should develop a Federal Incident Management Training Program to prepare its employees to support the structures and processes of the NRP during an incident. Currently available training programs do not sufficiently prepare the Federal incident management staff to perform their required duties under the NRP. DHS should develop a Federal Incident Management Training Program to train the staff of the HSOC, the IIMG, other DHS operations centers, and the deployable staff of the PFO cell to execute the processes and implement the support structures of the NRP during an incident.

The training program could be considered a potential "certification" function for assignment to selected key roles once the program matures. Aspects of this training should include:

- classroom instruction, as well as supporting interactive, collective training opportunities;
- curriculum linked to actually executing incident management under the NRP;
- training on the information management systems;
- focus on developing the staffs of the HSOC, the IIMG, the DLT, and DLT staff that support incident management, other DHS operations centers, and the deployable staff of the PFO cell; and
- availability to appropriate interagency staffs who serve in DHS fixed or field headquarters cells.

3. Joint Field Office Integration

Issue: The current integration status of the PFO cell and its members within the larger JFO structure justifies an accelerated strategy.

Discussion: TOPOFF 3 provided an opportunity to review the interrelated operations of the JFO, the PFO, and the PFO support cell. In some ways, the JFO operations conducted during TOPOFF 3 were not fully realistic; the two JFOs were operational much earlier than could be expected in an actual event, sites had been preestablished and prepared in advance, and staffs were predesignated and had trained together with knowledge of the exercise's operational scenario. The exercise designers accepted the introduction of these artificialities to achieve a few days of near-steady State operations by these entities within the confines of a four- to five-day exercise.

Many exercise principals indicated the lack of clear distinction of the PFO as a separate entity from the JFO Coordination Group in organization diagrams. Additionally, the inclusion of the PFO in key JFO planning processes seemingly blurred the distinction between the PFO as an overarching strategic coordinator and the JFO Coordination Group as the managers of operational strategy.

Despite the lack of resolution on these issues, the value of the PFO as the DHS Secretary's representative during an incident of national significance was validated by the clearly successful use of the PFO and the PFO support cell as the key DHS communications and coordination link in the field. The PFO successfully resolved potential conflicts with State and local authorities regarding threat condition announcements, risk communications, requests for Federal assistance, and protective measures in both venues. The PFO cell served a critical reporting function providing regular situation reports and answers to ad hoc requests for information. The value of these services was best illustrated when communications or coordination inadvertently bypassed the PFO.

Recommendation: The roles and responsibilities of the PFO and the PFO support cell in regard to their integration with the JOC require further definition. Adjustments are possible within the parameters of documents such as the PFO and JFO SOPs and the deployment of the proposed Federal Incident Management Training Program recommended above.

4. PFO Selection Process

Issue: The selection of a PFO for a particular incident can have a negative effect on the providing agency's ability to perform its incident management responsibilities when that individual's agency happens to play a key role in the response effort.

Discussion: The DHS Secretary designated the USCG First District Commander as the PFO for the WMD event in Connecticut and the FEMA Region II Director as the PFO in New Jersey during the exercise planning process. The selection of these key regional leaders as PFOs effectively removed them from direct operational command of their normal responsibilities at a point in time when intelligence indicated that there were threats to their respective areas and, especially significant regional ports.

Recommendation: Criteria should be developed for the selection of PFOs to optimize the utility of the selected official for the incident and to minimize the operational effects on the providing agency. DHS should consider the development of a decision matrix, including supporting agency input.

5. Incident Reporting Requirements

Issue: The current crisis reporting process is not standardized and, as a result, T3 was unable to establish a creditable operational "battle rhythm." (The incident reporting/communication issue is a repeat topic from previous TOPOFF events.)

Discussion: The collection and sharing of the information required to manage the multiple incidents in the TOPOFF 3 scenario significantly challenged the current information management process. Symptoms of this problem included:

- officials assigned to a strategic planning role in the IIMG spending considerable amounts of time pursuing the answers to individual requests for incident information;
- senior leadership from DHS arriving at key briefings with data that did not closely compare to that of other Federal agencies, despite efforts to coordinate the information; and
- the misalignment of the data being reported in the HSOC with that reported at the State-level or in the simulated national media.

These problems were identified in processes internal to DHS, as well as in cases where the department relied on interagency coordination.

Recommendation: Improvements in this area should begin with efforts by DHS to further refine and define the internal reporting processes, followed by an effort to lead the coordination of interagency reporting. The remediation effort for this issue would build upon existing standard formats and procedures by:

- clearly delineating agency responsibility for specific topic lines of information in the reports;
- creating a suggested template to drive the generation of a more predictable "battle rhythm" to compel data collection requirements; and

establishing a realistic cyclic schedule for the information dissemination process.

A well-managed process that has the confidence of the leadership would potentially reduce the requirements for the multiple ad hoc requests for information that plagued the incident operations centers during the first days of the exercise.

6. Information Management Systems

Issue: DHS' automation of its information management processes is not fully mature and did not meet participant information technology requirements.

Discussion: Current DHS information management processes do not fully meet the department's requirement to provide a common reporting process and incident management "battle rhythm;" provide a Common Operational Picture (COP); or provide the automated support to fully share capabilities across the incident management environment. DHS can ensure that these four key elements of its information management process are fully developed and implemented in the near term.

The Homeland Security Information Network (HSIN) expected to leverage and integrate the information available on a number of incident management networks, yet the system was identified as ineffective by exercise participants. Some of the issues with HSIN are noted in this excerpt from the draft New London, Connecticut, JFO TOPOFF 3 After-Action Review.

All participants in the JFO understood the need for a coordinated mechanism to pass up-to-theminute situation status. As per the [draft] JFO SOP, "The primary [Sensitive But Unclassified] SBU data circuit within JFO is the Homeland Security Information Network (HSIN) JFOnet." However, many responders either did not have access or were not properly trained on how to use JFOnet to either upload or access information.

Similar problems were encountered at DHS headquarters. IIMG members preferred to use Microsoft Outlook to exchange information rather than the tools available in HSIN. As in the JFO in New London, this was because participants either had not been offered training or did not see the benefit of learning to navigate the HSIN.

Recommendation: As part of the refinement of the information management processes outlined above, DHS should conduct a review of the operational requirements for incident management automation. The following is a partial list of some of the features that should be considered for an enterprise-wide Operations Management Suite:

- an interactive, simple to use, but powerful web-based solution with an easy to use and straightforward user interface;
- a uniform workspace with a robust emergency management application and a contact relationship manager;
- a collaboration application with virtual meetings and secure communication;
- a highly interactive, simple to use Geospatial Information System;
- a robust content management and information database with interfaces to external authoritative references and key information sources;
- tools that automatically connect real-time information and longer term collaboration, and create knowledge and historical records as a by-product;

- automated emergency response plans and decision support guides that prepopulate the incident workspace and management processes;
- templates to promote standardization and consistency for all incident-related reporting and documentation;
- · functions that mirror the NIMS and ICS; and
- interoperability with other Federal, State, local, or field emergency management information systems.

The proposed system "should be designed for use by Operations Center desk officers as well as top level management, leaders, and decision makers [and] support all phases and levels of operations management providing a virtual community for DHS team members, partners, and stakeholders."

IV. Environmental Issues

A. Bio Watch Detection Timeline

Issue: The current Bio Watch assessment process is too labor-intensive. Automated detection and/or signaling technology could reduce the time needed for confirmative agent identification by eliminating or reducing reliance on human interface.

Discussion: The scenario for the TOPOFF 3 Senior Officials Exercise 05-02 ("Fierce Squall") included a Bio Watch detection of Yersinia pestis (plague) in New Jersey. In the SOE scenario, the agent was identified within 36–60 hours of its release. Bio Watch detection was included in the TOPOFF 3 scenario as an inject, but its detection capabilities were not actually exercised.

Bio Watch was evaluated by the EPA's Office of Inspector General in March 2005. According to this evaluation, Bio Watch monitors could accelerate confirmative agent identification through improved technology, techniques, and/or procedures.

There are currently various options that are being explored to increase the efficiency and breadth of coverage. Timelines for analysis depend on the specific biological agent, but Bio Watch currently anticipates detection and confirmation of the presence of agents within 36 hours of release. The system may detect a biological attack in time to allow for early diagnosis and treatment of victims' symptoms (detect-to-treat timeline), and shorter detection times would allow for preventive public warnings and enable better containment and treatment of infection. The survival rate from exposure to certain biological agents is higher when antibiotic therapy can be administered before symptoms appear, but after symptoms manifest, the survival rate diminishes significantly.

Recommendation: The CDC, with support from the EPA, should lead a comprehensive evaluation of existing technologies for automated biological agent detection systems that are being developed by public and private sector entities. Sources to evaluate include:

- DOE National Laboratories' Autonomous Pathogen Detection System;
- DOD Chemical and Biological Defense Program technology;
- Oak Ridge National Laboratory's SensorNet program; and
- U.S. Postal Service's BioHazard Detection System.

The CDC and EPA should continuously reassess collection and analysis procedures to implement quicker, more effective techniques. Techniques could include:

- analyzing samples through mobile laboratory units;
- changing the Polymerase Chain Reaction (PCR) testing process to run primary and secondary lab analysis simultaneously;
- exploring the use of alternate sensor technologies such as biological assays and laser fluorescence;
- supplementing Bio Watch monitors with handheld detection devices;
- incorporating less accurate real-time detection technology into monitors; and
- if employing real-time detection technology, implementing an automatic laboratory alert through wireless devices.

B. Bio Watch Monitor Coverage

Issue: Bio Watch coverage of high-risk areas is limited by the number and placement of monitors.

Discussion: Although Bio Watch aims to provide coverage for a high percentage of a city's population, it is unclear whether current procedures for receipt and integration of Bio Watch capabilities (into established medical and laboratory surveillance networks) are effective. Monitors were originally distributed based on criteria specific to air quality monitoring, not biological agent monitoring. Sensors might be located at less than optimal heights, in locations with obstructed air flows, or spaced too far apart.

Recommendations: EPA and CDC should conduct testing of Bio Watch monitors to measure the range at which they can detect each "Category A" biological agent in high-risk areas. EPA, CDC, and State and local agencies should determine the optimal placement of monitors for maximum coverage in a given area, taking into consideration factors such as height, air flow, environmental elements, security and access, pollution, meteorological data, and proximity to high-risk areas and other monitors. EPA and CDC should consider deployment of mobile Bio Watch systems to areas where monitors have been disabled or destroyed, or where credible intelligence indicates a possible biological attack, taking into consideration possible lack of local laboratories and consequence management plans. To test these capabilities, future exercises should be designed to include activities that would stress these systems to focus on their effectiveness.

C. WMD Contamination Management

Issue: The standards that will govern the decontamination and cleanup of public and private property contaminated during a WMD incident have not yet been universally adopted within the Federal interagency community.

Discussion: Uniform national standards do not exist to determine how clean is "clean" in the aftermath of a WMD incident. Common decontamination and cleanup standards that will be applied to public and private property contaminated by terrorist use of a CWA or a TIC-based WMD have not yet been adopted within the Federal interagency community. The decision-making process and authority for determining such standards are inadequately defined and understood at all levels of government.

During TOPOFF 3, the incident site in Connecticut was extensively contaminated by the terrorist use of HD (sulfur mustard), which was dispersed over a wide area near the city pier. Although the duration of the FSE did not include the environmental cleanup of this agent, issues that placed Federal, State, and local authorities at odds did occur especially around the concern of whether it was safe for citizens in or near the affected areas to disregard the order to "shelter in place" initiated locally. Government messages outlining recommendations regarding the level of contamination and its danger to the affected public were contradictory and presented a picture of confusion.

States and local jurisdictions affected by WMD attacks will likely request Federal guidance on reliable standards. The policy challenge of mid- and long-term contamination management has been identified repeatedly in previous exercises, but remains unresolved.

Recommendation: DHS should sponsor an acceleration of effort to develop consensus-based decontamination standards (crisis and long-term exposure) for the anticipated chemicals, biological agents, and radiological materials that are most likely to be used in a WMD incident.

V. International Perspectives

A. International Incident Management Communications

Issue: International incident management communication channels used during the exercise were not fully coordinated with existing day-to-day international communication channels.

Discussion: The international incident management communication channels were not fully integrated with normal condition communication channels during the exercise. The establishment of the dual communication channels created uncertainties and prevented development of a COP. The person-to-person communications that are the norm during routine operations were not as well-developed as agency-to-agency communications activated during crisis conditions.

Also, there was uncertainty about when to call upon U.S. embassies to establish or coordinate communications between foreign government agencies and U.S. counterparts. Further, uncertainty existed regarding the role and responsibilities of the Department of State (DOS) during incidents of national significance (INS), as described in the National Response Plan (NRP) and National Incident Management System (NIMS).

Recommendation: Develop a strategy to fully integrate international incident management communications channels with those used for routine communications. Develop a plan to improve users' expertise with international incident management communications channels. Delineate, disseminate, and test the role and responsibilities of the DOS during INS.

B. Alert and Advisory Systems

Issue: Exercise players were uncertain as to the implications of changes in each country's alert/advisory system.

Discussion: Lack of understanding of what actions and policies were executed during the change in the U.S. HSAS led to uncertainty about how Canada and the United Kingdom should react domestically. Similarly, changes in the United Kingdom's alert system were not fully understood by the United States and Canada.

Recommendation: Create an international working group to clarify how changes in the United States', Canadian, and/or UK's Threat/Alert levels affect each country's security, alert status, and the ramifications of these different/increased levels.

C. International Aviation Issues

Issue: Recognizing that virtually any major domestic incident will have international consequences (i.e., travel, health, law enforcement, citizens traveling abroad), the exercise revealed complex questions specifically regarding aviation-related issues.

Discussion: A recurring topic pertaining to international travel and trade during the exercise was, "How clean is clean?" An international consensus of opinion on this issue does not exist. Air travel questions remain unanswered concerning the closing of airfields, aircrews refusing to fly into and out of contaminated areas that remain open, decontamination of the aircraft upon arrival

into foreign countries, quarantine of aircraft (which are owned by companies and not governments), and international procedures for handling potentially contaminated items.

Recommendation: Establish a more clearly defined global protocol on aviation issues as they relate to both individual travel and economic trade issues during responses to incidents of WMD terrorism.

VI. Conclusion

TOPOFF 3 FSE was an innovative, challenging, and highly productive exercise designed to stress the system and the agencies responsible for responding to a terrorist attack. The observations, assessments, and recommendations in this summary were garnered from a number of forums and were validated from a practitioner's standpoint.

As the largest and most complex counterterrorism exercise ever attempted, TOPOFF 3 FSE provided a tremendous opportunity for private sector participants and Federal, State, and local governmental organizations to test their procedures and push their agencies to their limits. Many D/As were successful in straining their policies and procedures, and identified potential shortfalls in the process. In addition, the exercise provided many important lessons regarding Federal, State, and local interagency procedures for communications and the integration of support measures.

Because of the extensive data collection process and the effort to make TOPOFF 3 FSE findings both well-documented and traceable through a detailed reconstruction of the exercise events, the more detailed AAR currently in development should provide a baseline upon which subsequent TOPOFF and other counterterrorism exercises can build and be rigorously compared.

This document has been drafted to provide key decision makers with an executive-level assessment of areas and issues that warrant immediate attention and improvement. The lessons derived from this exercise will be valuable to other States and localities as they work to train, exercise, and improve their response capabilities in support of our homeland security.

