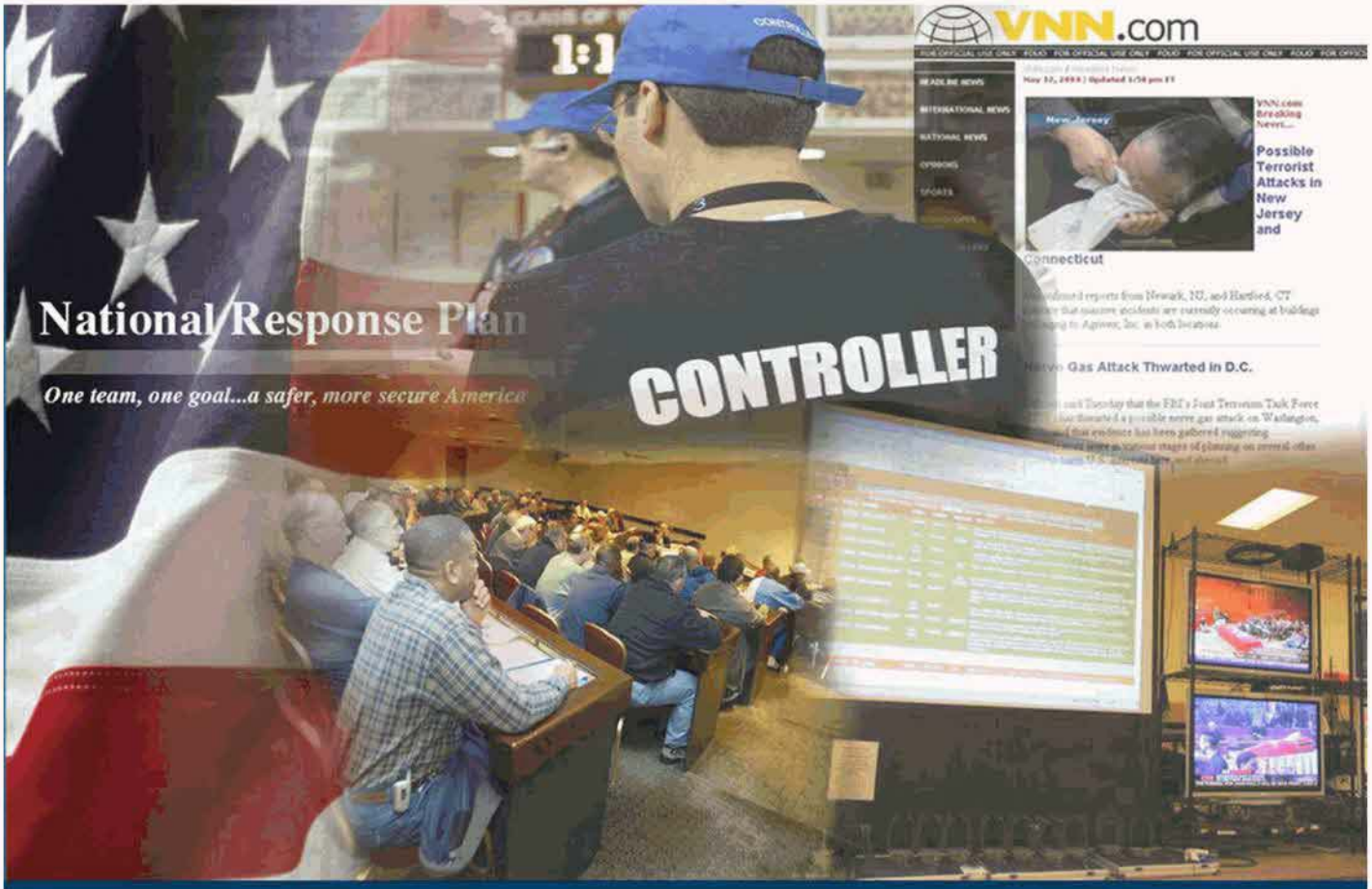

T4 Command Post Exercise After-Action Report

June 19-22, 2006

Homeland Security

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EXECUTIVE SUMMARY

Top Officials (TOPOFF) 4 (T4) is the fourth in the series of congressionally mandated, biennial, national homeland security preparedness exercise activities designed to train and test national decision makers and to use resources of multiple departments and agencies (D/As). Beginning with the T4 Command Post Exercise (CPX), T4 involves a series of activities dealing with terrorism prevention, incident management, intelligence-handling and investigation, public information, and evaluation. The T4 CPX serves to address the national counterterrorism strategy; exercise the national ability to prevent, respond to, and recover from a weapon of mass destruction (WMD) incident; and engage senior Federal officials.

Sponsored by the Department of Homeland Security (DHS) Office of Grants and Training (G&T), the 2006 T4 CPX was held on June 19–22, in conjunction with the Federal Emergency Management Agency (FEMA)-sponsored Forward Challenge 2006 (FC 06) and Federal Bureau of Investigation (FBI)-sponsored Marble Challenge 2006-02 (MC 06-02) exercises. Over 60 D/As participated in the exercise, along with private sector organizations and State and local officials from Virginia, Maryland, and Washington, DC. Officials from Portland, Oregon, and Guam participated in the exercise simulation cell (SIMCELL).

The evaluation of the exercise focused on three general areas: WMD response, situational awareness and information sharing, and public information. Within each of these areas, several key issues emerged and are addressed in this after-action report (AAR).

Focus Areas and Key Issues

WMD response
• Some predetonation decisions/actions may have compromised operational security. • Protective actions/recommendations were not coordinated with State and local governments. • The May 25 National Response Plan (NRP) notice of change was not fully implemented. • The deployment of Federal and volunteer personnel was limited by WMD contamination.
Situational awareness and information sharing
• Federal D/As and the NCR did not share situational awareness. • Intelligence was not consistently shared across Federal D/As and the National Capital Region (NCR).
Public information
• Conflicting guidance was provided to Federal government employees and the public before the WMD blast.

We summarize each issue below and follow with a list of suggested corrective actions. It is important to note that exercise artificialities and implementation issues affected the exercise and the key issues discussed in this report. Although the White House and Homeland Security Council were engaged in the planning process, they did not participate in the exercise, which affected the decision-making process. Other artificialities, such as differing levels of play by participants, limited coordination among the Federal interagency and between the Federal interagency and the NCR.

Some predetonation decisions/actions may have compromised operational security.

During the T4 CPX, several predetonation decisions and actions could have compromised operational security, notably, implementing the continuity of government condition (COGCON) Level 1, raising the HSAS level, and implementing the Catastrophic Incident Annex (CIA) of the NRP. Federal law enforcement and intelligence personnel assume that terrorists would alter their plans if they thought they were compromised. For example, terrorists might advance their timetable for detonation, alter their plan to strike at secondary targets, destroy evidence of their activities, flee in an attempt to escape without completing their mission, or discard or hide the device for later retrieval. The COGCON level elevations were scripted both in this exercise and in a previous DHS tabletop exercise for senior officials, *Vulcan Warrior*[1], that examined the issue of operational security in a WMD scenario. Participants in *Vulcan Warrior* did not support the scripted COGCON Level 1 decision because they felt the activities associated with COGCON Level 1 could not be carried out without alerting the terrorists.

DHS should collaborate with the intelligence community and State and local governments to examine these decisions and actions and identify potential alternatives to COGCON Level 1 in this type of scenario. In addition, operational security issues should be addressed in NRP supporting policies and procedures.

Protective actions/recommendations were not coordinated with State and local governments.

During the T4 CPX, several key protective actions/recommendations were not coordinated with NCR jurisdictions, most notably increasing the COGCON level to 1, raising the HSAS to Red, and evacuating Prince George's County, Maryland. Thus, the NCR was unable to participate in the development of protective actions and examine how they would be implemented in coordination with the Federal government. It is likely that the lack of participating senior leadership; different levels of commitment among Federal, State, and local (FSL) D/As to the CPX; and misunderstandings about exercise design all contributed to the artificial decision-making process. Future exercises should focus on the coordination of protective actions with State and local officials.

The May 25 NRP notice of change was not fully implemented.

The National Operations Center (NOC), Incident Advisory Council (IAC), and the NOC planning element are new entities replacing the Homeland Security Operations Center (HSOC) and Interagency Incident Management Group (IIMG). The supporting policies and procedures for these entities have not yet been developed. Because the membership for the IAC has not been established, members of the IIMG played as the IAC Transition Team. The NOC participated fully, but has not increased in size beyond the HSOC. The NOC planning element was not yet established.

Because these changes came only weeks before the exercise[2], personnel had little information about what their new roles were and how they should interact within the larger response

[1] Senior Official Exercise (SOE) 05-4, held in May 2004.
[2] They were established in the May 25, 2006, notice of change to the NRP.

structure. Planning efforts are underway to develop the supporting doctrine. In addition, DHS should educate the emergency response community about the role of these new structures and how they are implemented.

The deployment of Federal and volunteer personnel was limited by WMD contamination.

It was unclear who was responsible for determining what areas were considered safe when Federal D/As were making plans to deploy personnel and other resources into the affected area. For example, the American Red Cross (ARC) was concerned about deploying volunteer personnel to staff shelters and other sites, and some D/As disagreed about where mobilization centers should be located. The simulation of Federal field response teams likely contributed to this problem.

A coordinated strategy for staging and deploying responders, and ensuring they were not exposed to unsafe levels of contamination was not evident during the exercise. This responsibility should be clarified to ensure consistent protective actions are employed across the response effort.

Federal D/As and the NCR did not share situational awareness.

Despite efforts to improve communications and information sharing across Federal D/As, they all lacked a shared situational awareness of key information during the T4 CPX. According to the NRP, the NOC is responsible for providing a general domestic situational awareness and a common operational picture. According to the HSOC SOP, the HSOC (now called the NOC) provides information to D/As through a variety of communications links including the Homeland Security Information System (HSIN).

The NOC Common Operating Picture (COP), a new component of HSIN, was not available for this exercise. Furthermore, other methods of communicating this information did not appear to be used in its place. Thus, Federal D/As and NCR organizations gathered information from many different sources, resulting in varied understandings about key information during the exercise. The decisions made in Secure Video Teleconference (SVTC) meetings were not formally documented and disseminated, which contributed to the problem.

The COP has the potential to improve information sharing and situational awareness across FSL D/As. DHS should ensure that D/As are able to access and use the system, that there are redundant methods for sharing information, and that D/As are able to assimilate this information into a shared situational awareness.

Intelligence was not consistently shared across Federal D/As and the NCR.

There were differences in the intelligence information available at Federal D/As and within the NCR during the exercise. Whereas some D/As received detailed information about the threat in the NCR and Landport, others received little or no information. The location of personnel in secure and nonsecure sites contributed to these problems because classified information can only be transferred through secure phones or computer systems. Even when personnel in nonsecure

sites had clearance to receive the information, they often did not have access to secure phones or computer systems. The ability of some Federal D/As and the NCR to take protective actions and prepare their response to a nuclear/radiological incident was affected by this lack of information. DHS should coordinate with the intelligence community to further assess and address this issue.

Conflicting guidance was provided to Federal government employees and the public before the WMD blast.

One of the most important requirements during emergencies is to provide the public with protective action guidance. During the T4 CPX, conflicting protective action guidance was provided to Federal government employees and the public in the NCR and in Landport before the WMD blast. The likely outcome would be public confusion in the NCR and in Landport before the WMD blast and frustration with the Federal D/As.

Although there is a balance between protecting operational security and providing information to the public, information passed to nonessential government personnel, at a minimum, must also be relayed to the public. Nonessential government workers will likely call their families and friends once an announcement is made, thus assuring that the larger public will know something unusual is occurring. Therefore, DHS should work with OPM to develop a standardized emergency leave policy for nonessential government personnel with an elevation to COGCON Level 1 so that it is consistent among all D/As and is also consistent with expected guidance to the public.

Federal D/As were able to "speak with one voice" after the WMD detonation in Landport. However, it is important to recognize that in a real WMD emergency the public will look to their State and local governments first for protective action guidance. Therefore, Federal D/A guidance must be consistent with that provided by the State and local public affairs agencies. This has proved to be a significant challenge in previous TOPOFF exercises and was not examined during the T4 CPX. This issue should be readdressed during the full-scale exercise.

Corrective Actions

The following corrective actions were developed in coordination with a small group of interagency T4 CPX planners. They are intended to be further refined by DHS and the larger interagency into a corrective action plan and are described in more detail in Appendix B.

WMD response
• Conduct pre-exercise training and education for senior leadership. • Write exercise concept of operation plans (CONPLANs) for senior leadership. • Expand pre-exercise participant training. • Develop alternatives to COGCON Level 1 in the COOP architecture. • Create additional measures in COOP plans to minimize impact on local communities. • Develop an interagency playbook for NRP. • Write operational plans for catastrophic scenarios. • Collaborate with the NCR to address protective action coordination. • Establish SOPs for the IAC and NOC.

• Establish procedures for publicizing changes to the NRP. • Develop a training and education program for the NRP. • Clarify the responsible entity for providing guidelines for deployment into potentially contaminated areas.
Situational awareness and information sharing
• Finish development and deployment of the COP. • Develop parameters and standards for the COP, to include spot reports and SITREPS. • Establish video teleconference protocols for incidents of national significance. • Develop D/A-specific policies and procedures for HSIN. • Conduct a feasibility study of integrating HSIN with web-EOC. • Review intelligence sharing procedures. • Develop reachback alternatives for senior leadership. • Ensure that all COOP facilities have SCIFs and can share information at the same level of classification. • Develop a process for linking the National Infrastructure Coordination Center (NICC) with public messaging during an emergency.
Public information
• Analyze options for a dynamic public messaging system and integrate with Integrated Public Alert and Warning Systems (IPAWS) work. • Standardize leave policy for nonessential government personnel in an emergency. • Develop D/A-specific HSAS playbooks.

TABLE OF CONTENTS

1.0 EXERCISE OVERVIEW

1.1 Background

Top Officials (TOPOFF) 4 (T4) is the fourth in the series of congressionally mandated biennial national homeland security preparedness-related exercise activities designed to train and test national decision makers and to use resources of multiple departments and agencies (D/As). Beginning with the T4 Command Post Exercise (CPX), T4 involves a series of activities dealing with terrorism prevention, incident management, intelligence-handling and investigation, public information, and evaluation. The T4 CPX serves to address the national counterterrorism strategy; exercise the national ability to prevent, respond to, and recover from a weapon of mass destruction (WMD) incident; and engage senior Federal officials.

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Figure 1. T4 CPX Participating Organizations

American Red Cross **Central Intelligence Agency** **Defense Information Systems Agency** **Department of Agriculture** **Department of Commerce** **Department of Defense** - Office of the Secretary of Defense **Department of Education** **Department of Energy** **Department of Health and Human Services** **Department of Homeland Security** - FEMA - Civil Rights and Civil Liberties - Domestic Nuclear Detection Office - Immigration and Customs Enforcement - Preparedness Directorate - National Communications System - Office of Operations Coordination - Office of Science and Technology - Transportation Security Administration - U.S. Citizenship & Immigration Services - U.S. Coast Guard - U.S. Customs & Border Protection - U.S. Secret Service	**Department of Housing and Urban Development** **Department of Interior** **Department of Justice** - FBI - Criminal Division Counter Terrorism Section - Alcohol, Tobacco, Firearms, and Explosives - U.S. Marshals Service **Department of Labor** **Department of State** **Department of the Treasury** **Department of Transportation** - Federal Aviation Administration **Department of Veterans Affairs** **Environmental Protection Agency** **Executive Office of the President** - Office of Science & Technology Policy **Export – Import Bank of the U.S.** **Federal Communications Commission** **Federal Reserve System** **General Services Administration** **Guam** **Internal Revenue Service** **National Archives and Records Administration**	**National Capital Region** - DC EMA - Virginia DEM - MEMA - Supporting Jurisdictions and Agencies **National Labor Relations Board** **National Science Foundation** **National Transportation Safety Board** **Nuclear Regulatory Commission** **Office of Personnel Management** **Office of the Director of National Intelligence** **Office of the U.S. Courts** **Peace Corps** **Pension Benefit Guaranty Corporation** **Portland, Oregon** **Securities and Exchange Commission** **Small Business Administration** **Social Security Administration** **U.S. Agency for International Development** **U.S. Army Corps of Engineers** **U.S. House of Representatives** **U.S. Postal Service** **U.S. Senate Office of the Sergeant at Arms**

1.2 Scenario

The T4 CPX scenario was derived from National Planning Scenario (NPS) 1—Weapons of Mass Destruction (WMD) Detonation—and its associated Universal Adversary (UA) threat models. Comprising 15 scenarios of plausible terrorist attacks and natural disasters, the NPS series serves to yield core prevention and response requirements to help direct comprehensive preparedness planning efforts. The UA is a fictitious adversary for general exercise use.
Designed to achieve the objectives of all three exercises (T4 CPX, FC 06, and MC 06-02), the scenario involved the acquisition of two WMD from the former Soviet Union arsenal by UA terrorists associated with radical Sunni groups. The terrorists smuggled the weapons into the United States in separate shipments. One WMD was trucked across the southern border and intended for detonation in the National Capital Region (NCR). Intelligence regarding this weapon drove the U.S. government to initiate Continuity of Operations (COOP) procedures. The other WMD arrived in the fictitious coastal city of Landport, Central Pacifica (CP) via charter vessel and was detonated in port upon detection.

1.3 Exercise Concept

A prevention and response-focused exercise, the T4 CPX was driven by events and intelligence from a Master Scenario Events List (MSEL) simulating domestic terrorist incidents in the NCR and the notional city of Landport, CP. The principle training audience included D/A senior officials and staff, multicoordination centers (e.g., Incident Advisory Council [IAC][3] Transition Team), and the DHS National Operations Center (NOC)[4] personnel. Designed to capitalize on lessons learned from prior TOPOFF and Senior Officials Exercises (SOEs), the T4 CPX tested and evaluated policies and procedures outlined in the National Response Plan (NRP) and National Incident Management System (NIMS).

1.4 Evaluation Methodology

The evaluation approach for the T4 CPX is based on the methodology outlined in HSEEP Volume II and the methodology used in previous TOPOFF exercises. It uses observation/data collection, reconstruction, and analysis to determine what happened in the exercise and to develop findings and recommendations.

The analysis focuses on interagency issues and coordination as put forth in the NRP, NIMS, and supporting protocols. This analysis and after-action report (AAR) does not look at D/A specific tasks, procedures, or performance. D/As are encouraged to conduct their own evaluation and analysis of their exercise performance for internal use and dissemination.

The methodology uses the following three-step process:

1. *Observation/data collection* collects the data necessary to reconstruct exercise events.
2. R*econstruction* compiles and synchronizes the data to determine what happened and when.

[3] The Incident Advisory Council replaced the Interagency Incident Management Group (IIMG).
[4] The National Operations Center replaced the Homeland Security Operations Center (HSOC).

3. *Analysis* uses the reconstruction to provide findings and recommendations related to the exercise objectives.

See the Evaluation Plan (Annex G of the Exercise Plan [EXPLAN]) for a detailed description of this methodology. In addition to examining the overarching objectives, we selected several focus areas of analysis for the T4 CPX, shown in Table 1. These areas are derived from specific exercise objectives and were chosen because they meet one or more of the following criteria:

- Identified as an unresolved issues in past TOPOFF exercises
- Identified as an issue during the response to Hurricane Katrina
- Relevant to the T4 CPX scenario

Table 1. Focus Areas of Analysis

Focus Area	T4 CPX Objectives	Mission
WMD response	Test existing procedures for domestic incident management of a terrorist WMD event and top officials' capabilities to respond in partnership in accordance with the NRP and NIMS. Exercise the authorities, responsibilities, and capabilities of the Federal assets necessary to respond to a terrorist WMD incident.	Execution of Federal authorities, responsibilities, and decision making during a WMD incident
Situational awareness and information sharing	Test the ability of command/operations/intelligence centers to share intelligence and information and maintain a common operational picture (COP).	Multiagency coordination
Public information	Exercise the coordination of a domestic and international media and public communications strategy and public messaging in the context of a terrorist WMD incident.	Coordination of public communications strategy and public messaging

A quick-look report was prepared within 72 hours of the exercise and was based on immediate feedback from the exercise hotwash. As part of the data collection process, DHS requested that participants submit their lessons learned and comments on the quick-look report by July 15. Appendix C includes a list of participants who submitted responses, along with a compilation of lessons learned.

Following the analysis of each issue, suggested corrective actions are presented. These actions were developed in coordination with a small group of interagency T4 CPX planners. They are intended to be further refined by DHS and the larger interagency into a corrective action plan.

1.5 Exercise Artificialities

The following artificialities and constraints were used to accomplish the exercise objectives:

- Weather and atmospheric conditions for notional locations in the exercise were based on historical weather patterns to create a specific dispersal pattern of the agents involved in the exercise event. This was necessary to drive exercise play to meet the agreed upon overarching and agency-specific exercise objectives determined during the T4 CPX planning process.
- There were varying levels of play among senior officials, and surrogates played in place of some key decision makers. The Homeland Security Council (HSC) Counterterrorism Support Group (CSG) did not participate in the exercise as planned. Senior leader Secure Video Teleconference (SVTC) meetings were held in place of the CSG meetings to simulate the decision making that would have occurred during these meetings. The level of play among D/As varied as well and is described in the EXPLAN.
- D/As and organizations not participating in the T4 CPX were simulated through the Simulation Cell (SIMCELL). These included much of the Department of Defense (DoD), FEMA Region X, and State and local officials of Landport and Central Pacifica. The SIMCELL representation of nonparticipating agencies was determined by the agencies' published policies, procedures, doctrine, and requests for information (RFIs) developed during the planning process.

In addition to the artificialities the following exercise implementation issues impacted play:

- During the T4 CPX, the Intelligence Control Cell (ICC) was not collocated with the Master Control Cell (MCC) and did not operate around the clock.
- Some participants were not aware who was participating and who was not or how to interact with the SIMCELL.
- Some field entities such as the HHS Regional Emergency Coordinators (RECs) were not simulated.
- Some D/As were not participating in all exercises (e.g., participating only in FC 06) or gave one of the exercises priority by limiting play in the others.

Along with the artificialities, these issues had the following impact on play:

- Key decision-making activities were simulated or carried out at a lower level of authority, and there was no final adjudicator present. Decisions were also not coordinated with the NCR players.
- There was limited Federal interagency and Federal-NCR coordination in exercise play. For example, Emergency Support Function (ESF) #12 (Energy) and ESF #13 (Public Safety and Security) did not send representatives to the NRCC. This limited the NRCC's ability to respond to ESF #12 and ESF #13 issues and to coordinate with the Department of Energy (DOE), which was the coordinating agency under the NRP nuclear/radiological incident annex in this scenario.
- Players had difficulty communicating and coordinating with simulated organizations. For example, participants in the NRCC were not initially aware that Region X was being

simulated. Later, they did learn how to contact the SIMCELL and were able to interact with a simulated Region X.

- There was limited involvement from Federal D/As and the NCR in public information play, and no one actually acted as the State and local counterpart for Landport. In addition, the National Joint Information Center (NJIC) never received any guidance from White House Communications or from the HSC.

As described in Table 2, DHS has developed corrective actions to ensure better senior leader participation in future TOPOFF exercises.

Table 2. Exercise Participation: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Conduct pre-exercise training and education for senior leadership.	Conduct training and education for senior leaders prior to the next Full Scale Exercise (FSE) to ensure they are engaged and have full awareness of their anticipated role.	DHS—Preparedness Directorate	6 Months
Write exercise CONPLANs for senior leadership.	Write a concept of operations (CONPLAN) for the next FSE. Senior leadership would be the target audience, and the intent would be to provide them with a description of their roles and responsibilities during the exercise.	DHS—Preparedness Directorate	6 Months
Expand pre-exercise participant training.	Expand the training and information materials provided to players and field controllers to ensure they are aware of the expectations for coordination and interaction with participating and simulated organizations.	DHS—Preparedness Directorate	12 Months

2.0 EXERCISE GOALS AND OBJECTIVES

2.1 Goals

T4 was designed to train and test national decision makers and to use resources of multiple D/As in homeland security preparedness. The overarching goals of T4 are as follows:

1. **Prevention**: To test the handling and flow of operational and time-critical intelligence between agencies to prevent a terrorist incident.
2. **Incident management**: To test the full range of existing procedures for domestic incident management of a terrorist WMD event and to improve top officials' (Federal/State/local) capabilities to respond in partnership in accordance with the NRP and NIMS.
3. **Intelligence/investigation**: To test the handling and flow of operational and time-critical intelligence between agencies prior to and in response to a linked terrorist incident.
4. **Public information**: To practice the strategic coordination of media relations and public information issues in the context of a terrorist WMD incident or Incident of National Significance.
5. **Evaluation**: To identify lessons learned and promote best practices.

2.2 Objectives

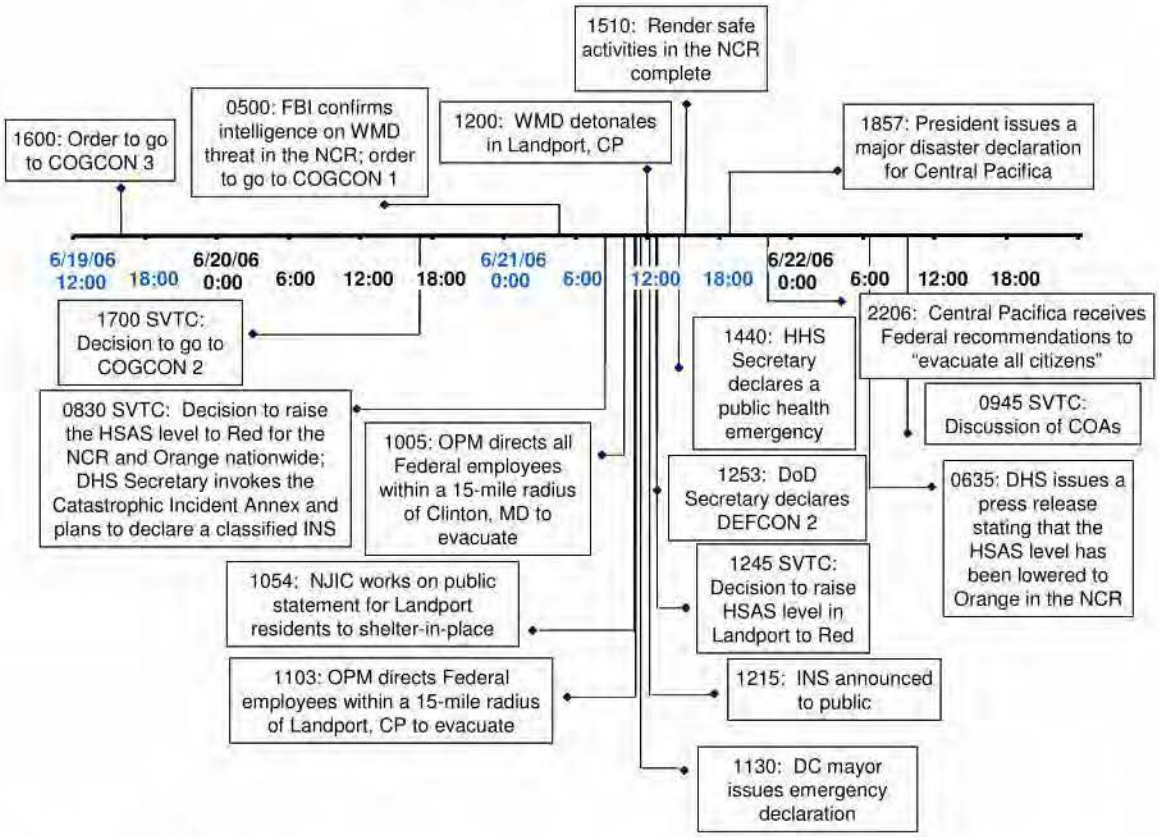
The T4 CPX objectives were as follows:

1. Examine the effects of implementing continuity programs in the context of a credible terrorist WMD threat.
2. Exercise and validate D/As' Continuity of Operations (COOP) plans, procedures, and policies.
3. Exercise the coordination of a domestic and international media and public communications strategy and public messaging in the context of a terrorist WMD incident.
4. Test existing procedures for domestic incident management of a terrorist WMD event and top officials' capabilities to respond in partnership in accordance with the NRP and NIMS.
5. Exercise WMD render safe operations.
6. Exercise the authorities, responsibilities, and capabilities of the Federal assets necessary to respond to a terrorist WMD incident.
7. Examine the handling of mental health and special needs issues that may arise during and after a terrorist WMD event.
8. Examine emergency operations planning and citizen protection capabilities in response to a terrorist WMD incident.
9. Examine public health, medical support, mass decontamination, and mass care requirements during a terrorist WMD incident.
10. Test the ability of command/operations/intelligence centers to share intelligence and information and maintain a COP.

3.0 EXERCISE EVENTS SYNOPSIS

The T4 CPX scenario involved two WMDs; one was located and rendered safe in the NCR, and the other detonated in Landport, CP. The following is a reconstruction of injects, decisions, and actions from June 19 through June 22, 2006. It is based on the logs and supporting data collected by data collectors stationed at key locations during the exercise. It is a factual recount of the decisions and actions as they unfolded during the exercise. Some of these events deviated from what was expected by the exercise planners. An overview of the key events is shown in Figure 2.

Figure 2: T4 CPX Key Events



3.1 June 19, 2006

The White House ordered the move to COGCON 3 at 4:00 p.m. D/As were required to assume COOP activities for COGCON 3 by 8:00 a.m. on June 20.

At a 6:00 p.m. meeting, the NCR Senior Policy Group discussed the possibility of a threat to the region and decided to implement normal 4th of July protective measures. It convened an incident action planning meeting the next morning.

Following an attempt to photograph port security measures and on-duty customs agents in Landport, CP, Pakistani-American student and radical Muslim Karim Mohammed Butt was confronted by building security, and arrested by the Landport Police Department at 7:00 p.m..

The FBI Joint Terrorism Task Force was notified, and they began interrogating Butt. He revealed that he knew Jaffar bin-Husseini, a Pakistani-American and fellow Islamic radical charged with executing operations in Landport, but he did not provide any information about the terrorist plot.

3.2 June 20, 2006

Local authorities and the FBI confirmed Butt's identify. Butt hinted that the device had a radioactive component. At 5:00 p.m., law enforcement officers located several empty containers with traces of heroin, one lead-lined container, and a USB device in a warehouse in New Dayton, Maryland.

DHS hosted a SVTC at 5:00 p.m. to discuss possible threats in the NCR. The participants, who included the DHS Secretary, discussed releasing the WMD intelligence to the mayors of five potentially targeted cities. They also proposed a snow-day type response to limit persons in the cities and prevent morning commutes. The Department of State reported that it had approached Russia for information on any missing weapons, and the FBI reported that it would begin searching for a possible WMD in the NCR. Participants decided to increase the readiness levels of response assets and to go to COGCON 2[5]; the order was given at 7:16 p.m.

The FBI and DOE began searching the NCR at 7:00 p.m.

3.3 June 21, 2006

3.3.1. 5:00 a.m.–12:00 pm.

At 5:00 a.m., the FBI confirmed the intelligence on a WMD threat in the NCR, resulting in the DHS order to go to COGCON 1 by 9:00 a.m. The FBI located the device in New Dayton, MD[6], and deployed assets to the site by 9:00 a.m.

By 7:47 a.m., a domestic threat conference call was convened. Participants learned that a WMD had been located in the NCR.

At 8:00 a.m., State and local NCR emergency management offices began activating and tracking the incident and response activities.

During an 8:30 a.m. SVTC that ended about an hour later, participants decided to raise the HSAS level to Red for the NCR and Orange nationwide, and evacuate Prince George's County. This prompted a discussion of who has the authority to call for such an evacuation. In addition, the DHS Secretary decided to invoke the Catastrophic Incident Annex of the NRP and stated that he planned to declare a classified Incident of National Significance.

At about 9:14 a.m., the IAC discussed the intelligence it had on the two WMDs, which said one was in the NCR and a second was potentially in Landport. At 10:05 a.m., DNDO participants

[5] Increasing the COGCON level to 1 was also discussed, but the increase to COGCON 2 was chosen in part because it was prescripted.

[6] This was a notional location for Clinton, MD. The Marble Challenge field exercise was carried out at another location.

also discussed intelligence suggesting Landport as a second target. The NOC had just received WMD threat modeling for the NCR and continued working on an analysis for other potentially targeted areas.

At 9:00 a.m., VNN reported that an exodus of Federal employees from Washington, DC, was causing traffic delays, and that there were rumors of Federal government relocation. VNN confirmed these rumors at 9:53 a.m., reporting that the Federal government was indeed undergoing COOP activities.

There had been growing speculation all morning among participants regarding whether the Office of Personnel Management (OPM) would release Federal employees; there had still been no decision at 8:45 a.m. At 10:05 a.m., the OPM directed all Federal employees within a 15-mile radius of Clinton, MD, to evacuate.[7]

At 9:54 a.m., personnel working in the NJIC were told a "snow day" order was in effect for Landport and began working on press releases that explained what was happening in both Landport and the NCR.

When ESF#1 (Transportation) personnel working in the National Response Coordination Center (NRCC) learned that an evacuation of Prince George's County was underway at about 10:30 a.m., they inquired whether Federal assistance was required. Later they were told that the evacuation was being handled locally and that no Federal assistance was needed. The NRCC also reported at 10:30 a.m. that the Domestic Emergency Support Team had (notionally) deployed to the NCR.

VNN reported at 10:45 a.m. that there was a threat to the Washington, DC region. At 10:55 a.m., it reported that the HSAS level for Washington DC had increased to Red, and the nation to Orange.