Annex B: Intelligence Play

I. Summary

The Department of Homeland Security (DHS) made information sharing one of the four key objectives in the Top Officials (TOPOFF) 3 (T3) exercise. To ensure that information sharing was appropriately exercised, an Intelligence Working Group (IWG) was formed. The IWG defined and charted the real-world information sharing channels that presently exist. This enabled T3 planners to create preventable acts that could be put into play through streams of intelligence for analysts to evaluate and intercede if the assessment dictated.

Real-world issues related to intelligence channels, disconnects, and other contentious or undefined areas in the intelligence community (IC) and information sharing arena that significantly impacted the T3 exercise were:

- identification of systems used to contribute to and create a common intelligence picture;
- validation of Interagency processes for information sharing;
- improvement of situational awareness; and
- request for information (RFI) process.

The following annex captures the planning process for the T3 IWG, reviews the intelligence portion of the Full-Scale Exercise (FSE), and identifies lessons learned in information and intelligence sharing. Throughout this annex, recommendations are offered as potential means to improve the handling and flow of operational and potentially time-critical intelligence and analytical products.

II. Introduction

A. Intelligence as an Exercise Objective

To increase the participation of the IC in the TOPOFF exercises, DHS designated intelligence information sharing as one of four key objectives in the T3 exercise. The objective was to test the handling and flow of operational, time-critical information, intelligence, and analytical products.

The integration of intelligence is seldom played at realistic levels in full-scale DHS exercises. Typically, intelligence is a tool used to stimulate play to test operational objectives. Intelligence summaries are produced in the planning process and injected by the control cell at specific times to drive operational decisions.

In conjunction with the objective to test the handling and flow of operational intelligence, the T3 design team created preventable acts with which to confront the intelligence

sector, providing situations that, if assessed correctly, could be intervened or stopped. This intelligence play began 30 days prior to the FSE.

B. Intelligence Working Group

The *T3 Intelligence Working Group Concept Paper* identified the following functions for planning intelligence play:

- Design a functional exercise intelligence architecture that allows for analyst play and the distribution of exercise intelligence through existing real-world intelligence channels. The intelligence architecture must ensure that exercise intelligence does not mix with real-world intelligence.
- Allow participation of top officials; allow the appropriate dissemination of intelligence to State, local, and international exercise participants; and remain linked to the exercise scenario and the Master Scenario Events List (MSEL).
- Develop T3 intelligence play injects and work with the exercise design team to develop realistic intelligence injects.
- Focus on prevention and examine Interagency and international intelligencesharing processes to ascertain terrorist threats, identify targeted critical infrastructure, and prevent terrorist attacks against the United States and its allies.

The IWG developed an all-inclusive intelligence architecture that resulted in a 70-page document. It became not only a handbook for the exercise, but a handbook for real-world processes in Interagency information sharing that did not previously exist in any government publication. (*Information related to the classification and availability of this document is available through Ms. Sandra Santa Cosgrove, Acting Branch Chief, National Exercise Division, DHS/FEMA, at (202) 786-9594).

III. Background

A. Intelligence Architecture

Since 9-11, improvements in information sharing have occurred largely due to informal practices such as analyst exchanges and issue-specific distribution lists. Doctrinal changes have also improved information sharing, including the U.S. Patriot Act, the Intelligence Reform and Terrorism Prevention Act, DCID 2/4 and 8/1, multiple executive orders, and memorandums of understanding on information sharing within the IC. Most members of the IC have either augmented an existing counterterrorism (CT) component

or, in some cases, created new ones. The primary counterterrorism centers within the IC are:

- DHS Information Analysis and Infrastructure Protection (IAIP)
- CIA Counterterrorism Center (CTC)
- Federal Bureau of Investigation (FBI) Counterterrorism Division
- Defense Intelligence Agency Joint Intelligence Task Force—Combating Terrorism

Rather than discussing each department or agency in depth, the IWG looked at the intelligence functions to determine how the intelligence members worked together overall. Though terms vary, each department and agency has a process for which information is collected, exploited, analyzed, fused into products, disseminated, and used to support decision making. Decisions based on the best information available result in further requests for information, reprioritization of collection assets to gather more information and reallocation of efforts to meet new demands. Regardless of whether the data collected is satellite imagery or a passenger itinerary printout, it is collected because the data was deemed important. Thus, the cycle begins with planning and guidance that translates into tasks.

This cycle of tasking, collection, analysis, production, and decision making occurs within all government and private organizations. When an issue such as homeland security or counterterrorism cuts across the missions of multiple agencies, the same intelligence process occurring within each organization must be repeated and applied to the Federal government at the aggregate level. In this case, the whole is greater than simply the sum of the parts. The T3 IWG used this cycle to describe the relationship between Interagency intelligence organizations as a way to avoid stove-piped discussions about a particular agency or department.

The IWG agreed that the scope of the objective spanned beyond the statutory members of the IC. The objective required the examination of information sharing between different levels of government (Federal, State, and local); across different mission areas (law enforcement, homeland defense, homeland security); and between different roles and responsibilities (intelligence, operations, and decision making).

B. Defining Exercise Intelligence

The IWG proposed that the Homeland Security Operations Center (HSOC) act as the chief decision making venue, holding weekly briefings derived from the community representatives that reside at the HSOC. Other agencies were encouraged to pulse their internal processes, enabling their own decision makers to weigh in on the intelligence; however, the coordination would ultimately occur at the HSOC.

Based on the above architecture, the IWG implemented the following protocols:

- Normal intelligence channels would be used when:
 - Secret level would be the baseline assumption.
 - Some intelligence might be at higher levels.
 - Tear lines would be encouraged for release to Canada and the United Kingdom (UK).
- Distribution lists would stay true to real-world lists rather than "shot-gunning" all intelligence to all players.
- The Secretary of Homeland Security would be requested to send a letter to the IC departments and agencies (D/As) requesting participation in T3.
- As DHS would be using a fictitious Universal Adversary (UA) (rather than the real-world actors in the FSE scenario), the IWG would provide UA data on various systems for the analysts to research as they would real-world intelligence.
- White noise would be used to obscure the FSE and preventable act intelligence and force analysts to sort through a variety of message traffic.

C. Full-Scale Exercise Intelligence

Once the exercise architecture was established, the IWG identified intelligence indicators that could be created for each event in the scenario, together with associated data that an analyst would require to fully assess the intelligence. For example, the scenario stated that, at D-240, a UA terrorist network sent the precursor material from North Africa to Connecticut. The Department of Defense (DoD) IWG listed potential intelligence indicators such as UA members confirming that a shipment was underway. They also identified potential information gaps to the development group responsible for the generating the scenario—how was it transported, on what vessel, what is the cargo manifest list, crew list, port of entry, and so forth.

Ultimately, the IWG scripted 42 injects providing vague indications and warnings to the events that would occur in the FSE. These injects would take the form of messages originating primarily from the national intelligence agencies and FBI. There was some debate over the assignment of date-time-groups for these injects. According to the scenario, many events occurred as far back as D-400, yet exercise intelligence play was slated to kick off on March 7. The group decided that all injects predating March 7 would be released into real-world systems on Friday, March 4, and all other messages would be released according to their date-time-groups. In retrospect, the initial drop heightened the alert levels in many agencies and allowed analysts to piece together the threat stream more quickly than if the intelligence had flowed over a longer period of time.

D. Preventable Acts

The IWG created five "preventable" acts and sequenced them so that one act could be averted each week during the month of March. A small group consisting of DoD (JS J2 and NORTHCOM), FBI, DHS IAIP, and United States Coast Guard (USCG) met on

October 14 to develop these vignettes—one to meet each agency's objective. Exercise guidelines dictated that the preventable acts could not deviate from the FSE storyline and that the vignettes must not leak too much information about the FSE, thus threatening the exercise startup conditions prescribed for the venues. Finally, all proposed acts would be coordinated with the other members of the IWG and ultimately approved by the DHS exercise planners.

The five original acts included:

- New Jersey (NJ) arrest of Fatima Barakah (the microbiologist who developed the Yersinia pestis weapon for the NJ terrorist cell) as she tries to leave the country
 - The objective of this preventable act focused on locating Barakah and arresting her prior to her departure for Miami. The key training audience included the NJ Joint Terrorism Task Force (JTTF), NJ State Police, FBI headquarters, Customs and Border Patrol, Transportation Security Administration (TSA), and IAIP.
- Connecticut break-up of a support cell in Connecticut and arrest of their logistics coordinator
 - The key training audience included the New Haven FBI Field Office, Connecticut JTTF, and the Connecticut State Police.
- NORTHCOM break-up of a cell in New Jersey that was threatening to attack a military base
 - The purpose was to train NORTHCOM Counterintelligence Field Activity-West analysts whose mission was to fuse counterintelligence and law enforcement information to assess threats to DoD facilities.
- USCG identification and interdiction of a vessel transporting terrorist materials
 The objective was to support the USCG requirement of a field training exercise in
 which their new Enhanced Maritime Safety and Security Team could conduct a
 visit, board, search, and seizure operation outside the 12 nautical mile
 international water line.
- FBI a credible threat stream used to trigger the FBI to deploy the Domestic Emergency Support Team to Connecticut prior to the start of the FSE

The representatives left the meeting with initial approval from the exercise planners and agreed to meet at the Midterm Planning Conference in November with a draft of each act. They also agreed to hold a scripting conference at the Joint Warfighting Center (JWFC) in Suffolk, Virginia, where the IWG could complete the ground truth documents for each act and begin drafting intelligence injects to support each.

E. Exercise Plan

Having the architecture and preventable acts, DHS exercise planners requested an Exercise Intelligence Annex to the overall exercise plan. IWG members debated over the classification of the annex. One side argued that it should be vague and unclassified because the exercise control cell did not need to know the exact distribution lists and

product details of each agency. Others argued that the document should be written at the classified level simply because no such document currently existed. Such a document would provide enormous value to the community for real-world practices. The IWG decided to provide both products. An unclassified version described the control elements for the intelligence play—RFI processes, MSEL tracking, and so forth (see Annex A). The classified document describing information sharing would become a de facto evaluation guide to how the intelligence play worked in the pre-FSE play. The classified version would contain daily battle rhythms for each organization, expected player products, and details on how the products are disseminated internally and externally for each agency. This product ultimately became the Information Sharing Concept of Operations (CONOPS).

F. Full-Scale Exercise

There were several events that occurred during the FSE that had no intelligence injects to support. These included:

- the fourth vessel en route to Canada:
- Canadian border crossing after the terrorist landed in Maine;
- terrorist activities and plans revolving around Boston and New York;
- FBI operational events occurring during the investigation (e.g., safe house raids, arrests); and
- coordination of Virtual News Network (VNN) unclassified media reports with intelligence.

With the exception of the vessel tracking, these events were not fully synchronized with the IWG. The vessel tracking ground truth changed over 20 times between February and the third week of March. As a result, the data required to generate maritime tracks was late and, during the FSE, conflicting reports confused players.

Regarding VNN, intelligence injects were sent to the VNN scripters to coordinate media reports, but not vice versa. During the FSE, intelligence failed to gain visibility on what media would be reporting that day.

Starting on March 4, the control cell injected 104 intelligence injects into real-world message traffic systems to real-world distribution lists. Most injects were released in classified channels; some were phone calls to operations centers; others were unclassified police reports. During the FSE, the majority of injects came from operations rather than intelligence channels. Over 200 investigative messages were released primarily in law enforcement channels. In all, players produced 140 products, ranging from spot reports to threat warnings to information bulletins. These products appeared in morning situation

briefings, on National Counterterrorism Center (NCTC) Online (NOL), and on seven other exercise websites.¹

IV. Exercise Design and Artificialities

Without a precedent, the group invented the vignettes, design, requirements, and player expectations right up to the start of the exercise. Mistakes were made, frustrations ensued, but, in the end, most (if not all) of the IWG participants felt that the process presented an extraordinary training and educational experience. The professional relationships formed and cross-agency education exceeded any internal training the planners had previously received. Recommendations to future T3 IWG planners for better facilitation are listed below.

A. Intelligence Objectives, Design, and Expectations

Intelligence objectives, design, and expectations need to be defined at the beginning of the process. Although information sharing was a defined objective—who, what, where, and how to accomplish it—were not defined. As a result, not all agencies were fully prepared to participate in the exercise, and levels of planning and player commitments varied. For example, the White House decision to host twice weekly SVTC meetings in March came two days prior to the intelligence STARTEX and caused participating D/As to drastically adjust their level of play. Furthermore, conflicting guidance on the level of participation was issued. As a result, insufficient time and resources during the planning phase was allocated.

Recommendations:

- Create a memorandum of intent from the DNI providing intent, mission, guidance, and objectives of the exercise and distribute to all IC leaders; formalize effort with a memorandum of understanding regarding planning and vet through all directors of the participating D/As.
- Require early involvement by all agencies deemed vital to the exercise.
- Identify player roles and expectations.

Establish clear planner/control roles and expectations.

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¹ IC websites included NCTC Online, DHS, Joint Staff J2, NORTHCOM J2, NSA, and NGA. SIPRNET websites included NCTC Online, DHS, Joint Staff J2, and NORTHCOM J2. Unclassified portals included LEO.gov.

B. Leadership

The IWG was headed by a civilian contractor and composed of D/A representatives, sometimes contractors, to represent government agency staffs. The chairman performed his function well, but lacked both the position and the authority to make commitments, issue tasks, or make final decisions affecting participating agencies. Also, the group had no senior leadership with the ability to obtain the commitment of organizations crucial to the planning for the exercise, the pre-FSE intelligence phase, and the FSE. The group also relied on a civilian contractor to provide continuity with other planning meetings. There were many lost opportunities to integrate intelligence play with the domestic venues, international activities, media play, and law enforcement operations.

<u>Recommendations:</u> The IWG must be chaired by a senior IC official that is given full tasking and decision-making authority. This individual should:

- Have an understanding of the IC.
- Have a secure position, a position that allows this official to work this as a priority mission, rather than an additional duty (full-time commitment).
- Chair all IWG meetings; issue guidance, direction, and tasks to the members of the IWG; and provide feedback to the IWG.
- Attend venue, Interagency, and media meetings to ensure intelligence activities are integrated with other aspects of the exercise.
- Provide updates to exercise directors of participating D/As.
- Contact D/A directors regarding noncompliance or other issues.
- Have a staff of two to three contractors to assist with administrative work and meeting attendance.

C. Planning Requirements

The planning of the preventable acts was done backwards. Three days before the intelligence phase of the exercise began, a final ground truth document was published. This document endured numerous versions, varied authors, and editing performed without full knowledge of the nuances resident in the document. Unfortunately, not all intelligence controllers started the exercise with the correct version, and, in many cases, were unaware that their versions had been superseded. Two weeks into the exercise, inconsistencies between the ground truth document and proposed injects were noted. Furthermore, several proposed intelligence injects contradicted the content in other injects. Immediate ad-hoc planning sessions were convened to de-conflict these oversights.

Recommendations:

- The overall scenario must be locked prior to the first preventable act planning conference.
- Background material (ground truth documents) must cover all details from "birth-to-death" and from "port to port."
 - o The IWG participants can help provide these details.
 - The same working group that develops the exercise scenario should also be responsible for writing the intelligence background material.
- MSEL injects should not be created until these ground truth documents are complete.
- All injects should be scripted and de-conflicted prior to the start of the exercise.
- The only ad-hoc injects that should be allowed are corrective or explanatory injects. New venues or threat streams should not be introduced.

D. International Coordination

International intelligence partners were engaged outside of established, real-world channels. The CIA did not join the planning until January 2005, thus the CIA Chief of Station (COS) in partner nations was not aware of all discussions regarding exercise intelligence play and was not aware of all planned exercise activities. Additionally, the COS was not provided periodic updates so course corrections could be made early in the process.

Recommendation:

Bring the appropriate DNI and CIA organizations into the planning process as
early as possible. Make sure that all U.S. government entities are in agreement on
planned activities prior to meeting with international intelligence partners.

E. Control

The Intelligence Control Cell (ICC) needs to be consolidated. When the group worked dispersed during the March 4–31 pre-FSE intelligence play, it was difficult to maintain visibility and control of injects, RFIs, and player status. During this period, the ICC was manned by a skeleton crew. As a result, coordination and collaboration was often chaotic and challenging. However, consolidating the Intelligence Control Group for the FSE was a success.

Recommendations:

 Maintain a consolidated ICC. Ensure representation from all participating D/As (USCG noted as missing in T3 ICC).

- Require additional systems for the ICC that the (Exercise National Military Joint Intelligence Center (the facility where the T3 ICC was located) could not provide:
 - More unclassified computers
 - o NSA Net
 - ARCView and ERDAS for NGA
 - IC2PXXX for Maritime Common Operational Picture display
 - Video Teleconference capability
- Consider using USCG Headquarters, Transportation Security Operations Center (TSOC), or JWFC at JFCOM (or similar facility) to provide these capabilities and additional space in future exercises.
- Create a hardcopy library of MSEL items and ground truth documents.

Master Control Cell (MCC) operations during the FSE were completely divorced from intelligence play and the ICC. The classification limitations and lack of secure communications in the MCC prevented intelligence from supporting the FSE operational play. This was illustrated by DHS' and NCTC's reporting of "Nothing Significant To Report" in their morning updates. Many of these issues could have been avoided had intelligence injects to support the FSE been pre-scripted and approved by the MCC. This task was not accomplished because many of the operational events that occurred in the FSE were unknown and/or unavailable to the IWG (see *Leadership* section). Additionally, the MCC had very little situational awareness throughout the FSE due to the lack of secure communications.

Recommendations:

- Integrate intelligence into the FSE and have injects pre-scripted.
- Have established authority to shut down unintended player streams.
- The MCC should be located at a secure facility such as USCG Headquarters, TSOC, or JWFC at JFCOM so that the ICC could be co-located with the MCC. At the very least, the ICC representative at the MCC would have connectivity with the ICC and the players in the intelligence and law enforcement communities.

The RFI process for the exercise was broken. Players received different answers to identical questions, and were completely unaware of what answers were already out there. Despite repeated attempts to control the Interagency RFIs, there was no solution. Most of the issues identified were real-world issues, not exercise issues, therefore the discussion and recommendations regarding this issue are consolidated in the intelligence lessons learned section of this document.

Some agencies disseminated injects to real-world customers, while others limited their distribution list to exercise players. For example, DoD's Defense Attaché Office elements initially did not pass cables to their UK and Canadian counterparts because they were not included on disseminated cables and were later instructed not to participate in the exchange.

F. Universal Adversary

Although using a fictitious terrorist group involves more work upfront for the analysts in terms of studying and preparing analytical documents, there are legal concerns about using a real-world terrorist group or individuals. If the FBI or DHS receives a Freedom of Information Act request for a name of an individual or a group, they are required to turn over all documentation (including exercise inject material) that contains references to the group or individual. Additionally, using a fictitious group avoids the claim that the IC is undermining analytical and operational objectivity regarding the named groups and individuals.

However, the Central Intelligence Agency (CIA) asserts that the use of fictitious individuals and groups undercut their ability to provide robust support to the exercise and severely limits the exercise's utility as a training opportunity for CIA analysts. The CIA routinely provides substantive analytic support to other exercises (e.g., DoD, White House, IC, etc.) where real-world organizations are used. Analysts are able to draw upon years of experience working the particular intelligence problem, thereby enabling them to quickly produce high quality intelligence products in support of exercise play.

Recommendations:

- Resolve discrepancy between FBI/DHS and CIA regarding the use of fictitious versus real-world information for exercise purposes.
- UA should contain additional background data on individuals (i.e., credit and bank histories, publication lists (if appropriate), travel histories, National Crime Information Center hits, watch-listing data).
- UA should contain additional data on terrorist groups (i.e., previously posted disseminated intelligence, open source news articles).
- UA should be available to IC analysts in the form of a database resident on INTELINK and available to State and local LE analysts as a database resident on INTELINK's unclassified Open-source Information System.
- Use photos of Red Team role players in terrorist dossiers where appropriate.

V. Artificialities

Intelligence artificialities included the following:

• The exercise play of the Principals Committee/Deputies Committee/Counterterrorism Security Group process did not reflect real-world processes, making it difficult to draw conclusions about how this process actually works. The fact that many of the participants at these meetings were "role playing" the officials that actually hold these positions caused the behavior of participants to be driven by the artificial exercise environment.

- Few IC agencies dedicated a full team of analysts to exercise participation, so the real-world collaboration that would normally occur did not take place. Analyst play was not uniform across each agency, and those analysts that did participate were not equipped with the Interagency contact lists with which they are accustomed to working.
- CSG and SVTC attendees noted that distribution did not flow in some cases, resulting in a perception of lack of D/A participation. In reality, all agencies had 100 percent participation, resulting in this exercise artificiality.

During the exercise, planners functioned as players in some agencies, and, in others, the players were provided exercise planning information. This resulted in several cases of player "cheating," and severely corrupted the integrity of the analytical component of the exercise.

VI. Exercise Observations

A. Key Issues

Preliminary analysis revealed that not all agencies achieved the same level of situational awareness throughout the exercise. Information flowed, but the speed and degree to which it flowed did not meet exercise planners' expectations. Moreover, the answer to the question of who owns the common intelligence/operating picture remains unsatisfactory, if not unknown. Two major factors quickly emerged as obstacles to an Interagency common intelligence picture (CIP)²: systems used to gain situational awareness, and the process by which all agencies gain situational awareness.

B. Systems Used to Contribute to and Create a CIP

1. Dissemination Lists

When controllers released intelligence injects over real-world systems to real-world distribution lists, agencies discovered real-world problems. For example, the TSA Intelligence Service realized that several agencies retained outdated addresses for this organization's predecessor in the Federal Aviation Administration. Also, changes to the DoD Automatic Message Handling System prohibited agencies from sending messages to some directorates within the DoD.

2. Range of Systems/Programs

There is a wide variety of databases and systems that intelligence analysts use to locate information. The Joint Worldwide Intelligence Communications System, Secret Internet Protocol Router Network (SIPRNET), and the unclassified Internet are three separate

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² A CIP is defined as a picture that facilitates collaborative planning and assists all echelons (extending beyond the primary members of the IC) to achieve situational awareness.

networks. The Homeland Security Information Network, NOL, Law Enforcement Online, and Joint Regional Information Exchange System are portals found on various networks. Most agencies also host collaborative workspaces on their portals. The "pull" aspect in information sharing is extensive.

Three problem areas emerged under the "too many systems" issue:

- Awareness: Although the IWG "Information Sharing CONOPS" details the
 products and places available to analysts in the CT community, analysts tended to
 "pull" from the systems and places they were familiar with.
- Access: Most did not have access to NOL. Few in the IC had access to leo.gov or the jfo.net portal established for the FSE to access law enforcement reporting.
- Accountability: NORTHCOM tended to rely on chat functions (Zircon and Internet Relay Chat, which did not necessarily report actionable intelligence and often resulted in time-consuming tasks to DoD analysts who chased down rumors and faulty information from chats.

NCTC fully supports access and use of NOL and routinely approves access for individuals who meet the security requirements. However, the most significant factor that limited access to NOL, the issuance of an IC Public Key Infrastructure (PKI) certificate by the appropriate D/As, is primarily a problem that resides within those D/As. For non-IC members, NCTC is able to broker the issuance of IC PKI certificates for NOL users in an efficient and effective manner. However, for IC members, the issuance of these certificates is completely controlled by the individual D/A.

As a result of these issues, the situational awareness within each agency varied depending on the reliance of its analysts on different systems.

Recommendations:

- 1. Scrub IC and Interagency distribution lists.
- 2. Update lists to include NCTC agencies; promote and facilitate access to NOL.
- 3. Educate and train chat operators on how to maintain quality control on information disseminated in the collaborative environments and ensure new intelligence is disseminated to support access by the wider IC audience.

C. Interagency Process for Information Sharing

1. Creation of a CIP

Senior players often asked who owned the CIP and wanted visual displays of threat activities, from tactical events at the incident sites to strategic awareness of overseas reporting. Analysts throughout the community were frustrated over the requirement to contact each agency in order to piece together the picture. Often, analysts called the

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exercise control cell or simulation cell rather than each other. Conflicting reports emerged in senior-level meetings.

Although there were no straightforward recommendations on where an Interagency CIP exists, there were several observations on how the current system functions. Events during T3 may have highlighted how intelligence agencies can improve situational awareness. A CIP does not attempt to reject outside-the-box analysis, but, rather, to share assessments for utmost situational awareness and development.

Recommendations:

- Make improvements to analysts' awareness of and access to the span of Interagency tools to "pull" intelligence.
 - Retain and maintain an Interagency Handbook for Information Sharing for training purposes. The classified document contains daily battle rhythms for each organization, expected player products, and details on how the products are disseminated internally and externally for each agency; DHS will revise the exercise document for real-world use.
 - Continue to promote access to NOL.
 - Continue analyst-to-analyst exchanges at operations centers.
- Narrow the gap between operational information and disseminated intelligence.
 - Encourage collection and investigation organizations to directly assign reports officers to each collection group involved in the crisis management process and generate intelligence reports for immediate dissemination.
 - Encourage CSG representatives to communicate with their subordinate elements.
 - Review SVTC/CSG notes distribution list.
 - Disseminate DHS Combined Situation Reports to the IC (provides a broad overview of the situation on the ground to analysts and decision makers).

D. RFIs

The RFI process resulted in redundant questions, unanswered questions, and conflicting answers. There was no mechanism to cross-reference responses to RFIs between agencies, as each department or agency has different RFI processes internal to their organization. There are also two types of RFIs: operational RFIs (e.g., analysts' queries for more information based on reporting (What was the license plate on the car?)), and analytical RFIs (questions that require research and analysis and lead to collection tasking (What is the leadership profile of terrorist organization X?)). Our observations and recommendations focus on analytical RFIs.

DoD uses the Community On-Line Intelligence System for End-Users and Managers (COLISEUM), an online database that requires all intelligence agencies within DoD to log their RFI and responses. DHS is moving towards Pantheon, a database built off of COLISEUM, but designed for DHS directorates. The FBI requires external agencies to e-

mail RFIs to the Directorate of Intelligence, Requirements and Collection Unit. NSA has an established process (known as National Signals Intelligence Requirements Process (NSRP)) that few followed due to lack of knowledge from player analysts (especially FBI) about how the process works, or a lack of the NSRP tool at player locations. Many RFIs were submitted to NSA through informal methods (phone calls or e-mails), which made it difficult to keep track of requests and respond in a timely matter.

Internal to each D/A, the RFI process was mostly successful. The problem occurred when the ICC tried to control the answers and found that the real-world system, which the exercise was attempting to simulate, prohibited any control.

Recommendations:

- DDNI/Collection should form an RFI working group to review processes, systems, and provide recommendations for enhancing visibility of RFIs and responses to RFIs between D/As.
 - Consider establishing an RFI fusion center at NCTC.
 - Consider designing an RFI Exercise.
- DoD/DHS should work to ensure that Pantheon and COLISEUM interface. Given that the two databases share architectures and support personnel, the lack of interoperability between the two is a policy issue vice a technological issue.
- Educate new IC members and partners of NSA's NSRP system and encourage them to work with NSA liaisons at their home locations.
- Educate IC analysts about FBI/DHS RFI processes.

E. Flow of Information between Incident Sites and National Intelligence Agencies

In T3, the FBI stood up an intelligence component within the Joint Operations Center (JOC) as part of the Joint Field Office (JFO) (in accordance with the National Response Plan (NRP)) in each venue. During the planning process, DoD and FBI personnel struggled to identify the composition of the intelligence component, as the details are not yet defined in the NRP. Questions such as who sits in the intelligence component and how they integrate with national agencies and the JFO remain unresolved. Because the JFO was a new concept, the objectives were to determine the composition of the intelligence component, the communication requirements and flow, and the integration with the larger JFO. In addition, DoD intelligence players had difficulty identifying how the NRP intelligence component would complement or compete for resources identified in DoD homeland security plans.

When analysts deployed during the FSE to support the NRP, several communication channels failed. Examples of this include:

- USCG did not have secure communications at the JFO.
- The JFO in New Jersey did not have secure communications adequate for Interagency use. The JOC in New Jersey was initially located at the local FBI field office and later moved to Jersey City. The FBI field office maintained secure communications for the duration of the exercise.
- The intelligence component in Connecticut had secure communications, but there was a requirement for PKI certificates that delayed analysts. The intelligence component was eventually managed by DoD due to lack of Interagency participation. Additionally, the JFO intelligence component was shut down early because DoD personnel found that integrating with the JOC was more effective.

Recommendations:

- DHS should develop a detailed plan for the intelligence component and information flow under the NRP.
- FBI, CIA, DoD J2 Intelligence Campaign Plans, and others should work with DHS to define requirements for the intelligence component.
- The Task Force concept should be considered.
- DoD should review the NORTHCOM intelligence planning concepts for support to homeland security operations.
- CONOPS should be developed for the JTF connectivity to JFO intelligence component.

VII. Conclusions

Throughout the After-Action Report (AAR), recommendations are offered as a potential means to improve the handling and flow of operational, time-critical, intelligence and analytical products. These recommendations have been vetted through and discussed by members of the IC as represented by the IWG. Though all observations and recommendations are considered instrumental to improving intelligence and information sharing, a few recommendations stand out as critical.

A. Creation and Maintenance of an Interagency Handbook for Information Sharing

The purpose of this document is to provide analysts with updated information on the structure of the IC, on how intelligence and information flows through the various D/As, and the different RFI processes employed by each member of the IC. It will serve as an instructional guide for analysts to gain familiarity with sister agencies and ideally enhance analyst-to-analyst exchanges. Currently, a draft copy of this handbook has been created and it has been shared with the IC. It will serve as a working document which can

change and adapt as the IC evolves. The DHS (Information Analysis) will serve as the coordination center for changes and updates to this document.

B. Revision of NRP

This revision would include adding a detailed plan for the intelligence component addressed in the current NRP and additional guidance on information flow.

C. Establish Leadership, Participation, and Timeline Criteria

The intelligence piece of the TOPOFF series would benefit from standardizing the planning process. In an effort as monumental as this, the successes of this group must be effectively transferred to the planners of TOPOFF 4.