During the National Incident Communications Conference Line (NICCL) call at 9:54 a.m., snow day declaration and shelter-in-place orders were reported to be in effect for Landport. At 11:03 a.m., the OPM director directed Federal employees within a 15-mile radius of Landport, CP, to evacuate and seek shelter north of the area.

Back in the NCR, DHS issued a press release at 11:11 a.m. on the evacuation of Prince George's County, MD and the elevation of HSAS levels. At 11:30 a.m., the DC mayor issued an emergency declaration, and FEMA reported that FIRST, ERT-N, NDMS, and US&R teams had been activated and deployed to East and West Coast mobilization centers.

With the WMD aboard, Husseini attempted to dock in Landport at 11:00 a.m. The number of law enforcement in the area and continuous news reports on television made Husseini increasingly nervous. He decided to arm the weapon and called Butt repeatedly, but to no avail.

[7] OPM may have been acting on knowledge of the scenario rather than the current intelligence information that was in play.

Husseini's attempt to dock his yacht at this location arose suspicion among CBP officers, who began boarding and searching the vessel. When their radiation identifier registered multiple neutron readings, the officers contacted the Laboratory Scientific Services and attempted to transmit the data. At the point of detection, Husseini detonated the device using his cell phone, causing a low yield detonation.

3.3.2. 12:00 p.m.–12:00 a.m.

Within minutes of the detonation, VNN reported an unidentified explosion in Landport and confirmed within the hour that it was a nuclear detonation. It did not report that the detonation was a terrorist attack until 2:35 p.m.

At 12:15 p.m., the DHS Secretary publicly declared the Landport attack an Incident of National Significance.

After much consideration, HHS decided to give administrative leave to all NCR employees at 12:20 p.m. Options for both unscheduled and administrative leave were discussed.

DHS issued a press release at 12:23 p.m. stating that an investigation of a credible threat to Landport was underway. By 12:30 p.m., 14 NDMS teams, four US&R teams, and an ERT-N had deployed to Philadelphia, PA, and additional teams were (notionally) on alert. FEMA Regions III, IV, and X also (notionally) activated. At this time, DHS also confirmed that the Landport blast was nuclear.

At 12:30 and 12:45 p.m., DHS hosted an SVTC, during which participants decided to raise the HSAS level in Landport to red. At 1235 HHS operations called DoD about patient movement. The DoD Secretary declared DEFCON 2 at 12:53 p.m.

Back in the NCR, the HSAS level remained at red, and FBI render safe activities were ongoing. At 12:33 p.m., the DC mayor declared a public emergency in response to the threat. There was speculation that an evacuation of DC was imminent.

At 1:15 p.m., ESF #8 reported that FMS and RDF teams had been activated and staged (notionally) and that FEMA had (notionally) deployed essential commodities to the affected area. In the meantime, the president issued a statement on the Landport attack.

At 1:17 p.m., DOE completed initial NARAC/IMAAC plots for Landport in response to a request for the models at 12:18 p.m. Despite inquiries to the HSOC, HHS did not receive the plume model; by 1:50 p.m., its own subject matter experts (SME) had drawn graphs to estimate casualties and how long responders can safety stay in the hot zone. After additional inquiries to DHS, HHS finally received the plume models at 2:05 p.m. Similarly, the Landport SIMCELL did not receive the plume models either. After inquiring of the IMAAC, it received them about five hours after the detonation.

By 2:10 p.m., several ERTs and one FIRST were (notionally) on their way to Landport and Region X, while NDMS, Disaster Mortuary Operations Response Teams (DMORT), and US&R teams were (notionally) mobilized. In addition FEMA began coordinating response activities

with the American Red Cross. At 2:20 p.m., DHS issued a press release on Landport response activities as well as a statement from the DHS Secretary. Twenty minutes later, the HHS Secretary declared a public health emergency. SNS pushpacks and TARU teams were identified for deployment to Landport.

DHS distributed the Incident of National Significance statement at 2:44 p.m. By 3:00 p.m., it released estimates that approximately three to three and a half square miles were completely or mostly destroyed in the Landport attack. There were no casualty estimates at this time.

At 3:10 p.m., the FBI completed render safe activities in the NCR and began preparing the device for shipment by 5:55 p.m. By this time 15 to 20 percent of Prince George's County had been evacuated.

During a 3:30 p.m. NICCL conference call, the JICC learned that that radioactivity in Landport was moving southeast and that first responders were (notionally) having difficulty getting to the area. The CDC reported that it had contacted public health directors and other health officials and that the SNS was ready for deployment.

By 3:38 p.m., USTRANSCOM had implemented its patient movement capability to support NDMS and other pending missions. Shortly thereafter, the DoD Secretary ordered a surging of DoD asserts in the northwest region to accommodate mass casualties.

At 3:55 p.m., Landport informed HHS that it needed ten Disaster Medical Assistance Teams (DMAT) and five DMORT, and recommended using Landport airport as a staging area. Its hospital system had been locked down to avoid further contamination. In the meantime there was ongoing discussion at DHS on the status of render safe operations, whether the HSAS level in the NCR should be lowered to Orange, and whether evacuation from the NCR should cease.

According to a 4:30 p.m. VNN report, the Landport detonation resulted in 1,000 confirmed fatalities, 15,000–30,000 estimated fatalities, and 30,000–100,000 recipients of fatal doses of radiation. At 4:54 p.m., HHS issued press releases on its ongoing Landport response activities and safety and decontamination recommendations, and DHS issued a press release naming principal Federal officials. HHS issued another press release an hour later on the public health emergency declaration for Central Pacifica.

At 5:04 p.m., the JTF-NCR issued a press release on the Andrews Air Force Base evacuation that took place earlier that day. The FBI moved the device out of the NCR at 6:19 p.m.

At 6:57 p.m., the president issued a major disaster declaration for Central Pacifica.

FEMA issued a press release at 9:21 p.m. on the disaster declaration, and another at 9:30 p.m. on response activities in Landport.

At 9:30 p.m., the HSAS level was reduced to Orange in the NCR and the Prince George's County evacuation order was rescinded. DHS reported 1,000 known fatalities, 15,000–30,000 estimated

fatalities, and 30,000–100,000 estimated recipients of fatal doses of radiation in the Landport detonation.

3.4 June 22, 2006

DHS issued a press release at 6:35 a.m. stating that the HSAS level had been lowered to Orange in the NCR. At 9:45 a.m., it hosted a SVTC to discuss courses of action for sheltering in place, mass decontamination, mass care, and response assets in Landport.

At 10:30 a.m., the DHS Secretary gave an update on ongoing response activities, followed by a statement to DHS employees at 11:08 a.m.

The T4 CPX concluded at 12:00 p.m.

4.0 ANALYSIS OF MISSION OUTCOMES AND CRITICAL TASK PERFORMANCE

This section analyzes exercise play and the key issues that arose in the three focus areas of analysis selected in the Evaluation Plan. Table 3 shows those focus areas and their key discussion issues.

Table 3. Focus Areas of Analysis

Focus Area	Issues
WMD response	• Some predetonation decisions/actions may have compromised operational security. • Protective actions/recommendations were not coordinated with State and local governments. • The May 25 NRP notice of change was not fully implemented. • The deployment of Federal and volunteer personnel was limited by WMD contamination.
Situational awareness and information sharing	• Federal D/As and the NCR did not share situational awareness. • Intelligence was not consistently shared across Federal D/As and the NCR.
Public information	• Conflicting guidance was provided to Federal government employees and the public before the WMD blast.

4.1 WMD Response

Homeland Security Presidential Directive 5 (HSPD-5) designates that the Secretary of Homeland Security is responsible for coordinating Federal resources within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. The NRP and NIMS are the overarching doctrine for carrying out this responsibility. In this section, we discuss several issues that arose in the coordination of the response to the T4 CPX WMD scenario.

4.1.1. Some predetonation decisions/actions may have compromised operational security.

The NRP contains the following information regarding operational security:

- Operational security considerations may dictate that activation of NRP elements be kept to a minimum, particularly in the context of certain terrorism prevention activities.
- In the preincident mode, notification of an Incident of National Significance may be conducted discreetly, on a need-to-know basis, so as to preserve the operational security and confidentiality of certain law enforcement and investigative operations.
- The NRCC begins interagency operations by coordinating initial activation, the deployment of special teams, etc., as dictated by operational security considerations.
- PFO designations may be made on a discreet need-to-know basis to preserve operational security.

The HSOC, NRCC, and IIMG SOPs[8] provide no additional details on operational security considerations other than what is already described in the NRP.

Summary of Issue
During the T4 CPX, several predetonation decisions and actions could have compromised operational security: notably implementing COGCON Level 1, raising the HSAS level, and implementing the Catastrophic Incident Annex (CIA) of the NRP.

Consequence
It is assumed by Federal law enforcement and intelligence personnel that terrorists would alter their plans if they knew they were compromised. Alterations could include advancing their timetable for detonation, altering their plan to strike at secondary targets, destroying evidence of their activities, fleeing in an attempt to escape without completing their mission, and discarding or hiding the device for later retrieval.

Analysis
Some of the decisions and actions taken in the T4 CPX contrasted with those made during a previous tabletop exercise with a similar scenario. *Vulcan Warrior,* the fourth in a series of Homeland Security tabletop exercises for senior officials in FY-05, addressed policy and operational issues that could arise if the president ordered the Federal government to implement a COGCON for COOP Level 1 plan in response to the threat of an imminent improvised nuclear device (IND) attack. The discussion centered around what information would be shared, and with whom. Many of the same decisions and actions that occurred during Vulcan Warrior were also considered during the T4 CPX. Therefore, we compare some of these decisions with the discussions recorded during *Vulcan Warrior*.

COGCON Level 1
As in *Vulcan Warrior*, the elevation to COGCON Level 1 was prescripted for the purposes of the T4 CPX. However, participants in *Vulcan Warrior* did not support the scripted COGCON for COOP Level 1 decision, given the scenario course of discussion. Participants felt it would be impossible to inform all Federal agencies that they would need to prepare for imminent relocation of their leadership to their Level 1 alternate facilities without risking an immediate compromise of operational security. They felt that such a decision would almost certainly be detected by the terrorists and could trigger early detonation of the IND. In addition, they predicted that such a decision would almost surely trigger a massive, spontaneous evacuation from the Washington, DC, metropolitan area, resulting in massive gridlock and putting more people at risk for the effects of the IND, if detonated.

HSAS Elevations
A consensus emerged among participants in *Vulcan Warrior* that the intelligence and information related to a potentially imminent, but non-geographically specific, WMD threat would be tightly controlled and shared only among those with a need to know. Based on this insight/decision, officials determined that there would be no benefit to changing the HSAS. Participants in *Vulcan Warrior* did not discuss changes to the HSAS level once they had

[8] The HSOC and IIMG SOPs have not yet been updated to reflect the transition to the NOC and IAC.

geographic specificity of the threat. However, they did acknowledge that operational security would still be the prime concern with this additional information.

The T4 CPX threw a twist into the *Vulcan Warrior* scenario with two WMD threats, one known to be in the NCR and a second, less specific threat to several geographic areas. Several decisions were made in response to the known threat to the NCR, namely changing to COGCON Level 1 and raising the HSAS level. It is possible that these decisions could have compromised operational security for the operations against the second threat. In fact in the scenario the Landport terrorist Husseini detonated the second WMD early because he was concerned about the continuous news reports and felt threatened by the CBP officers who boarded and searched his yacht.

Declaring an INS and Implementing the CIA
Just after the SVTC on the morning of June 21, many D/As were told an INS was in effect and that the CIA had been activated. Although some of the initial reports that the Secretary had declared an Incident of National Significance used the terms "secret" or "classified," this information was fairly well known prior to the blast and there was no direction on how this information should be treated.[9] Thus, operational security was not widely considered when taking actions prior to the blast that could have been noticed by the public or the terrorists. For example, FEMA began preparing to prestage personnel and supplies in both the NCR and Landport according to the CIA. Such actions were not discussed in *Vulcan Warrior*.

Recommendation
Because the move to COGCON Level 1 was prescripted, the exercise provided only a limited opportunity to examine alternatives to this action. DHS should collaborate with the intelligence community and State and local governments to examine these decisions and actions and identify potential alternatives to COGCON Level 1 in this type of scenario. In addition, operational security issues should be addressed in NRP supporting policies and procedures. Suggested corrective actions are listed in Table 4.

Table 4. Operational Security: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Develop alternatives to COGCON Level 1 in the COOP architecture.	Consider alternatives to COGCON Level 1, such as creating operational depth by ensuring that geographically dispersed individuals are trained to carry out COOP roles and responsibilities or using devolution in place of moving all essential personnel.	DHS—FEMA	12 Months
Create additional measures in COOP plans to minimize impact on local	Additional measures should be added to COOP plans to account for a deployment's impact on the local economy and infrastructure and for the logistical challenges associated with deployment. Memorandums of Understanding (MOUs) should	DHS—FEMA	6 Months

[9] It was not released to the public in an official statement until 2:20 p.m. on June 21.

Corrective Action	Description	Responsible Agencies	Timeline
communities.	be signed with the host communities.		
Develop an interagency playbook for the NRP.	Develop an interagency playbook for the NRP. This would be a companion piece to the NRP that would be prescripted with operational security considerations, user checklists, have a common set of questions, and would also be developed for the 15 National Planning Scenarios.	DHS—Preparedness Directorate	9 Months
Write operational plans for catastrophic scenarios.	Write specific operational plans that would complement the operational framework contained in the Catastrophic Incident Annex of the NRP and address operational security in specific scenarios.	DHS—NOC Planning Element	1 Year

4.1.2. Protective actions/recommendations were not coordinated with State and local governments.

Summary of Issue

During the T4 CPX, several key protective actions/recommendations made by DHS were not coordinated with the NCR, most notably increasing the COGCON level to 1, raising the HSAS level to Red, and evacuating Prince George's County, Maryland.

Consequence

The NCR was unable to participate in the development of protective actions and examine how they would be implemented in coordination with the Federal government. It is likely that the lack of participating senior leadership, different levels of commitment among FSL D/As to the CPX, and misunderstandings about exercise design all contributed to the artificial decision-making process.

Analysis

During the 8:30 a.m. SVTC on June 21, participants decided to raise the HSAS level to Red for the NCR and to evacuate Prince George's County. The previous day, a SVTC was held to discuss intelligence and changes in COGCON levels. No officials from the NCR were consulted about these decisions.[10] On many occasions during the exercise, NCR officials requested information through the Office of National Capital Region Coordination (ONCRC), which was repeatedly unable to obtain information from the NOC for release. For example, NCR players were notified that the COGON Level was raised to Level 2 at about 8:00 p.m. on June 20, by the ONCRC. Officials from DC immediately responded by asking why and whether a change in HSAS level was being considered. The ONCRC forwarded this request to the NOC but received no information to pass on to the NCR participants.

[10] The COGCON level changes were prescripted for the CPX.

It is possible some information was withheld from NCR officials for operational security concerns. If so, this is counter to the criteria established during *Vulcan Warrior*, in which participants said that operational security is more important than sharing information only when the geographic location of the WMD threat is unknown. At that time in the T4 CPX, one WMD threat was known to be in the NCR. Because information about that threat was not shared with NCR officials, they were not involved in decision making regarding protective action recommendations. As discussed later in the Public Information section, the Federal government took protective actions in the NCR in response to the threat.

There was little discussion recorded about the implications of decisions made in the 8:30 a.m. SVTC. For example, with the HSAS level being raised to Red in the NCR and Orange for the nation, what were the particular actions that FSL D/As were supposed to implement in response to this elevation? What did this mean for jurisdictions near but outside of the NCR? Although not widely recorded during this exercise, this issue has received considerable discussion during past TOPOFF exercises and it is unclear whether it has been clarified. Also not discussed was what the public should be doing in response to the HSAS elevation. The information given in the 11:11 a.m. press release on June 21 was to follow the guidance of State and local officials and review family preparedness plans. Because this decision and press release were not coordinated with State and local officials, they did not have the opportunity to develop recommendations.

Many players thought that the DHS Secretary had ordered the evacuation of Prince George's County.[11] The Federal authority to order an evacuation is defined in the NRP. The NRP assumes that evacuation plans are initiated on the State and local level and that Federal officials will work in conjunction with State authorities when executing the plan. Federal assistance is provided when the emergency or disaster overwhelms the State or local entity, and once involved, Federal officials take the lead on coordination and technical assistance. For example, the Department of Transportation (DOT) would aid in coordinating critical facility closures and movement restrictions to allow for traffic flow during an evacuation.

Clearly, the evacuation of Prince George's County was an action that would have required a tremendous amount of coordination with State and local officials in the NCR. Questions that would need consideration include the following:

- Where were county citizens supposed to evacuate considering the HSAS level was Red for the entire NCR and that traffic congestion that was being reported?
- Where were shelters to be set up and who was to operate them? How were people to get there?
- How were those with special needs being assisted?

When the ESF#1 (transportation) Liaison in the NRCC heard that Prince George's County was being evacuated at about 10:30 a.m. on June 21, he inquired whether there was a need for

[11] It is likely that the outcome from the SVTC was the recommendation to evacuate Prince George's County. The Evaluation Team was not privy to the SVTC, nor were any notes released from the SVTC. Regardless of what was stated in the SVTC, the D/As proceeded as if the evacuation had been ordered.

Federal assistance. The NRCC followed up on this and was told that no Federal assistance was required and the evacuation was being handled locally.

Recommendations
The coordination of protective actions in collaboration with state and local governments was not fully exercised in the T4 CPX. The Federal government should include State and local NCR governments in future COOP and HSAS-related preparedness activities to improve coordination of protective actions during a crisis. Suggested corrective actions are listed in Table 5.

Table 5. Coordinating Protective Actions: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Collaborate with the NCR to address protective action coordination.	Conduct exercises, workshops, and/or plan reviews in coordination with the NCR to ensure that Federal government plans for evacuation and other protective actions are fully synchronized with NCR plans.	DHS—Preparedness	6 Months

4.1.3. The May 25 NRP notice of change was not fully implemented.

A few weeks before the exercise on May 25, 2006, DHS issued a notice of change detailing several revisions to the NRP. One change established the NOC as the successor to the HSOC, and reformulated the former IIMG as a senior advisory council and adjudication body for the Secretary of Homeland Security in his role as the Federal incident manager.

Summary of Issue
The NOC, IAC, and the NOC planning element are new entities replacing the HSOC and IIMG. The supporting policies and procedures for these entities have not yet been developed. Because the membership for the IAC has not been established, members of the IIMG played as the IAC Transition Team. The NOC participated fully, but has not increased in size beyond the HSOC. The NOC planning element was not yet established. Furthermore, the NRP is a high-level policy document and many of the supporting plans and procedures that are necessary to carry out the roles and responsibilities it describes are still under development.

Consequences
Personnel had little information about what the new roles of the NOC and IAC were and how they should be interacting within the larger response structure.

Analysis
The definition of the IAC as recorded in the May 25 notice of change is as follows:

> "The IAC is a tailored group of senior Federal interagency representatives that adjudicates matters that cannot be resolved by the NOC-NRCC and provides strategic advice to the Secretary of Homeland Security during an actual or potential incident requiring Federal coordination."

Previously, the IIMG was described as a "Federal headquarters-level multiagency coordination entity that facilitates strategic Federal domestic incident management for Incidents of National Significance." During the exercise, the IAC Transition Team prepared courses of action (COAs) briefings for the Secretary and developed planning priorities. This role was similar to what the IIMG had done in past exercises and emergencies.

The COA groups within the IAC included domestic counterterrorism and law enforcement; border, maritime, and transportation security; critical infrastructure protection; public health and medical; emergency response and recovery; WMD detection and preparedness, and incident communications. On June 21 and 22, these groups met to develop courses of action and recommendations for the Secretary. However, the IAC Transition Team was not well integrated into the larger Federal response structure. As a result, it had difficulty receiving information and fulfilling a strategic role during the exercise.

At 9:00 a.m. on June 21, the IAC Transition Team was reported to be in a holding pattern because it had received no direct taskings. By 9:22 a.m., it developed its own planning priorities, which included NCR consequence management, incident communications, HSAS status, radiological detection, and mass evacuations.

At about 10:00 a.m., following the SVTC, the IAC was tasked to provide recommendations on resource allocation. Members discussed whether this was an appropriate tasking. They thought their role was to adjudicate resource decisions for the ESFs. However, they did not know if the NRCC was stood up at that time with all the ESFs. In fact, the NRCC was operational and was already addressing resource allocation.

By 2:02 p.m., the IAC Transition Team was focusing on what resources and capabilities that each IAC Transition Team member agency could bring to the table in preparation for the next SVTC. The IAC Transition Team representatives responded by developing lists of teams, assets, and capabilities. As discussed, the NRCC had already begun tracking and deploying assets. For example, it had already notionally activated NDMS and USAR teams and begun preparing to prestage essential commodities as described in the CIA.

Several times during the day, the IAC Transition Team participants noted problems receiving information because they were not participating in the SVTC with the Secretary and DHS leadership. Thus, they received information secondhand and much later than they expected. The ONCRC representative reported receiving more intelligence through NCR personnel working in the field than was received from the NOC. As discussed in the next section on information sharing, many participants experienced this problem. The IAC Transition Team also reported problems sharing information with their D/As because they were in a secure location where information was treated as classified and could only be shared through secure channels with cleared personnel.

Recommendations

Additional work is needed to ensure the recent updates to the NRP are transformed into an operational capability. This requires developing supporting policies and procedures and

educating the emergency response community about the role of these new structures and how they are implemented. Corrective actions are listed in Table 6.

Table 6. NRP Changes: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Establish SOPs for the IAC and NOC.	Establish SOPs for the IAC, the NOC planning element, and the NOC itself, making sure to integrate those plans with any changes to COOP plans and the functionality of the COP.	DHS—Office of Operations Coordination	3 Months
Establish procedures for publicizing changes to the NRP.	Develop and establish procedures, to include associated training and education, for publicizing and institutionalizing changes to the NRP so that Federal, State, and local (FSL) officials and responders are aware of changes to the response architecture.	DHS—Preparedness Directorate & FEMA	3 Months
Develop a training and education program for the NRP.	Develop a comprehensive, continuing training and education program for the NRP that is aimed at FSL levels—both for authorities and responders.	DHS—Preparedness Directorate & FEMA	6 Months

4.1.4. The deployment of Federal and volunteer personnel was limited by WMD contamination.

According to the nuclear/radiological incident annex of the NRP, the Advisory Team for Environment, Food, and Health is responsible for providing protective action recommendations, including:

- health and safety advice or information for the public and for workers; and
- recommendations for relocation, reentry, and other radiation protective measures prior to recovery.

In this scenario, DHS and DOE, as the coordinating agency, would oversee this effort. Because the field activities in the Landport area were simulated, the Advisory Team was not fully exercised during the T4 CPX.

Summary of Issue

It was unclear who was responsible for determining what areas were considered safe when Federal D/As were making plans to deploy personnel and other resources into the affected area.

Consequences

A coordinated strategy for staging and deploying responders and ensuring they were not exposed to unsafe levels of radiological contamination was not evident during the exercise. The simulation of Federal field response teams likely contributed.

Analysis

The IMAAC distributed hazard assessment reports that modeled predictions of health effects. These analyses were intended to inform protective action recommendations and support policy making. However, no entity appeared to step in and fill this policy role. Thus, D/As were left to independently interpret this information.

For example, the American Red Cross (ARC) was concerned about the safety of volunteer personnel. ARC received several requests for assistance that included:

- sheltering attendants and family members of patients to be evacuated to 15 hospitals in the Landport area under ESF#8;
- distributing clothing to those going through decontamination sites; and
- providing support to the cities/States sheltering evacuees from the Landport area.

In the 2:00 a.m. NRCC SITREP on June 22, ARC noted that mass care assistance was limited to decontaminated individuals in areas outside of the impacted area. ARC participants also noted that life safety issues were the main operational concern of ARC Disaster Operations Center (DOC) activity leads.

Similarly, FEMA raised concerns about the NDMS and USAR teams deployed to the Landport area, many of which were notionally deployed prior to the detonation. These personnel were being staged at two mobilization centers: Ft. Lewis in Tacoma, WA, and the National Guard Base in Salem, OR. Ft. Lewis is about 130 miles from the notional city of Landport and Salem is about 50 miles away. At a 3:00 p.m. meeting on June 21, FEMA personnel discussed the safety of their responders and the need to ensure that they were not exposed to unsafe levels of radiation. At about the same time, HHS discussed the staging of NDMS teams at the Landport airport. The Landport SIMCELL told HHS that the area was safe, but FEMA did not agree. At 7:20 p.m. that evening, FEMA told HHS that it would not support missions close to blast site and directed all assets to Ft. Lewis for staging.

Information sharing problems and exercise artificialities likely contributed to FEMA's concerns regarding personnel safety. On a 10:30 a.m. conference call with the NOC on June 21, the NRCC asked the NOC to provide a briefing on the potential impacts of a nuclear device. However, it never received a response to its request. When the NRCC had scientific questions about the detonation and the radiological contamination, there was no one present to provide an answer. These questions would have been raised to the ESF#12 liaison from DOE. However, this position was not staffed for the exercise.

Recommendations

A single point of contact should be designated as the responsible entity for providing a strategy for the deployment and staging of personnel and supplies into a potentially contaminated environment. This will ensure consistent protective actions are employed across the response effort. Suggested corrective actions are listed in Table 7.

Table 7. Response Personnel Safety: Suggested Corrective Actions

Corrective Action	Description	Lead Agency	Timeline
Clarify the responsible entity for providing guidelines for deployment into potentially contaminated areas.	Determine the responsible entity and roles of DHS/DOE and the Advisory Team for providing guidelines for deployment into potentially contaminated areas.	DHS/DOE	1 Month

4.2 Information Sharing and Maintenance of a COP

One objective of the T4 CPX was to test the ability of command/operations/intelligence centers to share intelligence and information and maintain a COP. These activities are important for maintaining a shared situational awareness among D/As and ensuring a coordinated multiagency response. The sharing of response and intelligence information is examined in this section.

4.2.1. Federal D/As and the NCR did not share situational awareness.

According to the NRP, the NOC is responsible for providing a general domestic situational awareness and a common operational picture. According to the HSOC (NOC) SOP, the NOC provides information to D/As through the following avenues:

- Existing real-time communications links
- HSIN
- Distributing warnings and bulletins
- DHS alerts (INS and HSAS level changes are listed as examples).

Summary of the Issue
Despite efforts to improve communications and information sharing across Federal D/As and with NCR organizations, they all lacked a shared situational awareness of key information during the T4 CPX. DHS is currently developing the COP, a component of HSIN, which provides a series of information screens that are designed to be displayed on a computer or projected on a display wall. The COP was not available at the time of the exercise. In addition, other methods of communicating key information did not appear to be used in place of the COP.

Consequence
Federal D/As and NCR organizations gathered information from many different sources, resulting in varied understandings about key information during the exercise.

Analysis
The Evaluation Team tracked the situational awareness of the following key pieces of information among Federal D/As:

- HSAS level changes
- Declaration of an Incident of National Significance
- Activation of the Catastrophic Incident Annex
- Presidential Disaster Declaration (PDD)

It is important to note that the first three were decisions made in SVTC meetings[12] during the exercise. Many participants in these meetings noted that formal meeting control procedures, such as preparing and distributing an agenda, preparing meeting summaries, and tracking taskings, were not used. Equipment problems also limited access for some participants, such as HHS, which did not have SVTC capability at its COOP site. The results of these meetings were not formally published and disseminated either. This resulted in participants coming out of the meetings with different understandings of what transpired and passing along different information to their D/As.

HSAS Level Change
In response to the intelligence injects, the Secretary of DHS decided to raise the HSAS level during an 8:30 a.m. SVTC that ended at approximately 9:40 a.m. Figure 3 compares the time to the first documented change in HSAS level across key Federal D/A operations centers. The figure labels show the source of the information at each location. The earliest notifications occurred at the NJIC and DoD SIMCELL. Both received phone calls from SVTC participants immediately following the meeting. The change was discussed or announced at most other locations about 45 minutes to an hour later. Some learned about it through senior leadership who had participated in the SVTC. Other D/As learned of the change through alternate sources, like the NICCL or VNN. In fact, the NJIC and NICCL calls became a good source of information for some D/As in the exercise because the NJIC conducted fact-checking exercises where it tracked and validated pieces of information. NCR participants were not notified of the HSAS level change, but later heard about it through the press release.

All Federal D/As heard that the HSAS level was raised to Red in the NCR and Orange for the nation. As shown in Table 8, Federal D/As had inconsistent understandings of the HSAS level for Landport. The NRCC and DNDO were notified that the level was raised to Red for Landport following the SVTC, while most others assumed it to be Orange like the rest of the nation. Many of the D/As shown in the table were not notified of the Landport HSAS level being raised to Red or finally heard about it later that evening or the next day. Some D/As still did not assimilate the information even after Secretary Chertoff reported it in a statement released at 2:20 p.m. on June 21.

[12] As discussed earlier under artificialities, senior level SVTC meetings were held in place of the HSC CSG meetings because the HSC did not participate.

Figure 3. Time of First Notification of an HSAS Level Change[13]
Decision made during the 8:30 a.m. SVTC, which ended at approximately 9:40 a.m.

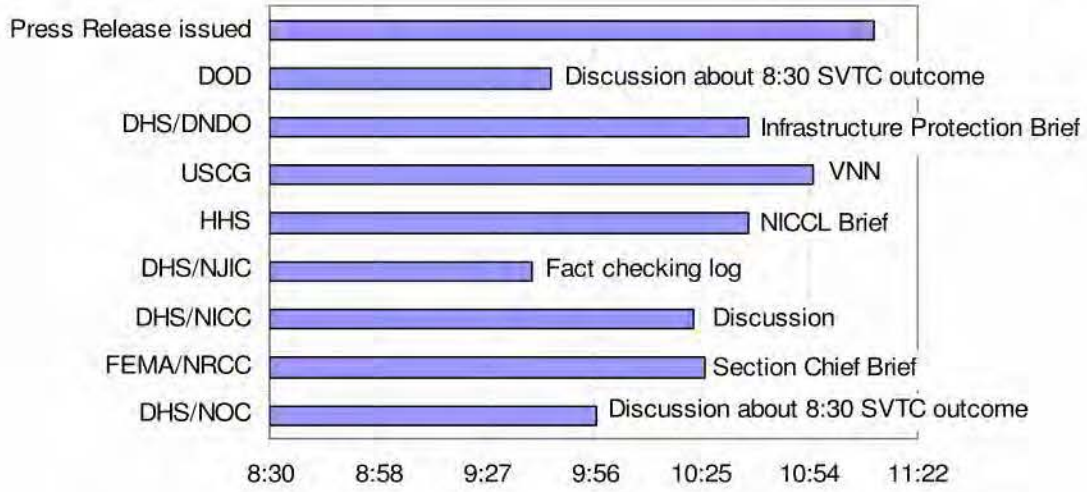


Table 8. Situational Awareness of the HSAS Level for Landport[14]

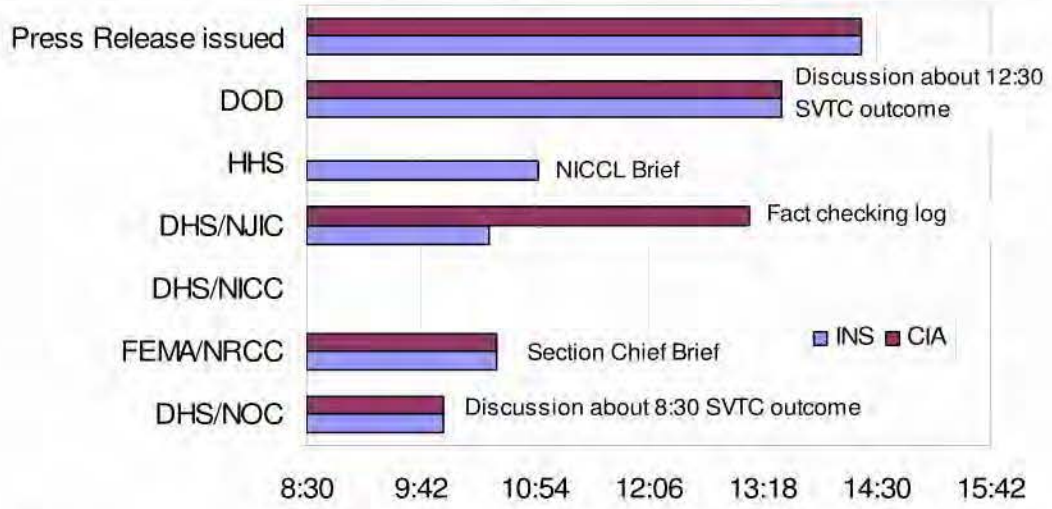
	June 21			June 22
	11:00 a.m.	3:00 p.m.	7:00 p.m.	7:00 a.m.
NOC	Orange		Red	Red
NRCC	Red	Red	Red	Red
NICC	Orange	Orange	Orange	Orange
NJIC	Orange	Red	Red	Red
HHS	Orange	Orange	Orange	
USCG	Orange			
DNDO	Red	Red	No data	No data
DoD	Orange	Orange	Orange	Orange
Public (VNN)	Yellow	Orange	Red	Red

INS and CIA
Also at the 8:30 a.m. SVTC, the Secretary of DHS decided to declare an Incident of National Significance and activate the Catastrophic Incident Annex. As shown in Figure 4, some Federal D/As experienced delays in learning about these two decisions and some never learned of it at all. More D/As knew that an Incident of National Significance was declared than knew the Catastrophic Incident Annex had been implemented. This may be because the Incident of National Significance was included on HSOC[15] and FEMA spot reports, the earliest of which was recorded at 11:30 a.m. on June 21.