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Annex C: Private Sector

I. Summary

Private-sector organizations participated in the Top Officials (TOPOFF) 3 (T3) exercise as partners with Federal, State, and local (FSL) government entities to test their combined ability to prepare for and respond to simulated biological and chemical terrorist attacks in Connecticut and New Jersey. The private sector's participation in the exercise was extensive. Over 140 private-sector organizations—representing critical infrastructure sectors, industry associations, public works, faith-based organizations, and multinational non-governmental organizations—played from 450 locations across the United States. The exercise allowed these participants to test the roles defined for private-sector organizations by the National Response Plan (NRP) while also testing new coordination mechanisms, including Private Sector Liaisons and a Private Sector Cell at both the State and Federal levels.

The T3 private-sector participants' involvement in the exercise raised key issues capable of exerting substantial effects on public-private coordination during real-world events. The issues are identified and categorized as follows:

- Prototype Private Sector Coordination Mechanisms
- Public-Private Coordination and Communication
- Testing Internal Emergency Response and Business Continuity Plans
- Cross-Sector Coordination and Communication
- Private Sector Planning
- Volunteer and Donations Management Support

This T3 Private Sector After-Action Report Annex captures the planning process conducted by the Private Sector Working Group, Private Sector Planning Group, and T3 Exercise Planning Team; provides an overview of and analyzes the private sector's participation in the Full-Scale Exercise (FSE); and identifies significant observations and key issues captured by the participants during the conduct of the exercise. The body of this annex concludes with recommendations for improving the integration of the public and private sectors in order to prevent, prepare for, respond to, and recover from weapons of mass destruction (WMD) terrorist attacks.

II. Introduction

T3, the nation's largest, most comprehensive domestic terrorism response and recovery exercise, offered private-sector organizations an unprecedented and unparalleled opportunity to test their current level of integration into the unified and nationwide structure for disaster response and emergency preparedness. The scope and extent alone of private-sector participation was unprecedented—approximately 1,200 individuals representing over 140 private-sector organizations played at 450 locations across the nation during T3. The participating private-sector organizations ranged from small businesses and local transportation providers to Fortune

100 corporations controlling major sub-sectors of the nation's critical infrastructure, from individual public works to multi-million member business associations, from local faith-based organizations to multinational nongovernmental organizations.

T3 also permitted FSL government organizations to exercise their mechanisms and procedures for coordination and communication with the private sector. FSL government organizations assessed the private sector's roles and capabilities in the context of a realistic disaster scenario and gauged the resources that the private sector would need and could provide in order to respond to and recover from a large-scale WMD attack by terrorists.

Private-sector integration is a key component of the emerging unified national structure for disaster response and emergency preparedness. According to one widely cited statistic, eighty-five percent of the Nation's critical is controlled by the private sector. Thus, the National Strategy for Homeland Security states that the Federal government has responsibility for fostering "unprecedented levels of cooperation" between the private sector and all levels of government. Homeland Security Presidential Directive-5 emphasizes "the role that the private and nongovernmental sectors play in preventing, preparing for, responding to, and recovering from terrorist attacks, major disasters, and other emergencies." The Directive further requires the Department of Homeland Security (DHS) to "coordinate with the private and nongovernmental sectors to ensure adequate planning, equipment, training, and exercise activities and to promote partnerships to address incident management capabilities."

TOPOFF 3 tested the plans, policies, and procedures defined in the NRP, and the NRP repeatedly highlights the necessity of private-sector integration. The preface to the NRP states that the implementation of the plan and its supporting protocols "will require extensive cooperation, collaboration, and information-sharing between the government and the private sector at all levels."

The NRP includes two support annexes that address private-sector integration in whole or in part. The Private Sector Coordination Support Annex "[o]utlines processes to ensure effective incident management coordination and integration with the private sector, including representatives of the Nation's Critical Infrastructure/Key Resources sectors and other industries." The Volunteer and Donations Management Support Annex "describes the coordinating processes used to ensure the most efficient and effective utilization of unaffiliated volunteers and donated goods during Incidents of National Significance." T3 private-sector integration was designed to test the coordination processes and mechanisms of these two NRP annexes.

¹ NRP, p. i.

² NRP, p. xi.

³ NRP Volunteer and Donations Management Support Annex, p. VOL-1.

A. Purpose of the Private Sector Annex

The Private Sector Annex fulfills the fourth overarching objective for T3: "Evaluation: To identify lessons learned and promote best practices." The description and analysis in this annex are intended to provide a basis for more robust and realistic private-sector play in future TOPOFF exercises. More importantly, the intent is to identify lessons learned that may be used by Federal, State, Local, and Tribal (FSLT) government and private-sector organizations alike to improve their real-world, day-to-day integration into FSLT emergency preparedness and disaster response. The overall goal is to improve the nation's ability to mount an effective, integrated public-private response to and recovery from a WMD terrorist attack.

A second purpose of this annex is to facilitate the Federal government's mandate for a meaningful critique of T3 private-sector integration, a critique that may be appropriately shared with the private sector. The NRP's Private Sector Coordination Support Annex states that the Federal government "conducts after-action critiques of the procedures detailed in this annex with private-sector participants when they are exercised in national-level, DHS-sponsored exercises" and "shares such critiques appropriately with private-sector participants." T3 was such a national-level, DHS-sponsored exercise. This Private Sector After-Action Report Annex is intended to serve as the basis for an appropriate T3 critique that will be shared with the private sector.

B. Scope of Annex

This annex addresses significant issues arising out of the design, planning, execution, and analysis of T3 private-sector integration. This annex does not purport to be a comprehensive review of the entirety of private-sector play in T3. This is not possible, in part because data collectors were not provided for every private-sector organization, nor were they specifically focused on the private sector in the T3 Master Control Cell (MCC). The unprecedented scope and magnitude of private-sector play was deemed in advance to be too great for comprehensive data collection to be effective.

As is true of all T3 evaluations, this annex focuses on high-level issues involving the private sector's emergency preparedness and disaster response coordination. It does not focus on individuals or even on organizations. In the few instances in this annex where organizations are mentioned by name or characterized in a way that may suggest their identity, doing so was necessary to provide adequate context for the issue being addressed or because the organizations are uniquely situated or have unique responsibilities in the nation's integrated structure for disaster response and emergency preparedness.

C. Objectives Guiding Preparation of Annex

In addition to the four primary objectives detailed in the body of the T3 After-Action Report, private-sector integration was designed to fulfill two additional sets of exercise objectives.

The following are the objectives for T3 private-sector integration as determined by the Private Sector Working Group (PSWG):

Intelligence and Information Sharing:

- Exercise communications links with relevant government agencies.
- Improve information sharing processes and capabilities.
- Test the Federal government's Protective Critical Infrastructure Information (PCII) program.

Incident Management:

- Examine private-sector emergency response and business continuity plans.
- Gain and maintain situational awareness of an emerging event.

The second set of objectives designed specifically for T3 private-sector integration was developed jointly by the DHS Office for Domestic Preparedness (ODP), Private Sector Office (PSO), and Infrastructure Coordination Division (ICD). These DHS organizations identified the following as the objectives for T3 private-sector integration from the perspective of FSL government:

Intelligence and Information Sharing:

- Explore options for integrating Federal government/private-sector decision making, incident planning, response, and recovery operations.
- Evaluate information sharing, coordination, and dissemination between private sector and FSL agencies before, during, and after an incident.
- Test the Homeland Security Information Network.
- Test the new DHS/PSO/Federal Emergency Management Agency (FEMA) volunteer and donations website.

Incident Management:

- Test the infrastructure coordination mechanism of the NRP as a single U.S. government point of contact for incident response relative to privately owned critical infrastructure.
- Delineate a course of action for private-sector engagement in the response and recovery mechanisms of FSL departments and agencies.
- Explore the implications and economic impact to the private sector of short-, medium-, and long-term recovery aspects resulting from sustained threat levels and disaster recovery operations.

These objectives guided the data selection, analysis, and reporting reflected in this annex.

III. Background

A. Private Sector Play and Players

Private-sector play during T3 focused on exercising the functional integration of FSL government's coordination mechanisms and processes with the private sector's emergency planning and disaster response and recovery operations. The NRP identifies four summary roles in which private-sector organizations operate during Incidents of National Significance (INS):

- Impacted Organization or Infrastructure
- Response Resource
- Regulated and/or Responsible Party
- State/Local Emergency Organization Member

One or, more often, several private-sector participants functioned in each of these roles during T3. The level of private-sector organizations' participation in the exercise ranged from individuals operating from their organization's offices to a corporate emergency operations center (EOC) and hundreds of employees notionally carrying out their responsibilities under the company's emergency response and business continuity plans.

T3 involved far more private-sector representatives of the nation's critical infrastructure sectors than were initially expected. The PSWG initially hoped to have at least three of the nation's critical infrastructure sectors represented and tested from among the following: transportation (trucking, rail, maritime), chemical/HAZMAT, real estate/commercial, energy (oil and gas), water, and public health. Ultimately, every one of the thirteen critical infrastructure sectors identified in the National Strategy for Homeland Security was represented by more than one player and was exercised during T3. Table 1 lists the industry and critical infrastructure sectors and subsectors and provides the total number of private-sector players that represented each one during T3.

In order to be approved for play, all private-sector participants were required to complete a Player Fact Sheet⁴ and submit it for approval to the T3 planning team. Private-sector players were also required to provide a written commitment to communicate exercise-related information according to the protocol defined in the T3 Private Sector Coordinating Instructions and to provide a minimum of one page of feedback after the exercise.

B. Planning and Training Considerations

To ensure that T3 was properly designed and executed to account for the specific and unique characteristics of the private sector, two private-sector groups were formed for the exercise planning process: the PSWG and the Private Sector Planning Group (PSPG). The PSWG was composed of all T3 private-sector participants, as well as the private-sector planners from DHS and the states of Connecticut and New Jersey, as well as the members of the Exercise Planning

⁴ The Player Fact Sheet form is an appendix to the T3 Private Sector Integration Concept of Operations.

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This Document Contains Canadian and United Kingdom Information

Team responsible for private-sector integration. Each of the three venues—Connecticut, New Jersey, and National—had its own PSWG. Each venue's PSWG met approximately once a month from September 2004 through February 2005 to disseminate information to the private-sector participants and to generate and capture relevant ideas for the continued planning and execution of T3 private-sector integration.

The PSPG, by contrast, was composed of only those private-sector participants in T3 who were designated by their organizations as T3 planners. Planners were required to attend a one-day training program for T3 field controllers and data collectors that was held in Connecticut, New Jersey, and Washington, D.C., during the weeks leading up to the T3 FSE. The PSPG was far smaller than the PSWG because private-sector organizations playing in the private-sector Tabletop Exercise (TTX) mode⁵ were not required to have a planner. About 100 private-sector participants elected to play in TTX mode. The approximately 40 representatives of private-sector organizations who were members of the PSPG were granted access during the T3 planning stage to the draft scenario and Master Scenario Events List (MSEL). They also provided and reviewed proposed events (injects, expected player actions, and requests for information) for the MSEL.

ODP exercised final decision-making authority over all questions and design issues affecting private-sector integration. In addition, the DHS PSO and ICD were heavily involved in the design, planning, and execution of T3 private-sector integration. Among other efforts, the PSO and ICD attended PSWG and PSPG meetings; reviewed the draft exercise scenario; proposed private-sector-specific injects, expected player actions, and requests for information for the MSEL; and facilitated key relationships with and participation by private-sector organizations. The ICD NICC director and his staff planned and provided all of the logistics and other support for the Private Sector Cell co-located at the NICC during the FSE and planned and hosted a T3 private-sector planning meeting in February 2005 and the dry run for the NICC Private Sector Cell.

IV. Exercise Design and Artificialities

This section describes selected private-sector-specific exercise design considerations and artificialities that had a substantial impact on private-sector play in T3. T3 private-sector integration was designed to accommodate characteristics of the private sector that are distinct from most FSL government organizations. Relatively few private-sector organizations and personnel have emergency preparedness and disaster response as their primary responsibility. Before 9/11, relatively few private-sector organizations engaged in disaster response exercises involving substantial interaction with FSL government organizations. Similarly, although many private-sector organizations have well-defined plans for emergency preparedness and business continuity, far fewer have clear, well-defined roles and responsibilities for interacting with FSL government during a disaster response.

⁵ The four private-sector-specific modes of play are defined and described more fully below under the heading "Flexible Modes of Private Sector Play."

It thus was determined during the exercise planning stage that private-sector integration should be designed to flexibly accommodate the various levels of time, personnel, and exercise experience each individual private-sector organization could commit to T3. Flexible modes of play and flexible hours of play were two key features designed to accommodate T3 private-sector integration.

An exercise artificiality is a feature of the exercise that could not be played true to reality or freely scripted. Artificialities generally are limitations or constraints on the exercise design. The following artificialities were chosen based on multiple factors. In some cases, the artificiality would not have occurred in a real-world situation; in others, the artificiality was noted because it had a substantial overall impact on exercise play. These artificialities influenced both the exercise design and the conduct of players throughout the exercise. The overall evaluation of the design and execution of T3 private-sector integration should be conducted with an understanding that these artificialities, and others, existed.

A. Flexible Modes of Private Sector Play

Each participating private-sector organization selected and played in one of four modes designed specifically for private-sector integration. The four private-sector play modes are:

- Tabletop Exercise (TTX)
- Command Post Exercise (CPX)
- Closed Loop Exercise (CLX)
- Full Scale Exercise (FSE)

The extent of private-sector organizations' play ranged from notional participation by a few individuals (TTX) to full-scale, on-the-ground involvement (FSE). Each private-sector organization worked closely with the exercise planning team for the venue in which it was playing (Connecticut, New Jersey, or Interagency) to determine which play mode would be the most appropriate for that organization.

The private-sector exercise modes share several fundamental similarities. In all four modes, a private-sector participant's emergency response team, director, or subject matter expert (SME) monitored real-world and simulated channels for information on the unfolding WMD scenario. In all modes, private-sector participants were authorized to disseminate exercise-related information to those personnel at their same location who had relevant responsibilities for responding to the events. All private-sector participants were expected to respond to information about unfolding events according to their pre-established policies, plans, and procedures. For most private-sector participants, this included well-defined emergency response and business continuity plans. Finally, all private-sector participants were free to activate their organizational command posts or EOCs, even though the play mode selected had an effect on the extent of communications these command posts and EOCs could initiate.

Of the four private-sector play modes, FSE mode afforded participants the most robust play. During the exercise, four private-sector organizations playing in FSE mode actually carried out

emergency response operations, including tactical field operations at one or more of the physical locations of the simulated attacks and responses in Connecticut and New Jersey. These FSE-mode players were permitted to coordinate response activities and to initiate communications with any other registered, relevant T3 participant. FSE-mode players were expected to conform their play as closely as possible to the response activities they would actually conduct had the events been real. FSE-mode play was more appropriately suited to non-profit organizations. Few for-profit organizations elected to play full-scale by actually shutting down their operations or deploying participants for tactical field operations.

Approximately 100 private-sector organizations played in private-sector TTX mode. In general, the only external communications TTX-mode players were permitted to initiate were with the NICC Watch or, for those playing in the Connecticut and New Jersey venues, with the Private-Sector Liaison in their respective state's EOC. But TTX-mode players had the option of physically co-locating with a CPX-mode player. In this arrangement, the CPX's T3-trained controller served as the controller for the TTX-mode player as well. Any TTX-mode player that chose this option was permitted an expanded range of communications, including with any other registered and relevant T3 player.

Approximately 36 private-sector organizations played in the private-sector CPX mode. In this mode, the response activities by private-sector organizations extended beyond the internal use of exercise-specific information to (primarily notional) coordination of response activities and communication with other registered T3 participants. Private-sector CPX-mode players that activated an organizational command post or EOC could use it to handle two-way communications with relevant T3 participants from both the private and public sectors. A few TTX-mode and CPX-mode players actually mustered and exercised first responder units, but not at any of the physical locations of the simulated attacks and responses.

Three separate sets of private-sector organizations and associations played in the closed-loop exercise (CLX) mode. Each CLX required a CPX with its T3-trained controller. CLX-mode players were permitted to initiate communications only with their CPX. Members of a CLX could communicate with the other members of their own CLX but only if their CPX controller joined in on the teleconference.

CLX mode was devised during the latter stages of the exercise planning phase, when it was determined that a fourth, new mode of play was needed to accommodate three private-sector organizations and associations. Each of the three represented a large group of players (50+) within a highly specific critical infrastructure or unique sector. The individuals within these organizations and associations needed to share exercise-related information with one another in

⁶ As one example, the Salvation Army deployed and operated its canteen operations to feed and care for emergency response workers at the site of the simulated attacks at the City Pier in New London, Connecticut. Such tactical field operations required a Memorandum of Agreement with DHS ODP and the applicable authorities as well as with the venue support team and exercise planning team.

Nevertheless, for-profit private-sector T3 participants from several critical infrastructure/key resources sectors – including transportation, commercial facilities, and telecommunications – have reported that they would prefer, if the exercise design permits, to play in FSE mode during TOPOFF 4.

order to test their respective emergency response and business continuity plans. But a concern arose that the exercise-related information and inquiries any one of these three groups could generate would potentially be too voluminous and multifaceted to be handled efficiently by the rest of the exercise.

Almost all private-sector players participated in T3 in the TTX, CPX, or CLX mode and executed the great majority of their response activities notionally. Few played in FSE mode and carried out their activities "on the ground." The additional artificialities of not playing in FSE mode are likely to have had the most significant effect on private-sector players in critical infrastructure sectors such as the electricity sector and the telecommunications sector. In a real event, they would have had to provide services, maintain equipment, and make critical employees available in the affected areas despite major obstacles such as travel restrictions and limited prophylaxis distribution. Playing in a private-sector mode other than FSE would have had far less effect on the ability of participating private-sector organizations to conduct internal tests of their own emergency response and business continuity plans.

Table 1 shows the number of private-sector organizations that played in each of the four private-sector exercise modes.

	TTX	CPX	CLX	FSE
National	59	14	3	0
Connecticut	11	13	0	2
New Jersey	30	9	0	2
Total	100	36	3	4

Table C-1. Number of Organizations Playing in Each Private Sector Exercise Mode

B. Information Exchange in CPX and FSE Modes

Importantly, private-sector organizations playing at the CPX or FSE level were responsible for ensuring that all private-sector organizations with which they exchanged T3 information were authorized to play in T3. A private-sector organization was authorized to play in T3 when the T3 Exercise Director approved the organization's Player Fact Sheet. The exchange of exercise-related materials and information with any individual or organization that was not approved for T3 play was prohibited.

Organizations playing at the CPX or FSE level were required to designate an organizational point of contact to interface with the T3 exercise team. This individual functioned before the exercise as an exercise planner and attended the one-day field controller and data collector training program. During play, this individual functioned as a field controller/data collector and ensured that the organization followed the rules for information exchange and stayed within the prescribed boundaries of the exercise. Rather than identifying an individual to serve as a pre-exercise planner and field controller/data collector, an private-sector participant playing at the

CPX or FSE level could rely on an overarching organization⁸ and physically co-locate at the overarching organization's command post or EOC during the exercise. The overarching organization was responsible to ensure that all co-located private-sector participants followed the information exchange rules and did not violate the exercise's boundaries.

C. Flexible Hours of Private Sector Play

In addition to multiple modes of play, T3 private-sector integration offered participants flexible hours of play to accommodate the amount of time and number of personnel each organization could make available for the exercise. The PSWG scheduled official hours for private-sector play, but private-sector planners and players determined the best hours of play for themselves and their organizations.

The official hours of play for private-sector players in the FSE were chosen to permit the players to allocate their time efficiently to correspond with the major private-sector-related events in the exercise scenario. These hours were:

April 4 (Monday)	12:00-20:00	STARTEX (NICC Alert Sent via ENS at 15:08)
April 5 (Tuesday)	08:00-16:00	
April 6 (Wednesday)	07:30-16:00	
April 7 (Thursday)	08:00-14:00	ENDEX for NICC Private Sector Cell,
		NICC Hotwash 14:30-16:00
April 7 (Thursday)	08:00-11:30	ENDEX for Other Private Sector Participants

All private-sector participants were informed of the official hours of private-sector play. But because most private-sector participants did not play during this entire range of hours, all private-sector controllers in the T3 Master Control Cell and the Connecticut and New Jersey Venue Control Cells were provided a play schedule for all private-sector participants.

Knowing in advance the approximate timing of the initial disclosures of the simulated terrorist attacks, the Exercise Planning Team informed private-sector participants to be ready to play sometime between 12:00 and 15:00 on the first day of the FSE. Pre-exercise documentation and other communications emphasized that, if private-sector participants failed to receive notification, those who wanted to play from the beginning of the private-sector-related events should arrive at their play locations by no later than 15:00. 10

⁸ Examples of overarching organizations that acted in this role in the State venues during T3 include ASIS International and the Fairfield County Business Council in Connecticut and the New Jersey Business Force in New Jersey. The DHS/ICD National Infrastructure Coordinating Center and the FEMA NRCC acted in this role in the National venue.

⁹ On the first day of the exercise, April 4, 2005, VNN made its first report of plague (type unspecified) at 11:50. VNN made its first report of the explosion at the New London City pier in Connecticut about an hour and a half later at 13:30.

¹⁰ The actual alert to the private sector of the simulated events was sent by the NICC via the Emergency Notification System at 15:08 on April 4, 2005.

Play ended for all private-sector participants other than those playing at or through (i.e., virtually) the NICC Private Sector Cell at approximately 11:30 on Thursday, April 7. End of play for the NICC Private Sector Cell was the same day at 14:30. An NICC Private Sector Cell Hotwash followed immediately afterwards. Private-sector T3 players attended the Hotwash physically and via teleconference.

D. Prototype Positions for Private Sector Coordination

During the exercise, three new positions were created and played to facilitate private-sector coordination with FSL incident management. A Private Sector Liaison position was created and played in the Connecticut EOC and a Private Sector Liaison Cell in the New Jersey EOC. A Private Sector Cell was established in the NICC.

These positions do not actually exist yet. They were prototyped in part to facilitate the T3 private-sector integration objective of improving public-private information sharing processes and capabilities and with the intention of institutionalizing them after the exercise.

As artificialities, these mechanisms provided private-sector players the opportunity for increased intra-sector coordination, particularly at the national level. As a result of being physically or virtually located at the NICC, private-sector representatives were able to gain a better understanding of the actual operations of the national mechanisms and procedures for coordinating and communicating with the private sector.

Without these prototypes, there would have been less understanding and greater confusion among the private sector about overall situational awareness, including each agency's incident management and emergency response responsibilities. In addition, much of the cross-sectoral coordination and communication during T3 occurred at or through the NICC Private Sector Cell. Without this cross-sectoral coordination and communication, there would have been far less interaction between critical infrastructure representatives and FSL government representatives.

E. Minimal Testing of Unsolicited, Unmanaged Volunteers and Donations

In response to real events of the magnitude of T3, the public has a history of providing large numbers of volunteers and quantities of donations that incident management officials have not solicited, do not have the resources or authority to manage, and often find do not meet the real needs in the field. The 9/11 terrorist attacks are just one real-world example in which the number and magnitude of unsolicited, unmanaged volunteers and donations substantially interfered with critical response and recovery activities.

In T3, such unsolicited and unmanaged volunteers and donations did not appear even notionally, much less actually. The exercise was designed to have private-sector players from faith-based organizations act as role players and place dozens of telephone calls to FEMA/Volunteer Organizations Active in Disasters (VOAD) to offer substantial numbers of unsolicited volunteers and donations. But, in order to avoid overwhelming the resources of FEMA/VOAD that were available for the exercise, the play of these faith-based organizations was terminated on the

exercise's second day. Thus, the FSL incident management teams did not have to face the volunteer and donations management problems that a real-world event would have produced.

F. Multi-State Effects on Private Sector

Multi-state effects on the private sector were largely absent in T3. As a result of real incidents of this magnitude, the effects propagating to states other than Connecticut and New Jersey would have had a profound impact on the private sector.

For example, it is unrealistic to assume that other states or the Federal government would have allowed unrestricted travel by members of the trucking industry and the public who had recently been present in New Jersey. Distribution centers and warehouses would have been likely to refuse shipments that originated in New Jersey. Those that had accepted such shipments before the plague attack was discovered would be in crisis mode attempting to determine whether they were infected or clean, as well as whether they could continue to ship and receive goods. The results would have included cascading delays in supply chains and possibly severe shortages of key resources.

Airline passengers who had recently been in New Jersey also would have been subjected to some type of official procedures to determine whether they posed a threat to the health of others. It is probable that this would have had a significant effect on the operations of the airline industry, and possibly a negative economic effect as well.

Similarly, the arrangements private-sector representatives in the transportation sector made with New Jersey officials to transport key resources and other goods into New Jersey after the travel restrictions were imposed relied on neighboring states, including Pennsylvania and Delaware, for staging. But those states were not playing in T3. All decisions and cooperation by these neighboring states' officials had to be assumed or simulated. Thus, it cannot be concluded that these public-private arrangements forged to adapt to the travel restrictions would have been possible in a real incident.

G. Lack of Real-World Demand for Key Resources

During the exercise, the public did not demand food and other basic necessities when shortages of these key resources occurred or were threatened. The exercise's lack of real-world demand pressure for these key resources is a significant artificiality.

The transportation sector and food sector players in the NICC Private Sector Cell reported that they had a difficult, but manageable, arrangement for transporting food and other key resources into the affected areas in New Jersey before the travel restrictions. After the restrictions were imposed, this arrangement was no longer workable and private-sector players scrambled to fashion an alternative. But the food warehousing, distribution, and retailing systems in a state typically contain just a few days' worth of food under normal demand conditions. Private-sector members of the food sector in New Jersey estimated during T3 that – when purchasing patterns are normal – approximately 1-2 day's of perishable food inventory and 6-8 days' of non-

perishable food inventory is present within the overall system at any given time. Although the "just-in-time" supply system is flexible and responsive to market forces under normal conditions, it is fragile and difficult to restore when shut off or severely disrupted, even for short periods. And public confidence in the ability of the supply chain to deliver key resources may be one of its most vulnerable links.

It was not possible to simulate the real-world demand for food and other key resources, and the cascading effects of potential shortages could not be fully calculated. However, private-sector representatives of the food sector in New Jersey played the supply chain disruptions and consequences out notionally and concluded that the food shortages would be significant enough to engender civil unrest. The extent of damage from this civil unrest would cause the food industry in New Jersey to still be in the recovery mode at least 30 days after the end of the exercise.

H. Lack of Real-World Stresses on Specific Critical Infrastructure Sectors

Some critical infrastructure sectors were not stressed to the extent and degree they would have been had the T3 attacks been real events. As one example, a private-sector participant representing the electricity sector noted that the sector was tested only lightly and would have undergone far greater stresses had the scenario played out beyond the scheduled four days.

The telecommunications sector in particular was subjected to a noteworthy lack of significant stresses during T3. As one participant at the NICC Private Sector Cell noted, telecommunications facilities across the board were expected to and (notionally) remained fully operational and underutilized for the entire exercise. But even real-world events that are far more localized and result in far fewer casualties than the simulated T3 events cause significant stress and over-utilization of telecommunications facilities. Thus, any overall assessment of the ability of the nation's critical infrastructure to weather a real-world attack similar to the simulated T3 attack must take into account the exercise's designed-in lack of stress on telecommunications systems and facilities.

Similarly, the play of the financial sector was, by design, confined within a CLX. This CLX reported that it successfully tested its critical ringdown system, which ensures that key representatives of the financial sector can contact and share information with each other during an emergency. But little financial information from that closed loop was communicated to or played within the rest of the T3 exercise. Therefore, there is little to be gleaned from T3 regarding the effects of events of this nature on the strength of the financial sector and the national economy.

¹¹ (See *London rocked by explosions*, CNN.com, July 7, 2005 (available at http://www.cnn.com/2005/WORLD/europe/07/07/london.tube/index.html).)

V. Exercise Observations

This section describes observations of issues that arose that involved the private sector and were not expected before the exercise. The observations were derived from the private-sector secure messages, the venue chat logs, and NICC data collector logs. The three main observations were:

- FEMA/VOAD chose not to exercise the NRP Volunteer and Donations Management Annex:
- surprisingly little official information flowed from FSL government to the private sector;
 and
- only a few days' worth of reserves exist in the supply chain for key resources such as food and hospital supplies.

On the second day of the FSE, a conference call took place between four faith-based organizations and the American Red Cross (ARC), VOAD, and FEMA. At that time, the faith-based organizations offered both volunteers and donations. The support was turned down. Volunteers and/or donations would be solicited through the partner organizations already in place on the local or statewide level. The faith-based organizations were told to contact their local chapter of the ARC which would draw on its constituency if needed. Due to the refusal of unsolicited volunteers and donations, the coordination mechanisms defined in the Volunteer and Donations Management Annex of the NRP were not able to be exercised.

Throughout the FSE, FSL governments made decisions that affected the private sector, but were not communicated to the private sector. The decision to raise the threat condition to Red in New Jersey and the protective measures to be taken under that condition were areas in which the private sector did not receive official information from the public sector. During the New Jersey government discussions on the lifting of travel restrictions, a decision was made to open one lane on the highway to allow for the movement of supplies. At least one large shipping firm was not told of the access lane until well after the government had opened it. If it had been involved in the decision-making process, the firm could have scheduled and positioned its assets to make efficient use of the limited travel access. Also, the private sector was never informed of recommended protective measures that were developed by DHS.

The scenario in New Jersey and Connecticut demonstrated the scarcity of reserves of food and medical supplies that would be essential in a real-world incident. Not long after the plague began to spread in New Jersey, hospitals experienced critical shortages of supplies such as masks, gloves, and IV fluids. As New Jersey was put under threat condition Red and travel restrictions were put in place, the food sector was severely hampered. Most retail food stores and distribution centers only have a few days worth of supplies on hand and food shipments were stopped at the border. In Connecticut, a shelter-in-place order was given by the Governor for an area surrounding New London. If the shelter-in-place order had lasted for just two or three days, companies subject to the order who were sheltering their employees would have run out of food.

VI. Key Issues

This section addresses significant issues identified during the planning and execution of T3 private-sector integration. These issues are derived from private-sector participants' observations and feedback contained in comments and documents from Hotwashes and After Action Conferences and in numerous other feedback sources. The issues grouped into six broad categories:

- Prototype Private Sector Coordination Mechanisms
- Public-Private Coordination and Communication
- Testing Internal Emergency Response and Business Continuity Plans
- Cross-Sector Coordination and Communication
- Private Sector Planning
- NRP Volunteer and Donations Management Support Annex

A. Prototype Private Sector Coordinating Mechanisms

The effectiveness of three private-sector coordinating mechanisms prototyped during the exercise —the Connecticut Private Sector Liaison position, the New Jersey Private Sector Liaison Cell, and the NICC Private Sector Cell—led private-sector players to request that they be institutionalized for real-world incidents. The Private Sector Liaison in the Connecticut EOC provided briefings and updates three times a day during the FSE. Electronic bulletins were broadcast to every registered e-mail address, pager, and cellular telephone notifying private-sector participants of an upcoming situational awareness briefing, which was then broadcast to all registered cellular telephones. After the situational awareness briefing, registered private-sector players had the opportunity to engage in a question-and-answer session with representatives of the Connecticut EOC. On average, approximately 20 of the 26 private-sector organizations playing in the Connecticut venue participated in each of these question-and-answer sessions during the exercise.