[13] See Appendix A for a list of acronyms.
[14] See Appendix A for a list of acronyms. Blank spaces indicate that it is unclear what the HSAS was thought to be at that time in that location because it was not recorded in the data. "No data" indicates a time when data were not available for that location.
[15] The title on the spot reports had not yet been changed to the NOC.

Figure 4. Time of First Notification of an Incident of National Significance and Catastrophic Incident Annex[16]

Decision made during the 8:30 a.m. SVTC, which ended at approximately 9:40 a.m.

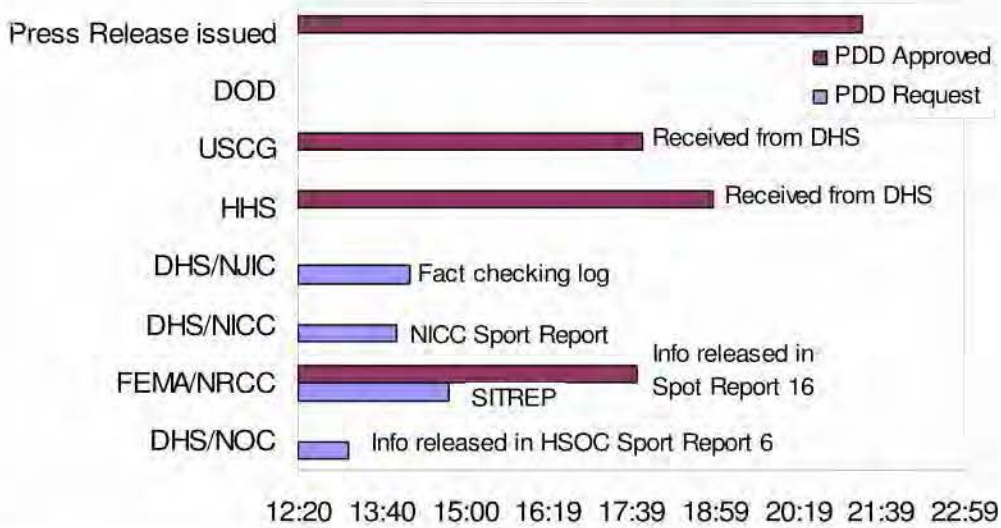


PDD

As shown in Figure 5, several Federal D/As did not hear about the PDD even though it was documented in NRCC Spot Report 16. This indicates that either the spot report was not disseminated widely or it was not read and assimilated by all of the receiving D/As. There was a significant time lag between the simulated request by the governor and the PDD. During this time, we recorded numerous conversations where personnel were wondering if the president had declared it a disaster. The delay is likely due to exercise control staff, as the final decision by the White House had to be simulated.

Figure 5. Time of First Notification of PDD Request and PDD[17]

PPD requested at 12:20 and approved at 17:00



[16] See Appendix A for an acronym list.
[17] See Appendix A for an acronym list.

Recommendations

The COP has the potential to improve information sharing and situational awareness across FSL D/As. DHS should ensure that D/As are able to access and use the system, that there are redundant methods for sharing information, and that D/As are able to assimilate this information into a shared situational awareness. Suggested corrective actions are listed in Table 9.

Table 9. Situational Awareness: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Finish development and deployment of the COP.	Finish development and deployment of the COP system for use in the NOC.	DHS—Office of Operations Coordination	Ongoing
Develop parameters and standards for the COP, to include Spot Reports and SITREPS.	Develop parameters and standards so that D/As have established guidelines for accessing and contributing to the COP; development of these standards should be integrated with work on D/A-specific policies and procedures for HSIN.	DHS—NOC & Interagency	Ongoing
Establish Video Teleconference protocols for Incidents of National Significance.	Establish protocols for the use of SVTC during Incidents of National Significance to ensure that the necessary officials are included in the conferences and agendas, and to ensure that summaries of conclusions are distributed to all attendees.	DHS—Executive Secretary & Office of Operations Coordination	3 Months
Develop D/A-specific policies and procedures for HSIN.	Individual D/As should develop their own policies and procedures for the use of HSIN during a crisis and use those procedures during subsequent exercises.	DHS—NOC & Interagency	1 Year
Conduct a feasibility study of integrating HSIN with web-EOC.	Conduct a study of the integration of the two information-sharing systems—HSIN and web-EOC—so that FSL governments have access to the same information.	DHS—Preparedness Directorate & SLGC	1 Year

4.2.2. Intelligence was not consistently shared across Federal D/As and the NCR.

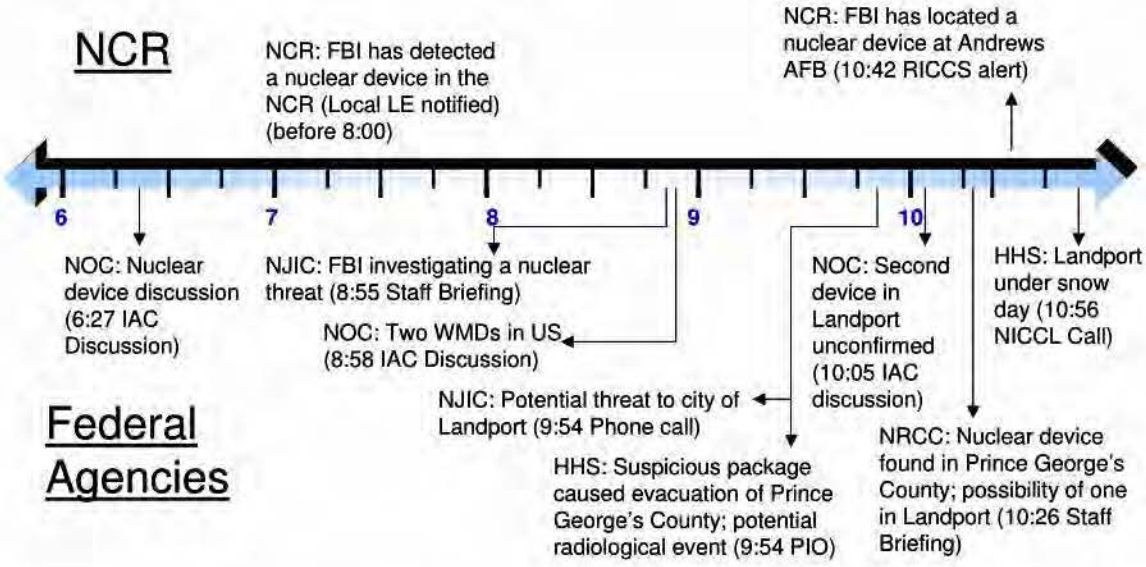
Summary of the Issue

There were differences in the intelligence information available at Federal D/As and within the NCR during the exercise. Whereas some received detailed information about the threat in the NCR and Landport, others received little or no information. The location of personnel in secure and nonsecure sites contributed to these problems because classified information can only be transferred through secure phones or computer systems. Even when personnel in nonsecure sites had clearance to receive the information, they often did not have access to secure phones or computer systems.

Consequence
The ability of some Federal D/As and the NCR to take protective actions and prepare to respond to a nuclear/radiological incident was impacted by the lack of information.

Analysis
Figure 6 shows excerpts of discussions and communications recorded at several locations during the exercise. The NOC was a secure site and personnel working there knew they had relocated because of a nuclear threat to the NCR. The other Federal sites were not equipped to handle classified information and personnel working there were not immediately aware of the nature of the threat and why they had relocated. By midmorning, however, all had heard that they were dealing with a nuclear/radiological threat. This information came from many different sources and was not formally disseminated. Some of it could be the result of leaks in the exercise scenario.

Figure 6. Information Known about the Threat



The FBI told NCR law enforcement officials very early on June 21 that a nuclear device had been located in the NCR. They passed this information to their senior officials, who attempted to get official notification from the NOC through the ONCRC and G&T. According to existing procedures for intelligence dissemination, the intelligence community members disseminate their information to the NOC. The NOC is then responsible for packaging the information at the various classification levels necessary for use by State/local customers, as well as other Federal agencies.[18] Although a request for information was made to the NOC, it is unclear why no information was released to the NCR.[19]

[18] Memorandum from Russell Schweikhard, Central Intelligence Agency, July 13, 2006.
[19] Our evaluation plan did not include the collection of data on classified processes and procedures.

Many participants said that the lack of intelligence hindered their ability to take protective measures and to respond appropriately. For example, HHS personnel had no information on the threat at the time their COOP site was activated and only learned through their PIO that there was a potential radiological event. In an 11:00 a.m. conference call with the DHS chief medical officer, HHS said that it was not informed of any intelligence information and was now 14 hours behind curve in terms of preparing to respond. NCR officials raised similar concerns and noted that the lack of intelligence limited their planning activities and ability to take protective measures. As discussed earlier, operational security concerns are one reason that intelligence sharing might be limited. The protection of sources is another.

Also contributing to information sharing problems was that personnel were located in a variety of secure and nonsecure sites. For example, personnel with the IAC operated from a secure site where all the information they received was treated as classified. Thus, they could only pass information to their D/As through secure channels such as secure telephones or computer systems. Personnel receiving this information also needed proper clearance. However, even when personnel with the clearances were available, they often did not have the equipment necessary to receive classified information.

Many participants noted that much of the information available in secure sites or on secure systems was unclassified, but personnel could not easily have this information downgraded to pass on. For example, the NICC said that information that was unclassified or classified at a low level was carried on systems with higher classifications that required arduous processes to move the information to systems where information sharing and visibility would be higher. It was unclear even with unclassified products whether they were cleared or not for release to the general public or private sector critical infrastructure and key resource partners (i.e., trusted industry community).

Related to this issue, the NICC received numerous requests for information from the private sector. Because much of the information it was receiving came over classified systems, it could not easily downgrade this information for dissemination to private sector organizations. The NICC does not typically coordinate with the NJIC, so it did not have ready access to fact sheets and talking points to distribute to its private sector partners.[20] It is important to note that the NJIC typically coordinates with the DHS Private Sector Office, which then provides information such as fact sheets and talking points to the private sector. However, during the CPX, the DHS Private Sector Office did not participate at the NJIC, which may have exacerbated this problem.

Recommendations

Coordinate with the intelligence community to further assess and address intelligence sharing. Improve coordination between the NICC and NJIC during emergencies to ensure information is disseminated to private sector organizations. Suggested corrective actions are listed in Table 10.

[20] The NICC and the NJIC have identified this as a potential problem and are identifying solutions.

Table 10. Intelligence Sharing: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Review intelligence sharing procedures.	Review intelligence sharing procedures and the role of the NOC to ensure that potential blockages in information flow are addressed.	DHS—NOC OI&A	6 Months
Develop reachback alternatives for senior leadership.	Investigate alternative approaches to providing leadership officials in COOP facilities access to reachback and additional support capabilities and resources.	DHS—Preparedness Directorate & NOC	3 Months
Ensure that COOP facilities have SCIFs and can share information at the same level of classification.	For information-sharing purposes, ensure that COOP facilities, that have mission essential tasks that require TS/SCI information, have SCIFs with SIPRNET and DSN access.	DHS—Preparedness Directorate & NOC	12 Months
Develop a process for linking the NICC with public messaging during an emergency.	Develop protocols that describe NJIC and NICC communication and coordination in public messaging to ensure necessary information reaches the private sector.	DHS—Preparedness Directorate, AS Public Affairs & NOC	6 Months

4.3 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 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.

During the T4 CPX, the NRP was employed and ESF #15 was activated. Federal D/As set up a NJIC and activated the NICCL for communication and coordination of public information. Table 11 shows the D/As that staffed the NJIC and those that issued press releases. In parentheses are the total numbers of press releases issued during the CPX. It is important to note that there was limited participation from the NCR and no real or simulated participation from State and local public affairs communities representing Landport or Central Pacifica.

CPX media play consisted of VNN broadcasts, the VNN.com website, and a media SIMCELL. As they have done in past TOPOFF exercises, VNN maintained an exercise website with articles and video clips about the exercise world. It also posted Federal D/As press releases on the website. The media SIMCELL represented a news wire service. The media SIMCELL made phone calls to Federal D/As, including the NJIC, and conducted mock interviews. They logged those calls and responses to their questions, and provided an hourly update to the MCC. Especially newsworthy information was provided as learned to VNN through the VNN controller, but the SIMCELL operated independently from VNN.

Table 11. D/A Public Affairs Participation during the T4 CPX

D/A	Represented at the NJIC	Issued Press Release
DHS	X	X (11)
HHS	X	X (2)
FEMA	X	X (2)
USDA	X	
OPM	X	
DOJ	X	X (1)
FBI	X	X (1)
BLM		X (3)
DOE		X (1)
FCC		X (4)
DOD (JTF-NCR)		X (2)
NRC		X (3)
NTSB		X (1)
NCR	X (participated in NICCL calls)	
Landport/CP		

4.3.1. Conflicting guidance was provided to Federal government employees and the public before the WMD blast.

Summary of Issue

One of the most important requirements during emergencies is to provide the public with protective action guidance. During the T4 CPX, conflicting protective action guidance was provided to Federal government employees and the public in the NCR and in Landport before the WMD blast. However, that after the WMD blast in Landport, Federal D/As provided consistent information and guidance to the public.

Consequence

Given the conflicting information provided to the public and government employees in the NCR, the likely outcome would be additional confusion in the NCR and in Landport before the WMD blast and frustration with the Federal D/As.

Although it is significant that Federal D/As were able to "speak with one voice" to the public after the WMD blast in Landport, it is important to recognize that in a real WMD emergency, the

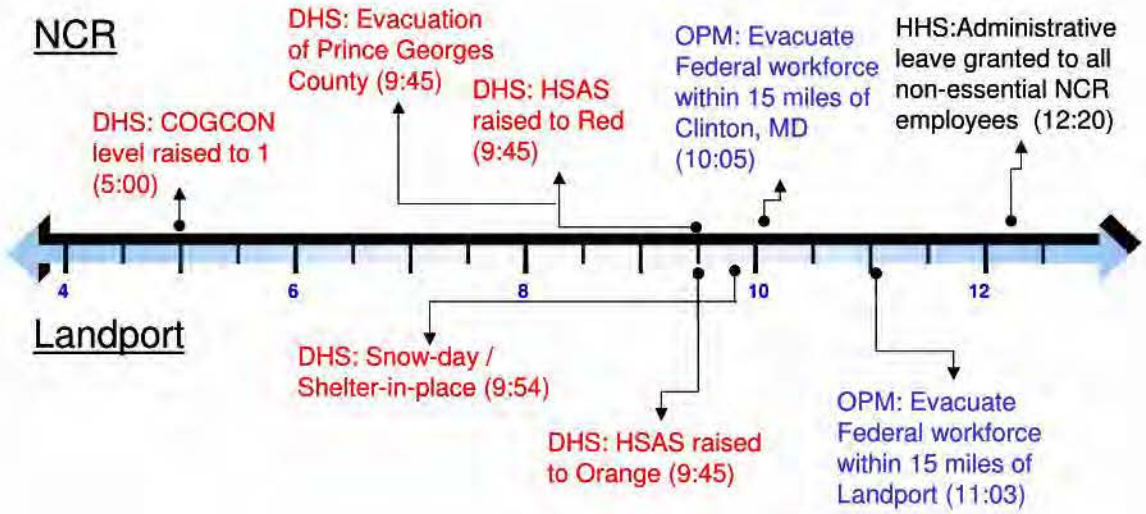
public will look to their State and local governments first for protective action guidance. Therefore, Federal D/A guidance must also be consistent with that provided by the State and local public affairs agencies. This has proved to be a significant challenge in previous TOPOFF exercises and was not examined during the T4 CPX.

Analysis

During the T4 CPX, conflicting protective action guidance was provided to Federal government employees and the public in the NCR and in Landport before the WMD blast. This is shown in Figure 7.

The COGCON level was raised to 1 at 5:00 a.m. on June 21. OPM did not release nonessential government employees at this time. Instead, the decision was left to the individual D/As. This caused concern among officials at several D/As. For example, FEMA officials discussed what to do with their nonessential personnel but took no further action; DOT officials discussed whether this was a Federal or OPM decision, as there were no requests for Federal assistance. As far as the evaluation team could determine, the only D/A to take official action was HHS, which decided to grant administrative leave to their employees in the NCR at 12:20 p.m. Clear guidance or direction from OPM when the COGCON level was raised to 1 could have alleviated this concern.

Figure 7. Protective Action Guidelines

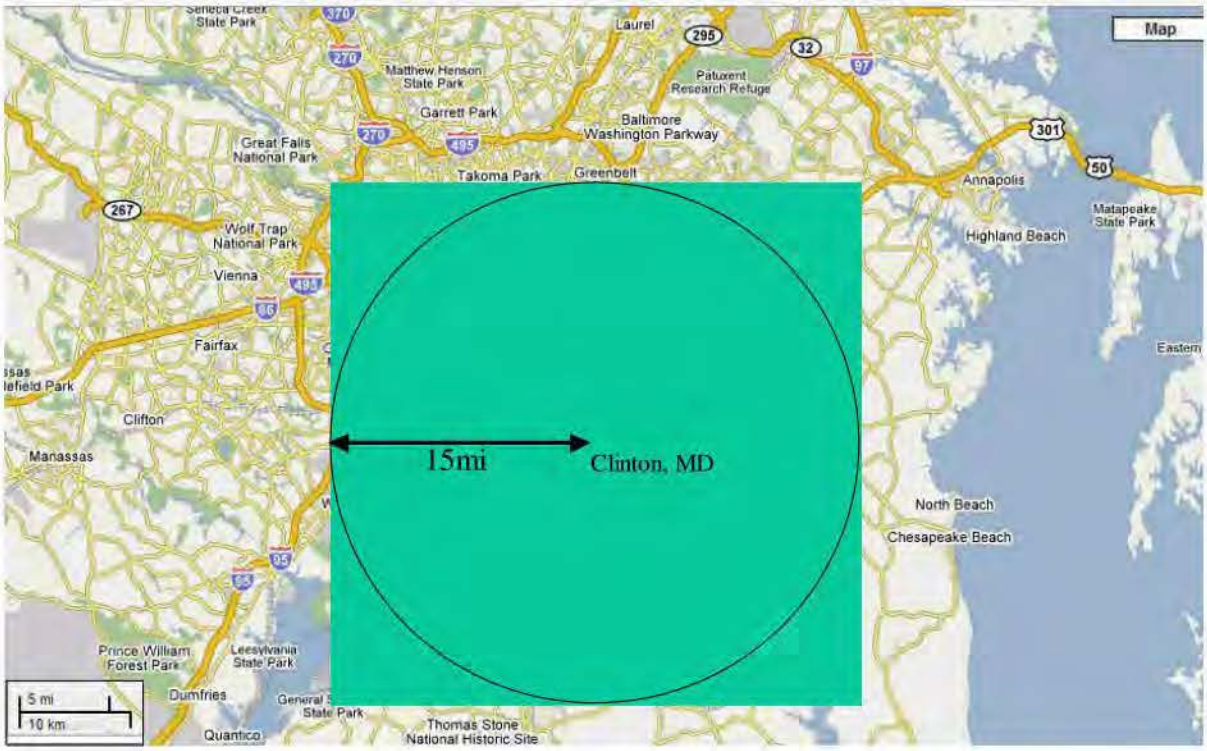


At 9:45 a.m., the HSAS level was raised to Red in the NCR, and the Federal government recommended that Prince George's County be evacuated. At 10:05 a.m., OPM directed the Federal workforce to evacuate only within a portion of the county—15 miles around Clinton, MD. Notably, an evacuation area of this size includes several additional counties, including portions of Fairfax and Arlington Counties in Virginia, and portions of Washington, DC, including the White House (see Figure 8). In a real emergency, these inconsistencies would have

likely been observed and reported upon by the media, subsequently causing concern and confusion among the public.

Shortly after the HSAS level was raised to orange at 9:45 a.m., the NJIC began working on a public statement for Landport residents to shelter-in-place. At 11:03 a.m., OPM directed all Federal employees within 15 miles of Landport to evacuate.[21] The evaluation team has no data to show that the same recommendation was passed along to the public. This certainly is a cause for concern because, in a real emergency, Federal employees evacuating a city would not escape the notice of the media or the public. An emergency alert system (EAS) message was sent out after the blast.

Figure 8. Evacuation Area around Clinton, MD



Although there is a balance between protecting operational security and providing information to the public, information passed to nonessential government personnel, at a minimum, must also be relayed to the public. In practical terms, the government workers are going to call their families, inevitably alerting the public that something unusual is occurring.

The protective action guidance issued by the Federal D/As after the detonation in Landport was consistent. For example, in a press release just after the WMD blast, DHS referred directly to the CDC protective action recommendation. In addition, in a statement by the DHS Secretary at 10:30 a.m. on June 22, he described assets that had deployed to Landport and activities undertaken and repeated the recommended protective action guidelines. The information in this statement was consistent with press releases by each individual D/As made the day prior.

[21] Participants could have been acting on information leaked from the exercise scenario when making this decision.

Although it is significant that Federal D/As were able to maintain a consistent message to the public, in a real WMD emergency, the State and local protective action guidelines would also have to be consistent. This significant challenge was not addressed in the CPX.

Recommendations

Federal D/A guidance must be consistent with that provided by the State and local public affairs agencies. This has proved to a significant challenge in previous TOPOFF exercises and was not examined during the T4 CPX. This issue should be readdressed during the full-scale exercise. Suggested corrective actions are listed in Table 12.

Table 12. Public Information: Suggested Corrective Actions

Corrective Action	Description	Responsible Agencies	Timeline
Analyze options for a dynamic public messaging system and integrate with IPAWS work.	During a WMD event, different protective actions may need to be taken by the public, depending on where they are located. For instance, those in the fallout plume need to evacuate, while most others should shelter-in-place. Undertake an analysis of alternative means of delivering prescripted risk messages to different geographic segments of a population in order to communicate tailored recommendations for protective measures. This work should be integrated with the ongoing IPAWS initiative.	DHS—FEMA & DOC—NOAA	Ongoing
Standardize leave policy for nonessential government personnel in an emergency.	OPM should standardize emergency leave policy for nonessential government personnel with an elevation to COGCON Level 1 so that it is consistent among all D/As and is also consistent with expected guidance to the public.	OPM	3 Months
Develop D/A-specific HSAS playbooks.	Each D/A develop criteria/playbooks that outline what happens internally to their organizations when the HSAS threat level is raised.	DHS & Interagency	6 Months

5.0 CONCLUSIONS

The evaluation of the exercise focused on three general areas: WMD response, situational awareness and information sharing, and public information. Within each of these areas, several key issues emerged and are addressed in this AAR.

Focus Areas and Key Issues

WMD response
• Some predetonation decisions/actions may have compromised operational security. • Protective actions/recommendations were not coordinated with State and local governments. • The May 25 NRP notice of change was not fully implemented. • The deployment of Federal and volunteer personnel was limited by WMD contamination.
Situational awareness and information sharing
• Federal D/As and the NCR did not share situational awareness. • Intelligence was not consistently shared across Federal D/As and the NCR.
Public information
• Conflicting guidance was provided to Federal government employees and the public before the WMD blast.

Exercise artificialities and implementation issues affected the exercise and the key issues discussed in this report. Most notably, there was limited participation by the White House and HSC in the exercise itself, which affected decision-making and coordination. In addition, other artificialities limited Federal interagency and Federal-NCR coordination.

Many of these issues were raised in past TOPOFF exercise and/or were noted during the response to Hurricane Katrina. Appendix B of this report includes a Corrective Action Plan focused on addressing these issues.

APPENDIX A: ACRONYM LIST

ACRONYM	DESCRIPTION
AAR	AFTER-ACTION REPORT
ARC	AMERICAN RED CROSS
CBP	CUSTOMS AND BORDER PATROL
CDC	CENTERS FOR DISEASE CONTROL
CIA	CATASTROPHIC INCIDENT ANNEX
COA	COURSE OF ACTION
COGCON	CONTINUITY OF GOVERNMENT CONDITION
CONPLAN	CONCEPT OF OPERATIONS PLAN
COOP	CONTINUITY OF OPERATIONS
COP	COMMON OPERATING PICTURE
CP	CENTRAL PACIFICA
CPX	COMMAND POST EXERCISE
CSG	COUNTERTERRORISM SUPPORT GROUP
D/AS	DEPARTMENTS AND AGENCIES
DHS	DEPARTMENT OF HOMELAND SECURITY
DMAT	DISASTER MEDICAL ASSISTANCE TEAM
DMORT	DISASTER MORTUARY OPERATIONS RESPONSE TEAM
DNDO	DOMESTIC NUCLEAR DETECTION OFFICE
DOC	DISASTER OPERATIONS CENTER
DOD	DEPARTMENT OF DEFENSE
DOE	DEPARTMENT OF ENERGY
DOJ	DEPARTMENT OF JUSTICE
DOT	DEPARTMENT OF TRANSPORTATION
EOC	EMERGENCY OPERATIONS CENTER
ERT-N	EMERGENCY RESPONSE TEAM- NATIONAL
ESF	EMERGENCY SUPPORT FUNCTION
EXPLAN	EXERCISE PLAN
FBI	FEDERAL BUREAU OF INVESTIGATION
FC 06	FORWARD CHALLENGE 2006
FCC	FEDERAL COMMUNICATIONS COMMISSION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FIRST	FEDERAL INCIDENT RESPONSE SUPPORT TEAM
FSL	FEDERAL, STATE, AND LOCAL
HHS	DEPARTMENT OF HEALTH AND HUMAN SERVICES
HSAS	HOMELAND SECURITY ADVISORY SYSTEM
HSC	HOMELAND SECURITY COUNCIL
HSEEP	HOMELAND SECURITY EXERCISE AND EVALUATION PROGRAM
HSIN	HOMELAND SECURITY INFORMATION SYSTEM
HSOC	HOMELAND SECURITY OPERATIONS CENTER
HSPD-5	HOMELAND SECURITY PRESIDENTIAL DIRECTIVE 5
IAC	INCIDENT ADVISORY COUNCIL

IIMG	INTERAGENCY INCIDENT MANAGEMENT GROUP
IMAAC	INTERAGENCY MODELING AND ATMOSPHERIC ASSESSMENT CENTER
IND	IMPROVISED NUCLEAR DEVICE
INS	INCIDENT OF NATIONAL SIGNIFICANCE
JTF	JOINT TASK FORCE
MC 06-02	MARBLE CHALLENGE 2006-02
MCC	MASTER CONTROL CELL
MSEL	MASTER SCENARIO EVENTS LIST
NARAC	NATIONAL ATMOSPHERIC RELEASE ADVISORY CENTER
NCR	NATIONAL CAPITAL REGION
NDMS	NATIONAL DISASTER MEDICAL SYSTEM
NIAC	NATIONAL INFRASTRUCTURE ADVISORY COUNCIL
NICC	NATIONAL INFRASTRUCTURE COORDINATION CENTER
NICCL	NATIONAL INCIDENT COMMUNICATIONS CONFERENCE LINE
NIMS	NATIONAL INCIDENT MANAGEMENT SYSTEM
NJIC	NATIONAL JOINT INFORMATION CENTER
NOC	NATIONAL OPERATIONS CENTER
NPS	NATIONAL PLANNING SCENARIO
NRC	NUCLEAR REGULATORY COMMISSION
NRCC	NATIONAL RESPONSE COORDINATION CENTER
NRP	NATIONAL RESPONSE PLAN
NTSB	NATIONAL TRANSPORATION SAFETY BOARD
ONCRC	OFFICE OF NATIONAL CAPITAL REGION COORDINATION
OPM	OFFICE OF PERSONNEL MANAGEMENT
OSLGC	OFFICE OF STATE AND LOCAL GOVERNMENT COORDINATION
PDD	PRESIDENTIAL DISASTER DECLARATION
PFO	PRINCIPAL FEDERAL OFFICIAL
PIO	PUBLIC INFORMATION OFFICER
RDF	RAPID DEPLOYMENT FORCE
SCIF	SECURE COMPARTMENTALIZED INFORMATION FACILITY
SIMCELL	SIMULATION CELL
SITREP	SITUATION REPORT
SNS	STRATEGIC NATIONAL STOCKPILE
SOE	SENIOR OFFICIALS EXERCISES
SOP	STANDARD OPERATING PROCEDURE
SVTC	SECURE VIDEO CONFERENCE
T3	TOP OFFICIALS EXERCISE 3
T4	TOP OFFICIALS EXERCISE 4
TARU	TECHNICAL ASSISTANCE RESPONSE UNIT
TOPOFF	TOP OFFICIALS EXERCISE
UA	UNIVERSAL ADVERSARY
US&R	URBAN SEARCH AND RESCUE
USAR	URBAND SEARCH AND RESCUE
USCG	UNITED STATES COAST GUARD

USDA	UNITED STATE DEPARTMENT OF AGRICULTURE
USTRANSCOM	UNITED STATES TRANSPORTATION COMMAND
VNN	VIRTUAL NEWS NETWORK
WMD	WEAPONS OF MASS DESTRUCTION

APPENDIX B: CORRECTIVE ACTION PLAN

These actions were developed in coordination with a small group of interagency T4 CPX planners. They are intended to be further refined by DHS and the larger interagency into a corrective action plan.