The Private Sector Liaison Desk at the New Jersey Office of Emergency Management (OEM) handled "hot issues" from companies in New Jersey and passed along questions to the appropriate Infrastructure Advisory Committee chair. The Private Sector Liaison served as a single, centralized point of contact in the State government for representatives of critical infrastructure sectors and industry, making it easier for the private sector to determine who they needed to contact with their problems, requests, and offers of assistance.

The Private Sector Cell at the NICC integrated the DHS specialists with their counterparts representing each critical infrastructure sector. Participants also included private sector players representing other industries and sectors who were playing at the National (as opposed to the State) level. Other than NICC staff, Table 2 lists the number of participants in the NICC Private Sector Cell.

Table C-2. Participants	in NICC	Private	Sector	Cell

Personnel Category	Number of Participants	
Critical Infrastructure/Key Resource Group	141	
DHS Private Sector Office (PSO) Group	47	
PCII Group	6	
Observers	12	
T3 Controllers and Data Collectors	12	
T3 Exercise Support Team	6	

The Critical Infrastructure/Key Resource Group in the Private-Sector Cell was composed of private-sector representatives of the nation's CI/KR sectors, representatives of the Information Sharing and Analysis Centers (ISACs), and sector specialists from the DHS Infrastructure Coordination and Analysis Office (ICAO). The DHS Private Sector Office (PSO) Group included private-sector participants not directly representing a CI/KR sector as well as members of the DHS PSO.

The NICC provided two briefings each day, including via secure teleconferencing and presentation facilities to those participating in the Private Sector Cell virtually. Private-sector players reported that physical or virtual participation in the Private Sector Cell facilitated effective coordination within and, with some exceptions, between sectors. Participants also reported that they gained a better understanding of the Federal government's actual operations during an INS.

B. Public-Private Coordination and Communication

Issues surrounding coordination and communication between the government and the private sector dominated the comments and feedback from the private-sector players. The issues fall into three categories:

- Lines of Communication
- Method of Communication
- Coordination

C. Lines of Communication

For many private-sector participants, T3 illuminated the official links for coordinating and communicating with FSL government, and highlighted some the weaknesses in those links. Private-sector participants frequently mentioned in their feedback that the exercise enabled them to gain a better, more realistic picture of what information and resources would be available from FSL government during a real-world response to a WMD terrorist attack. They learned what steps the private sector would have to take to coordinate effectively with the government to obtain this information and these resources.

Private-sector participants were surprised by the lack of information coming to them during the execution of the exercise from official channels in FSL government. For the private-sector players in the National venue, this surprise centered on communications from the top down, starting from the White House to the DHS Secretary, the IIMG, and ultimately to the DHS sector specialists and their private-sector counterparts. Notwithstanding the benefits provided by colocating the Private Sector Cell prototype at the NICC, participants concluded that the information they received back from the IIMG, the NICC, and other Federal organizations was slow and of insufficient quality. For example, at the end of the first day of the FSE, private-sector players were concerned by and had received little information explaining why transportation was not "locked down tight" to contain the plague. Furthermore, the lines of communication and authority between the NICC, the IIMG, and other organizations were unclear to the private sector.

1. Methods of Communication

One of the primary methods by which the private sector and the Federal government communicated during the exercise was through the request for information (RFI) process. But private-sector participants found the process confusing and inefficient. The process for responding to RFIs received by private-sector players via the NICC was not well-defined or well-communicated. Private-sector players in the NICC Private Sector Cell reported that they spent too much time on RFIs as a whole and that the time they spent on each one was not used efficiently because the RFIs they received were not prioritized. They further commented that they should have received feedback to the responses; this would have enabled them to assess the appropriateness of and priority given to the information they provided.

Private-sector participants repeatedly asked that when they send out an RFI, they receive a timely response, even if the response is nothing more than the status of their request. For example, the Real Estate ISAC had to request information on the cancellation of sporting and convention events multiple times on multiple days before the commercial facilities sector received relevant information from the NICC. To permit timely responses, the RFI process needed to be clarified so that the information necessary to the private sector is managed by appropriate Federal personnel who can distribute it to Federal coordination mechanisms to be acted upon and shared with the private sector

A second method through which the public and private sectors communicated was through e-mails. However, many private-sector participants had problems with the e-mail system provided. Many players were not able to keep up with incoming e-mail pertaining to the exercise. Also, most e-mails were not clear as to who the message was supposed to go to, who was supposed to respond to the e-mail, and whether or not it was a question or a statement. In order to remedy that situation, the private-sector participants requested more dedicated phone lines, cell phones, and modes, other than e-mail, for private sector office officials to be reached in emergency situations.

Participating private sector organizations emphasized that they have the ability, capacity, and redundant systems necessary to pass information quickly and efficiently to their sectors,

industries, nationwide locations, and workforces. In the absence of timely information from public officials, the private sector turns to other sources, sometimes resulting in decisions that do not match the actual situation. For example, at the time when representatives of the transportation/rail sector responded to an RFI, they had not received the information that New Jersey was raising its threat advisory level to Red. If the railroad sector had known about the raise in threat level, their response to the RFI may have been different. If the private sector does not receive credible and reliable information from official sources, businesses and industries go ahead and adjust the supply chain according to their own continuity plans or in response to perceived threats based upon unofficial, back-door communication links.

2. Public-Private Coordination

Critical decision making by the government in the midst of a crisis can have significant unintended consequences if not fully coordinated with the private sector in advance. Throughout the exercise, there was a widespread lack of knowledge of the protocols involved and the appropriate private-sector responses to a decision by a State government or by DHS to raise the threat advisory to the Red level. For many private-sector participants, the greatest challenges faced during the exercise were a result of the State of New Jersey declaring Red and imposing travel restrictions, both with little or no advance coordination with the private sector. Emergency travel restrictions seriously limited the movement of critical employees and supplies within the private-sector workforce. When the discussions regarding the lifting of such restrictions take place, the private sector should be involved. The private sector requested clarification of and involvement in the decision-making process for raising and lowering threat advisory levels.

The private sector would also like to improve the coordination during response and recovery efforts of private-sector assets. The private sector has an array of assets at its disposal: facilities, materials, supplies, vehicles, and even aircraft. When governmental response resources are stretched or stressed, the private sector could provide assistance. DHS, as well as State OEMs, must know in advance who within the private sector owns or controls which assets. Precoordinating these assets would enhance preparedness and facilitate a more effective response within each state.

The DHS PCII Program was developed to enhance public-private coordination and information sharing. This program enables members of the private sector to voluntarily submit to the Federal government sensitive information regarding the nation's critical infrastructure with assurances and safeguards protecting the information from public disclosure. Testing the PCII Program was one of DHS's express objectives for T3 private-sector integration. The NICC established a PCII Coordination Cell for the exercise to handle and expedite PCII protections for critical infrastructure information submitted by the private-sector participants.

The data show that some testing of the PCII Program took place during the exercise, including PCII approval of information submitted by the chemical sector and subsequent use of that information by the Transportation Security Administration (TSA). It was also noted that the TSA sought to share this information with a State EOC until a PCII representative explained that the PCII Program has not yet approved states to receive such information. But the data on the whole

suggest that the PCII Program was tested only lightly and are insufficient to support any conclusions about the program's effectiveness or efficiency during disaster response operations.

D. Testing Internal Emergency Response and Business Continuity Plans

T3 raised the level of awareness of many private-sector organizations' employees regarding the critical roles that their business functions and emergency response plans play during an event. The exercise illustrated to private and public sector players that cascading effects of absenteeism, especially of critical employees, can shut down organizations and sub-sectors. Private-sector organizations must be able to get critical employees to work to maintain continuity of operations. A large percentage of the huge (notional) financial losses in the New Jersey chemical sector (estimated at \$557 million during the first week of the FSE alone) was caused by absentee-related plant closures or slowdowns. Even an automated operation requires critical employees to enter areas affected by events when vital systems go down. But during the FSE, a lurking, unresolved question arose about the definition of a critical employee and whether the criteria applied by law enforcement will match the private sector's definition. It is unclear whether the necessary training and coordination has been undertaken to enable law enforcement personnel to recognize specially marked company vehicles.

T3 also provided a useful, realistic opportunity for private-sector organizations to test their emergency response and business continuity plans. With some exceptions, a large majority of responding private-sector organizations reported that the realism and richness of the FSE scenario and events permitted them to gain a better understanding of the strengths and weaknesses of their plans. The commercial facilities sector reported that large disparities continue to exist in the sector's response capabilities and emergency plans, which range from excellent to non-existent. Some facilities' management plans to automatically self-evacuate during an event, and there is no industry standard response to a shelter-in-place instruction by a State. For this purpose, the private-sector participants sought improved information and coordination on appropriate private-sector protocols and responses to heightened Federal and State threat alert levels.

Several companies said that they would consider volunteering their facilities to be Points of Dispensing (PODs) under the Strategic National Stockpile program. Many private-sector participants felt that hosting a POD would be part of their business continuity planning. Community Emergency Response Team training for company volunteers would be necessary to enable private-sector organizations to fulfill this commitment.

E. Cross-Sectoral Coordination and Communication

T3 provided many examples demonstrating that coordination and communication between various sub-sectors of the private sector are both indispensable and often insufficient to respond effectively and efficiently to an event of this magnitude. Private-sector organizations themselves gained a greater awareness of the extent of critical infrastructure interdependencies, and the NICC Private Sector Cell provided many opportunities for and examples of positive, effective cross-sector communication and coordination. The food and agriculture sectors and the

transportation sectors engaged each other and many other sectors in decision making and information gathering, which had important effects on the movements of key resources during the FSE. Representatives of the private-sector players in the NICC Private Sector Cell repeatedly organized and coordinated cross-sectoral lines of communication.

In many cases, participating private-sector groups did not know what decisions were being made in other sectors and by whom they were being made. They reported that their knowledge, or their lack of knowledge, of those decisions would have significant impacts across sectors in a real-world event. It was noted that in real time, a useful display of critical information could be presented at the NICC Coordination Center Cell, which would include a summary of the current situation, a timeline of events, and the time and substance of major governmental decisions that have been made. Several private-sector participants expressed support for the creation of a private sector analog to the IIMG, which would, in their view, improve cross-sector integration for planning and evaluation.

F. Private Sector Integration Planning and Training

A large majority of the private-sector organizations that provided feedback stated that the exercise was thoroughly and professionally planned in a manner that allowed them to participate effectively and realistically in the event scenario and response and recovery efforts. A few commented that the involvement of private-sector participants in the planning process was insufficient and did not enable them to exert sufficient influence on the design of the exercise to ensure meaningful, realistic play for their organizations. Some private-sector participants also felt that they would have benefited from additional or more in-depth training. A key observation was that those who represent the private sector in exercises must be SMEs who are well-versed in each subject matter and sector for which they are responsible. In addition, those representing the private sector during actual events must have substantial exercise and/or real-world disaster response and recovery experience.

Private-sector participants commented on the need for greater private-sector input into the National Infrastructure Protection Plan and the NRP. The private-sector integration in these plans needs to be more robust, and this requires substantial private-sector assistance.

G. Volunteer and Donation Management Support Annex

Little actual testing of the NRP Volunteer and Donations Management Support Annex was conducted during T3. Faith-based organizations who had been trained to execute injects by simulating members of the public telephoning VOAD to offer unsolicited volunteers and donations were requested by agency-affiliated players to stop participating on Day 2 of the FSE. Protocols were apparently not in place for handling VOAD-type donations and volunteers. The decision was made to suspend this play because the telephone call injects would have flooded the local VOAD centers. It was stressed that the volunteer and donations management function was unprepared to handle the influx of calls and donations that could potentially come in during a real-world crisis. The lesson learned was that VOAD is not yet prepared for massive offers of voluntary assistance and donations at the local or national levels. Additional testing and

emergency response operations development is necessary for the volunteer and donations management system to be prepared to handle a 9/11-style outpouring of volunteers and donations in a future exercise or real-world event.

Faith-based organizations' participation in T3, particularly in the planning stages, did provide them experience in coordinating with the Federal government for disaster response efforts. A leader of one of the faith-based emergency management organizations stated immediately after faith-based play was shut down that their involvement in T3 led his local VOAD director to offer to meet with him after the exercise to share lessons learned, as well as how faith-based organizations can be a part of that VOAD district's working emergency response plan.

VII. Conclusions

Exercise play in T3 provided an unprecedented range and number of private-sector organizations an opportunity to exercise their coordination and communication with FSL government in response to a domestic WMD terrorism attack. The scope and magnitude of private-sector participation in T3 were far greater than in T2. A significant majority of the private-sector participants who provided feedback agreed that the planning and execution of T3 private-sector integration was effective and facilitated robust play by their organizations. They further reported that T3 enabled them to test their emergency response and business continuity plans in an effective, realistic manner. Numerous organizations are improving these internal plans as a result of the exercise.

Private-sector participants also reported good coordination and communication within their own sectors and with their sector's DHS sector specialists. Much of this was facilitated by the prototype Private Sector Liaison mechanisms in Connecticut and New Jersey and the prototype Private Sector Cell in the NICC. There is a broad consensus among private-sector participants that these mechanisms should be institutionalized for operation during real-world events.

But T3 also demonstrated that real-world integration of the private sector into FSL government disaster response and recovery efforts is still in or near its infancy. Official government sources provided private-sector participants little of the information they needed to make sound, informed decisions. Private-sector participants perceived themselves to have been omitted from the decision-making processes on critical issues affecting their interests, as well as their ability to respond to the attacks. Private-sector participants deemed the lack of communication and coordination with official government sources to be particularly inadequate regarding travel restrictions, threat advisory level changes, and the availability and priority of necessary prophylaxis measures. Little or no advance private-sector coordination was provided before these decisions were announced. Once made, these decisions' specific objectives and recommended responses were not effectively communicated to the private sector. As a result, private-sector participants were left to rely on their own sources of information 12 and their own criteria for

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¹² Often that meant only Virtual News Network (VNN), a simulated cable news network that broadcasted information about exercise-related events to T3 players via secure satellite downlink, and VNN.com, a simulated Internet-based news service available to T3 players via a secure Web site.

deciding how to protect their employees, keep critical employees on the job, and continue to provide services and resources essential to effective public-private response operations. Also, despite private-sector representatives' efforts to provide effective responses to governmental RFIs, FSL government entities reported that the roles, responsibilities, and resources that private-sector organizations offer in a disaster response operation remain unclear.

Some cross-sectoral coordination occurred during the exercise, particularly through the operation of the prototype private-sector coordination mechanisms in Connecticut and New Jersey and at the NICC. But, most private-sector participants reported that cross-sector coordination and communication was inadequate to mount an optimal response to attacks of the magnitude simulated in T3.