Corrective Action	Description	Responsible Agencies	Timeline
EXERCISE PARTICIPATION			
Conduct pre-exercise training and education for senior leadership.	Conduct training and education for senior leaders prior to the next FSE to ensure they are engaged and have full awareness of their anticipated role.	DHS—Preparedness Directorate	6 Months
Write exercise CONPLANs for senior leadership.	Write a concept of operations (CONPLAN) for the next FSE. Senior leadership would be the target audience, and the intent would be to provide them with a description of their roles and responsibilities during the exercise.	DHS—Preparedness Directorate	6 Months
Expand exercise participant training.	Expand the training and information materials provided to players and field controllers to ensure they are aware of the expectations for coordination and interaction with participating and simulated organizations.	DHS—Preparedness Directorate	12 Months
OPERATIONAL SECURITY			
Develop alternatives to COGCON Level 1 in the COOP architecture.	Consider alternatives to COGCON level 1, such as creating operational depth by ensuring that geographically dispersed individuals are trained to carry out COOP roles and responsibilities or using devolution in place of moving all essential personnel.	DHS—FEMA	12 Months
Create additional measures in COOP plans to minimize impact on local communities.	Additional measures should be added to COOP plans to account for a deployment's impact on the local economy and infrastructure and for the logistical challenges associated with deployment. MOUs should be signed with the host communities.	DHS—FEMA	6 Months
Develop interagency playbook for NRP.	Develop interagency playbook for the NRP. This would be a companion piece to the NRP that would be prescripted with operational security considerations, user checklists, have a common set of questions, and would also be developed for the 15 National Planning Scenarios.	DHS—Preparedness Directorate	9 Months
Write operational plans for catastrophic scenarios.	Write specific operational plans that would complement the operational framework contained in the Catastrophic Incident Annex of the NRP and address operational security in specific scenarios.	DHS—NOC Planning Element	1 Year

Corrective Action	Description	Responsible Agencies	Timeline
COORDINATING PROTECTIVE ACTIONS			
Collaborate with the NCR to address protective action coordination.	Conduct exercises, workshops, and/or plan reviews in coordination with the NCR to ensure that Federal government plans for evacuation and other protective actions are fully synchronized with NCR plans.	DHS—Preparedness	6 Months
NRP CHANGES			
Establish SOPs for the IAC and NOC.	Establish SOPs for the IAC, the NOC Planning Element, and the NOC itself, making sure to integrate those plans with any changes to COOP plans and the functionality of the COP.	DHS—Office of Operations Coordination	3 Months
Establish procedures for publicizing changes to the NRP.	Develop and establish procedures, to include associated training and education, for publicizing and institutionalizing changes to the NRP so that FSL officials and responders are aware of changes to the response architecture.	DHS—Preparedness Directorate & FEMA	3 Months
Develop a training and education program for the NRP.	Develop a comprehensive, continuing training and education program for the NRP that is aimed at FSL levels—both for authorities and responders.	DHS—Preparedness Directorate & FEMA	6 Months
PERSONNEL SAFETY			
Clarify the responsible entity for providing guidelines for deployment into potentially contaminated areas.	Determine the responsible entity and roles of DHS/DOE and the Advisory Team for providing guidelines for deployment into potentially contaminated areas.	DHS/DOE	1 Month
SITUATIONAL AWARENESS			
Finish development and deployment of the COP.	Finish development and deployment of the COP system for use in the NOC.	DHS—Office of Operations Coordination	Ongoing
Develop parameters and standards for the COP, to include spot reports and SITREPS.	Develop parameters and standards so that D/As have established guidelines for accessing and contributing to the COP; development of these standards should be integrated with work on D/A-specific policies and procedures for HSIN.	DHS—NOC & Interagency	Ongoing
Establish video teleconference protocols for Incidents of National Significance.	Establish protocols for the use of SVTC during Incidents of National Significance to ensure that the necessary officials are included in the conferences and agendas, and to ensure that summaries of conclusions are distributed to all attendees.	DHS—Executive Secretary & Office of Operations Coordination	3 Months

Corrective Action	Description	Responsible Agencies	Timeline
Develop D/A-specific policies and procedures for HSIN.	Individual D/As should develop their own policies and procedures for the use of HSIN during a crisis and use those procedures during subsequent exercises.	DHS—NOC & Interagency	1 Year
Conduct a feasibility study of integrating HSIN with web-EOC.	Conduct a study of the integration of the two information-sharing systems—HSIN and web-EOC—so that FSL governments have access to the same information.	DHS—Preparedness Directorate & SLGC	1 Year
INTELLIGENCE SHARING			
Review intelligence sharing procedures.	Review intelligence sharing procedures and the role of the NOC to ensure that potential blockages in information flow are addressed.	DHS—NOC	6 Months
Develop reachback alternatives for senior leadership.	Investigate alternative approaches to providing leadership officials in COOP facilities access to reachback and additional support capabilities and resources.	DHS—Preparedness Directorate & NOC	3 Months
Ensure that all COOP facilities have SCIFs and can share information at the same level of classification.	For information-sharing purposes, ensure that all COOP facilities have SCIFs with SIPRNET and DSN access. Also ensure that all COOP facilities are cleared for the same level of classification to meet operational requirements.	DHS—Preparedness Directorate & NOC	12 Months
Develop a process for linking the NICC with public messaging during an emergency.	Develop protocols that describe NJIC and NICC communication and coordination in public messaging to ensure necessary information reaches the private sector.	DHS—Preparedness Directorate & AS Public Affairs	6 Months
PUBLIC INFORMATION			
Analyze options for a dynamic public messaging system and integrate with IPAWS work.	During a WMD event, different protective actions may need to be taken by the public, depending on where they are located. For instance, those in the fallout plume need to evacuate, while most others should shelter-in-place. Undertake an analysis of alternative means of delivering prescripted risk messages to different geographic segments of a population in order to communicate tailored recommendations for protective measures. This work should be integrated with the ongoing IPAWS initiative.	DHS—FEMA & DOC—NOAA	Ongoing
Standardize leave policy for nonessential government personnel in an emergency.	OPM should standardize emergency leave policy for nonessential government personnel with an elevation to COGCON Level 1 so that it is consistent among all D/As and is also consistent with expected guidance to the public.	OPM	3 Months

Corrective Action	Description	Responsible Agencies	Timeline
Develop D/A-specific HSAS playbooks.	Each D/A develop criteria/playbooks that outline what happens internally to their organizations when the HSAS threat level is raised.	DHS & Interagency	6 Months

APPENDIX C: COMPILATION OF D/A LESSONS LEARNED

The following table shows the list of participating agencies. "QL" indicates those that commented on the quick look report, "LL" indicates those that submitted lessons learned, and "DC" indicates those that had a data collector or member of the CPX Evaluation Team present at their location. **WE ALSO NEED TO INSERT THE LESSONS LEARNED HERE OR REFERENCE HOW THEY WILL BE PUBLISHED.**

Agency	QL	LL	DC
American Red Cross	X	X	
Central Intelligence Agency	X	X	
Defense Information Systems Agency			
Department of Agriculture			
Department of Commerce			
Department of Defense		X	
• Office of the Secretary of Defense	X		
Department of Education			
Department of Energy	X	X	X
Department of Health and Human Services			X
Department of Homeland Security			X (IAC, NJIC, NICC)
• FEMA			X (NRCC)
• Civil Rights and Liberties	X		
• Domestic Nuclear Detection Office	X	X	X
• Immigration and Customs Enforcement		X	
• Preparedness Directorate	X	X	
• National Communications System		X	
• Office of Science and Technology			
• Transportation Security Administration			
• U.S. Citizenship and Immigration Services			
• U.S. Coast Guard		X	X
• U.S. Customs and Border Protection			
• U.S. Secret Service			
Department of Housing and Urban Development	X	X	
Department of Interior			
Department of Justice			
• FBI			
• Criminal Division Counter Terrorism Section			
• Alcohol, Tobacco, Firearms, and Explosives			
• U.S. Marshals Service			
Department of Labor	X	X	
Department of State	X	X	
Department of the Treasury			
Department of Transportation			
• Federal Aviation Administration			
Department of Veterans Affairs			X

Environmental Protection Agency			
Executive Office of the President			
• Office of Science and Technology Policy			
Export-Import Bank of the US			
Federal Communications Commission	X		
Federal Reserve System			
General Services Administration	X		
Internal Revenue Service			
Landport SIMCELL Collective	X		
National Archives and Records Administration			
National Capital Region	X	X	
• DCEMA			X
• Virginia DEM			
• MEMA			
• Supporting Jurisdictions and Agencies			
National Labor Relations Board			
National Science Foundation	X	X	
National Transportation Safety Board			
Nuclear Regulatory Commission			
Office of Personnel Management			
Office of the Director of National Intelligence			
Office of the U.S. Courts			
Peace Corps			
Pension Benefit Guaranty Corporation			
Securities and Exchange Commission			
Small Business Administration			
Social Security Administration	X	X	
US Agency for International Development			
US Army Corps of Engineers			
US House of Representatives			
US Postal Service	X	X	
US Senate Office of the Sergeant at Arms			

APPENDIX D: REFERENCES

1. Department of Homeland Security, *Top Officials (TOPOFF) 4 (T4) Command Post Exercise (CPX) Exercise Plan (EXPLAN)*, June 2006.
2. Department of Homeland Security, *SOE 05-4, "Vulcan Warrior," After-Action Report (AAR).*
3. Department of Homeland Security, *National Response Plan*, December 2004.
4. Department of Homeland Security, *Notice of Change to the National Response Plan*, May 25, 2005.
5. Department of Homeland Security. *Interagency Integrated Standard Operating Procedure, Homeland Security Operations Center (HSOC), Version 5.0*, August 2005.

APPENDIX E: HSAS CONDITIONS

Threat Conditions	Procedures/Guidelines
Green (low), Blue (guarded), Yellow (elevated)	Under Threat Conditions Green through Yellow, the HSOC maintains direct connectivity with the NCTC and the FBI SIOC regarding the terrorist threat and maintains situational awareness through the continued monitoring of reported incidents.
Orange (high)	When threat conditions warrant, DHS activates the IIMG to review the threat information, coordinate interagency activity, and recommend additional precautions needed to prevent, prepare for, or respond to an attack. If the threat is elevated regionally or locally, DHS considers designating a PFO and activating emergency response teams and appropriate RRCC(s) to coordinate with regional, State, and private-sector entities and notify (or activate) regional resources (such as the ERT) as appropriate.
Red (severe)	When threat conditions warrant, DHS fully activates the NRCC, activates the RRCCs in the designated threat locations, implements Continuity of Operations plans, and places other appropriate assets on the highest alert status. If the threat is elevated regionally or locally, the IIMG provides recommendations for the deployment of special teams to the area and establishment of a JFO. In the absence of a JFO, special teams deployed in response to a terrorist threat operate in coordination with the FBI JOC.

APPENDIX F: COOP AND COGCON MATRIX

DEPARTMENT AND AGENCY COOP ALERT & DEPLOYMENT OPTIONS

Department & Agency (D/A) Continuity of Operations (COOP)	"GUARDED" → Level of Concern → "HIGH"			
	COGCON 4	COGCON 3	COGCON 2	COGCON 1
Operations	• Continue to perform headquarters business functions at normal location(s) • Maintain alternate operating facility(ies) in accordance with agency COOP plans to ensure ready for activation at all times • Conduct training and exercise activities in accordance with agency COOP and TTE plan(s) to ensure personnel readiness	• Continue to perform headquarters business functions at normal location(s) • Maintain alternate operating facility(ies) in accordance with agency COOP plans to ensure ready for activation at all times • Conduct additional training activities to increase personnel readiness (e.g. Team tabletops, review recall lists, review plans and procedures)	• Continue to perform headquarters business functions at normal location(s) • Monitor/track major HQ activities • Maintain alternate operating facility(ies) in accordance with agency COOP plans to ensure ready for activation at all times • Take appropriate steps to ensure alternate operating facility(ies) can be activated with 4 hours notice	• Continue to perform headquarters business functions at normal location(s) • Monitor/track major HQ activities • Perform day-to-day functions at alternate facility(ies) as appropriate • Take appropriate steps to ensure alternate operating facility(ies) can be activated with no notice
Staffing Level	• No staffing required at alternate operating facility(ies) • Maintain normal delegations and devolution of authority to ensure performance of essential functions in no notice event	• No staffing required at alternate operating facility(ies) unless necessary to meet 8-hour operational requirement. • Maintain normal delegations and devolution of authority to ensure performance of essential functions in no notice event	• Deploy sufficient staff to alternate operating facility(ies) to allow activation with 4 hours notice	• Deploy sufficient staffing to alternate operating facility(ies) to perform essential functions with no notice

DEPARTMENT AND AGENCY COOP ALERT & DEPLOYMENT OPTIONS

Department & Agency (D/A) Continuity of Operations (COOP)	"GUARDED" → Level of Concern → "HIGH"			
	COGCON 4	COGCON 3	COGCON 2	COGCON 1
Communications	• Test all internal agency communications capabilities between normal operating locations (HQ and other) and alternate operating facility(ies) no less than quarterly • Test all communications capabilities at all alternate operating facility(ies) with applicable interagency partners no less than quarterly (e.g. participate in Title Globe)	• Conduct at least one additional internal agency communications test between normal operating locations (HQ and other) and alternate operating facility(ies) within 24 hours	• Conduct internal agency communications tests between normal operating locations (HQ and other) and alternate operating facility(ies) within 24 hours and repeat NLT weekly. • Conduct communications tests at all alternate operating facility(ies) with applicable interagency partners within 48 hours and repeat NLT weekly	• Test internal agency communications between normal operating locations (HQ and other) and alternate operating facility(ies) daily • Conduct communications tests at all alternate operating facility(ies) with applicable interagency partners daily
Succession	• No special measures to protect or track location of agency leadership and successors • Ensure delegations of authority to lead D/A are in place for senior personnel located outside of national capital region.	• Track locations of agency leadership and their successors on daily basis	• Track locations of agency leadership and their successors on daily basis • Ensure at least one headquarters-level agency successor is out of national capital area at all times	• Track locations of agency leadership and their successors on daily basis • At least one headquarters-level agency successor at alternate operating facility(ies)
Time to Transition to Successive Stages	• Fully operational within 12 hours	• Fully operational within 8 hours • 4 hours to COGCON 2	• Fully operational within 4 hours (4 hours to COGCON 1)	• Agency headquarters COOP plan operational immediately
Impact on Departments & Agencies	• No additional requirements	• Additional staff time for communications testing and tracking agency leadership • Potential shorter response times for basic staffing of alternate facility(ies)	• Potential increased travel requirements for agency leadership • Some staff required to work from alternate location(s) • Potential shorter response times for additional staffing of alternate facility(ies)	• Some agency leadership work from alternate facility(ies) • Significant number of staff required to work from alternate location(s)
Notification Process	Step 1. White House Chief of Staff/Deputy Chief of Staff for Operations/WHMO Director notifies PEOC Step 2. PEOC notifies FOC Step 3. FOC notifies Department and Agency COOP Emergency Points of Contact and/or Emergency Operations Centers			

DEPARTMENT AND AGENCY COOP ALERT & DEPLOYMENT OPTIONS

COOP Notification Message	White House Chief of Staff/Deputy Chief of Staff for Operations/Director White House Military Office to PEOC — "This is a Continuity of Operations message. Direct all department's and agencies to assume a COGCON □-4, □-3, □-2, □-1 (designate COGCON) readiness posture with the exception of those departments and agencies circled below, who will assume a COGCON □-4, □-3, □-2, □-1 readiness posture." (designate COGCON) Central Intelligence Agency Department of Agriculture Department of Commerce Department of Defense Department of Education Department of Energy Department of Health & Human Services Department of Homeland Security Department of Housing & Urban Development Department of Justice Department of Labor Department of State Department of the Interior Department of the Treasury Department of Transportation Department of Veterans Affairs Environmental Protection Agency Executive Office of the President Federal Communications Commission Federal Emergency Management Agency Federal Reserve System General Services Administration National Aeronautics and Space Administration National Archives and Records Admin National Communications System Nuclear Regulatory Commission Office of Personnel Management Securities and Exchange Commission Social Security Administration US Army Corps of Engineers United States Postal Service

TOP OFFICIALS 4 (TOPOFF 4) FULL-SCALE EXERCISE (FSE)

October 15 – 20, 2007

AFTER-ACTION REPORT

March 15, 2008

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4. Points of Contact (POCs):

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   Exercise Director:

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CONTENTS

Tables

Figures

EXECUTIVE SUMMARY

TOPOFF is a congressionally-mandated terrorism preparedness exercise program, involving top officials at every level of government, as well as representatives from the international community and the private sector. TOPOFF 4 (T4) was sponsored by DHS and is the fourth TOPOFF Exercise Series. Each TOPOFF series involves a two-year cycle of seminars, planning events, and exercises, and culminates in a full-scale assessment of the nation's capacity to prevent, prepare for, respond to, and recover from terrorist attacks involving weapons of mass destruction (WMDs).

More than one hundred organizations were involved in planning T4, including DHS and other federal agencies; state, territorial, tribal, and local agencies from the states of Arizona and Oregon and the U.S. Territory of Guam; private sector, and non-governmental organizations (NGOs); as well as three international partners: Australia, Canada, and the United Kingdom. The T4 FSE used a radiological dispersal device (RDD) scenario based on National Planning Scenario (NPS) 11 to test the full range of federal, state, territorial, and local capabilities. This scenario included coordinated attacks in Guam, Oregon, and Arizona.

A major goal of TOPOFF exercises is to test existing plans, policies, and procedures to identify planning and resource gaps, and ultimately to implement corrective actions to improve WMD preparedness. The following objectives guided planning for T4:

- **Prevention**: To test the handling and flow of operational and time-critical intelligence between agencies to prevent a terrorist incident.
- **Intelligence/ Investigation**: To test the handling and flow of operational and time-critical intelligence between agencies prior to, and in response to, a linked terrorist incident.
- **Incident Management**: To test the full range of existing procedures for domestic incident management of a terrorist WMD event and to improve top officials' (federal/state/local) capabilities to respond in partnership in accordance with the National Response Plan[1] (NRP) and National Incident Management System (NIMS).
- **Public Information**: To practice the strategic coordination of media relations and public information issues in the context of a terrorist WMD incident or incident of national significance (INS).
- **Evaluation**: To identify lessons learned and promote best practices.

Nearly every capability in the DHS Target Capabilities List (TCL) was exercised. This AAR focuses on national policy and planning issues related to five of those capabilities: On-Site Incident Management, Emergency Operations Center (EOC) Management, Emergency Public Information and Warning, Economic and Community Recovery, and Intelligence/Information Sharing and Dissemination. These capabilities were chosen because they relate to the objectives above and other criteria explained in Section 2. Other AARs completed by venues, agencies, and organizations evaluate additional capabilities. The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support the development of corrective actions.

[1] The NRP was in effect at the time of the exercise, but was replaced by the National Response Framework (NRF) in January of 2008.

Major Strengths

Past TOPOFF exercises and actual disasters such as Hurricane Katrina have uncovered gaps in the nation's preparedness. T4 provided an opportunity to test corrective actions taken since previous exercises and Hurricane Katrina.[2] Our analysis highlighted several areas where improvement in response coordination was evident:

- New policies and procedures provided additional detail to national plans. A significant issue identified in TOPOFF 3 (T3) and Hurricane Katrina is that national plans lacked operational details. Since these events, a significant amount of planning has occurred, and T4 provided an opportunity to test changes to the NRP, new Emergency Support Function (ESF) Standard Operating Procedures (SOPs), and new scenario-based plans and playbooks.
- New federal teams and tools have been established to address specific shortfalls identified in past TOPOFF exercises and during Hurricane Katrina. For example, the DHS Crisis Action Team (CAT) and Homeland Security Information Network (HSIN) Common Operating Picture (COP) portal were established to address a lack of shared situational awareness among agencies and were rigorously tested during the exercise.
- There was robust private sector involvement in the exercise – more so than any previous TOPOFF exercise. This participation added realism to the exercise, helped identify areas where the private sector can contribute, and helped decision-makers consider and address the needs of the private sector in the context of this scenario.
- Disability and other special needs play was a major focus area in the exercise design. As a result, players gained critical practical experience regarding the additional support needed by individuals having special needs.

Some of the areas described above require further improvement. Nonetheless, these strengths represent progress in addressing previously identified gaps in the nation's preparedness.

Primary Areas for Improvement

Throughout the exercise, opportunities for improvement in the nation's ability to respond to a WMD incident were identified. These areas for improvement include recurring themes – issues that have been identified in previous TOPOFF exercises and during Hurricane Katrina – along with several new issues highlighted by this scenario. Many of the issues are intertwined. Four key areas for improvement that also impacted other areas are summarized here. The report provides a detailed discussion of all areas for improvement.

Unified Management of the National Response

The White House Hurricane Katrina report identified the process for establishing unified management of the national response as a key flaw in emergency response. This process, as defined in the NRP, NIMS, and the newly released National Response Framework (NRF) includes the state and local command and coordination structures, and the federal command and

[2] All references to previous TOPOFF exercises and Hurricane Katrina are drawn from the T2 and T3 AARs, and the White House Homeland Security Council's February 2006 report, *The Federal Response to Hurricane Katrina, Lessons Learned.*

coordination structures established to support them. This process, as implemented, did not account for the complex set of conditions experienced during Katrina – large-scale devastation, competing needs, and insufficient resources. The conditions during T4 were different but equally complex. The scenario included the occurrence of three terrorist strikes in different locations, the use of devices that caused radiological contamination, and the limited supply of federal radiological assets.

This complexity affected the establishment of unified command structures at the incident sites, where many local, state, territory, and federal responders arrived with different authorities, functions, and missions. It also impacted the larger coordination structure, which in addition to the incident site unified command, included local, state, and territory EOCs and Emergency Coordination Centers (ECCs); other unified commands; the federal Interim Operating Facilities (IOFs) and Joint Field Offices (JFOs); and other federal entities such as the Federal Radiological Monitoring and Assessment Center (FRMAC). Further contributing to the complexity, the Nuclear/Radiological Incident Annex was the guiding document for the response, and federal responders had difficulty merging the roles and responsibilities outlined in this annex with the roles and responsibilities established through the NRP ESF structure.

This problem was most evident in the Oregon venue, which established all components of the local, state, and federal response structure.[3] In Oregon, communication and coordination between the multiple command and control nodes varied. The structure did not promote effective information flow and had a significant impact on top official decision-making, especially regarding the implementation of protective actions and public messaging.

This complexity was also evident at federal headquarters command centers and the White House, where senior officials were deciding how to allocate scarce resources and implement protective measures to mitigate attacks in other locations. Although decisions were made and actions taken, there were no formal procedures that described how to support decision-making and disseminate the decisions to the federal interagency.

At the national level, improvement in doctrine and guidance is needed to help responders at all levels of government establish an effective unified management system in response to a complex event. Scenario-based plans and guidance are one step in addressing the factors unique to specific scenarios like an RDD event. These plans should also include processes for allocating scarce resources and include recommended protective actions. The implementation of the Nuclear/ Radiological Incident Annex within the ESF response structure and the NRF also needs review and clarification. Because every state and territory has its own unique structures, authorities, and requirements, this national guidance should be implemented at the regional level through existing planning programs, and supported through existing training and exercise programs.

Protective Action Decisions and Communicating Guidance to the Public

Faced with similar information and scenarios, leaders in Arizona and Oregon made different decisions about protective actions (evacuation versus shelter-in-place). These were difficult choices that required decision-makers to act quickly while assessing scientific model results and

[3] In Arizona, all field components were simulated, and in Guam, some field components/functions were simulated. In addition, Guam does not have a local level of government, making it less likely to experience these problems.

conditions specific to their locality. The mock media repeatedly questioned federal, state, and local officials about this disparity, and officials had difficulty explaining their decisions and why different actions were taken in different jurisdictions. Two factors contributed to this difficulty:

- Communicating these decisions required the explanation of complex scientific information, such as the differences between short-term and long-term radiation exposure, and the interpretation of technical products like plume model results and deposition measurements.
- It is the responsibility of local officials to explain their individual decisions, but no expert or official explained why different decisions were acceptable or why both sets of actions protected the public. Similar circumstances also occurred during T3.

While protective actions are the responsibility of local jurisdictions, the federal government and scientific community should develop additional strategies for supporting local officials in explaining these decisions that address both of these points.

Situational Awareness and the COP

As observed in T3 and during Hurricane Katrina, departments and agencies (D/As) at all levels of government had difficulty obtaining critical information and maintaining situational awareness. Although the HSIN and COP portal provided easy access to some information, other information elements were not readily available. Senior decision-makers were most interested in plume model results, casualty counts, information on protective actions, and the status of federal resources. With the exception of the plume model results, these information elements were among the most difficult for DHS to collect and disseminate. The use of multiple platforms, systems, and portals also complicated information sharing. Defining the most critical pieces of information, identifying the sources, and developing processes for obtaining and verifying the information are necessary to improve situational awareness and information sharing.

Homeland Security Advisory System (HSAS)

As observed during previous TOPOFF exercises, the purpose, definitions, and consequences of the HSAS threat levels are not clear. Changes to Red and Orange threat levels, in both specific locations and nationwide, led to many different interpretations of the intent of the change and few actions. However, sector-specific changes did cause specific protective actions to be taken by federal, state, territory, and local agencies. Better definitions of the HSAS levels are needed that include more detail about the actions to be taken with different changes in level and sector.

Conclusion and Next Steps

The overall exercise succeeded in highlighting improvements since previous exercises and Hurricane Katrina, as well as identifying areas requiring further development. At the After-Action Conference (AAC) held on January 15, 2008, participating agencies met to review the findings and recommendations in this AAR and draft corrective actions. The IP included in Appendix A lists the corrective actions. The DHS NEP has established a process for tracking and monitoring the implementation of these corrective actions.

SECTION 1: EXERCISE OVERVIEW

Exercise Details

Exercise Name

Top Officials 4 (TOPOFF 4)

Type of Exercise

Full-Scale Exercise (FSE) with functional and tabletop components

Exercise Dates

Arizona Prevention Component: September 17 – 28, 2007

Oregon Prevention Component: September 24 – October 10, 2007

Guam Prevention Component: October 1 – 12, 2007

FSE: October 15 – 20, 2007

Long-Term Recovery Tabletop Exercise (LTR TTX): December 4 – 5, 2007

Duration

Prevention Component: 26 days

FSE: 6 days (Guam and Oregon conducted discussion-based exercises during the following week)

LTR TTX: 2 days

Location

Arizona, Oregon, the U.S. Territory of Guam, the National Capital Region (NCR), other regional headquarters and commands, Australia, Canada, and the United Kingdom

Sponsor

Department of Homeland Security (DHS)

Program

National Exercise Program (NEP)

Mission

Prevent, Respond, and Recover

Capabilities

Intelligence/Information Sharing and Dissemination, On-Site Incident Management, Emergency Operations Center Management, Emergency Public Information and Warning, Economic and Community Recovery

Scenario Type

Radiological Dispersal Device (RDD)

Exercise Planning Team Leadership

The names of the T4 Executive Steering Committee (ESC) members are listed below:

- Mr. Bill McNally, chair, DHS FEMA National Preparedness Directorate
- Supervisory Special Agent (SSA) (b)(6) Federal Bureau of Investigation (FBI)
- Ms. (b)(6) Office of the Director of National Intelligence (ODNI)
- Mr. Steven Buntman, Department of Energy (DoE)
- Dr. Keith Holtermann, Department of Health and Human Services (HHS)
- Mr. Thomas MacKay (replaced Dr. Holtermann during the after-action process), HHS
- Mr. (b)(6) Office of the Secretary of Defense (OSD)
- LT COL (b)(6) Department of Defense (DoD), Joint Staff
- Mr. (b)(6) Department of State (DoS)
- Mr. (b)(6) Homeland Security Council (HSC)
- Mr. (b)(6) National Security Council (NSC)

Ms. Sandra Santa Cosgrove was the exercise director. The lead planners from the venues and international community are listed below:

- Arizona: Ms. (b)(6) Arizona Department of Emergency and Military Affairs, and Mr. (b)(6) DHS
- Guam: LT (b)(6) Guam Homeland Security, Office of Civil Defense and Mr. Nathan Rodgers, DHS
- Oregon: Ms. Kelly-Jo Craigmiles, Oregon Emergency Management, and Mr. Jeremy Greenberg, DHS
- Australia: Mr. (b)(6) Attorney-General's Department
- Canada: Mr. (b)(6) Public Safety Canada
- United Kingdom: Ms. (b)(6) Foreign & Commonwealth Office

Participating Organizations

The following federal departments, agencies, and offices participated in the T4 FSE:

- Central Intelligence Agency (CIA)
- Department of Agriculture
- Department of Commerce, National Oceanic Atmospheric Administration
- DoD
  - JFCOM
  - NORTHCOM
  - Office of the Secretary of Defense/J-7/ASD-HD
  - PACOM
  - STRATCOM
  - U.S. Army Corps of Engineers
- DoE
  - National Nuclear Security Administration
- HHS
  - Centers for Disease Control, Emergency Response Directorate
  - Centers for Disease Control, Strategic National Stockpile
  - Food and Drug Administration
  - Office of the Assistant Secretary for Preparedness and Response
- DHS
  - Customs and Border Protection

  - Domestic Nuclear Detection Office
  - Federal Emergency Management Agency (FEMA)
  - Immigration and Customs Enforcement
  - National Citizen Corps
  - National Cyber Security Division
  - National Protection & Programs Directorate
  - Office for Civil Rights and Civil Liberties
  - Office of Health Affairs
  - Office of Infrastructure Protection
  - Office of Operations Coordination
  - Private Sector Office
  - Science & Technology
  - Transportation Security Administration (TSA)
  - Terrorism Prevention Exercise Program (TPEP)
  - U.S. Coast Guard (USCG)
- Department of Housing and Urban Development
- Department of Interior
- Department of Justice (DoJ)
  - FBI
  - Bureau of Alcohol, Tobacco, Firearms, and Explosives
- Department of Labor
  - Occupational Safety and Health Administration
- DoS
- Department of Transportation (DoT)
  - Federal Aviation Administration (FAA)
- Department of Veterans Affairs
- Environmental Protection Agency (EPA)
- General Services Administration (GSA)
- National Communications System
- National Guard Bureau
- National Security Agency (NSA)
- Nuclear Regulatory Commission
- Office of Personnel Management (OPM)
- ODNI
- Small Business Administration
- White House Staff

The following private sector entities and NGOs participated at the national level:

Full Scale Exercise:

- American International Group, Inc.
- American Red Cross (ARC)
- AT&T
- BENS
- Cisco
- City of Dallas Convention/Event Services
- Computer Sciences Corporation (Simulation Cell (SIMCELL), VIP)
- Grocery Manufacturer's Association
- HMC SCC
- IIT
- IT-ISAC Operations Center
- Juniper Networks, Inc.
- L-3 Communications, Technical and Management Services Group
- Terre Star Networks Inc.
- Wal-Mart Stores, Inc.

Functional Exercise:

- AMWA
- Boeing Company, The

- FS-ISAC
- Nortel Government Solutions
- Water ISAC
- Water sector utilities (looking glass)

Tabletop Exercise:

- Accenture
- American Trucking Associations – Highway ISAC
- DRS Technologies
- International Association of Assembly Managers (looking glass)
- Raytheon
- U.S. Chamber of Commerce

Looking Glass:

- Access Systems Inc.
- Adidas America Inc.
- Admiral Security
- AIG
- Alliant Group, The
- ANSI
- Avon Products
- BAE Systems
- Beacon Capital
- Bechtel National, Inc.
- BOMA International
- Boston Properties
- BP North America
- Brookfield Properties
- CB Richard Ellis
- CellExchange
- Corporate Storyteller, The
- Cousins Properties Incorporated
- Cushman & Wakefield
- DRS-TSI Inc.
- Ericsson Inc.
- FSSCC
- General Electric
- GeoResources Institute, Mississippi State University
- Hines
- Honeywell
- Institute of Real Estate Management
- International Council of Shopping Centers
- Jones Lang LaSalle
- Lockheed Martin
- Macerich Company
- Marriott Employees' Federal Credit Union
- Marriott International
- Marsh
- Mississippi State University, GeoResources Institute
- Morgan Stanley
- National Apartment Association
- National Multi Housing Council
- National Petrochemical & Refiners Association
- National Sheriffs Association
- New Jersey Business Force - Business Executives for National Security
- NJ Resources
- Nuclear Energy Institute
- NYC DEP
- OOIDA
- Oracle
- PepsiCo, Inc.
- Port Authority of New York and New Jersey
- PREIT
- Previstar
- Professional Security Consultants
- Raley's Family of Fine Store
- Real Estate Roundtable, The
- Real Estate Roundtable/Real Estate ISAC
- Related Management
- SAIC

- Sentinel Real Estate Corp.
- Simon Property Group
- South Coast Plaza Security
- Starwood Hotels & Resorts Worldwide, Inc.
- Target Corporation
- Tishman Speyer
- UDR
- Washington Group International

International participating agencies included the following:

Australia

- Attorney-General's Department
- Australian Customs Service
- Australian Federal Police
- Australian Nuclear Science and Technology Organisation
- Australian Radiation Protection and Nuclear Safety Agency
- Australian Security Intelligence Organisation
- Department of Defence
- Department of Foreign Affairs and Trade
- Department of Health and Ageing
- Department of Immigration and Citizenship
- Department of Prime Minister and Cabinet
- Emergency Management Australia
- Inter-Departmental Emergency Task Force
- National Security Committee of Cabinet
- National Crisis Committee
- Protective Security Coordination Centre

Canada

- Agriculture Canada
- Canadian Nuclear Safety Commission
- Canadian Border Services Agency
- Canadian Security Intelligence Service
- Citizenship and Immigration
- Communications Security Establishment
- Department of National Defence
- Foreign Affairs and International Trade Canada
- Government Operations Centre
- Industry Canada
- Natural Resources Canada
- Public Health Agency of Canada
- Public Safety Canada
- Public Works and Government Services Canada
- Royal Canadian Mounted Police
- Service Canada
- Transport Canada

United Kingdom

- Cabinet Office (including Civil Contingencies Secretariat)
- Foreign & Commonwealth Office
- Home Office
- Department for Transport
- Department of Health
- Department for Culture, Media & Sport
- Health Protection Agency
- Metropolitan Police CT Cmd (SO15)

Participating agencies in Arizona included the following:

State and Local:

- Arizona Attorney General's Office
- Arizona Corporation Commission
- Arizona Counter Terrorism Information Center
- Arizona Department of Administration
- Arizona Department of Agriculture
- Arizona Department of Corrections
- Arizona Department of Economic Security
- Arizona Department of Emergency and Military Affairs
- Arizona Department of Environmental Quality
- Arizona Department of Health Services
- Arizona Department of Homeland Security
- Arizona Department of Housing
- Arizona Department of Juvenile Corrections
- Arizona Department of Occupational Safety and Health
- Arizona Department of Public Safety
- Arizona Department of Revenue
- Arizona Department of Transportation
- Arizona Department of Water Resources
- Arizona Fish and Game
- Arizona Health Care Cost Containment System
- Arizona Medical Board
- Arizona Office of the Governor
- Arizona Radiation Regulatory Agency
- Arizona Registrar of Contracts
- Arizona State University
- Business Operations Center – Arizona (approximately 20 participating organizations)
- City of Avondale
- City of Chandler
- City of Glendale
- City of Goodyear
- City of Litchfield Park
- City of Mesa
- City of Tempe
- City of Peoria
- City of Phoenix
- City of Scottsdale
- City of Surprise
- City of Tucson
- Fort McDowell Indian Community
- Fountain Hills
- Gila River Indian Community
- La Paz County
- Maricopa County Department of Emergency Management
- Maricopa County Public Health
- Metropolitan Medical Response System
- Phoenix Aviation (Sky Harbor International Airport)
- Phoenix VAMC
- Pima County Emergency Management
- Pima County Sheriff's Office
- Pinal County
- Salt River Pima Indian Community
- Town of Buckdale (limited participation)
- Town of Gilbert
- Tucson Airport Authority
- Tucson VAMC
- Yavapai County

Federal:

- EPA
- DHS
  - FEMA, Region IX
- DoJ
  - FBI
- TSA
- U.S. Customs and Border Protection
- U.S. Postal Service
- U.S. Postal Inspection Service
- U.S. Veteran's Affairs
- VA Network (VISN)

Private Sector/NGO:

- AT&T
- Banner Health Hospitals
- Boswell
- Cox Cable
- Del Web
- Grand Canyon Chapter of the ARC
- Intel Corp
- Phoenix Children's Hospital
- Southern Arizona Chapter of the ARC
- Sun Health Care Hospitals
- The Salvation Army
- Verizon Wireless

Participating agencies in Guam included the following:

State and Local:

- Guam Airport Authority
- Guam Airport Authority Police
- GUAMCELL
- Guam Customs and Quarantine
- Guam Department of Corrections
- Guam Department of Mental Health and Substance Abuse
- Guam Department of Public Health and Social Services
- Guam Department of Public Works
- Guam EPA
- Guam Fire Department
- Guam National Guard
- Guam Police Department
- Guam Port Authority
- Guam Telephone Authority
- Guam Visitors' Bureau
- Hawaii National Guard
- Guam Homeland Security/Office of Civil Defense (GHS/OCD)
- Judiciary of Guam
- Office of the Governor
- Public Schools System

Federal:

- DoD
  - U.S. Air Force
  - U.S. Army Corps of Engineers
  - U.S. Navy
  - U.S. Pacific Command/Joint Task Force – Homeland Defense
- DoE
- HHS
- DHS
  - FEMA
  - USCG
  - Office of Infrastructure Protection
  - Office of Public Affairs
- DoJ
  - Attorney General's Office
  - Bureau of Alcohol, Tobacco, Firearms, and Explosives
  - FBI
  - Secret Service

- Department of Labor
- DoS
- EPA
- Military Sealift Command, LLC
- National Weather Service
- Small Business Administration
- United States Postal Inspection Service

Private Sector/NGO:

- ARC
- Casamar, Incorporated
- Continental
- Goodwind Development Corp
- Group 4 Securicor
- Guam Hotel and Restaurant Association
- Guam Mami, Incorporated
- Guam Memorial Hospital
- Guam Power Authority
- Guam Surgical Center
- Hawaiian Rock Products
- Horizon Lines
- IConnect
- IT&E
- Janus Marketing
- Matson Shipping
- Micronesian Divers Assoc. Inc.
- Mobile
- Payless Markets
- Peterra, Inc.
- Shell
- South Pacific Petroleum Corporation
- The Salvation Army
- University of Guam Nursing Program

Participating agencies in Oregon included the following:

State and Local:

- Beaverton City Emergency Management
- Tigard City Emergency Management
- Clackamas County Emergency Management
- Clark Regional Regional Emergency Services Agency
- Columbia County 911
- Columbia County Emergency Management
- Columbia River Fire & Rescue
- Gresham Emergency Management
- Gresham Fire
- Gresham Police
- Hillsboro City Emergency Management
- Hillsboro Emergency Management
- Hillsboro Fire
- Multnomah County Health Department
- Multnomah County Sheriff
- Multnomah County Emergency Management
- Oregon Department of Agriculture
- Oregon Department of State Lands
- Oregon DoT
- Oregon Disaster Medical Assistance Team
- Oregon Health & Science University
- Oregon National Guard
  - 102nd Civil Support Team
- Oregon Occupational Safety and

Health Administration
- Oregon Office of Disability
- Oregon Office of Emergency Management
- Oregon Office of Vocational Rehabilitation Services
- Oregon Public Health
- Oregon State Fire Marshal
- Oregon State Police
- Oregon State Public Health
- OREN
- Port of Portland
- Portland Bureau of Emergency Communications
- Portland Department of Transportation
- Portland Fire
- Portland Metropolitan Exposition Center
- Portland Office of Emergency Management
- Portland Police
- Portland VAMC
- Washington County 911
- Washington County Emergency Management

Federal:
- Department of Agriculture
- Department of Commerce
  - National Oceanic and Atmospheric Administration, National Weather Service
- DoD
  - NORTHCOM-CAE
  - Defense Threat Reduction Agency (DTRA)
- DoE
- HHS
- DoJ
  - FBI
- DHS
  - Customs and Border Protection
  - FEMA
  - Federal Protective Service
  - TSA
  - USCG
- DoS
- EPA
- VISN 20 Network Control Center

Private Sector/NGO:
- ACS
- ARC
- Ashforth Pacific
- AT&T
- Columbia River Steamship Operators Assistance
- Easter Seals Oregon
- Glimcher
- Guide Dogs for the Blind
- Hilton Hotels
- Hospitals
  - Adventist Medical Center
  - Kaiser Interstate Clinic
  - Kaiser Regional Coordination Center
  - Kaiser Sunnyside Hospital
  - Legacy Coordination Center
  - Legacy Emmanuel Hospital
  - Legacy Good Samaritan Hospital
  - Legacy Meridian Park Hospital
  - Legacy Mount Hood Hospital
  - Legacy Salmon Creek Hospital
  - Providence Milwaukie Hospital
  - Providence Portland Hospital
  - Providence St. Vincent Hospital
  - Regional Hospital
  - Shriner's Hospital
  - SW Washington Hospital
  - Tuality Community Forest Grove Hospital
  - Tuality Community Hillsboro Hospital
  - Willamette Falls Hospital

- Independent Living Resources
- Intel
- Job Development Network
- Liberty Northwest
- Lloyd Center Mall
- Macy's
- Metro West Ambulance
- Nextel
- Northwest Natural
- Novation
- ON Semiconductor
- Oregon Convention Center
- Owens & Minor
- PacifiCorp
- PGE
- Qwest
- RAZ Transportation
- Rehabilitation Institute of Oregon
- Schnitzer Steel Corp
- Shaver Transportation
- Standard Insurance
- Terrestar
- T-Mobile
- TriMet
- TVF&R
- University Health System Consortium
- U.S. Bank
- Wal-Mart
- XEROX

Number of Participants

Participant[1]	Arizona	Guam	Oregon	Federal Interagency	International	Total
Players	2,000	1,890	10,640	3,280	280	18,090
Controllers	350	140	550	250	50	1,340
Evaluators	150	60	270	150	35	665
Observers	80	80	30	440	65	695
Victim Role Players	0	200	2,760	0	0	2,960
	2,580	2,370	14,250	4,120	430	23,750

[1] Private sector participant totals are contained within the totals shown.