Two key testing objectives for private-sector integration were not realized in T3: testing the NRP's Volunteer and Donations Management Support Annex and testing the PCII Program. Little attempt was made to respond to the telephone calls that were planned as exercise injects from role players from faith-based organizations who offered unsolicited volunteers and donations. The only reported result is that the faith-based players have a greater understanding of how to interact with the Federal government for disaster response and recovery. Similarly, given the lack of exercise data involving the PCII Program, no conclusions regarding its efficacy can be drawn from T3.

Annex D: Cyber Exercise in Connecticut

I. Summary

While the principal focus of the Top Officals (TOPOFF) exercises continues to be incident management, there is another element of our country's critical infrastructure that experts consider highly vulnerable to a terrorist-related attack: the national information infrastructure. TOPOFF 3 (T3) is the second Top Officials exercise to include a limited cyber component.

The Connecticut T3 Cyber Exercise was conducted on a not-to-interfere basis with the T3 Full-Scale Exercise. It took place March 22–23, 2005, at the Connecticut Department of Information Technology headquarters in East Hartford, Connecticut. There were approximately 80 participants including top officials and network operation centers (NOCs) from the Connecticut State Department of Information Technology, the Connecticut Department of Transportation, the Connecticut State Police, the Connecticut Education Network, and the city of New Haven.

The major objectives of the exercise were to:

- develop state and organizational information technology (IT) cyber security policies and procedures;
- determine policy effectiveness related to large-scale cyber attacks;
- develop strategies and planning frameworks to coordinate inter-governmental response and consequence management to cyber attacks;
- maintain continuity of operations during a cyber attack;
- develop recommendations for senior decision makers responding to potential cyber crisis events; and
- to explore the government and private sector role in maintaining public confidence during and after a large-scale cyber attack.

The exercise encompassed three cyber attack scenarios, each associated with different aspects of the cyber security problem. The intensity of the cyber attacks increased with each scenario, culminating in a final attack targeting specific networked entities within crisis or consequence management roles.

The NOCs used a simulated network developed by the Institute for Security Technology Studies (ISTS) as the primary source of exercise-related stimuli. The network replicated elements of regional, wide-area networks and an inter-governmental network.

After the exercise, participants highlighted the following key issues for consideration:

- a need for documentation of new technologies plans, policies, and procedures;
- development of plans and procedures associated with Homeland Security Advisory System (HSAS) levels;
- a need to identify network organizations and their functions;
- the importance of radio communications and non-voice over Internet protocol (VoIP);

- uniform government wide-area networks (WANs) policies; and
- remote access network control applications.

Participating top officials and NOCs felt that the Connecticut T3 Cyber Exercise was an excellent training tool and guide for current and future development of various information systems.

II. Introduction

The media frequently reports government officials' concerns over terrorist plans to conduct internet-based cyber attacks. These news stories often recycle theoretical scenarios attributed to foreign government information warfare capabilities. But, terrorist organizations, such as the TOPOFF 3 universal adversary, may also use cyber attacks to disrupt emergency services as a means to reinforce and multiply the effect of a physical attack. The Connecticut T3 Cyber Exercise examined the integration of inter- and intra-governmental actions related to a large-scale cyber attack on a major urban area of the United States. The attack was synchronized with a terrorist weapons of mass destruction (WMD) attack.

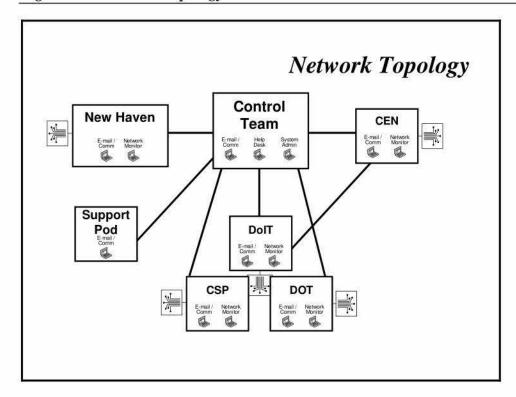
III. Background

The impact of cyber terrorism, both as an attack medium and as a means to disrupt crisis or consequence management, was highlighted as a shortfall of TOPOFF 2000. Accordingly, in T2, a cyber excursion was conducted to introduce the synergies associated with a blended terrorist attack. In planning T3, it was understood that incident management exercise including WMD and cyber attack elements might be counterproductive to the T3 objectives. Thus, the New Jersey and Connecticut state venues each held an isolated cyber exercise preceding the full-scale exercise.

IV. Exercise Design and Artificialities

During the exercise, players were divided into five NOCs and one support group (see Figure 1). Over a period of two days, players worked through three cyber attack scenarios. To support the development of these scenarios, the exercise design team used an outline of the attacker's (a generic "Red") aims, means, and methodologies.

Figure D-1. Network Topology



A simulated network, developed by ISTS, was utilized during the exercise. It served as the primary source for stimulating events and actions in the exercise. Regional, wide-area networks (e.g., the public access to governmental organizations) and an inter-governmental network (i.e., a private intranet used within the state) were replicated for use in the simulated network. Network status display console operators were briefed on how to use the simulated network before interactive play began.

During each scenario, the teams (groups) responded to the data provided on the exercise simulated network, or through other means. They addressed plans, policies, and procedures, as well as many management or technical issues. Although incident management and cyber security plans provided a foundation for the participants' actions and decisions, they were not constrained by these plans or other current, real-world plans and management concepts. The exercise was self-assessed and evaluation criteria were determined by each of the participating organizations.

Scenario 1, *Disjointed Attacks*, featured an "above normal" level of network disruptions. Players were asked to revalidate assumptions, upon which their incident response plans were founded, and to identify other suppositions. They also reviewed both the internal and external communication flows of their NOCs and discussed relevant cyber security issues. Players then identified and prioritized the implications of prolonged periods of "above normal" network disruptions. Finally, they examined the impacts on planned processes, courses of action, and resource requirements detailed in their response or disaster recovery plans.

Scenario 2, *Coordinated Attack*, was a low-level, coordinated cyber attack against stakeholder organizations. Players addressed response issues related to this particular attack. In addition,

players acknowledged the actions necessary to respond to these attacks in a combined manner and resume network operations.

Scenario 3, WMD Force Multiplier, was an overwhelming, coordinated cyber attack acting as a "force multiplier" for a combined terrorist WMD attack. NOCs addressed the necessary actions to re-establish or maintain network operations to permit crisis and consequence management.

V. Exercise Observations

Using their incident response plans, policies, and/or procedures, players reacted to the stimuli generated during these scenarios. Players then analyzed their reactions and evaluated the stimuli that were used in the scenario. The Control Team observed a general lack of communication within and between organizations. There often was a lack of written policies and procedures that could be used as guidance to their responses. A heavy focus on the reaction of the players was recorded. It was also noted that participants had limited communication with the Federal government.

One of the many challenges facing most IT security programs is the relative newness of their supporting technologies and programs. As a result, many existing plans, policies, and procedures have not been documented. This exercise revealed the need to examine and record "who does what when" during both normal operations and accidental or malicious disruptions.

The exercise also highlighted a need for the exploration of appropriate plans and procedures to respond to changes in the HSAS threat conditions. The exercise begged the question: What proactive steps should be taken when the threat condition escalates from Yellow to Orange and then to Red?

During the cyber exercise, players learned that critical public health and safety functions exist on a network that some senior officials consider of secondary importance and may have a low restoration priority if network resources become limited. An important question to relate is: What organizations reside on a network and what functions do these organizations perform?

An over-reliance on digital information technologies may cause the loss of important functionalities should significant network disruptions occur. The exercise re-enforced the need to retain radio communications and VoIP telephone capabilities, particularly in organizations involved in public health and safety.

In complex, government WANs, especially if sub-networks spur from the WAN, uniform, consistent, and enforced polices are necessary to ensure network security and reliability. This exercise demonstrated that, without these policies, there is a potential for ineffective communication and coordination of WAN-wide problem resolution.

Nearly all governmental networked information systems require "on-location" personnel for their overall operation and upkeep. Should government workers or contractors not be able to access their systems for whatever reason (such as chemical or biological contamination), these networks may degrade gracefully or crash. The exercise confirmed that business continuity, continuity of

operations, and disaster recovery plans should include remote access to network control applications.

VI. Conclusions

The Connecticut T3 Cyber Exercise focused on the player's ability to respond to a large-scale cyber attack within the framework of a WMD event. It was an opportunity for participants to validate plans, policies, and procedures and refine their organization's roles and responsibilities. In addition, participating organizations uncovered potential weaknesses and areas for improvement. The players gained valuable experience working in a controlled environment with a diverse group of skill sets. Collectively, they recognized the need for improved external coordination and communication with other organizations in solving the key issues identified during this exercise. Players expressed the desire to formalize existing exercise and training outreach programs to build upon the lessons learned through this experience and share them with others in the cyber security field.

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Annex E: Cyber Exercise in New Jersey

I. Summary

The New Jersey Top Officials (TOPOFF) 3 (T3) Cyber Exercise, a one-day interactive tabletop exercise was conducted on March 30, 2005, at the Office of the Attorney General complex in Trenton, New Jersey. This exercise examined, in an operational context, the integration of interand intra-governmental actions related to a large-scale cyber attack, synchronized with a terrorist weapons of mass destruction (WMD) attack. The exercise was designed to examine disruptions to networks, responses, the consequences to those disruptions, and the implications for protective measures.

II. Introduction

State agencies and municipalities encounter increased challenges when trying to respond to a physical WMD event, while also responding to disruptions of government-related information networks. The cyber exercise was designed to address this mutifaceted challenge. Accordingly, within the context of a WMD event, consideration was given to the following:

- the effectiveness of the various cyber security policies, procedures, and practices of various departments and levels of government;
- the ability of participating network operations centers to integrate and effectively conduct or manage a sustained response to a cyber attack;
- the planned flow of communications and information in an operational response context; and
- the decision and coordination processes considering a range of potential consequences.

III. Background

The specific T3 New Jersey Cyber Exercise objectives are as follows:

- Examine information technology (IT) practices—including incident prevention, reporting, response, communications, containment, investigation, etc.—to effectively respond to the effects of a cyber attack.
- Gain an understanding of implications for policies, procedures, and practices resulting from a cyber attack, including issues related to:
 - o internal coordination (State, local, and private sector);
 - Federal notification and response; and
 - other organizations.
- Refine a planning framework to:
 - o enhance processes, policies/procedures, and training sufficiency;
 - o maintain continuity of operations within participating organizations;

- develop alternatives and recommendations for senior decision makers responding to potential cyber crisis events; and
- o sustain confidence in government information networks during an attack.

IV. Exercise Design and Artificialities

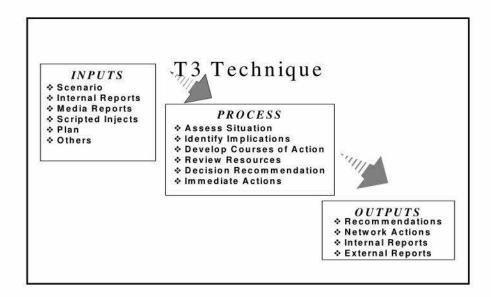
A. Scenario

The scenario included a simulated, coordinated Internet cyber attack from a terrorist cell or other associated groups. The T3 Cyber Exercise scenarios were considered in context of a range of threats from "script-kiddy" to state-sponsored, coordinated and uncoordinated attacks. At the beginning of the exercise, it was unclear to participants if the attacks were coordinated events or merely random intrusions. The purpose of the attack was not to take down the Internet, but to use the Internet to erode public confidence in the government, while, at the same time, disrupting the Federal, State, and local government's ability to provide for the health and safety of the public.

The overall technique employed within each interactive session was based upon the following paradigm: input \Rightarrow action \Rightarrow output. Using information provided by a scenario or scripted injects, participants responded to issues related to the specific theme of an exercise session and developed the products/actions required at the end of the sessions.

Figure 1 shows the general flow of this interactive technique.

Figure 1. T3 Exercise Technique



V. Concept of Exercise Activity

The exercise was an opportunity for participating organizations and individuals to:

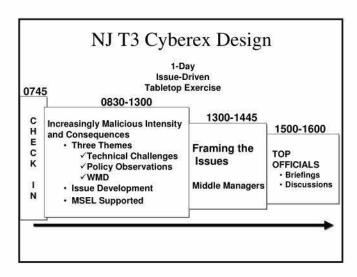
- examine policies, procedures, and practices;
- improve coordination and confidence;
- · augment skills;
- refine roles and responsibilities;
- reveal weaknesses and resource gaps; and
- build teamwork.

As this exercise was self-assessed, evaluation criteria were determined by each of the participating organizations.

Although the incident management and cyber security plans in use by participating organizations provided a foundation for participants' actions, their decisions were not constrained by these plans and other current real-world plans and management concepts.

Figure 2 shows the broad design concept.

Figure 2. T3 Cyber Exercise Design

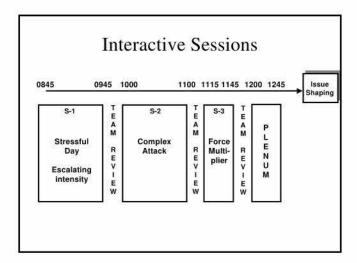


Multiple injects were used in three sessions of interactive play, each associated with different aspects of a cyber security problem (see Figure 3). These included:

 Session One: This session exercised a variety of communications paths and explored some complex policy questions. New Jersey and Hudson County incident response capabilities and practices were examined. Law enforcement issues were included in the prepared scenarios.

- Session Two: This session exercised the players' ability to correlate information to determine complex attack vectors. Participants examined their capability to identify remediation actions and potential unauthorized information exposure. Communications, law enforcement, and policy issues were included.
- Session Three: This session explored force multiplier effects and assessed their consequences. It included a major WMD event for state agencies and a power failure to key county facilities and networks.

Figure 3. Interactive Sessions



An executive-level seminar (see Figure 2) was conducted to examine policy issues and issues of common interest related to events that occurred during the three interactive sessions. Issues were framed and provided to an audience of "top officials."

VI. Participants

T3 players were primarily those Federal, State, and county representatives who have active roles in the daily operations, management, and security of information networks, systems, or infrastructure within their organizations. These participants played key roles in responding to and managing the consequences of the significant cyber disruption events presented in the scenario. The primary players in the exercise were the IT organizations of:

- New Jersey Department of Law and Public Safety, Office of the Attorney General
- Office of Information Technology
- New Jersey Department of Law and Public Safety, New Jersey State Police
- New Jersey State Department of Health and Senior Services
- New Jersey Department of Law and Public Safety, Office of Counterterrorism
- Hudson County

Supporting these players were representatives knowledgeable in the following disciplines:

- Commercial telecommunications providers, hardware and software vendors, and an Internet service provider (ISP)
- Federal computer incident response agencies
- Federal law enforcement agencies
- Information sharing and analysis centers

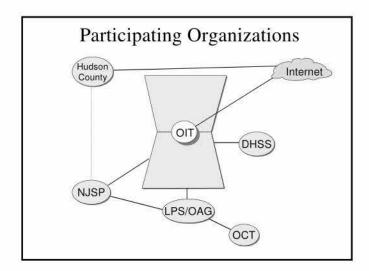
A. Top Officials

A group of top officials from Federal, State, and county government organizations participated in the New Jersey T3 Cyber Exercise. The top officials were composed of executives at the commissioner level in positions to consider appropriate options for policy resolution. These individuals acted as an executive body to address and resolve cyber security issues challenging the State and county participants.

VII. Exercise Organization/High-Level Network Topology

Figure 4 depicts the overall organizational topology for the New Jersey T3 Cyber Exercise. During the interactive sessions, participants were divided into different teams and tasked to address cyber security policies, procedures, and practices, and other management or technical issues. Six organizations (five State and Hudson County) participated as principal players in these interactive sessions.

Figure 4. Participating Agencies/Organizations



Each exercise entity was composed of individuals familiar with their agency or department's use of the cyber infrastructure. These entities responded to and managed the consequences embedded in each inject. Due to limited time, some elements were not addressed. Unresolved issues were brought forward in the final plenary session. The general responsibilities of each group included:

- assessing the situation and defining the problems presented;
- identifying the consequences of the problems and the impact of these consequences;
- describing the actions necessary to respond/mitigate these challenges; and
- determining the issues associated with these actions.

A. Control Team

A Control Team monitored all exercise activities and adjusted the process, as necessary, to support exercise objectives. The Control Team was responsibile for directing the exercise process, administration, and plenary sessions. Control Team members included co-facilitators, New Jersey exercise leads, recorders, and other selected individuals.

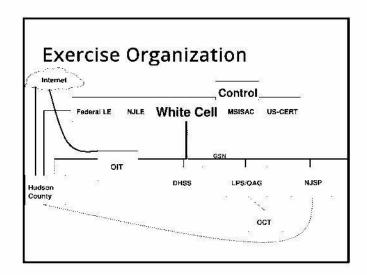
B. White Cell

A White Cell resided within the Control Team. White Cell members included Federal law enforcement, the Multistate-Information Sharing and Analysis Center, U.S. Computer Emergency Readiness Team, New Jersey State Prosecutors, New Jersey State Police (NJSP), NJSP Cyber Unit, NJSP Division of Criminal Justice, Regional Forensics Laboratory, and other entities that were integral to the conduct of exercise play. Participating organizations coordinated with other participating organizations or agencies as required by existing policies, procedures, and practices.

Communication was accomplished through a closed network e-mail system or face-to-face meetings. Teams documented each communications exchange between teams.

Figure 5 provides a notional layout of the exercise organization.

Figure 5. Exercise Organization



VIII. Artificialities

A. Network Operations

The cyber security element of T3 was conducted on a not-to-interfere basis with the principal full-scale exercise; therefore, no real-life networks were employed. Each team worked from a representation of their own network approximating actual network functionality and connectivity. This graphic depiction was provided to each team at the beginning of interactive play. Injects presented to players were tailored to their organizational network. Players interpreted the situation in relation to their respective network and responded accordingly.

B. White Cell

Coordination among organizations or agencies not directly represented was accomplished through interaction with the Control/White Cell.

IX. Exercise Observations

A. Key Issues

Overarching issues fell principally into the categories of "Policies, Procedures, and Practices," communications, and risk management.

The following issues were highlighted:

- A leadership mechanism should be developed to provide oversight of New Jersey State cyber security and continuity of operations.
- Policies and procedures should be distributed in writing to improve security and standardization of practices across the state (or country).
- A service agreement should be in place to define obligations and expectations of both the provider and users, even though the ISP resides within the broader state organization.
- A risk assessment should be conducted statewide on all IT-related capabilities.
- Federal organizations must mature their capability offerings to better meet user needs.
- ISPs, anti-virus vendors, and hardware manufacturers (servers and routers) offer potential to assist in developing responsive operational solutions to IT challenges.
- Best practice documentation in areas such as configuration management, acceptable
 use, and incident response should be created and distributed.
- A need exists for a recovery plan addressing the process, priorities, and any exceptions that may be required in the takedown of the entire state network.
- Situation awareness requirements should be clearly established in policies and procedures, and the thresholds for reporting must be defined.

- A statewide list serve and non-Internet-based notification system need to be established to inform state agencies and local government organizations of critical issues, incident response needs, critical alerts, etc.
- A clearly defined threshold for reporting criminal intent or behavior to law enforcement should be established and documented.

X. Conclusions

The New Jersey T3 Cyber Exercise focused on the player's ability to respond to a large-scale cyber attack within the framework of a WMD event. The players gained valuable experience by working in a controlled environment with a diverse group of skill sets. The players recognized the need for improved external coordination and communication and working with other organizations to solve the key issues identified during this exercise. Lessons learned emphasized a strong need for standardization, the lack of which allows weakness in areas that require strength and confindence in the event of a real-world incident.

Annex F: Acronym List

A

AAC After-Action Conference
AAR After-Action Report
ACF Alternate Care Facility

ADLE Advanced Distance Learning Exercise

AF Air Force

AMEMB American Embassy

AMHS Automatic Message Handling System
AMOC Air and Marine Operations Center

ARC American Red Cross ARF Action Request Form

ASPHEP Assistant Secretary for Public Health & Emergency Preparedness

ATV All-Terrain Vehicle AVOPS Aviation Operations

B

BW Biological Warfare

\mathbf{C}

CBP Custom and Border Patrol

CC Control Cell

CDC Centers for Disease Control and Prevention

CDO Command Duty Officer

CDRS Communicable Disease Reporting System

CDS Communicable Disease Service

CERCLA Comprehensive Environmental Response, Compensation, and

Liability Act

CIA Central Intelligence Agency

CIFA Counterintelligence Field Activity
CIP Common Intelligence Picture
CIS Catastrophic Incident Supplement

CLX Closed Loop Exercise
CoC Chief of Control

COCOM Combatant Command COE Center of Excellence

COLISEUM Community On-Line Intelligence System for End-Users and

Managers

COMDIR Communications Directory
COMMPLAN Communications Plan
CONOPS Concept of Operations
COO Chief Operating Officer
COP Common Operating Picture

COS Chief of Station

COSIN Control Staff Instructions

COTP Captain of the Port

CPU Computer Processing Unit
CPX Command Post Exercise
CRI City Readiness Initiative

CSG Counter-Terrorism Security Group

CST Civil Support Team

CT Connecticut
CT Counterterrorism

CTC CIA Counterterrorism Center
CTD FBI Counterterrorism Division

CW Chemical Warfare

CWA Chemical Warfare Agents

D

D/A Department/Agency

DACC Department and Agency Control Center

DAO Defense Attaché Office

DCID Director of Central Intelligence Directive

DCO Defense Coordinating Officer

DDNI Deputy Directors of National Intelligence

DNI Director of National Intelligence

DEA Drug Enforcement Agency

DEP Department of Environmental Protection
DEST Domestic Emergency Support Team

DHS Department of Homeland Security

DHSS Department of Health and Senior Services

DIA Defense Intelligence Agency

DMAT Disaster Medical Assistance Team

DMORT Disaster Mortuary Operational Response Team

DPH Department of Public Health

DPH ECC Department of Public Health Emergency Coordination Center

DOC Department of Corrections
DoD Department of Defense
DOE Department of Energy
DOJ Department of Justice
DOS Department of State

DOT Department of Transportation
DTRA Defense Threat Reduction Agency

E

EAS Emergency Alert System
ECC Emergency Control Cell
ECG Exercise Control Group

EEI Essential Elements of Information
EMS Emergency Medical Services

EMSST Enhanced Maritime Safety and Security Team

ENDEX End of Exercise

EOC Emergency Operations Center EPA Environmental Protection Agency

EPIC El Paso Intelligence Center

EPR Emergency Preparedness & Response

ERT Emergency Response Team

ERT-A Emergency Response Team – Advance Element

ESF Emergency Support Function

ESP Extranet Secure Portal

EVALPLAN Evaluation Plan

EXCON Exercise Control Cell

EXNMJIC Exercise National Military Joint Intelligence Center

EXPLAN Exercise Plan

F

FAA Federal Aviation Administration

FAC Family Assistance Center
FAMS Federal Air Marshals Service
FBI Federal Bureau of Investigation

FBIS Foreign Broadcast Information System

FCC Federal Coordinating Center FCO Federal Coordinating Officer

FD Fire Department

FDA Federal Drug Administration

FEMA Federal Emergency Management Agency

FOIA Freedom of Information Act
FOSC Federal On-Scene Coordinator

FOUO For Official Use Only

FRC Federal Resource Coordinator

FSE Full-Scale Exercise
FSL Federal, State, and local

FSLT Federal, State, Local, and Tribal

FSLTE Fronte Salafiste Liberation de Terre Entrangere

FTO Foreign Terrorist Organization

G

GAO General Accounting Office

H

HAN Health Alert Network
HAZMAT Hazardous Materials
HCC Health Command Center
HHS Health and Human Services

HOTS Health Operations Tracking System

HQ Headquarters

HRSA Health Resources & Services Administration

HSAS Homeland Security Advisory System

HSC Homeland Security Council

HSEEP Homeland Security Exercise & Evaluation Program

HSIN Homeland Security Information Network
HSOC Homeland Security Operations Center
HSPD Homeland Security Presidential Directive

I

IA Interagency

IAIP Information Analysis and Infrastructure Protection

IAP Incident Action Plan
IC Incident Command
IC Intelligence Community
ICC International Control Cell

ICD Infrastructure Coordination Division
ICE Immigration and Customs Enforcement

ICEPP Incident Communications Emergency Policy & Procedures

ICER Incident Communications Emergency Reference

ICGInternational Control GroupICONInformation Control SystemICPIncident Command PostICPIntelligence Campaign Plan

ICPACC Incident Management Public Affairs Coordination Committee

ICS Incident Command System
IED Improvised Explosive Device

IIMG Interagency Incident Management Group

IMAAC Interagency Modeling and Atmospheric Analysis Center

IND Investigational New Drug

INR Intelligence and Research Office INS Incident of National Significance

INT-C International Controller

INTELINK Intelligence Link

IPR Illustrative Planning Scenario

IRC Internet Relay Chat

ISAC Information Sharing and Analysis Center

ISP Internet Service Provider

ISTS Institute for Security Technology

IT Information Technology
IWG Intelligence Working Group

J

JFCOM Joint Forces Command JFO Joint Field Office

JIC Joint Information Center JIS Joint Information System

JITF-CT Joint Intelligence Task Force – Combating Terrorism

JOC Joint Operations Center

JRIES Joint Regional Informational Exchange System

JTTF Joint Terrorism Task Force

JWICS Joint Worldwide Intelligence Communications System

JWFC Joint Warfighting Center

K

L

LE Law Enforcement

LEO Law Enforcement Online

LINCS Local Information Network & Communications System

LNO Liaison Officer LSG Large Scale Game

M

M&L Maritime and Land Security

MA Mission Assignment
MARSEC Maritime Security
MCC Master Control Cell
MCoC Master Chief of Control
MI Managed Inventory

MOA Memorandum of Agreement
MOC Mission Operations Center
MRC Medical Reserve Corps

MSEL Master Scenario Events List
MST Management Support Team

N

NARAC National Atmospheric Release Advisory Center

NCC National Control Cell

NCIC National Crime Information Center

NCP National Oil and Hazardous Materials Pollution Contingency Plan

NCS National Communications System NCSD National Cyber Security Division

NCRCC National Capital Region Coordination Center

NCTC National Counterterrorism Center
NDMS National Disaster Medical System
NEADS Northeast Air Defense Sector
NEP National Exercise Program

NGA National Geospatial Intelligence Agency

NGO Nongovernmental Organization

NICC National Infrastructure Coordinating Center

NICCL "Nickel Line" National Incident Communications Conference Line

NIMS National Incident Management System

NJ New Jersey

NJ LINCS New Jersey Local Information Network and Communications

System

NL New London

NLIA Newark Liberty International Airport NMCC National Military Command Center

NOAA National Oceanic & Atmospheric Administration

NOC Network Operation Center

NOL NCTC Online

NORTHCOM US Northern Command

NPS National Pharmaceutical Stockpile
NRCC National Response Coordination Center

NRO National Reconnaissance Office

NRP National Response Plan NSA National Security Agency NSRP National Signals Intelligence Requirements Process

NSRT "Nothing Significant to Report"
NSSE National Security Significant Event

NTC National Targeting Center

0

ODP Office for Domestic Preparedness
OEM Office of Emergency Management
ONRA Office of National Risk Assessment

OPA DHS Office of Public Affairs

OSHA Occupational Safety & Health Administration

OSIS Open-Source Information System

OSLGCP Office of State and Local Government Coordination and

Preparedness

P

PAO Public Affairs Officer

PCII Protective Critical Infrastructure Information

PCR Polymerase Chain Reaction

PD Police Department

PDA Preliminary Damage Assessment

PFO Principal Federal Official
PIO Public Information Officer
PKI Public Key Infrastructure

POC Point of Contact
POD Point of Dispensing

PPE Personal Protective Equipment
PROFLOW Procedural Flow Synopsis

Procedural Flow Synopsis

PSO Private Sector Office

PSPG Private Sector Planning Group PSWG Private Sector Working Group

Q

QRF Quick Reaction Force

R

RDD Radiological Dispersion Device

RFI Request for Information

RRCC Regional Response Coordination Center

RRT Regional Response Team
RSS Receipt, Storage, and Staging

S

SA Situational Awareness
SAC Special Agent-in-Charge

SARA Superfund Amendments and Reauthorization Act

SARS Severe Acute Respiratory Syndrome

SCO State Coordination Officer

SEOC State Emergency Operations Center SERT Secretary's Emergency Response Team

SFO Senior Federal Official

SIOC Strategic Intelligence Operations Center

SIGINT Signals Intelligence

S/L State/Local
SIMCELL Simulation Cell

SIPRNET Secret Internet Protocol Router Network

SITREP Situational Report
SME Subject Matter Expert

SNS Strategic National Stockpile SOE Senior Official Exercise

SOP Standard Operating Procedures

SOW Statement of Work
STARTEX Start of Exercise
SUV Sport Utility Vehicle

SVTC Secure Video Teleconference

T

T2 TOPOFF 2
T3 TOPOFF 3

T4 TOPOFF 4

TARU Technical Advisory Response Unit

TECS Treasury Enforcement Communications System

TFR Temporary Flight Restriction

TOPOFF Top Officials

TSA Transportation Security Administration

TSC Terrorist Screening Center

TSIS Transportation Security Intelligence Service

TSIS-OC TSIS-Operations Center

TSOC Transportation Security Operations Center

TSOC-CDO TSOC-Command Duty Officer
TTIC Terrorist Threat Integration Center

TTX Table Top Exercise

U

UA Universal Adversary
UC Unified Command
UCP Unified Command Post

UK United Kingdom U.S. United States

USAR Urban Search & Rescue

USCG U.S. Coast Guard

USPHS U.S. Public Health Service

USPS U.S. Postal Service

US&R Urban Search and Rescue

USSS U.S. Secret Service

 \mathbf{V}

VA Veterans Administration

VBIED Vehicle-Borne Improvised Explosive Device

VBSS Visit, Board, Search, and Seizure

VCC Venue Control Cell
VCoC Venue Chief of Control
VIP Very Important Person

VMAT Veterinary Medical Assistance Team

VMI Vendor Managed Inventory

VNN Virtual News Network

VOAD Volunteer Organizations Active in Disasters

VoIP Non-Voice-over Internet Protocol

VTC Video Teleconference

W

WAN Wide-Area Network

WMD Weapon of Mass Destruction

X

Y

Y. pestis Yersinia Pestis

Z

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