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

T4 was comprised of a series of exercises and activities, including seminars and conferences that took place over a two-year period and culminated in the FSE, conducted from October 15 through October 20, 2007. The T4 FSE was designed to serve several important functions: it addressed national counter-terrorism strategy; it exercised the national ability to prevent, respond to, and recover from a series of coordinated and geographically dispersed terrorist threats and acts; and it engaged senior officials from federal, state, territory, tribal, and local jurisdictions, as well as partner nations. The DHS FEMA National Exercise Division (NED) was the lead agency for T4 planning. Other agencies with counter-terrorism duties were invited to participate.

The T4 exercise design included three primary components:

- A series of national training seminars.
- Extended prevention-centered exercise play.
- An FSE designed to test the performance of products and processes.

The T4 FSE was a multi-agency, multi-site, domestic counter-terrorism event that simulated WMD terrorist incidents in Arizona, Guam, and Oregon. In addition, T4 included the participation of the governments of Australia, Canada, and the United Kingdom. T4 provided DHS and other federal, state, territory, tribal, and local D/As with an opportunity to exercise and evaluate the implementation of doctrine established in the NRP, the NIMS, and supporting policies and procedures.

Simulated RDD detonation in Guam on October 16, 2007.

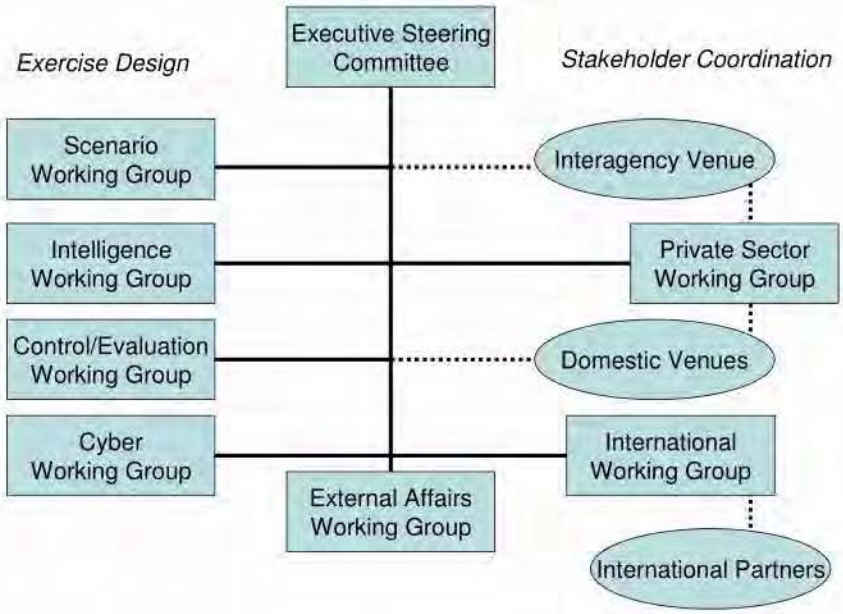
The FSE began with a simulated RDD detonation in Guam on the morning of October 16, 2007 (the evening of October 15 on the East Coast). Simulated detonations occurred in Oregon and Arizona on the following day (October 16). DHS planners worked with the venues and the interagency group to determine the best hours and days of exercise play. The end of the exercise (ENDEX) occurred on October 20, 2007. Hot wash and short-term recovery events followed in each of the venues. The LTR TTX was held on December 4 – 5, 2007, and addressed short- and long-term recovery issues.

Exercise Planning and Management

The planning and management of the T4 FSE was an integrated effort among the major exercise planners and sponsors. The exercise management structure and its working groups are illustrated in Figure 2.1. Each major planner and sponsor had a voting representative in each of the positions described below. This integrated planning approach provided a mechanism to

coordinate planning efforts by DHS and its components, DoD, DoE, DoS, EPA, FBI, HHS, and other T4 FSE interagency partners.

Figure 2.1: Exercise Management Structure



The ESC was responsible for overall exercise oversight. Members ensured that planning efforts were coordinated among the working groups, were communicated to policy makers, and reflected policy guidance. Specifically, the ESC supported the following functions:

- Coordinated and integrated the efforts of the working groups and venues to create a coherent exercise design that met the policy and strategic-level objectives of stakeholders.
- Provided guidance to working groups, including guidance for the adaptation of NPS 11 to support exercise objectives.
- Reviewed and approved working group products and exercise documentation, including the scenario, Universal Adversary (UA) threat models, exercise intelligence products, the Master Scenario Events List (MSEL), the Exercise Plan (EXPLAN), the Control Staff Instructions (COSIN), and the Evaluation Plan (EVALPLAN).
- Adjudicated conflicts or discrepancies among working groups regarding their products.
- Provided periodic updates on the progress of exercise design and development to senior policy makers.
- Ensured, through the exercise director, shared awareness of ongoing exercise design and development efforts among exercise planners.

The roles of the exercise working groups were as follows:

- The Control and Evaluation Working Group (CEWG) worked with agencies to ensure that the EXPLAN incorporated the respective D/A training objectives. The Master

EXPLAN contained all the essential exercise products, such as the COSIN and the EVALPLAN. Additionally, the CEWG planned and executed the training program for over 2,000 controllers and evaluators responsible for supporting the exercise.

- The Intelligence Working Group (IWG) planned and coordinated all aspects of intelligence play for the exercise.
- The Scenario Working Group (SWG) planned and coordinated all aspects of scenario development for the exercise, and ensured a plausible and realistic scenario that supported evaluation of selected national capabilities.
- The Cyber Working Group (CWG) designed and developed the cyber component of the T4 exercise.
- The Private Sector Working Group (PSWG) planned and coordinated all aspects of private sector play in the exercise.
- The External Affairs Working Group (EAWG) planned and coordinated all aspects of Public Information Officer (PIO) participation in and support of the exercise.
- The International Working Group supported the international partner and U.S. embassy involvement in the exercise, and coordinated international participation with U.S. government (USG) D/As.

Exercise Objectives, Capabilities, and Activities

The overarching T4 FSE exercise objectives were:

- **Prevention:** To test the handling and flow of operational and time-critical intelligence between agencies to prevent a terrorist incident.
- **Incident Management**: To test the full range of existing procedures for domestic incident management of a WMD terrorist event and to improve the capabilities of federal, state, territory, and local top officials to respond cooperatively and in accordance with the NRP and NIMS.
- **Intelligence/ Investigation**: To test the handling and flow of operational and time-critical intelligence between agencies prior to, and in response to, a linked terrorist incident.
- **Public Information:** To practice the strategic coordination of media relations and public information issues in the context of a WMD terrorist incident or incident of national significance.
- **Evaluation**: To identify lessons learned and promote best practices.

Based on these overarching objectives, the planning team selected specific objectives linked to top official/interagency decision-making, interagency coordination, and the execution of national-level plans. They were selected because they met one or more of the following criteria:

- They related to the T4 goals, objectives, and underlying themes.
- They related to HSC direction to exercise NPS 11.
- They have been identified as issues in past TOPOFF or other national-level exercises.
- They have been identified as issues following Hurricane Katrina.
- They related to the National Preparedness Goal and its priorities.

These specific objectives are the focus of this AAR and are listed below along with the corresponding capabilities and activities (for a more detailed description of these objectives, see the EVALPLAN):

- **Objective 1:** Test existing procedures for domestic incident management of a terrorist RDD event and top officials' capabilities to respond in partnership in accordance with the NRP and NIMS.
  - **On-Site Incident Management**: Implement on-site incident management; establish full on-site incident command; resource management; develop incident action plan, and evaluate/revise plans.
  - **EOC Management**: Identify and address issues; prioritize and provide resources; and support and coordinate response.
- **Objective 2:** Test the ability of command, operations, and intelligence centers to share intelligence and information and maintain a COP.
  - **EOC Management**: Gather and provide information.
  - **Intelligence/Information Sharing and Dissemination**: Conduct vertical flow of information; conduct horizontal flow of information.
- **Objective 3:** Exercise the authorities, responsibilities, and capabilities of the federal assets necessary to respond to and recover from a terrorist RDD incident.
  - **On-Site Incident Management**: Implement on-site incident management; establish full on-site incident command; and resource management.
  - **EOC Management**: Identify and address issues; prioritize and provide resources; and support and coordinate response.
  - **Economic and Community Recovery**: Direct economic and community recovery operations.
- **Objective 4:** Examine the handling of mental health and special needs issues that may arise during and after an RDD event.
  - **On-Site Incident Management**: Implement on-site incident management.
  - **EOC Management**: Identify and address issues; prioritize and provide resources; and support and coordinate response.
- **Objective 5:** Examine citizen protection and public warning activities in response to a terrorist RDD incident.
  - **Emergency Public Information and Warning**: Manage emergency public information and warning; activate emergency public information, alert/warning, and notification plans; establish Joint Information Center (JIC)/ Joint Information System (JIS); disseminate/issue emergency public information and alert/warnings; and conduct media relations.
- **Objective 6:** Examine public health, medical support, mass decontamination, and mass care requirements during a terrorist RDD incident.
  - **On-Site Incident Management**: Implement on-site incident management; establish full on-site incident command; and resource management.

- **EOC Management**: Identify and address issues; prioritize and provide resources; and support and coordinate response.

- **Objective 7:** Exercise the coordination of a domestic and international media and public communications strategy and public messaging in the context of a terrorist RDD incident.
  - **EOC Management**: Gather and provide information; and support and coordinate response.
  - **Emergency Public Information and Warning**: Manage emergency public information and warning; activate emergency public information, alert/warning, and notification plans; establish JIC/ JIS; disseminate/issue emergency public information and alert/warnings; and conduct media relations.

These objectives link to five of the capabilities in the TCL. Additional capabilities were exercised that relate to specific agency missions and tactical level operations. They are evaluated in venue and other internal agency evaluations. Some of these evaluations are included as annexes to this report.

Scenario Summary

The T4 FSE Scenario was based on NPS 11 (*Radiological Attack – Radiological Dispersal Devices)* and its associated UA threat models. Used as a common foundation for exercise development, the scenario – complemented by current threat information about the UA – ensured that exercise participants focused on performing the appropriate critical tasks and assessed capabilities linked to specific homeland security mission areas.

In the T4 FSE Scenario, terrorist members of the UA group acquired radiological sources from foreign locations. The source materials were smuggled into the United States via separate shipments and then assembled. A Customs and Border Patrol exercise conducted prior to the start of the FSE focused on procedures in place to intercept radiological materials and is documented in Annex 2.

Two of the most visible features of the T4 FSE scenario were the Virtual News Network (VNN) Live news broadcast and VNN.com. VNN Live provided a satellite broadcast of news of events and interviews with subject matter experts (SMEs) as they occurred during the conduct of the T4 FSE. VNN.com complemented intelligence play by providing the media perspective on events that occurred prior to and during the T4 FSE.

The following scenario assumptions applied to the FSE:

- The scenario was plausible, and the events occurred as they were presented.
- Exercise players were well-versed in their own response operations, including plans and procedures.
- Exercise players responded in accordance with their existing plans, policies, procedures, and capabilities.
- All information provided in the narrative and/or by controllers was considered valid.
- There were no controlled time compressions, although the levels of play varied among agencies as discussed below.

The following artificialities and constraints were accepted to facilitate accomplishment of the exercise objectives. They may have detracted from exercise realism and also affect the analysis.

- Weather and atmospheric conditions at key points in the exercise were artificially defined to create a specific dispersal pattern of the agents involved in the exercise event. This was necessary to drive exercise play to meet the agreed-upon overarching and agency-specific exercise objectives determined during the T4 FSE planning process.
- Surrogates may have played in place of some key decision makers. The surrogates, in most instances, were junior to the principals they represented. Thus, the surrogates' actions during the exercise might not have depicted the same actions that would have been taken by their respective principals.
- Agencies, departments, and organizations not participating in the T4 FSE were simulated through the use of a SIMCELL. The SIMCELL representation of those non-participating agencies was determined by the agencies' published policies, procedures, and doctrine.
- VNN coverage was limited to eight hours per day, whereas real-world news outlets would have operated around the clock. This limitation was particularly significant in Guam, which, due to the time difference, received only four hours of live VNN average per day. In addition, the schedule of VNN was partly scripted, which limited the ability of PIOs to quickly air unscheduled statements and interviews.
- The levels and hours of play among agencies and organizations varied. Most agencies did not participate on a 24-hour basis. Some of the most notable gaps included the following:
  - There was no play overnight at the incident site in Oregon. Play halted on the evening of the first day just as some federal assets were arriving on scene.
  - Rescue play was halted on October 16 in Oregon because volunteer victims were in unsafe conditions due to inclement weather.
  - Play in Oregon was halted on October 18 at 1450 PDT until the following morning for safety reasons.
  - Coordination and communication between players in Guam and other venues was limited because of the time difference and lack of participation overnight in the other venues.
  - In Guam, the initial site assessment mission was completed within the first day of the exercise, but follow-on radiological deposition data collection activities were all notional due to a lack of players.
  - In Guam, the National Guard Civil Support Team (CST) completed their T4 objectives, and concluded their "boots on the ground" participation the morning of the second day of the exercise, prior to the initiation of the law enforcement activities and follow-on radiological deposition data collection (and before the other federal agencies arrived).
  - In Guam, Public Health reduced their level of play after their life saving/life safety mission was completed.
  - In Guam, representatives from DoE were deployed to represent full teams.
- There were several artificialities related to the collection of radiological data. Some of the most notable issues included the following:
  - In Oregon and Guam, radiological data collected in the field was often at a notional site. The Guam venue (unlike Oregon) did not have a pre-defined requirement or

sufficient resources to perform the conversion of location of field data gathered by local agencies and the CSTs.

- In Oregon, radiological data collection required a DoE controller equipped with a handheld device that provided GPS-linked data. There were not enough controllers to allow for simultaneous site assessment at both the incident site and downwind locations.
- In Arizona, radiological data collection activities were notional.

Exercise Evaluation Methodology

The evaluation approach for T4 is based on the methodology outlined in Homeland Security Exercise and Evaluation Program (HSEEP) doctrine and the methodology used in previous TOPOFF exercises. Observation and data collection identifies what happened during the exercise and when it happened. Findings and recommendations are then developed through reconstruction and analysis.[1] This overarching analysis focuses on interagency issues and coordination as put forth in the NRP, NIMS, and supporting policies and procedures. The analysis and AAR does not examine D/A-specific tasks, procedures, or performance. Many D/As conducted supporting evaluations and analyses of their exercise performance. This analysis uses and references some of these supporting evaluations.

HSEEP provides the common evaluation standards and was applied to the TOPOFF 4 evaluation as described in the EVALPLAN, Annex B of the T4 EXPLAN. The focus on interagency issues and coordination requires the synthesis and analysis of data collected from many different sites. For this reason, evaluation of T4 is a process that does not take place in individual exercise locations. Rather, data and observations collected from individual locations are consolidated, synchronized, and de-conflicted across locations so that evaluators can obtain a fact-based understanding of how agencies interacted to coordinate, make decisions, and execute national plans, policies, and procedures. Where gaps in the data existed, the evaluation team conducted post-exercise interviews with exercise participants to clarify exercise events.

This evaluation is limited by the quality of the data collected, by the exercise artificialities described above, and by exercise design and development decisions.[2] In the following analysis sections, it is noted where these limitations had an impact on the analysis.

[1] Appendix D provides a summary reconstruction of key events.
[2] Annex 1 provides a summary of lessons learned related to exercise design and development.

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SECTION 3: ANALYSIS OF CAPABILITIES

This section reviews national policy and planning issues related to the five exercised capabilities that are the focus of this report: On-Site Incident Management, EOC Management, Emergency Public Information and Warning, Economic and Community Recovery, and Intelligence/ Information Sharing and Dissemination.

The observations included in this report are organized by capability and corresponding activity, consistent with HSEEP guidelines. Within each activity are the related observations, including an analysis of that observation, and recommendations.[1] An IP based on the recommendations from this AAR and validated at the AAC is found in Appendix A. References are compiled in Appendix C and a timeline of key exercise events is included in Appendix D. Exercise artificialities are noted in the previous section on exercise design (Section 2).

Common themes linking observations and recommendations across capabilities are evident. For example:

- The challenges implementing incident site unified commands described under On-Site Incident Management form the basis of some of the coordination problems identified within the larger response structure (of which the incident site is one node), and are discussed under EOC Management.
- These command and coordination problems affected decision making, information sharing, and public messaging, and link to other issues described under EOC Management and Public Information and Warning, such as the allocation of low density/ high demand (LD/HD) assets, the demanding federal interagency operational cycle, and the communication of protective action guidelines.
- Information sharing and situational awareness challenges, described in EOC Management, affected all components of the response as well. One specific information management challenge, information overload experienced by PIOs, is also described under Public Information and Warning. Similar problems occurred in the sharing of intelligence information and are summarized under Intelligence/Information Sharing and Dissemination.
- Under Public Information and Warning, the difficulty explaining to the public why different jurisdictions took different actions is described. A similar issue could arise during the recovery phase, where the site optimization process for selecting clean-up standards could lead to different outcomes across jurisdictions, and is discussed in Economic and Community Recovery.

Capability 1: On-Site Incident Management

Capability Summary: On-site incident management is the capability to effectively direct and control incident management activities by using the incident command system (ICS) consistent with NIMS.

This capability was exercised in Guam and Oregon as local agencies responded to the incident

[1] Recommendations are included for all improvement areas and those strengths that lead to recommendations.

scene to direct and control incident management activities. Local response lasted from several hours to several days as federal assets deployed to the incident sites in Oregon and Guam. Incident commands transitioned to unified commands to manage resources and coordinate with on-scene agencies and appropriate EOCs and ECCs.

In both Guam and Oregon, the initial life safety mission was well executed, and first responders showed familiarity with basic incident command principles. In addition, National Guard WMD CSTs, which are state or territory assets that are federally trained and supported, were well integrated in the response. However, as the response management became more complex and nuanced, and the impact more widespread, local, state, territory, and federal personnel had more difficulty implementing incident/unified command principles. The table below provides a summary of the observations described under this capability along with associated recommendations, where applicable.

Table 3.1 Summary of On-Site Incident Management Observations

Observation	Recommendation
Activity 1.1: Implement On-Site Incident Management	
1.1.1 **Strength**: The initial life safety mission was well-executed by local, state, and territory responders.	
Activity 1.2: Establish Full On-Site Incident Command	
1.2.1 **Area for Improvement**: While the basic principles of NIMS-ICS are familiar to all emergency responders, there were challenges in implementing a command structure that met the needs of this complex RDD scenario.	More detailed procedures and training are necessary to implement unified command in complex scenarios. This should be addressed within the federal family of plans under development as well as within regional planning and training programs.
Activity 1.3: Resource Management	
1.3.1 **Strength**: National Guard WMD CSTs were valuable state and territory assets during these RDD incidents.	Further develop the ability of CSTs to effectively integrate into specific WMD Hazardous Materials (HAZMAT) responses.

Activity 1.1: Implement On-Site Incident Management

Observation 1.1.1 Strength: The initial life safety mission was well-executed by local, state, and territory responders. Local law enforcement personnel integrated with other first responders to perform site security and evidence protection, which supported the FBI-led law enforcement investigation that followed.

Analysis: Several first responders and homeland security policymakers in Guam and Oregon stated that first responder equipment, training, and exercising had progressed over the last several years, and greatly enhanced the ability of local assets to respond to a HAZMAT event.

In Guam, the life safety mission began soon after detonation at 6:03 p.m. EDT on Monday, October 15 (8:03 a.m. on October 16 in Guam). During the first three hours,

multiple D/As were involved, including the Guam Fire Department (GFD), Guam Police Department (GPD), Guam Emergency Medical Services (EMS), Guam Public Health, and the Guam National Guard 94th CST (see Figure 3.1). All teams reported to the incident commander, a member of the GFD. Additionally, Air Force and Navy Emergency Response Teams (ERTs) (HAZMAT, Explosive Ordnance Disposal (EOD), and firefighting) responded to the scene to provide support. The incident site command was supported by GHS/OCD through a mobile command center and an EOC Liaison Officer (LNO).

Portland Fire and Rescue begins establishing Incident Command.

The life safety mission proceeded in a similar fashion in Portland. The Portland Police Bureau (PPB) responded to the incident within minutes after the explosion, and implemented incident command soon after. Incident command passed from the PPB to Portland Fire and Rescue (PFR) within an hour of the explosion. At that point, local PFR HAZMAT units were on scene, and were joined by the Oregon State Department of Human Services Public Health Division Radiation Protection Services (RPS) ERT and the Oregon National Guard 102nd CST within three hours. Together, they performed gross and technical decontamination on more than 150 casualties. PPB kept the incident site secure and preserved as much of the scene as possible for the ensuing law enforcement investigation.

Activity 1.2: Establish Full On-Site Incident Command

Observation 1.2.1 Area for Improvement: While the basic principles of NIMS-ICS are familiar to all emergency responders, there were challenges implementing a command structure that met the needs of this complex RDD scenario. These complexities included the following:

- The long-term and technical nature of the response due to the presence of radiological contamination.
- The requirements for many different types of missions, including establishing initial and ongoing scene safety, law enforcement incident investigation, evidence collection, radioactive deposition data collection, scene stabilization and hazard mitigation, and on-going scene recovery planning.
- Participation by many different local, tribal, state, territory, and federal agencies in the response.

As a result, responders in both venues had difficulty establishing clear unified command structures that met the needs of all participating agencies, coordinating multiple missions, and transitioning between missions. This led to delays in gathering and consolidating information to support decision making about issues, such as protective action recommendations and resource needs, as well as planning for recovery.

Analysis: Figure 3.1 shows the progression of missions accomplished at the incident sites in both venues, along with the command structures that were established to support each response phase. For the most part, the three basic missions of life safety, law enforcement incident investigation, and scene recovery occurred sequentially with little overlap.[2]

Figure 3.1 Incident Site Mission Area Activities and Assets

		+1 hour	+24 hours	+48
Guam		Life safety	Crime scene investigation	Site assessment
	IC	GFD	FBI	DOE/EPA**
	Personnel/ Teams	GFD, 93rd/94th CST, GPD, Navy EOD	93rd/94th CST*	93rd/94th CST*, GFD*, DOE RAP*, EPA RERT
	Other missions	Very limited incident site assessment	Very limited incident site assessment	Robust rad. deposition data collection*

		+1 hour	+4 hours	+35 hours
Oregon		Life safety	Crime scene investigation	Site assessment
	IC	PPB → PFR	FBI and PFR	FRMAC
	Personnel/ Teams	PPB, PFR, RPS ERT	HMRU, 102nd CST, EPA NCERT	PFR, RPS ERT, 102nd CST, DoE RAP, EPA (inc. NCERT, RERT, NDT, ERT), USCG Strike team
	Other missions	Limited incident site assessment	Impact site closed, Radiological deposition data collection begins	FRMAC coordinates radiological deposition data collection

*Field work was notional (see the discussion in Section 2 artificialities for more information).
**DOE SEO at EOC/IOF; EPA On-Scene Coordinator for environmental response at incident site

Two key issues emerged:

- **Distinction between incident/unified command and site control:** In both venues, the FBI took control of the incident site after the conclusion of life safety activities to manage the law enforcement investigation. In Oregon, the FBI was part of a unified command; while in Guam, the FBI was the sole agency within incident command. In both cases, the FBI was perceived to be the lead agency for the entire response, and other activities, such as site assessment, were put on hold pending transition of command from the FBI to another agency.
- **Lack of flexibility to conduct missions simultaneously:** The NIMS-ICS structures established initially for life safety, and later for the law enforcement investigation, did not allow for the flexibility to begin activities unique to an RDD incident, such as site assessment. Site assessment includes defining the

[2] In Guam, the timing and sequence of missions during the exercise was impacted by the availability and participation of key response agencies. However, participants indicated that the observed missions would still have occurred sequentially if this had been a real-world event.

radiological "footprint", which includes the size, scope, and boundaries of the deposited material, to support the leadership when making decisions about public health and environmental protective actions and recovery. Although local responders in Guam (such as Navy EOD and the 94th CST) were available to begin initial site assessment and did collect some data, there was no comprehensive plan to define the size and scope of the incident until the EPA began developing a formal site assessment plan two days after the explosion. [3] In Portland, CST and EPA responders initially assisted in the life safety mission. When DoE personnel arrived, site command was in transition from PFR to FBI. As a result, DoE, EPA, Multnomah County Health Department, Oregon State RPS, and PFR HAZMAT met separately to discuss the public health component of the response and the necessary site assessment mission.[4] Soon thereafter, the incident site was shut down for the evening, which stalled the initiation of site assessment activities.[5] The following day, the Federal Radiological Monitoring and Assessment Center (FRMAC) assumed responsibility for the site assessment mission.[6]

The two issues described above led to delays in gathering and consolidating information to support decision making and issue identification and resolution. For example, additional site assessment data could have supported the development of protective action recommendations, prevented post-blast contamination of personnel and equipment, and supported federal resource requests. These problems also delayed clean-up and recovery planning and the consideration of issues such as the storage, transport, and disposal of contaminated material, and the need for additional laboratory surge capacity.

Similar problems establishing efficient on-site incident command structures were observed in T2 and T3. Furthermore, these problems are part of a larger issue of unified coordination across all levels of government, of which incident sites are one such node. This issue is discussed further in observation 2.3.4.

Recommendations: This exercise demonstrated that more detailed planning is necessary to prepare local, state, and territory responders to implement on-site unified command in complex scenarios. This should be addressed within the federal family of plans under development, as well as within regional planning and training programs. Regional planning is important for developing unified command structures that meet the needs of all agencies and missions within specific scenarios and account for the unique characteristics of different localities.

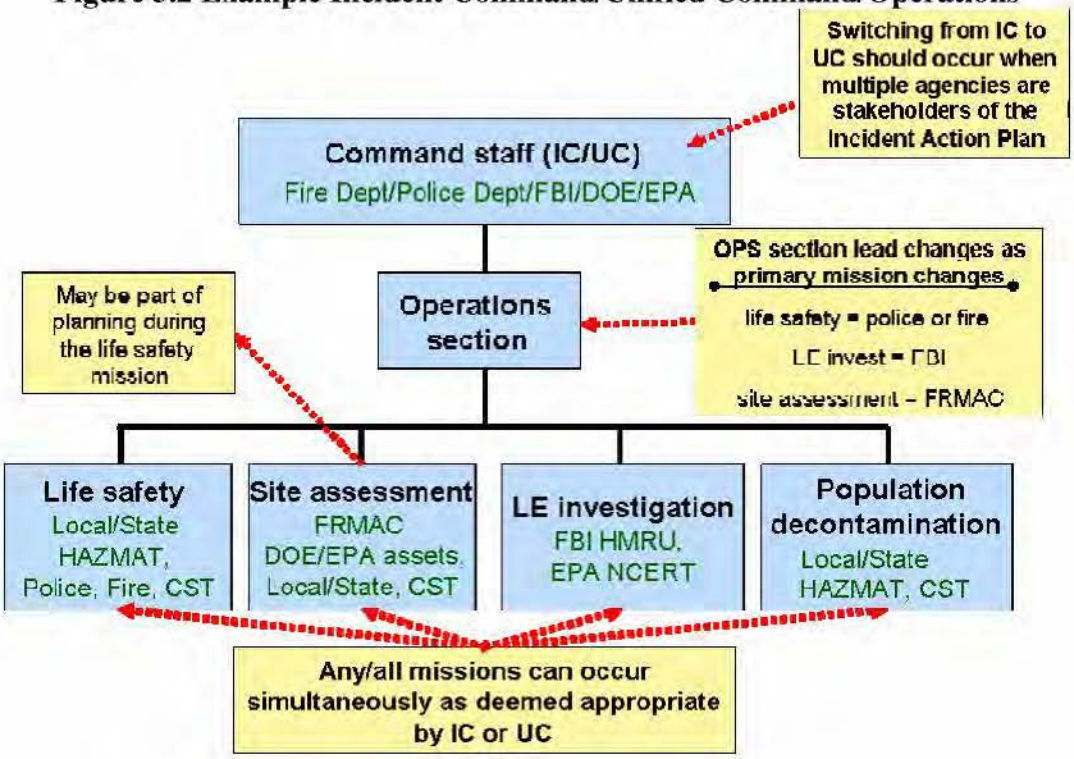
1. National scenario-based guidance (linked to the national planning scenarios) should be developed to support NIMS implementation. DHS should establish an interagency working group with appropriate SMEs and first responders from the local, state, tribal, territory, and federal levels to help develop this guidance. The

[3] See Section 2 for a discussion of artificialities related to data reporting by the CST.
[4] Coordination between the incident site unified command and the public health unified command is discussed in more detail in observation 2.3.4.
[5] See Section 2 for a discussion of artificialities related to radiological data collection in Oregon.
[6] FRMAC management of site assessment is discussed in more detail in observations 2.1.3 and 2.1.4.

guidance should identify scenario-specific mission needs and provide a more detailed framework for establishing unified command structures that address all of these needs. Figure 3.2 shows an example of such a command structure; one that provides flexibility to support the needs of multiple missions in the context of this scenario. In this context, once a mission is established under operations, one D/A could be designated as the lead, depending on current capabilities and response time to the scene, but the command staff would remain consistent.

2. Because every state and territory has its own unique structures, authorities, and requirements, this national guidance should be implemented at the regional level, and supported through regional planning, training, and exercise programs, such as FEMA's Regional Interagency Steering Committees (RISC).

Figure 3.2 Example Incident Command/Unified Command/Operations



Activity 1.3: Resource Management

Observation 1.3.1 Strength: National Guard WMD CSTs were valuable state and territory assets during these RDD incidents.

Analysis: The capabilities of the CST teams that responded to Oregon and Guam were well suited to the response, and the teams integrated easily with local capabilities. In Oregon, the 102nd CST was on-site within three hours after the detonation. This team gave assistance to HAZMAT, Bomb Squad, FBI, and DoE RAP personnel in the decontamination line and joined the radiological data collection teams that worked jointly

within the FRMAC. In Guam, the 94th CST was on-site one and a half hours after the detonation. This team provided assistance during the first joint site entry with GFD and Navy EOD, and conducted a relief in place with the Hawaii National Guard 93rd CST deployed from Honolulu.[7]

The standard operating guidelines for how the CSTs function is well-defined in the document, "Weapons of Mass Destruction Civil Support Team Tactics, Techniques, and Procedures."[8] However, similar to the issues with NIMS described previously, this document does not provide scenario-specific guidance or operational-level details, such as specific mission examples.

Recommendations: To improve the ability of CSTs to effectively integrate into WMD HAZMAT responses, consider the following:

1. Integrate CSTs into national and regional planning initiatives to align CST SOPs and tactics, techniques, and procedures (TTPs) with national and regional response plans for specific scenarios. Clarify CST functions in national-level doctrine, such as the NRF and the Nuclear/Radiological Incident Annex.
2. Review and consider enhancements to the current CST equipment caches. For example, the 94th CST in Guam did not have enough radiological detection meters or communication equipment to properly carry out its mission. In Portland, the 102nd CST did not have enough meters.
3. Continue joint training and exercising between CSTs and FBI, EPA, DoE, and various HAZMAT teams at all jurisdictional levels.

Capability 2: EOC Management

Capability Summary: EOC Management is the capability to provide multi-agency coordination for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC Management includes: EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, state, and federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities. EOCs may include the National (or Regional) Response Coordination Centers (NRCC or RRCC), JFOs, National Operations Center (NOC), Joint Operations Centers (JOCs), Multi-Agency Coordination Centers (MACCs), and Interim Operating Facilities (IOFs).

During T4, EOCs and ECCs activated at all levels of the government to deploy assets, coordinate the response, and share information. At the local, state, and territory levels, EOCs and ECCs activated in response to the explosions. At the federal level, agencies such as DHS, DoS, the FBI, HHS, DoE, and the EPA stood up their headquarters operations centers along with NGOs,

[7] The CST in Guam could have been available for follow-on radiological data collection during the law enforcement incident investigation and preliminary recovery operations. However, they had completed their T4 objectives, and concluded their participation the morning of the second day (before the other federal agencies arrived). For more on this issue, see the exercise artificialities in the exercise design section.
[8] FM 3-11.22, Department of the Army Headquarters, June 2003.

such as the ARC, and private sector entities, such as the Business Operations Center (BOC) in Arizona. Later in the response, IOFs and JFOs were established in the venues to coordinate federal support to state and local responders.

The observations discussed under this capability focus on response management, direction, and control (including decision making), the coordination of response activities among all levels of government, and information sharing. For example, there were new teams and tools introduced during the exercise, which were intended to improve information sharing, but D/As at all levels of government still had difficulty obtaining accurate and consistent critical information. The federal interagency battle rhythm was overly demanding throughout the exercise, which contributed to these information management challenges. Radiological data collection and distribution of IMAAC products was well coordinated, but key decision making nodes were not always well coordinated or well integrated into a unified coordination and management structure. This delayed decision making and made it difficult to develop clear public messages. In addition, the requirements for LD/HD assets were stressed.

The table below provides a summary of the observations described under this capability along with associated recommendations, where applicable.

Table 3.2 Summary of EOC Management Observations

Observation	Recommendation
Activity 2.1: Gather and provide information	
2.1.1 **Strength:** New teams and tools designed to improve coordination, information sharing, and real-time planning, were tested at all levels of government.	
2.1.2 **Area for Improvement:** D/As at all levels of government, as well as international participants, had difficulty obtaining critical information and maintaining situational awareness.	Continue to develop and test situational awareness tools and supporting processes and procedures. Focus first on the most critical pieces of information desired by leadership.
2.1.3 **Strength:** Radiological deposition data collection and management in Oregon was well coordinated.	
2.1.4 **Strength:** IMAAC provided consequence predictions to agencies and officials in all three venues and the federal interagency, and there were no conflicting plume models as was observed during T2.	
Activity 2.2: Prioritize and Provide Resources	
2.2.1 **Area for Improvement:** The exercise was designed to stress the requirements for LD/HD assets like the FRMAC, the Domestic Emergency Support Team (DEST), and other protection assets.	Incorporate more details in the national family of plans on the allocation of specific LD/HD response and protection assets that could be required to respond to multiple incidents. Identify assets that can partially replicate LD/HD capabilities, and consider alternative means to augment these capabilities.
Activity 2.3: Support and Coordinate Response	

Table 3.2 Summary of EOC Management Observations

Observation	Recommendation
2.3.1 **Area for Improvement:** The federal interagency operational cycle was overly demanding throughout the exercise.	Establish a framework for the federal interagency operational cycle that can be adapted during times of emergency
2.3.2 **Area for Improvement:** The purpose, definitions, and consequences of HSAS threat levels are not clear.	Review and clarify policy surrounding the HSAS. Clarify the purpose of the HSAS, its link to threat information, and its intended consequences.
2.3.3 **Strength:** There was effective coordination between DoE and EPA field teams and officials that deployed to Guam and Oregon.	
2.3.4 **Area for Improvement:** There were significant challenges in Oregon regarding implementation of an effective unified coordination structure that linked all coordination nodes and addressed the complexities of the event.	Develop concepts and mechanisms within the national family of plans to facilitate a "unified management of the federal response." Clarify the relationship between ESF-10 and the Nuclear/Radiological Incident Annex in the NRF. Develop national-level guidance on how best to integrate the FRMAC into the overall coordination structure.
2.3.5 **Area for Improvement:** Some agencies had difficulty integrating their Senior Federal Officials (SFOs) into the JFO structure.[9]	Review and clarify the roles and responsibilities of SFOs in the policies, procedures, and training that support the JFO.
2.3.6 **Strength:** The participation by private sector and Critical Infrastructure/Key Resources (CI/KR) organizations was the largest of any national-level exercise to date.	Continue to institutionalize and formalize relationships between government, private sector, non-government, and CI/KR organizations.
2.3.7 **Area for Improvement:** The mechanisms for private sector and NGO integration into emergency response structures are not clear.	Clarify private sector and NGO partnerships in policies and the national family of plans. Articulate and institutionalize a process for private sector and NGO engagement in national-level exercises.
2.3.8 **Strength:** Disability and other special needs play was a major focus area in the exercise design.	Continue to incorporate and expand special needs play within national-level exercises.
2.3.9 **Strength:** Foreign consular involvement and consular operations were successfully exercised.	
2.3.10 **Area for Improvement:** The procedures for accepting cash donations and diplomatically critical donations through the International Assistance System (IAS) are unclear.	Clarify the relationship of the IAS Concept of Operations (CONOPS) and the procedures for accepting both diplomatically critical and cash donations.

[9] The new NRF released after the exercise shortened this term to Senior Official (SO) to be inclusive of state, territorial, tribal, and local officials.

Activity 2.1: Gather and Provide Information

Observation 2.1.1 Strength: New teams and tools designed to improve coordination, information sharing, and real-time planning, were introduced at all levels of government. For example, DHS posted the National Situation Report (SITREP), Interagency Modeling and Atmospheric Assessment Center (IMAAC) plots, and other event information to the HSIN COP portal for other D/As to access. This information sharing tool was not available during Hurricane Katrina and previous TOPOFF exercises.

Analysis: DHS and other agencies have been working to address information sharing shortfalls that occurred during the response to Hurricane Katrina. Similar problems were also observed in previous TOPOFF exercises. T4 provided an opportunity to rigorously test these improvements. As discussed below, further improvement is necessary to support and maintain situational awareness among agencies. Nonetheless, these entities and tools did not exist previously, and are a step in the process of addressing this issue.

The DHS CAT stood up in the NOC to monitor and consolidate information into National SITREPs and to conduct real-time planning. The NOC components, including the NRCC and National Infrastructure Coordinating Center (NICC), also activated and supported the development of the National SITREP. HSIN and the new COP portal were used to provide situational awareness to the federal interagency. T4 provided an opportunity to test new processes and procedures for maintaining HSIN and the COP. The COP was used primarily to display information about the events and to produce and disseminate the National SITREP. It provided a readily accessible source for many agencies to read or download the SITREP, obtain copies of IMAAC consequence predictions, and access basic information about the events. Other portals within HSIN served as repositories for additional event documentation.

Similar tools were used and tested at other federal agencies as well as at the state, territory, and local levels. For example, DoS used a web-based crisis management portal, which provided key information and reference materials to DoS personnel. The FBI operated four Law Enforcement Online Virtual Command Centers (VCCs), which allowed for transmission of sensitive but unclassified information between the participating FBI field offices and territorial authorities in Guam. HHS used WebEOC, to which it has been adding functionality and capability. Portland used WebEOC to share information with other local and federal agencies, and Guam used DisasterLAN to share information with other federal and territory agencies.

Observation 2.1.2 Area for Improvement: D/As at all levels of government had difficulty obtaining critical information and maintaining situational awareness. Although the HSIN and COP provided easy access to some information, other information was not readily available. Senior decision-makers were most interested in IMAAC model results, casualty counts, information on protective actions, and the status of federal resources. With the exception of the IMAAC model results, this information was among the most difficult for DHS to collect.

Analysis: Table 3.3 shows the draft Critical Information Requirements (CIRs) defined as part of the RDD Strategic Plan.[10] As shown, these CIRs fall into two basic categories: information that originates at the local level and information that originates at the federal level. In some cases, information originates at both levels.

Table 3.3 RDD Critical Information Requirements

CIR	Local	Federal	Primary Source
*Initial/Updated Assessments	X		State/Local EOCs
Initial/Updated Hazard Data Products		X	IMAAC
*Protective Actions Taken or Suggested	X	X	Multiple State/Local/Federal
Law Enforcement Activities/Actions	X	X	Multiple, compiled by LNO
Threat Assessments		X	Multiple, compiled by LNO
Transportation Corridors Affected	X	X	NICC
Infrastructure Damage Assessment	X		NICC
Status of First Responders	X		State/Local EOCs
*Contamination Control Centers/Lines	X		State/Local EOCs
COOP/COG Issues (Federal, State, Local)	X	X	Multiple State/Local/Federal
*Status of Federal Capabilities and Resources		X	Multiple Federal
Recommended Location of JFO		X	FEMA
Status of Search and Rescue Operations	X		*Not defined*
Status of Fire Suppression Operations	X		*Not defined*
Evacuation Routes	X		Multiple State/Local/Federal
Status of Local Medical Communities	X		*Not defined*
Medical Resources Deployed		X	*Not defined*
Nuclear Incident Response Team Assets Deployed		X	DoE, FEMA
Red Cross Housing Centers		X	ARC
International Impacts		X	DoS

The CAT assumed the role of collecting these CIRs and incorporating them into various products and tools, such as the National SITREP, HSIN/COP, and briefings. As components of the NOC, the NRCC and NICC play a primary role in collecting the CIRs and other information defined in the National SITREP. The timeliness and accuracy of this information varied. CIRs noted with an asterisk (*) were the most problematic. Often these same CIRs were also of the most interest to senior leadership and decision makers.

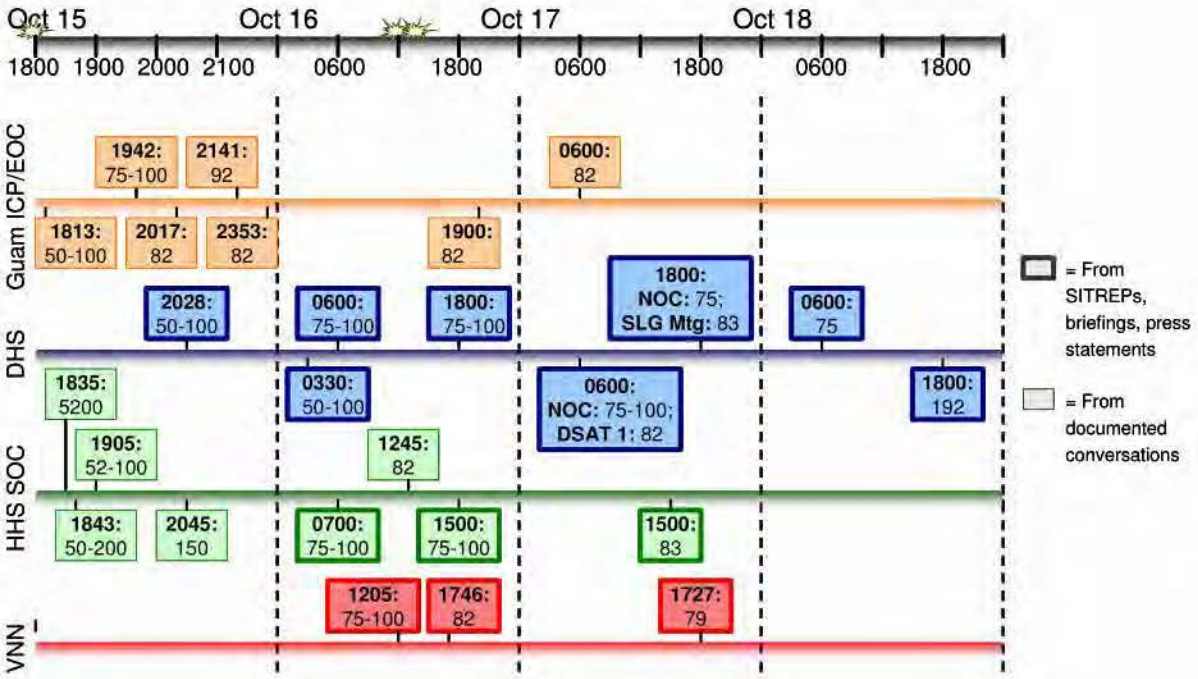
Information originating at the local level is collected from a variety of sources. Initially, the NOC contacts state and local EOCs or obtains information via the RRCC and NRCC. Once the JFO stands up, it becomes the primary conduit for this information. Figure 3.3 tracks one example of local information – the number of casualties reported in Guam.

In Guam, initial reports of casualties were ranges: 50 to 100 and 75 to 100. The final number of casualties reported at the local level was 82. Although this number was reported as early as the evening of October 15, it never appeared in the National SITREP, which continued to report the range of 75 to 100, and then settled on 75. Note that DHS

[10] These CIRs were drawn from a briefing presented during CAT training, and represent a draft set of CIRs that were presented to the group. Some CIRs were not yet fully defined, and did not include information on the source.

field elements, including the DHS Situational Awareness Team (DSAT) and the Principal Federal Official (PFO), had information reporting 82 and 83 casualties, respectively.

Figure 3.3 Guam Casualties



The CAT worked to provide exact numbers of casualties, injuries, and fatalities. However, reporting the range of 75 to 100 casualties was not incorrect since the actual number fell within this range. One main reason for collecting information on casualties is that it is an indicator of the need for federal support. As such, it is the magnitude of the number that matters, and the difference between 75 and 82 is not significant. However, the initial misreporting of 5,200 casualties by HHS, reported at 6:35 p.m. EDT on October 15 in the Secretary's Operation Center (SOC) (their interpretation of the spoken "50 to 100") was significant. This misreport was quickly corrected (shown in Figure 3.3).

Reports of casualties are also problematic because the terms reported often vary. Casualties typically include all injuries and fatalities. Sometimes, just injuries are reported, and these may be broken down by their severity or whether or not they were hospitalized. Reports of fatalities were generally more consistent than reports of injuries and casualties. Other information originating locally often varied in consistency and included numbers of persons evacuated, sheltering in place, or decontaminated, as well as the locations of evacuation and shelter-in-place areas.

Information originating at the federal level that was of interest to senior leaders and decision makers included IMAAC model results, threat assessments, and the types of federal capabilities at the scene. In general, information with a designated federal source was readily available. One example is the IMAAC models. CAT members could

download these products directly from HSIN or the IMAAC website and include them in the SITREP.

Information requiring the consolidation of data from multiple agencies was the most difficult to obtain. Examples include federal assets on scene, referred to as "blue forces" on HSIN/COP, and the protective measures being taken by federal agencies in response to HSAS levels. The CAT sent out requests for information (RFIs) for these CIRs on multiple occasions during the exercise, but received little information in response. Within the COP portal, the information available under blue forces was incomplete.

HSIN and the COP portal are relatively new tools that are not yet fully developed. Many users lacked experience and training on the tools. In the NRCC, a critical node for collecting and posting much of the information on HSIN, much of the staff spent the early part of the exercise gaining familiarity with the system which delayed other actions like future planning. Technical issues contributed to problems with gathering and displaying information. The terrorism SITREP could not be generated directly within the COP portal at the time of the exercise, although this upgrade is planned. During the exercise, staff had to cut and paste information from COP and other sources into a separate document, which added time to the development of the National SITREP and left less time for review and editing. These technical issues have been documented by the DHS Office of Operations Coordination and corrective actions are being implemented.

Although information accuracy and timeliness varied for the CIRs, a great deal of information was available on HSIN that was not available during previous TOPOFFs or Hurricane Katrina. Still, many agencies complained that they did not have situational awareness and that it was too hard to find information on HSIN. HSIN contains many different portals, and often different information was available in each. Agencies had to monitor these multiple portals in addition to their own systems and there was not a single comprehensive source for incident information. The most substantive source of information on HSIN/COP was the National SITREP. This document was often close to 30 pages in length, and information about the CIRs was sometimes located within the extensive ESF reports or other sections, requiring the reader to review the entire document in search of particular pieces of information. Although there is an Executive Summary, the HSC and other users were not satisfied with its content.[11]

As it was for many agencies, information overload was an issue for the CAT, which had to mine various e-mail inboxes and HSIN sites for information to include in the SITREP and in the COP. Observation 3.1.2 in the Public Information and Warning capability provides a more detailed account of information overload experienced by PIOs.

Recommendations: Continue to develop and test situational awareness tools and supporting processes and procedures. The DHS Office of Operations Coordination is already taking action on a lengthy list of recommendations derived from internal AARs which focused on many of the issues raised above.[12] In addition:

[11] Homeland Security Council T4 Lessons Learned, DHS Action Items, November 9, 2007.
[12] DHS/OPS T4 Corrective Action Prioritization Tool, December 13, 2007.

1. Work with the federal interagency through the existing HSIN working group to further develop the requirements for situational awareness and the federal COP. Consider focusing first on the few key elements of information that were of primary interest to decision makers and then developing the processes and procedures for collecting, validating, and displaying this information. Consider graphical displays or other ways to make information easier to find and understand.
2. Consider reporting numbers as ranges, rather than point estimates, during the first 48 to 72 hours of a response.

Observation 2.1.3 Strength: Radiological deposition data collection and management in Oregon was well coordinated.[13]

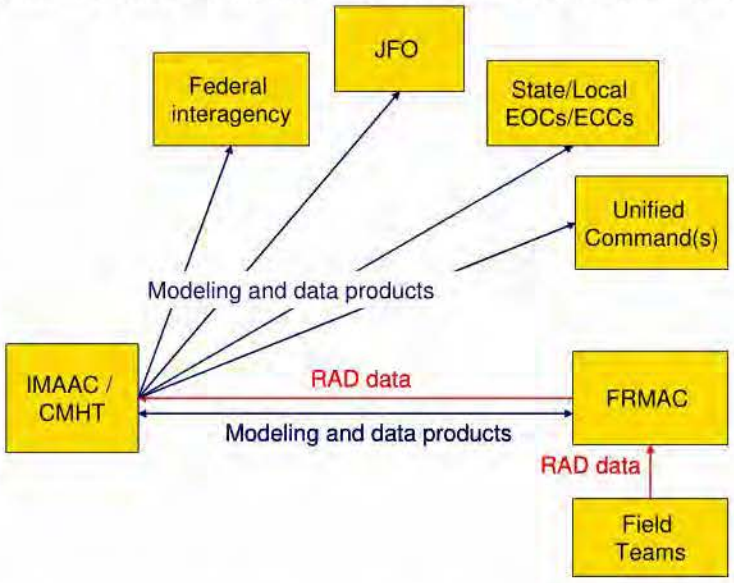
Analysis: Prior to the arrival of federal assets in Oregon, radiological data collection was managed by PFR HAZMAT. Data collected were sent to IMAAC and the National Nuclear Security Administration (NNSA) Consequence Management Home Team set up for the Oregon incident (CMHT/OR)[14] and used to refine the preliminary plume model results. EPA responded under statutory authority of the National Oil and Hazardous Substances Pollution Contingency Plan after the EPA Region X Emergency Operating Center (REOC) observed reports of the explosion on VNN. DoE RAP Region 8 was activated by NNSA and was contacted en route by PFR HAZMAT and EPA. Upon arrival, DoE and EPA coordinated with PFR HAZMAT, as well as the 102nd WMD CST and the Oregon State Department of Human Services Public Health Division RPS ERT, to manage radiological data collection at the incident site.

Upon arrival, the FRMAC took over responsibility for the coordination and management of all radiological deposition data collection efforts in accordance with general FRMAC operating guidelines and the Nuclear/Radiological Incident Annex. This is shown in red in Figure 3.4. All radiological field teams, including PFR HAZMAT, Oregon State RPS ERT, 102nd CST, DoE RAP teams, EPA National Counter-Terrorism Response Team (NCERT), EPA Radiological Emergency Response Team (RERT), EPA National Decontamination Team (NDT), EPA Environmental Response Team, and USCG Pacific Strike Team, were fully integrated into the FRMAC structure and tasked for data collection missions by FRMAC leadership. Data collected at the incident site and data collected to characterize the radiological footprint were sent to the FRMAC. The FRMAC continued to share radiological data with IMAAC and the CMHT/OR to further refine the deposition models.

This represents significant improvement over what was observed during T2, where deposition data collection efforts were haphazard and data management was uncoordinated and decentralized.

[13] Radiological data collection efforts were notional in Arizona. In Guam, data was collected on the first day of the exercise, but was notional once DoE and EPA arrived.
[14] CMHTs provide logistical support, develop initial effects predictions and assessments, and provide expert advice to field teams.

Figure 3.4. Radiological Data Collection and Product Distribution in Oregon



Observation 2.1.4 Strength: IMAAC provided consequence predictions to agencies and officials in all three venues and the federal interagency, and there were no issues with conflicting plume models as was observed during T2.

Analysis: Processes established after T2 to minimize differences in plume model outputs and provide one source for consequence predictions appeared to be effective. The product distribution process for Oregon is also shown in Figure 3.4. An IMAAC consequence prediction was requested by PFR HAZMAT soon after the initial explosion. Radiological deposition data were collected and shared with IMAAC and the CMHT/OR to further refine the model results. Once products were approved, they were posted to the IMAAC website and on HSIN in accordance with IMAAC SOPs. There were also regular conference calls hosted by IMAAC and the CMHT/OR to discuss radiological data collection strategies, product development, and interpretations and assessments.

Upon arrival, the FRMAC continued to coordinate with IMAAC and the CMHT/OR to further refine the deposition models. Once enough radiological data was collected, the FRMAC produced a deposition data product, which depicted the actual radiological deposition footprint. The FRMAC deposition data product was also available on the IMAAC website and posted on HSIN.

While data collection and management was partially simulated in Arizona and Guam, there was still coordination between the venues, IMAAC, and CMHTs set up for the Arizona and Guam incidents, respectively. IMAAC consequence predictions were requested soon after the explosions in Guam and Arizona, and IMAAC modeling and data products were distributed in the same manner as in Oregon.

Observation 2.2.1 Area for Improvement: The exercise stressed the requirements for LD/HD assets like the FRMAC, the DEST, and other protection assets. Limited availability of first-line assets like the FRMAC was addressed by using assets from other agencies. However, because much of the outcomes were pre-scripted and notionalized in the exercise (the FRMAC was scripted to go to Oregon, no products were developed in Guam and Arizona using deposition data), it is unclear whether the gaps were adequately filled. Plans for deploying protection assets, such as DoE search teams and DHS Visual Intermodal Protection and Response (VIPR) teams were developed by the CAT in response to taskings that arose in senior leadership meetings. Although decisions were made and actions taken, there was no formal process for adjudicating competing needs for LD/HD assets.


FRMAC members conduct sampling in Oregon.

Analysis: T4 stressed the requirements for LD/HD assets like the FRMAC, the DEST, and other protection assets.

FRMAC. Table 3.4 shows how FRMAC-like capabilities were assembled in Guam using available radiological response assets.[15]

Table 3.4 FRMAC Capabilities Replicated in Guam

Capability	FRMAC	Used in Guam
Monitoring	Field monitoring	Local HAZMAT, CST, DoE RAP (notional), EPA
Monitoring	Aerial Measuring System (AMS)	DoD (notional)
Assessment	Dose assessment	DoE and EPA officials
Assessment	GIS	No indication that Guam had GIS capability
Assessment	Data management	CMHT
Assessment	Modeling and deposition data products	IMAAC, CMHT (modeling only)
Health and Safety	Medical (REAC/TS)	Accessed by phone
Health and Safety	Safety	Guam and federal OSHA
Laboratory	Laboratory analysis	No laboratory analysis available

[15] Since Arizona field activities were all notional, no meaningful comparison can be made.

The FRMAC capabilities are separated into the four primary response categories of monitoring, assessment, health and safety, and laboratory analysis:[16]

- **Monitoring.** Guam HAZMAT, the 93rd and 94th National Guard WMD CSTs, and notional DoE RAP teams and EPA field teams fulfilled monitoring responsibilities during the exercise, although on a much smaller scale than the FRMAC. In addition, DoD notionally provided aerial monitoring before DoE and EPA arrived.
- **Assessment.** Assessment consists of several functions, including data management, Geographic Information System (GIS) modeling, and the provision of subject matter expertise. DoE and EPA senior officials provided dose assessment and interpreted IMAAC products for decision makers in Guam. Additional support was available via the Guam CMHT. The Guam CMHT also fulfilled data management responsibilities (although these activities were mostly notional). IMAAC, as discussed earlier, in coordination with the Guam CMHT, provided modeling capability.[17] Finally, Guam did not use any GIS assets during the exercise, and this capability did not appear to be available within the local government.
- **Health and safety.** DoE and EPA officials in Guam were in telephone contact with Radiation Emergency Assistance Center/Training Site (REAC/TS) personnel, who provide treatment and medical consultation for injuries resulting from radiation exposure. Guam OSHA and federal OSHA were also present to monitor safety concerns.
- **Laboratory analysis.** This function went unfulfilled in Guam, and it was recognized as a significant shortfall during the exercise.

The response in Guam was able to replicate some of the FRMAC capabilities, but there clearly would have been shortfalls in a real-world response to multiple incidents. Potential additional sources for FRMAC capabilities are shown in Table 3.5.

Table 3.5 Additional Sources for FRMAC Capabilities

Capability	FRMAC	Potential Additional Sources
Monitoring	Field monitoring	DoD, international
Monitoring	Aerial Measuring System (AMS)	
Assessment	Dose assessment	
Assessment	GIS	DoD, private sector
Assessment	Data management	
Assessment	Modeling and deposition data products	CMHT (modeling and data products)
Health and Safety	Medical (REAC/TS)	
Health and Safety	Safety	
Laboratory	Laboratory analysis	International

[16] National Nuclear Security Administration, FRMAC Operations Manual, December 2005.
[17] As discussed earlier, due to exercise constraints, IMAAC and CMHT only provided plume modeling products during the exercise. No attempt was made to generate data products based solely on deposition data.

They include:

- **Monitoring.** DoD assets could be requested, and international support could augment this function in areas that are a significant distance away from the U.S. mainland.
- **Assessment.** Providing GIS capability presents a challenge, but it is plausible that this function could be obtained from DoD or the private sector. The CMHT has the capability to provide FRMAC-like data products based on deposition data. Another potential solution is not to deploy the early-phase assessment functions. Leaving some capabilities to be conducted by the CMHT, and not forward deployed, would enable those capabilities to be available for other incidents in the event of multiple events.
- **Laboratory analysis.** Several ideas were suggested during the exercise to provide this capability, including putting together an EPA mobile lab and/or arranging for international support.

DEST.[18] The DEST is an interagency on-call team of terrorism experts who provide support to the FBI Special Agent in Charge (SAC) during domestic WMD terrorist threats or incidents.

During T4, the DEST deployed to Oregon in real time. The DEST mobilized one hour after the explosion in Oregon and departed for Oregon within four hours. Upon arrival in Portland, the DEST experts integrated into the FBI JOC. DEST personnel coordinated with their own agency response elements on scene to provide information flow to and from the FBI SAC/JOC, which is in accordance with DEST procedures.[19] In addition, DEST personnel worked with their own agency counterparts on scene to transition support to the JFO after the JOC ended operations.[20]

There were limited discussions in senior leadership meetings about deploying the DEST to any of the incident sites. Soon after the explosion in Guam, a decision was made to put the DEST on standby rather than deploy it to Guam. However, no formal decision was made to deploy the DEST the following day after the explosion in Oregon and Arizona.[21] FBI controllers suggested that senior leadership did not have enough familiarity with the capabilities of the DEST to support decision-making regarding activation and allocation.

Protection assets. Several types of protection assets were employed during the exercise:

- The DHS CAT Planning Section developed a search plan using DoE teams, which were notionally deployed on October 17.
- The DHS CAT Planning Section also developed a VIPR plan to provide security and visual deterrence at CI sites in four cities. It was developed overnight on October 18, but the exercise ended before these teams were notionally deployed.

[18] This observation was drawn from FBI input into the AAR process.
[19] Due to the artificial nature of the deployment, some DEST personnel were underutilized in Oregon.
[20] The FBI JOC ceased operations when the law enforcement phase of the exercise concluded, which was an exercise artificiality.
[21] The deployment of the DEST to Oregon was pre-scripted, and the asset deployed despite the fact that senior leaders at the deputy and principal level never formally decided to deploy the DEST.

- DHS proposed Immigration and Customs Enforcement (ICE) support to FBI to enact a "round up" plan to arrest and question persons with possible links to terrorism.

These actions were driven by discussion and decisions in senior leadership meetings, and were unanticipated by some of the players that were called on to develop deployment and other plans to support the decisions. The draft RDD Strategic Plan, which many DHS players used as a road map for the response, does not currently address protection activities. Plans for deploying protection assets were developed by the CAT in response to taskings that arose in senior leadership meetings. Some meeting participants were unfamiliar with the CAT and were surprised to see it play an active role in developing protection plans.

SOs participating in the Principals SVTC felt that there was an unnecessary delay in deploying these protection assets. Although decisions were made, there was no formal process for adjudicating competing needs and making and disseminating decision outcomes (see related observation 2.3.1). In addition, decisions and actions were not well linked with exercise intelligence. For example, the cities selected for VIPR deployment were not based on exercise intelligence, although this could have been an artificiality of the exercise.

Recommendations: Decisions regarding scarce resources should be incorporated into scenario-based plans. The DHS Office of Operations Coordination is already implementing corrective actions raised by the HSC and its own after-action process that address some of these recommendations:

1. DHS, in coordination with the federal interagency, should incorporate contingency plans for multiple RDD/IND incidents into the Strategic Plans and identify assets that can partially replicate LD/HD capabilities. In addition, the HSC called for a database of radiological assets to be developed.[22]
2. DoE and EPA should investigate the cost/benefit of NOT deploying the early phase assessment functions of the FRMAC to an incident site. In addition, DoE and EPA, in coordination with DHS, DoD, and DoS, should explore options to bolster monitoring and laboratory capabilities through Memoranda of Understanding (MOU) or pre-scripted mission assignments with DoD and foreign countries that are closer to U.S. states and territories.
3. DHS, in coordination with the federal interagency, should account for protection assets and capabilities in the national family of plans, including the RDD Strategic Plan, NRF, and the Nuclear/Radiological Incident Annex.
4. DHS, in coordination with the federal interagency, should clarify agency roles and responsibilities regarding protection assets, as well as the role of CAT in developing deployment plans.
5. DHS, in coordination with the federal interagency, should develop a training package and decision matrices for senior leadership describing the capabilities

[22] There have been past efforts to develop similar databases, such as the Response Resource Inventory System. Efforts to develop a new database of radiological assets should begin with this and other existing databases.

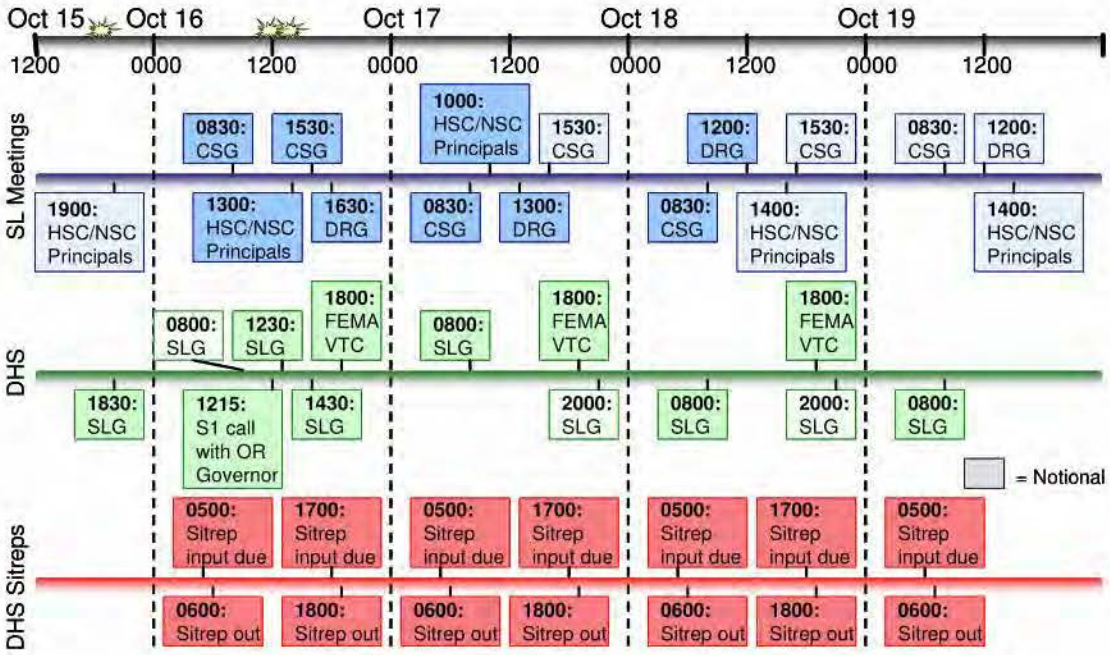
and deployment of existing radiological response assets, including the DEST, and protection assets.

Activity 2.3: Support and Coordinate Response

Observation 2.3.1 Area for Improvement: The federal interagency operational cycle (often termed battle rhythm) was overly demanding throughout the exercise. Senior leadership meetings, such as the Domestic Readiness Group (DRG) and Counterterrorism Security Group (CSG), coupled with SITREP deadlines and press briefings, created an unrealistic workload for interagency operations center staff such as the DHS CAT and the HHS Emergency Management Group (EMG). In addition, formal summaries were not distributed from these meetings, requiring staffs to rely on informal back-briefs from participants. Both of these problems contributed to inaccuracies and inconsistencies in the information conveyed in products such as situation reports and leadership briefs (discussed in 2.1.2).

Analysis: Figure 3.5 shows the main components of the operational cycle. Senior leadership meetings are shown along the top and include the HSC/NSC principals meetings along with the CSG and DRG. Although this schedule was pre-set for the exercise, it is thought to be similar to what would occur during an actual emergency.

Figure 3.5 T4 Operational Cycle



DHS-hosted meetings are shown in the middle of the figure. The Senior Leadership Group (SLG) was a conference call hosted by the NOC and included the DHS components and the PFOs and Federal Coordinating Officials (FCOs). The FEMA Video Teleconferences (VTCs) are operational-level calls hosted by the NRCC that include ESF partners and FEMA field components. Other agencies, like HHS and EPA, hosted their

own operational-level calls with their components and field teams. National SITREP reporting deadlines are shown along the bottom.

As shown in Table 3.6, there was considerable overlap in the topics discussed at all of the senior leadership meetings. Documentation of meeting participation was not available; however, it was reported to the evaluation team that there is little overlap in the membership of these groups.

Table 3.6 Topics Discussed in Senior Leadership Meetings

Principals SVTC	CSG	DRG	DHS SLG
• Intelligence and law enforcement • Situation updates • HSAS • Continuity of Government Readiness Conditions (COGCON) • Federal resource allocation • Protection activities • International issues	• Intelligence and law enforcement • Intelligence sharing • Situation updates • HSAS • COGCON • Federal resource allocation • Protection activities • International issues	• Intelligence and law enforcement • Situation updates • HSAS • COGCON • Federal resource allocation • Protection activities	• Intelligence and law enforcement • Situation updates • HSAS • COGCON • Federal resource allocation • Protection activities • Declarations

Prior to meetings, staffs needed to provide updates and products to leadership, such as agendas, talking points, and briefings. With back-to-back meetings on October 16, the demand for updates was continuous and consumed a large part of staff time. Within the CAT, the development of senior leadership products was not well-integrated with National SITREP development. Because of the schedule, these products had to be developed in parallel by different staff members. This led to some inconsistencies in information reported in meetings and included in the National SITREP.

During meetings, there was no formal process for adjudicating competing needs and courses of actions. Although the CAT had a process for developing courses of action and did so for a few decisions, such as HSAS level changes, this process was only used to support making recommendations for DHS leadership to consider in preparation for senior leadership meetings.

Following senior leadership meetings, summaries were not formally disseminated.[23] Instead, meeting outcomes were informally briefed back to agencies by their participants. This led to several instances where participants left meetings with different understandings of decisions:

- At several senior leader meetings on October 15 and 16, changes in HSAS were discussed. The first decision announced at the October 15 SLG was to change the HSAS to Red in Guam. Several times after these decisions, players were not sure if

[23] This was an issue in previous TOPOFF exercises.

Red was for all of Guam or the Port of Guam, and it was reported both ways. At this meeting and in meetings the next morning, the decision to go to Orange nationwide was made, but the announcement was delayed until the next morning so that DHS could gather information on protective actions. This resulted in two different interpretations of the decision:

1. The HSAS is not at Orange; the level will increase to Orange tomorrow and will be announced to the public.
2. The HSAS is at Orange and D/As should pursue activities that are required by the change; the change will be announced to the public tomorrow when D/As are ready.

- After the Principals SVTC at 1:00 p.m. on October 16, some agencies thought it was decided that the DEST would not deploy. At the 3:30 p.m. CSG later that day, they were surprised to find that the DEST was making preparations to deploy.
- Following the same Principals SVTC on October 16, some participants thought that the White House had ordered a change to COGCON level two. This change was announced at the 2:30 p.m. SLG and formally communicated by the NOC to other agencies at about 4:30 p.m. that same day. Shortly thereafter, the NOC found the order to be erroneous and made another notification at 5:45 p.m. restoring the COGCON level to four.

Updated information not available on HSIN or within the CAT was occasionally briefed in senior leadership meetings. With no formal meeting summaries, this information was not passed on to the CAT. An example of this is casualty numbers and is described earlier under observation 2.1.2.

Recommendations: Establish a framework for the federal interagency battle rhythm that can be adapted during times of emergency. The DHS Office of Operations Coordination is already implementing corrective actions raised by the HSC and its own after-action process that address some of these recommendations:

1. Convene an interagency working group to share information on internal agency meeting and reporting schedules. This information can help the federal interagency align reporting and meeting schedules and facilitate development of the National SITREP.
2. Review the purpose, audience, and scope of various senior leadership meetings and deconflict them.
3. Include policies and procedures for formally disseminating meeting summaries that include key information, decisions, and taskings.

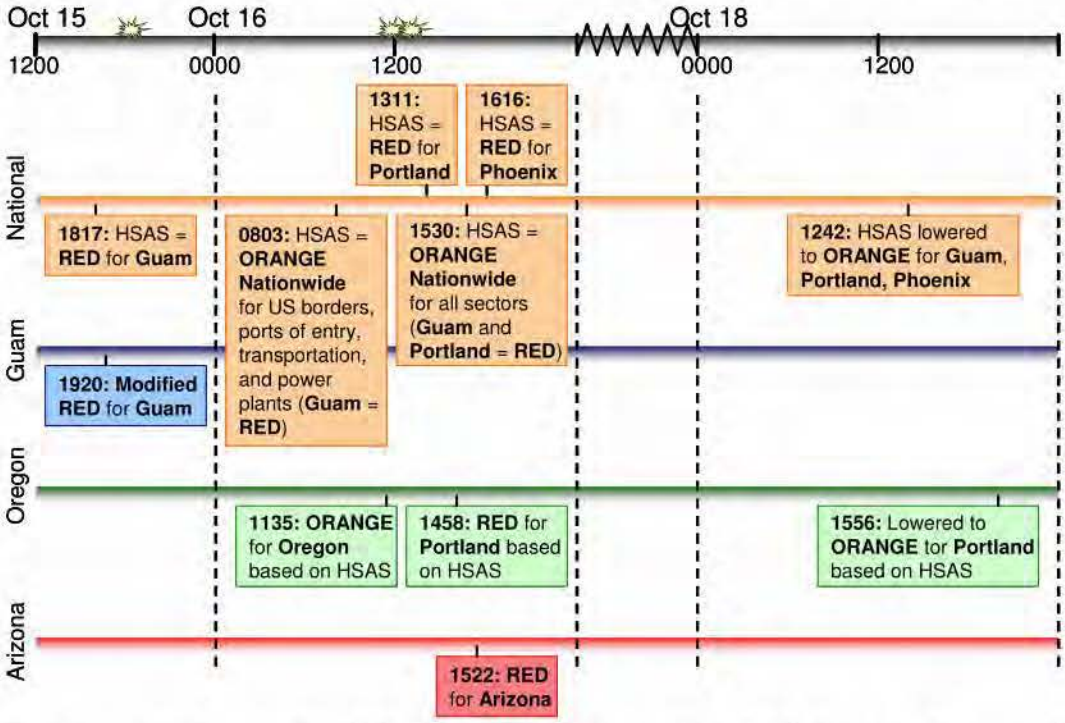
Observation 2.3.2 Area for Improvement: The purpose, definitions, and consequences of HSAS threat levels remain unclear. As observed in past TOPOFF exercises, T4 players at all levels of government, as well as international players, raised questions about the meaning and implications of HSAS level changes. In addition, state and territory agencies set their own threat levels that differed at times from the HSAS level. Interpretation of Red in Guam, Portland, and Phoenix, as well as the change to Orange nationwide, raised the most questions. Sector-specific changes were clearer and resulted in specific protective measures.

Analysis: Figure 3.6 compares HSAS level changes with state, territory, and local threat level changes.

The first HSAS level change was a change to Red in Guam shortly after the explosion on the island. The reasoning for this change was described in several ways:

- In e-mails, DHS stated, "raising the threat level to Red will provide first responders and local officials with the ability they need to carry out enhanced security measures and undertake rescue and recovery operations."
- In a senior leadership meeting, it was stated that "Red allows the responders to move, but not the terrorists."
- In an interview with VNN, the DHS secretary was asked if the change to Red had shut down the island. He responded that it had, and that it was intended to help reduce the danger of contamination.

Figure 3.6 Timeline of HSAS and State/Territorial Threat Level Changes



Guam enacted its own "modified Red" shortly after the HSAS change. The reasoning given to a mock media representative was to "allow emergency response vehicles to move in and out of the incident site." Yet, the intention of DHS was not to impact first responder movement. Several times during the exercise, reports of Guam's "modified Red" were mistaken for the DHS HSAS level.

After the explosion in Oregon, the DHS secretary appeared on VNN again and discussed the HSAS level change to Red in Portland. He said that he had conferred with the Oregon governor about raising the HSAS level to Red. Furthermore, he acknowledged the likely

economic impacts and said that this was a temporary change designed to limit the ability of terrorists to carry out additional attacks in that area. He asserted that it gave first responders the authority and freedom of movement to carry out their response. Later in the day, several county command centers recorded Portland's alert level as Red to match the HSAS level. In addition, several hours after DHS changed the HSAS level to Orange for specific sectors nationwide, Oregon raised its state-wide level to Orange as well, according to the State ECC. However, the Oregon governor reported at 7:21 p.m. EDT on VNN that the state threat level was Orange with no mention of Portland. This discrepancy may have been caused by the coordination challenges discussed later under observation 2.3.4.

Arizona raised the entire state to Red shortly after the explosion, while the HSAS was Red only for Phoenix. The Arizona governor appeared on VNN at 4:38 p.m. EST on October 17. When asked about the investigation surrounding the man who detonated the explosion, the Arizona governor said one of the reasons that they were at Red was because the suspect (or an accomplice) had not yet been apprehended. Further, the explosion was actually at the intersection of Routes 101 and 202, which is outside of the City of Phoenix. Although this area is considered to be part of the greater Phoenix area, it was unclear whether the HSAS was red for the greater Phoenix area or just for the city itself.

The sector-specific change to Orange nationwide for borders, ports of entry, transportation nodes, and power plants resulted in documented protective actions. U.S. Customs and Border Protection (CBP) increased security at the border, TSA increased security at airports, and Arizona increased security at a nuclear power plant.[24] On VNN, the DHS secretary said that the reason for this change was the potential for future attacks. He urged the public to become informed, make preparations for additional attacks, and referenced *ready.gov* as a source of information. He also said that additional security measures were being taken at airports, mass transportation nodes, and other CI sites, and advised that governors and local officials take additional measures such as limiting public gatherings. There were few recorded closures in response other than canceled college classes in Arizona and a few public school closings.

The impact of the change to Orange nationwide for all sectors is less clear. Although it was reported that the DHS secretary was inclined to raise the HSAS to Orange nationwide as early as the evening of October 15, this change was delayed until the CAT could collect information on what protective measures would go along with the change, indicating that checklists and procedures for changing HSAS are still inadequate. The CAT encountered significant difficulty collecting this information. It sent out RFIs to the federal interagency on two occasions and received very little information in return. Once the level was raised to Orange nationwide for all sectors, there was no apparent change in the message to the public.

There are at least two instances when other federal agencies recommended additional HSAS changes in senior leadership meetings. Neither recommendation led to a change. In one example, TSA requested that DHS increase the transportation threat level to Red

[24] CBP conducted an internal detection exercise in conjunction with T4 and its activities are described in Annex 2.

for specific cities several times on October 16. This recommendation was passed to the CAT for analysis, although no results of this analysis were reported.[25] The planning section of the CAT, made up of members of the Incident Management Planning Team (IMPT), was responsible for developing recommended changes in HSAS and considered many different HSAS scenarios. One of its major concerns was the economic impact of sustained HSAS level changes, and it never recommended any additional elevations to Red. There was also one recorded instance supporting this economic concern at the local level. On October 18, Phoenix officials said that they would seek reimbursement through the federal emergency declaration for "security costs of Red."

Recommendations: Review and clarify policy surrounding the HSAS through an interagency working group led by DHS. The DHS Office of Operations Coordination is already acting on a similar recommendation.

1. Clarify the purpose of the HSAS, its link to threat information and other alert condition systems like COGCON and Defense Readiness Condition (DEFCON), and its intended consequences.
2. Define the purpose of specific changes in HSAS (e.g., the purpose behind raising the HSAS to Red at an incident site following an event) and how changes are managed.
3. Compile recommended protective measures linked to different changes in HSAS. Include federal, state, local, CI/KR, and the public. This information can be used to issue scenario-specific guidance during an event.
4. Incorporate HSAS level changes in national scenario-based plans.

Observation 2.3.3 Strength: There was effective coordination between DoE and EPA field teams and officials that deployed to Guam and Oregon.[26]

Analysis: In Guam, DoE was the coordinating agency, in accordance with the Nuclear/Radiological Incident Annex of the NRP. Due to resource constraints, both DoE and EPA senior officials recognized that they would need to coordinate their efforts to manage the response. At the incident site, DoE and EPA officials worked together to fulfill notional mission assignments and complete radiological deposition data collection tasks.

In Oregon, DoE was also the coordinating agency, in accordance with the Nuclear/Radiological Incident Annex of the NRP. DoE and EPA worked together at the FRMAC to assign and complete radiological deposition data collection tasks. The EPA deputy Radiological Emergency Response Team (RERT) commander was the senior EPA representative at the FRMAC. As described above, all radiological field teams were fully integrated into the FRMAC structure, including DoE and EPA field teams, and tasked by FRMAC leadership. Several officials from DoE and EPA who deployed to

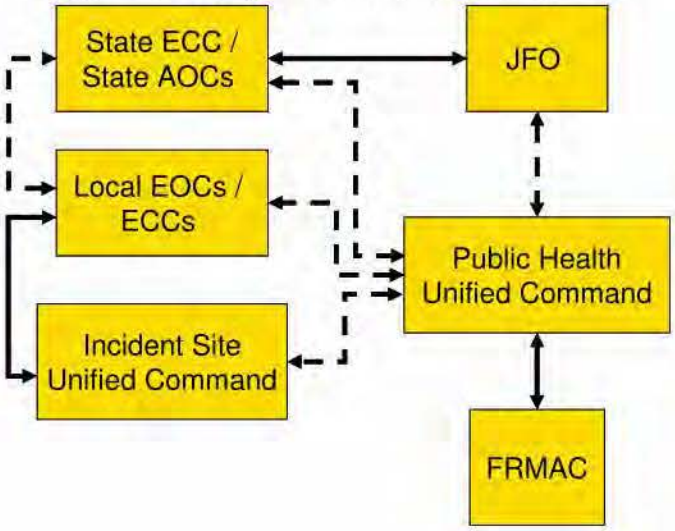
[25] This apparent lack of follow-through indicates again that formal processes for decision making (discussed in 2.3.1) and disseminating results are inadequate.
[26] Since field teams in Arizona were all notional, we did not explore EPA and DoE coordination there.

Oregon stated that the coordination between DoE and EPA officials and their respective field teams was the best that they had ever observed.

Observation 2.3.4 Area for Improvement: In Oregon, there was no unified coordination structure that linked all components of the response. This issue was observed in past TOPOFF exercises and highlighted as a critical challenge during the response to Hurricane Katrina. The response to the RDD event in Oregon was complex and involved many D/As at the local, state, federal, and international levels with many different authorities, functions, and assets. These D/As established multiple decision-making nodes with varying degrees of coordination, which did not promote information flow. This lack of coordination had a significant impact on top official decision making, especially regarding the implementation of protective actions and public messaging. This section focuses on the Oregon venue, which established a complete response structure. In Arizona, all field components were simulated, and in Guam, some field teams and response functions were simulated. In addition, Guam does not have a local level of government, making it less likely to experience some of the problems described below.

Analysis: Figure 3.7 shows the coordination diagram that emerged once federal assets arrived and integrated into the response structure. Solid arrows indicate integrated coordination (e.g., formal mechanism established such as LNO exchange or joint planning), while dotted lines indicate limited or intermittent coordination. There were six key decision-making nodes: local EOCs/ECCs, state ECC/Agency Operations Centers (AOCs), the FRMAC, the incident site unified command, a public health unified command, and a JFO. For the most part, these six nodes operated independently of each other, and there was no overarching body to unify the response.

Figure 3.7. Oregon Coordination Diagram[27]



[27] This figure is based on the reconstruction of exercise information flow among sites. It reflects what actually happened during the exercise, rather than what might be depicted in plans and procedures.

The following examples illustrate coordination challenges:

- **Lack of strategic direction.** Late in the afternoon on October 16, leadership of the unified command at the incident site was transitioning from PFR to the FBI as the primary mission shifted to law enforcement.[28] At approximately 9:45 p.m. EDT, there was a coordination meeting between DoE, EPA, FRMAC, Oregon State RPS, Multnomah County Health Department, and PFR HAZMAT to discuss the status of the public health response, formalize a coordination plan, and develop a site assessment strategy. This meeting led to the formation of a second unified command at the Multnomah County Health Department EOC, which was focused on public health, long-term protective actions, and recovery issues. However, there was no mechanism in place to coordinate activities across both unified commands. Rather, they operated independently and communicated infrequently with each other. On the second day of the exercise, the incident site unified command decided to focus on blast site issues, but for the most part both unified commands still operated independently of each other. Late in the afternoon on October 17, as the FBI was approaching the completion of the law enforcement investigation, the decision was made to terminate the incident site unified command. Authority over the incident site was transferred to the public health unified command that evening.

  Further, there was no evidence that a representative from DHS or the JFO was present at either of the unified commands. This is particularly significant since, under the new September 2007 version of the Nuclear/Radiological Incident Annex (which must be noted was not in effect for the exercise) DHS is designated the coordinating agency for an RDD incident and therefore is expected to participate in the unified command.

- **Delayed information sharing and decision making.** The Oregon State Department of Human Services Public Health Division is the lead agency for radiological incidents under Oregon statute. The Oregon State Department of Human Services Public Health Division RPS ERT deployed to incident site at approximately 1:30 p.m. on October 16 and coordinated with PFR HAZMAT. An RPS representative participated at the coordination meeting discussed above and at the ensuing public health unified command. However, the representative was a health physicist, who was not authorized to make decisions for the state. Furthermore, it is not evident whether protective action recommendations developed at the public health unified command and long-term implications were relayed to Oregon state agency leadership and decision makers. Surprisingly, the first time that the Oregon governor saw the FRMAC deposition data product was when it was shown on VNN on the final day of the exercise.

  Although the Portland Office of Emergency Management (OEM) ECC was well integrated with the incident site unified command, Portland representatives were not a major component of the public health unified command, which limited their access to public health expertise and data products. Portland was represented at the initial coordination meeting by PFR HAZMAT. After that meeting, there was no

[28] Command and control at the incident site is discussed in more detail in section 1.2.1.

representation from Portland at the public health unified command until the last day of the exercise, when an incident commander from the Portland OEM ECC went to the public health unified command. On the same day, the DoE Deputy SEO (a member of the public health unified command), a FRMAC scientist, and personnel from the EPA RERT went to the Portland OEM ECC to brief the FRMAC data product to the mayor of Portland and other city officials. This was the first time that Portland OEM leadership saw the FRMAC deposition data products. Furthermore, there is no evidence that long-term protective action recommendations were relayed to Portland leadership until the morning of October 19.

Similarly, the JFO and PFO cells did not have ready access to technical expertise and data products. As discussed earlier, these products were posted to HSIN, but JFO personnel had difficulty downloading information from HSIN. On the last day of the exercise, a FRMAC scientist was also sent to the JFO to brief the FRMAC deposition data products to JFO leadership.

- **Conflicting public messages.** The Oregon Department of Human Services Public Health Division issued a press release on October 16 at 7:20 p.m. EDT, which identified shelter-in-place boundaries. This press release was developed independently and contradicted previously released guidance and recommendations from the Multnomah County Health Department, Portland OEM, and the mayor of Portland. This lack of coordination was particularly surprising given the regular conference calls between the mayor of Portland, the Multnomah County commissioner, and the Oregon governor.

  In addition, until the morning of October 19, public messages in Oregon were focused on short-term protective actions (e.g., shelter-in-place, immediate health concerns, immediate actions people could take). When the FRMAC deposition data product was released on October 19 and discussed on VNN by local and federal officials, there had not been any public messages to prepare the public for the possible longer-term consequences, such as the contamination of agriculture and dairy products and the likely relocation of a significant area within one year.

Below are some factors that may have contributed to the lack of integration:

- Participation in the public health unified command may not have been a high priority for the City of Portland because the city has no public health agency and relies on Multnomah County for public health expertise. Multnomah County Health Department deployed a liaison to the Portland OEM ECC. However, the liaison was not a radiological SME, and it took 24 hours for this representative to arrive.
- The JFO structure did not support execution of the requirements stipulated in the Nuclear/ Radiological Incident Annex. Under the July 2007 version of the annex, which was the version used during the exercise, DoE is the coordinating agency.[29] However, the JFO structure only includes DoE personnel at ESF-12, which is responsible for energy infrastructure. As a result, the DoE personnel at the JFO were

[29] This has since been revised. In the September 2007 draft of the Nuclear/Radiological Incident Annex, DHS is the coordinating agency for RDD terrorist incidents.

not necessarily qualified to provide subject matter expertise regarding radiological response and protective actions to JFO leadership. ESF-10 (HAZMAT response), for which EPA is the coordinating agency, contains more relevant functions but was not tasked by JFO leadership to provide subject matter expertise.

- Prior to the exercise, DoE and EPA exercise planners agreed to incorporate the FRMAC within the planning function of a unified command ICS. However, the FRMAC is composed of multiple capabilities that align to different ICS components. The tactical components of the FRMAC, such as the AMS and the field data collection teams, are operational; while the technical, analysis, and advisory components are more consistent with planning functions.

Recommendations: Effective coordination between all levels of government is necessary for the federal government to provide timely and adequate support to local jurisdictions. Outside of actual disasters, TOPOFF provides the only opportunity to establish the entire local, regional, state, tribal, federal, and international command and coordination structure in response to a complex event. The full participation of all components in Oregon at the incident site and at local, state and federal command centers, helped to uncover considerable challenges.

1. DHS should convene an interagency working group to address methods for improving coordination between federal, state, and local jurisdictions and identify concepts and mechanisms to facilitate a "unified management of the national response" as called for in the Hurricane Katrina Lessons Learned report.
    - One recommendation from the Hurricane Katrina Lessons Learned report that should be further considered is to improve planning and coordination at the regional level.
    - DHS should develop scenario-specific training modules for response personnel to improve coordination between federal, state, and local jurisdictions.
    - DHS should continue to sponsor periodic exercises that examine all components from the field to the national level to evaluate the effectiveness of improvements.
2. DHS should convene an interagency working group to clarify the relationship between ESF-10 and the Nuclear/Radiological Incident Annex in the NRF.
    - Review the JFO structure and clarify how elements of incident-specific annexes should be incorporated.
    - The September 2007 version of the annex designates DHS as the coordinating agency for a terrorist incident throughout response and recovery. It also documents some procedures for ESF-10 when the annex is activated. Nevertheless, the role of DHS as the coordinating agency is still unclear, and the NRF does not address the composition of the JFO for scenario-specific incidents when incident annexes are activated.

- National-level guidance is needed to address how best to integrate the FRMAC into the overall coordination structure during a radiological incident.

3. Future RDD exercises should investigate ongoing changes to the Nuclear/Radiological Incident Annex and the transition to environmental clean-up and site restoration activities.

Observation 2.3.5 Area for Improvement: Some agencies had difficulty integrating their SOs into the JFO structure.

Analysis: There were several instances where agencies noted difficulty integrating their SOs into the JFO. Examples include the following:

- The JFO staff was unfamiliar with the role of the Senior Federal Law Enforcement Official (SFLEO).[30]
- The DoE SO in Oregon was asked to support the PFO, which made it difficult for the SO to carry out his or her role as part of the JFO coordination group. In addition, the JFO and PFO cell were physically separated, further contributing to this difficulty.[31]

Recommendations: Review and clarify the roles and responsibilities of SOs in the policies, procedures, and training that support the JFO and PFO cell. The PFO program was recently moved to the DHS Office of Operations Coordination, and this office is already working to improve the program. The newly revised NRF does contain more detailed descriptions of the roles and responsibilities of SOs as part of the Unified Coordination Group.

Observation 2.3.6 Strength: The participation by private sector and CI/KR organizations was the largest of any national-level exercise to date.[32] These organizations participated at the national level and in the venues, and helped demonstrate areas where they can most effectively contribute to the response.

Analysis: The exercise demonstrated areas where private sector leaders can add significant value to situational awareness and support decision making processes. At the national level, this occurred through Office of Infrastructure Protection (OIP)-sponsored conference calls and other communication methods. In addition, nine CI/KR sectors tested a SIMCELL in the Master Control Cell (MCC) for the first time with industry SMEs. By conducting a cross-sector analysis of unfolding events, they recommended injects explaining possible business decisions and consequences from government decisions.

In the venues, private sector organizations coordinated with government agencies in a variety of ways. In Guam, the private sector was represented in the Territorial EOC and

[30] This observation was drawn from FBI input into the after-action process.
[31] This observation was drawn from DoE input into the after-action process.
[32] Findings from this section are drawn in part from the DHS OIP AAR/IP.

actively participated in the response. In Arizona, seven of the nineteen sectors identified in the NRP co-located in a BOC to assess the disaster's impact on local industries, assist with available resources for incident response and recovery, and pass this information on to the state. Officially a private sector entity, the BOC kept a watchful eye on the health of CI and businesses in the aftermath of the RDD incident. The formal incorporation of the private sector into disaster response and recovery operations resulted in regular phone and e-mail communication with the Arizona SEOC, and in many ways was a success. For example:

- The BOC responded to numerous RFIs from the Arizona SEOC regarding private sector activities, including the identification of business continuity of operations issues, key businesses in the contaminated area, and critical resource capabilities within the BOC.
- The BOC represented industries offered search and rescue, damage assessment, and structural decontamination expertise to the Arizona SEOC.
- The BOC built an inventory of all impacted businesses within the industries represented at the BOC.

Recommendations: Continue to institutionalize and formalize relationships between government, private sector, NGOs, and CI/KR organizations.

Observation 2.3.7 Area for Improvement: Although it was demonstrated that there is much the private sector can contribute, the mechanisms for integration into emergency response structures are not clear. At the federal, state, territory, and local levels, there were challenges to effective private sector integration.

Analysis: There are many federal, state, territory, and local agencies with similar and overlapping responsibilities for private sector coordination. This complicates private sector participation in response and recovery activities. Private sector offices within DHS include the DHS Private Sector Office (PSO), OIP Partnership and Outreach Division (POD), and the FEMA PSO. The roles and responsibilities of each office are not clear to private sector entities, and there is uncertainty on how to best integrate with them during emergencies.[33]

At the local level, communications and information sharing challenges limited the ability of the Arizona BOC to support the response. T4 was the first time a BOC had been established in Arizona, so it lacked formal policies, plans, and systems. In Guam, the private sector could have been more effectively integrated into initial discussions and decisions about port closure and tourism held at the EOC. Coordination improved later in the exercise.

Recommendations: Clarify private sector partnership models in national policies and the national family of plans. The National Infrastructure Protection Plan (NIPP) lays out a partnership model.

1. DHS should clarify and articulate the purpose, roles, and responsibilities of its

[33] Findings from this section are drawn in part from the DHS OIP AAR/IP.

various PSOs. No DHS office has singular, vested authority and responsibility for organizing, leading, planning, programming, or budgeting for private sector integration. This issue remains unresolved in the CI/KR and Private Sector Supporting Annexes of the NRF.

2. State, territory, and local agencies should formalize arrangements with private sector partners and develop the policies, plans, and systems necessary to support their use in times of emergency.
3. Articulate and institutionalize a process for private sector and NGO engagement in national-level exercises, including authority for planning, programming, and budgeting for national and venue working groups.

Observation 2.3.8 Strength: Disability and special needs play was a major focus area in the exercise design. As a result, players gained critical practical experience regarding the additional support needed by individuals having special needs.

Analysis: Accommodations for special needs populations were managed in a variety of ways. In Guam, Oregon, and Arizona, press releases were prepared in languages other than English. In Guam, for example, press releases were translated into five different languages: Chinese, Japanese, Tagalog, Chamorro, and Chuukese. In Arizona, protective action guidance was released to the Native American community in the Navaho language.

First responder provides guidance at assisted living.

Victim actors at the Oregon site included individuals with hearing, sight, mental, and mobility disabilities and limited English proficiency. Responders had to identify and accommodate these victims in the course of the response. In another example, the DHS Office for Civil Rights and Civil Liberties (CRCL) collaborated with the Oregon Multnomah County Health Department to ensure that consideration was given to individuals requiring home healthcare, medical care, or supervision when the decision was made to shelter-in-place over several days.

Arizona addressed the needs of special populations in the contaminated area through play that included individuals with disabilities attending a charity function and the residents of an assisted living facility who required evacuation.

Recommendation: Continue to incorporate special needs play within national-level exercises with additional objectives to focus specifically on decisions regarding special needs.

Observation 2.3.9 Strength: Foreign consular involvement and consular operations were successfully exercised.[34]

Analysis: The addition of foreign consular involvement in T4 added realism to exercise play and stressed the capability of domestic responders to handle the international dimension of a crisis. Inclusion of consular operations allowed DoS to train federal, state, and local authorities on their reporting responsibilities under the Vienna Convention on Consular Relations (VCCR). The VCCR obligates competent U.S. authorities, including federal, state, and local government officials, to notify foreign consuls "without delay" of the arrest and detention of foreign nationals, deaths of foreign nationals, the appointment of guardians for minors or incompetent adults who are foreign nationals, and related issues pertaining to the provision of consular services to foreign nationals in the United States.

Consular Response Teams deployed from the three participating countries to Portland. DoS also deployed a representative to the JFO in Portland to assist with consular activities and to coordinate information sharing. Thus, there was a single source for international participants to access and transmit consular information to appropriate, national-level stakeholders.

Observation 2.3.10 Area for Improvement: DoS received a wide range of international offers of assistance to the USG during the exercise, but did not accept any because FEMA did not activate the IAS. In some cases, accepting these offers may have had diplomatic benefits for the USG, but FEMA determined that domestic resources met all incident needs, and no international offers were needed. DoS personnel separately considered accepting cash donations, which are easy to manage, but the procedures to do so were not clear to FEMA or DoS personnel.

Analysis: DoS received a wide range of international offers of assistance to the USG during the exercise that included commodities, personnel, and cash donations. DoS forwarded all offers of assistance to FEMA, and FEMA responded with the recommendation to urge the donations be made to NGOs. FEMA determined that domestic resources met all incident needs and thus, did not activate the IAS.

The IAS is designed primarily for offers of commodities and services. The IAS CONOPS outlines the procedures for activation and use of the IAS. Managing the acceptance of such offers can be challenging for several reasons: liability or licensing concerns may preclude assistance by foreign personnel, and commodities require logistical arrangements to be made. Additionally, there may be cases when the USG should accept non-cash donations from countries deemed Diplomatically Critical (DC) by a DoS policy decision. In this situation, DoS provides FEMA with a list of countries designated as DC, and the two coordinate with USAID to identify particular items that can be accepted. FEMA makes the final decision on items to be accepted.

Cash donations, whether from a DC country or not, are easier to manage, and DoS considered accepting cash donations during the exercise. The "*Procedures for Foreign*

[34] This observation was drawn from DoS input into the after-action process.

Cash Donations Offered in Response to a Disaster Affecting the United States", June 22, 2007, describes procedures for cash donations. Unlike the IAS activation, the procedure for accepting international cash donations requires joint agreement among the secretaries of state and homeland security, together with the assistants to the president for national and homeland security. In the absence of this top-level decision being made during the exercise, participants came to the conclusion that IAS activation was required to accept cash donations.

On October 18, the fourth day of the exercise, DoS asked FEMA to make a determination about accepting cash donations. If FEMA agreed, DoS was prepared to convene a cash donations working group to evaluate whether accepting cash donations was advisable on a country-by-country basis, as called for in the procedure. FEMA replied that before activating foreign cash donations procedures, it would like DoS to verify that it had responded to each financial offer with the recommendation that the host government transmit the donation via NGOs per the list on FEMA.gov. If a host government insisted on making cash donations directly to the USG, FEMA agreed to discuss activating the foreign cash donations procedures. DoS had already responded to each offer with this recommendation. The exercise ended before DoS received a response from FEMA regarding activation of the IAS for cash donations.

Recommendations: DoS, DHS, and the interagency working group that developed the IAS CONOPS should review both the CONOPS and cash donations procedure, and clarify these two documents and the procedures for considering and accepting both cash donations and donations from DC countries. Merging the documents into a single CONOPS for clarity may be useful.

Capability 3: Public Information and Warning

Capability Summary: This capability includes the development, coordination, and dissemination of accurate alerts and emergency information to the media and the public before, during, and after an emergency.

Public information and warning was a critical component of the T4 exercise. JICs, which consisted of federal, state, territory, and local PIOs, were set up in each of the incident locations. The JICs in Guam and Arizona were established in pre-existing joint information facilities; the Oregon JIC was set up in a hotel. In addition, ESF-15 was activated and functioned as the external affairs arm of the Guam and Arizona IOFs and the Oregon JFO. DHS Office of Public Affairs (OPA) selected external affair officers based on their background in law enforcement and terrorism. A senior FBI public affairs official was selected as the external affairs officer for Oregon and an ATF public affairs officer was chosen as the deputy external affairs officer for Arizona. At the national level, the National JIC operated at DHS Headquarters in Washington, DC. The National JIC included representatives from FEMA, NORTHCOM/DoD, FBI, ARC, EPA, DHS CRCL, DHS PSO, CI/KR organizations, and Canada. The communication methods employed by public affairs officials included e-mail, press releases, public statements, and interview appearances on VNN.

T4 demonstrated improved coordination among PIOs, which is partly the result of improvements implemented after Hurricane Katrina. One key challenge was that officials had difficulty

explaining why different protective actions were taken by jurisdictions in different locations. Also contributing to this issue was that decision makers and PIOs had difficulty integrating and explaining scientific information like plume model results. Similar problems were observed during T3.

The table below provides a summary of all of the observations described under this capability along with associated recommendations, where applicable.

Table 3.7 Summary of Public Information and Warning Observations

Observation	Recommendation
Activity 3.1: Establish JIC/ JIS	
3.1.1 **Strength:** The National JIC coordinated regular teleconferences that facilitated information sharing and strategic guidance.	Continue the use of teleconferences to share information and consider further methods to share information and coordinate messaging.
3.1.2 **Area for Improvement:** Information overload was a problem among public affairs officials.	Continue to develop and streamline information sharing tools, processes and procedures.
Activity 3.2: Disseminate/ Issue Emergency Public Information and Alerts/ Warnings	
3.2.1 **Strength:** Statements from federal and relief agencies were consistent in their messaging for local populations to look to their local-level governments for protective action guidance.	
3.2.2 **Strength:** Statements from federal, territory, state, and local governments, as well as relief agencies, were consistent in their recommendations of how to seek protection from radioactive contamination while sheltering-in-place.	
3.2.3 **Area for Improvement:** Public officials had difficulty explaining the reasoning behind the protective action guidelines to evacuate and shelter-in-place.	Consider the role of the federal government in coordinating the explanation of different actions by local jurisdictions. Review and update related policies and procedures for strategic communications. Investigate ways to facilitate the integration of scientific information into public messaging and decision making.

Activity 3.1: Establish a JIC/ JIS

Observation 3.1.1 Strength: The National JIC coordinated several regular teleconferences that facilitated the exchange of information and strategic guidance.

Analysis: Public information coordination mechanisms have matured both through use in previous exercises and actual incidents. The following calls were well-attended and deemed valuable by participants:

- National Incident Communications Conference Line (NICCL) Calls
- White House Communications Calls
- Special Media Line Calls

These calls are examples of strategic and operational-level calls that contribute to the federal interagency operational cycle discussed in observation 2.3.1. The focus of these calls was public messaging and the primary participants were public affairs personnel.

NICCL Calls: According to the July 2006 ESF-15 SOPs, the NICCL is "used for transmission and exchange of critical and timely incident information among federal and affected state, local, and tribal authorities." Two calls were held each day with federal agency PIOs and the affected venues (ESF-15 leads and state PIOs). The ESF-15 and federal and state JIC directors reported that the calls were valuable because they were well organized, provided an overview of federal agency activities, and provided an opportunity to communicate issues. A few shortcomings were identified, including that the calls were lengthy, there were a large number and variety of attendees (making some participants uneasy about information they should share), and there was some misunderstanding about which agencies should participate in the call.

White House Communications Calls: Each morning, leadership from the White House, the National JIC, and ESF-15 conducted a conference call to discuss strategic messaging guidance from the White House and to provide venue updates.[35] ESF-15 leads felt that it was very valuable to have this line of communication directly with the White House. (Note that due to time differences, the Guam venue was not able to participate in all calls.)

Special Media Line Calls: First used during the response to Hurricane Katrina, these calls were coordinated by the DHS press secretary to provide information to the media and answer questions. PIOs from DHS and other federal agencies participated in the calls. Participants felt that these calls helped reduce the call volume from the media and increased the situational awareness of activities in other agencies.

Recommendations: Continue the use of teleconferences to share information with the media and among PIOs.

1. To reduce the length of NICCL calls, consider virtual tools (such as chat rooms or web conferencing) where participants can post briefing points.
2. For multi-venue incidents, consider adding ad-hoc small group calls for ESF-15 leads to coordinate messaging.

Observation 3.1.2 Area for Improvement: PIOs reported that information overload was a problem. Managing the large volume of e-mail communications drew the attention of PIOs away from other duties and hindered information sharing and situational awareness.

Analysis: The National JIC employed several mechanisms to support ESF-15 and PIO coordination through written means, including:

- National JIC e-mails.

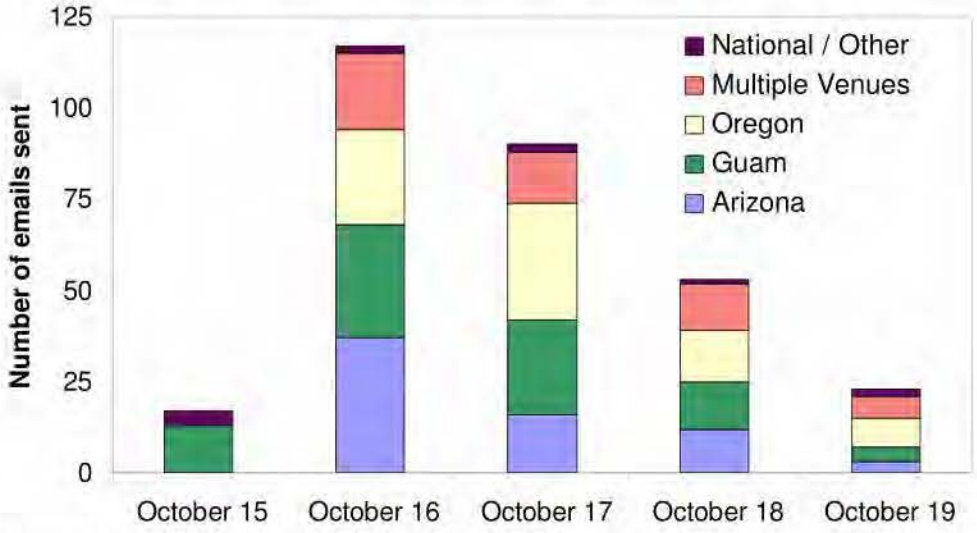
[35] Though strategic communications was addressed, many strategic activities, such as presidential statements, were notional.

- Posting materials on HSIN.

These coordination mechanisms have also matured through use in previous exercises and actual incidents. However, PIOs still could not effectively manage the volume of information being pushed to them through e-mails and often did not use mechanisms that required information to be pulled, like HSIN.

Summaries of the NICCL calls, ESF-15 daily communications summaries, press releases generated by the National JIC, and venue press releases sent to the National JIC were distributed to a large e-mail distribution list, which consisted of ESF-15 national leadership, National JIC contacts, and venue contacts (ESF-15 leadership and staff, JFO leadership, JIC leadership and staff, state PIOs, and several other related PIOs). Figure 3.8 shows the large number of e-mails sent by the National JIC to this distribution list. The total e-mails by day are broken down by their primary content.

Figure 3.8: Number of E-mails Sent by the National JIC to the Distribution List



Participants reported that e-mail was useful to see what issues other venues were addressing. However, the biggest drawback to the National JIC e-mails was information overload. T4 PIOs received hundreds of e-mail messages and some did not have time to read the releases. Many times the messages went unread or were simply deleted.

A considerable amount of the information was duplicative. For example, venues often received their own press releases from the National JIC. The same information also appeared in a variety of press releases. It is important to note that although the duplication increased the volume of information, some found it useful because they felt that repeated information provided an indication of what was important and also served as a confirmation that the National JIC received what they had sent.

Smart practices evolved to manage the volume of information:

- The Arizona JIC created an update release that was distributed every two hours. Information was organized by topic (e.g., health, law enforcement, etc.) and new information appeared in bold text. The format enabled readers to easily identify the

new information, while still providing comprehensive information to those who did not read the previous release. This process was repeated each day of the exercise. As a result, the number of press releases issued was significantly reduced from approximately 50 on the first day of the exercise to six on the following day. Because of its success, the practice was adopted by the other two T4 venues and the National JIC. Two key elements were necessary:

  - The JIC needs to be up and running. Before this coordination mechanism is in place, independent press releases would still be needed to fill the information void. As the incident transitions to greater management, consolidated messaging becomes possible.
  - Update releases requires buy-in of JIC participants. Some participants were initially reluctant because they wanted to disseminate their own information. However, they agreed to the process when they understood that a consolidated release would ensure that their information did not get lost in a larger number of releases, it would decrease their workload, and that statements could still be sent out separately when needed (emphasizing their importance).

- Arizona developed a media monitoring report that also covered the Guam venue. This reduced the workload required in Guam.
- Some public affairs officials assigned staff to read e-mails and notify ESF-15 and JIC leads of important information. If staff is available to do this, it frees directors to spend time with operations and other coordinating officers.
- Oregon sent the e-mails to a common mailbox and sorted them into different folders for action.

T4 PIOs also made suggestions based on their experience:

- Establish definitions for routine, priority, and immediate messages and label them. People receiving the messages would then have an indication of the importance of the messages and could handle them accordingly.
- Post press releases on a website for review and retrieval. A media monitor could watch for information and organize it in a logical manner.
- Conduct small group discussions (conference calls) among ESF-15 leads to coordinate messaging across locations (also a recommendation under observation 3.1.1).
- The National JIC could play a greater role in consolidating the messages.

Information from each venue was posted on HSIN, however, ESF-15 leads and PIOs reported that they did not use this resource. There were several reasons for this: some exercise participants did not have accounts on HSIN, organizations used different software (e.g., WebEOC), or they did not have time or resources to pull the information. This was an issue in general for the entire response community as described in observation 2.1.2.

Recommendations: Continue to develop and streamline information sharing tools with supporting processes and procedures.

1. Evaluate smart practices and suggestions on information management that emerged during T4 to reduce the information overload problem. Update relevant ESF-15 SOPs and training.
2. Develop information technology solutions that support e-mail distribution lists so that recipients can be easily added or removed. Consider developing alternate lists for high and low volumes to accommodate different stakeholders.

These improvements might also help address similar issues experienced by other response personnel.

Activity 3.2: Disseminate/ Issue Emergency Public Information and Alerts/ Warnings

Observation 3.2.1 Strength: Statements from federal and relief agencies were consistent in their messaging for local populations to look to their local governments for protective action guidance.

Analysis: Throughout the exercise, and noticeably in the early phases of the response, officials from public and private agencies consistently communicated that state and local authorities were the decision makers. On occasions, when asked to comment about the response in different localities, officials repeated the fact that local officials were in charge and residents should look to them for specific protective action guidance. This consistency was reflected in press releases from government and relief agencies, communications from the National JIC, and in VNN interviews featuring senior-level federal and state officials as well as technical SMEs.

Observation 3.2.2 Strength: Statements from federal, territory, state, and local governments, as well as relief agencies, were consistent in their guidance about how to seek protection from radioactive contamination while sheltering-in-place.

Analysis: Authorities in the different incident locations issued shelter-in-place instructions, in the immediate aftermath of the RDD explosions. Without exception, all authorities offered the same protective action guidelines to minimize contamination while sheltering-in-place. These guidelines included finding shelter inside a building, closing the windows, turning off any heating or ventilation system, removing clothing and placing it in an isolated plastic bag, and taking a shower.

Observation 3.2.3 Area for Improvement: Public officials had difficulty explaining the reasoning behind the protective action guidelines to evacuate and shelter-in-place. Faced with similar information and scenarios, different decisions about protective actions (evacuation versus shelter-in-place) were made in each of the venues. These were difficult choices that required decision makers to act quickly while assessing scientific model results and conditions specific to their locality. The mock media repeatedly questioned federal, state, territory, and local officials about this disparity.

Analysis: At all three incident sites, territory, state, and local authorities issued

protective action guidelines in response to the explosions and radiation detection. As the response to the incidents progressed, authorities in each location adjusted their recommendations accordingly:

- In Guam, after several hours of sheltering-in-place, officials ordered and executed (notionally) the evacuation of the 300 personnel at the incident site (Cabras power plant) and surrounding area.
- In Arizona, residents were initially advised to shelter-in-place. Within two hours, state officials advised residents to shelter-in-place and said that state personnel were assisting with evacuations from the immediate area of the incident. Over the next few hours, conflicting messages about evacuation and sheltering-in-place appeared in press releases, Arizona's informational website (AZ211.org), and in reports on VNN.com. However, within seven hours of the incident, specified regions of Tempe and Mesa were being evacuated. Residents outside the immediate area were advised to stay indoors. By the evening of October 17, residents were instructed that no further evacuations would be called and that they should remain in their homes.
- In Oregon, local officials immediately recommended that all residents in the city (including businesses) shelter-in-place. While public officials stated during VNN interviews that evacuation plans would be ready by late in the afternoon on October 16, no evacuation plans were released; instead, a new shelter-in-place zone was delineated that more specifically defined the plume area. Early on the morning of October 17, a refined shelter-in-place boundary was released and residents outside the emergency zone were notified that they need not take any specific protective actions; residents inside the emergency zone were instructed to continue to shelter-in-place. By the morning of October 18, residents in the emergency zone were allowed to voluntarily evacuate to decontamination centers but were still encouraged to shelter-in-place.

Portland Mayor addresses the media with Oregon Governor Kulongoski and DHS Secretary Chertoff.

The most notable difference in protective actions was an early decision to evacuate in Arizona while Oregon issued a shelter-in-place order for the entire city. Public officials were pressured by VNN and other simulated media to explain why recommendations to evacuate or shelter-in-place were not consistent across the incident locations. No press releases from any of the locations provided a direct explanation for these differences even

when VNN coverage aggressively pursued this issue. Public officials at all levels of government were called upon to explain the different responses.

There were several challenges to effective public messaging in this scenario:

- Federal officials were repeatedly asked to comment on and explain local protective action decisions, which is the responsibility of local officials.
- The reluctance of some officials to provide and explain technical products like plume model results was interpreted as "withholding information", especially after officials in other locations had chosen to release them.
- Protective action decisions were based on scientific concepts that are difficult to explain.

Specific examples of these challenges follow:

- During an interview with VNN on October 17, a DHS senior official stated that it was up to the local government officials to work with the best scientific information to make decisions about their localities. He was pressed to explain why the different cities and states adopted different guidelines, and while he repeatedly stated the decisions were up to local officials at each location, he mentioned that the decision makers would take into a "host of factors", specifically citing weather and geography. VNN focused on the weather-related aspect, later commenting that the different reactions "must suggest that the weather is on two different planets."
- In a VNN interview on the evening of October 16, a local official from Portland indicated that plume model results would be forthcoming and shared with the media that the city was considering an evacuation. In an interview early in the next day's VNN broadcast, the official explained that the models were not released as promised because they kept changing throughout the afternoon. The VNN anchor challenged the local officials' decision to continue to shelter-in-place, positing that evacuation would have made common sense. The official defended his position by saying he did not want residents outside "walking in the plume."
- Federal officials were consistent with officials in Oregon in reasoning that plume model results should not be released. On October 17, Secretary Chertoff stated, "We do not generally release the plume model. "He explained that because of the technical expertise required to interpret them, there is a risk that residents could misread the plume model results and put themselves in jeopardy. Officials in Guam and Arizona, however, did release plume model results. During the first joint press conference with the Arizona state officials at 4:55 p.m. EDT on October 16, they displayed a map of the plume, stating that the yellow area contained the radiation. Guam officials also released plume model results to their residents. This fact was not lost on the VNN news anchors, who asked: If the plume model was released in Guam, why was it not released in Oregon? In concluding the discussion about the unreleased plume model results, one anchor remarked that, "I'm pretty sure I could look at a plume and not go crazy."

- Officials from IMAAC and National Oceanic and Atmospheric Administration (NOAA) were also pressed for information on plume model results during a VNN interview at 12:50 p.m. EDT on October 17. To the consternation of the VNN anchor, the officials expressed their concern about releasing the plume model results to the public because of their technical nature and then deferred many questions to the local incident commanders.
- A local public official refused to discuss technically-focused information without the assistance of an SME, even though he held the printed information in his hands during the interview on VNN.

Contributing factors common to all of the above examples are the scientific terms and definitions (e.g., rems, isotopes, gamma rays, Roentgens) necessary to explain radiation exposure, and the need for SMEs to explain the findings. A particular difficulty in communicating radiation warnings through public information channels is the automatic association of the word "radiation" with "nuclear." Factors such as time of exposure, distance to the radiation source, and strength of the radiation source all affect the health consequences of radiation exposure. One approach to discussing radiation that was adopted by the various public officials was to discuss the exposure in familiar terms such as chest x-rays and CAT scans. However, reporters then questioned why minor contamination levels triggered the evacuation of thousands of people. It was only when a FRMAC official appeared on VNN at 3:36 p.m. on October 17 that the differences between short- and long-term exposure to low levels of radiation were explained.

The reluctance to release technical information could be explained by the inherent trade-offs between releasing information as quickly as possible (i.e., the motive of the public affairs community) and releasing the most accurate information possible (i.e., the motive of the scientific community). Plume model results are particularly susceptible to this problem; initial maps are only predictions and become more accurate over time as additional data are collected.

The challenges faced by public affairs officials could have been at least partially alleviated with some coordination in messaging among the incident locations. While the ESF-15 directors in each location had discussions in morning briefings with the White House and during NICCL calls, the state and local officials in different venues did not have much opportunity to talk with one another. While local officials were aware that the other locations adopted different guidelines, there is no evidence that they made an effort to deconflict their messaging. On occasions when officials defended their respective decisions, they stated confidently that they had made the right decision for their residents. The media questioned how Oregon and Arizona could both be correct in offering differing guidelines. The National JIC addressed this issue on one occasion: on the evening of October 17, it distributed the ESF-15 Daily Communications Strategy for October 18 via e-mail that included some general guidance on how to message the disparate protective action guidelines.

Recommendations: The effective incorporation of scientific information into public messaging is vital to mitigate the issues discussed above. In addition, officials should

work to improve the transparency of their operations before the media becomes openly skeptical of their actions.

1. Clarify the role of the federal government in coordinating the explanation of different actions by local jurisdictions and review and update related policies and procedures for strategic communications. According to the NRF: "the Federal team must operate and speak with a unified voice and consistent message that is coordinated not only with the different Federal authorities involved in an incident, but also with affected State, tribal, and local authorities."
2. The federal government should investigate ways to facilitate the integration of scientific information into public messaging. This integration requires the support of SMEs. Potential actions include the following:
   - Conference calls could be a forum for experts to explain technical products to PIOs and work with them to develop an appropriate message for the public.
   - Public affairs agencies could identify SMEs to provide support to JICs. The National JIC made use of one such SME. States may be able to identify and provide their own SMEs.

The DHS-led IMAAC Working Group and the FRMAC are currently developing recommendations for hazard area graphics (maps and summary language) for RDDs that can be more easily understood by local, state, and federal officials.

Capability 4: Economic and Community Recovery

Capability Summary: Economic and Community Recovery is the capability to implement short- and long-term recovery and mitigation processes after an incident. This includes identifying the extent of damage caused by an incident, conducting thorough post-event assessments, and determining and providing the support needed for recovery and restoration activities to minimize future loss from a similar event.

Recovery activities began during the FSE as recovery planning cells were established in the venues and at the FEMA NRCC. Discussion about recovery issues continued through short-term recovery (STR) TTXs and workshops conducted after the FSE concluded. On December 4 – 5, 2007, DHS held an LTR TTX to discuss key technical, operational, and policy challenges surrounding recovery from an RDD incident 50 days after the detonation.

The presence of radiation affects all aspects of recovery. It would complicate debris removal, storage, transportation, and disposal; cause populations to be displaced to other locations; create a complex environmental clean-up situation; lead to the long-term monitoring of workers and affected populations; and raise insurance and liability issues. One key gap noted across all exercise events was the lack of comprehensive planning for recovery. The table below provides a summary of the observations described under this capability along with associated recommendations, where applicable.

Table 3.8 Summary Economic and Community Recovery Observations

Observation	Recommendation
Activity 4.1: Direct Economic and Community Recovery Operations	
4.1.1 **Strength**: Recovery planning cells were established early in all of the venues and at the federal level.	
4.1.2 **Area for Improvement**: Current written plans lack a comprehensive approach to recovery operations.	Incorporate recovery into national family of plans and regional planning efforts.
4.1.3 **Area for Improvement:** Participants were unfamiliar with the *Protective Action Guides for Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents* and the site optimization process for setting clean-up standards.	Provide detailed guidance for implementing the site optimization process.
4.1.4 **Area for Improvement:** There is limited laboratory capacity for clinical, environmental, and food sample analysis in the event of an RDD incident.	Develop plans that include strategies for maximizing existing and expanding clinical, environmental, and food laboratory capacity.

Activity 4.1: Direct Economic and Community Recovery Operations

Observation 4.1.1: Strength: During the FSE, recovery planning cells were established in all of the venues and at the federal level.

Analysis: At the conclusion of the FSE, STR and LTR issues were discussed and preliminary draft plans were being developed in all of the venues. For example, the FEMA NRCC established a recovery planning cell that included expertise across all ESFs. In Oregon, the governor established a recovery planning cell on the day of the explosion, and subsequently established a recovery cabinet to focus on the transition from STR to LTR. In Guam, preliminary plans were developed to ensure delivery of goods and services, and disaster assistance specialists were part of the first cadre of personnel that arrived in venue. In Arizona, a plan for establishing a state-wide recovery task force was discussed.

Observation 4.1.2 Area for Improvement: Many participants across federal, state, territorial, and local D/As cited the lack of comprehensive recovery planning.

Analysis: Participants in the STR and LTR TTXs raised concerns about the lack of a comprehensive, unified strategy and plan for both STR and LTR. The general conclusion of these discussions was that the NRP did not adequately address the recovery phase. Although DHS organizes preparedness and emergency response in terms of four missions (i.e., "prevent, protect, respond, recover") the emphasis of the NRP is evident in its title. The NRP/NRF does assign the recovery mission to ESF-14, the Emergency Support Function for *Long-Term Community Recovery and Mitigation.* But the mission of ESF-14

is to provide: 1) funding resource identification and coordination, 2) technical assistance in the form of impact analyses, and 3) planning support to the state recovery authorities. Given the complexity of recovery operations at all levels of government and in coordination with the private sector and with NGOs and voluntary organizations, the NRP falls short. Similarly, the NPSs in the DHS Capabilities-Based Planning construct fail to adequately address LTR.[36]

Other related issues concern the role of the federal government in LTR as well as the capabilities and resources it can bring to bear. During an incident response, ESF-14 functions most prominently within the operations section of the JFO. Many participants said that they were not effectively integrated into this JFO function during past responses. Once the response is over, the JFO stands down, and ESF-14 is deactivated, there are no comparable organizations or entities to take over their roles during the recovery phase. In the past, entities such as the President's Gulf Coast Recovery and Rebuilding Council have been created, but only on an ad-hoc basis. The absence of response-like recovery entities led some LTR TTX participants to ask, "Who's in charge?"[37] Others noted the difficulty of navigating the myriad of individual assistance programs provided by federal D/As, determining what programs are available, and how they can be accessed.

The LTR TTX also highlighted additional challenges during the recovery phase. These included:

- There is limited availability and capacity for disposal of radioactively-contaminated waste, including debris. Participants identified the need to identify available disposal capacity and potential gaps for radiological waste.[38] All agreed that coordination between the federal agencies that regulate radioactive waste disposal and the states that allow temporary storage and long-term disposal will be important.
- There is an increased demand on the infrastructure/services outside of the incident site due to evacuated and displaced populations. Because of mass evacuations, jurisdictions away near the incident site would likely experience high demands on infrastructure and services for an extended period of time. Because of restrictions to areas that experience damage, the Stafford Act may not cover locations that receive evacuees.
- Reliance on single sources of CI results in unnecessary vulnerability. Although the RDDs did not contaminate the water supplies in the affected states, it would have been useful to consider the potential challenges that local, state, territory, and federal governments would have faced if any of the water plants were in the contaminated area. States and responsible agencies addressed the various risks of only having a single source of water, and the need to develop alternative plans

[36] Some additional information regarding recovery planning and coordination at the federal, state, and local levels has been added to the NRF. However, the NRF still maintains that LTR is outside the scope of the document.
[37] The NRF describes some examples of federal, state, and local coordination, but maintains that responsibilities shift to individual agencies with primary recovery responsibilities after the JFO closes.
[38] One lesson learned from the Goiana (Brazil) Cs-137 clean-up is that early identification of disposal paths for clean-up waste is necessary to prevent delay of clean-up.

for drinking water. Participants agreed that all water systems needed to establish contingency plans for how to respond if the primary water source became contaminated.

- There is a need to coordinate access control within contaminated areas. Participants expressed concern about past difficulties that truckers would experience in gaining credentials and permission to access affected areas. The resulting delays would adversely affect the delivery of needed supplies and materials, and would ultimately increase LTR costs. The group debated whether this would remain a problem at D+50 and whether this was properly the role of the federal government, since local law enforcement agencies are generally responsible for area control.
- There is a requirement to conduct long-term monitoring of workers and the exposed population. Plans and procedures should be developed to rapidly mobilize monitoring equipment and collect samples.
- Many participants were unfamiliar with the Environment, Food, and Health Advisory Team's (A-Team) function because it is not well-defined. The A-Team is an interagency group, but it lacks a single point of leadership. The initial purpose of the A-Team was to advise decision makers on questions regarding food and health. However, this resource was not used effectively during the FSE because states and agencies were unaware of the group.
- State and local governments are unfamiliar with federal disaster mental health operations and disaster surge capability. Participants unanimously agreed that an RDD attack would require different approaches than responses to any other types of disaster. Although there are many disaster mental health programs in place, often they are underutilized because agencies and governments are unaware of their existence. Representatives of states and agencies also saw public messaging as key to addressing disaster mental health issues. Conveying guidance and information to the public and explaining the government's response to the attack should reassure citizens that authorities are in control of the situation, reducing the psychological impact. This need for consistent public messaging also raises the issue of how long a JIC would continue to function after an incident.
- Private sector recovery challenges to an RDD attack include concern about the liability risk for remediation contractors and reluctance of businesses to return to a contaminated area. There was uncertainty regarding the process for property condemnation, reimbursement, and subsequent reoccupation of condemned and contaminated structures after receiving certification for reoccupation. Participants identified the need to clarify the roles and responsibilities of federal, state, territory, and local jurisdictions, as well as the role of the private sector. In addition, participants noted that decision makers should manage public expectations through pre-incident education and strategic public messaging.

The delegation from Guam repeatedly emphasized the need to address the unique challenges faced by their island community and by other territories, islands, and tribal

areas as well. Although Guam was spared island-wide contamination because of the western location of the simulated RDD attack and the prevailing westerly winds, the effects of the attack were nevertheless particularly severe for the territory. Guam relies on imports via ocean transportation for most of the goods and materials it needs. The closure of the commercial port, even with the stopgap opening of the pier facilities of the U.S. naval base for commercial activity, would have had a drastic effect on the economy. Furthermore, a large component of the economy in Guam is dependent upon the tourism industry. The stigma of radioactive contamination poses a real threat to that industry. In addition, the Cabras port complex is the primary transshipment hub for Micronesia and the larger Western Pacific island region. While the port of the Commonwealth of the Northern Mariana in Saipan could have absorbed some of this function after the attack, its cargo handling capacity does not match Guam's.

Recommendations: Decision makers should consider implementing the following:

1. Expand the NRF to include recovery operations, which should address:
   - The organizational structure for LTR.
   - The role of government, NGOs, and private sector organizations.
   - Strategic communications and continued activation of the JIC.
   - The needs of unique entities (e.g., territories, islands, and tribal lands).
2. Develop supporting policies and procedures for implementing recovery activities following an event and incorporate recovery into scenario-based plans like the RDD Strategic Plan. These should include policies and procedures to address disposal of contaminated waste, the impact of displaced populations on surrounding communities, reliance on single sources of CI, coordination of access control within contaminated areas, long-term monitoring of workers and the exposed population, mental health operations, and private sector concerns.
3. Develop appropriate training programs for private and public sector entities to support policies and procedures for implementing recovery operations.
4. Develop guidance documents – in particular for individual assistance programs – to help state and local organizations navigate and access the variety of programs available through FEMA and other agencies.
5. Expand the scope of the interagency NPSs to include LTR needs, with particular attention to the unique needs of non-contiguous geographic states/territories.

Observation 4.1.3 Area for Improvement: Participants were unfamiliar with the January 2006 DHS Preparedness Directorate's; *Protective Action Guides for Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents* regarding the site optimization process for setting and implementing clean-up standards following an RDD incident. This document has undergone a public comment period and will be finalized soon.

Analysis: During the LTR TTX, participants voiced concern regarding DHS guidance for responding to, and recovering from, an RDD event. Some participants felt that the guidelines should more clearly define a predetermined range of clean-up standards. However, one of the purposes of the 2006 guidance is to describe federal interactions

with state and local governments, and to establish the principle of site-specific optimization. Site-specific optimization allows for state and local governments to determine acceptable risk for their community/jurisdiction and account for factors such as land use and background levels of radiation. The guidance also urges state and local decision makers to consider the societal, economic, medical, and environmental impacts of a range of site clean-up levels. For example, an acceptable level of risk for a rural area will most likely be different than an acceptable level of risk for a densely populated (urban) environment.

Once the site-specific clean-up level is established, decision makers should develop a strategic plan to ensure consistency of public messaging, and to manage public expectations. The federal government needs to be prepared to explain and support different clean-up choices. Similar circumstances were observed during the FSE when jurisdictions took different protective actions immediately following the explosions, and caused significant public messaging problems.

Recommendation: Develop detailed interagency guidance for implementing the optimization process.

Observation 4.1.4 Area for Improvement: There is limited national laboratory capacity for clinical, environmental, and food sample analysis in the event of an RDD incident.

Analysis: During the FSE, the venues had limited laboratory capacity to assess radionuclides in clinical, environmental, and food samples. This issue was discussed further during the STR and LTR TTXs, where participants identified this as a federal responsibility.

Clinical: Currently, the Centers for Disease Control and Prevention (CDC) has no valid method to test clinical specimens in a radiological emergency for seven of the thirteen highest priority radioisotopes most likely to be used in a terrorist scenario. For those isotopes with existing validated methods, screening 100,000 clinical specimens in the wake of a radiological attack could take more than four years to complete.[39] The existing Laboratory Response Network (LRN) supports chemical and biological testing, but has limited capacity for radionuclide analysis in clinical and non-clinical specimens. Only the CDC and the National Institutes of Health (NIH) labs within HHS can perform this analysis. As such, a need to develop a pre-screening process to determine the segment of the population that would require further radionuclide analysis was identified. This prescreening process would decrease the number of samples sent to laboratories, and allow jurisdictions to obtain the necessary lab results to rapidly distribute medication to those individuals that were exposed.

The CDC dispatched an aircraft to fly 100 samples from Oregon to NIH to test NIH's laboratory capacity. Although NIH was able to provide initial results to the state in 36 hours, it became evident that 100 samples was a stress on NIH's capacity. NIH estimated that it would be able to completely process and assess approximately 65 – 100 samples a

[39] U.S. Representative Brad Miller. *Radiological Response: Assessing Environmental and Clinical Laboratory*. U.S House of Representatives Committee on Science and Technology. October 25, 2007.

day. HHS does not have sufficient capacity to determine the level of exposure for a large population.

The Arizona Department of Health Services (ADHS) also requested CDC laboratory assistance for radiological testing since it did not have this capability. This created additional strain on CDC and NIH resources and caused a backlog of samples for testing that remained at D+50. Without the necessary laboratory assessments, the states were unable to provide an accurate estimate of the number of individuals who might require Prussian Blue following these events. This led to the venues to request excess doses of Prussian Blue and push requests for federal financing of the unused doses.

Environmental: The EPA predicts that it could take as long as two years to analyze the 350,000 samples necessary to conduct a thorough environmental analysis, given the nation's current radiochemistry laboratory infrastructure.[40] Limited availability and access to qualified laboratory technicians to perform the necessary analyses create a significant shortfall in laboratory capacity. Environmental sampling requires specific expertise, qualification, and equipment, depending on the type of sampling to be performed. During an RDD event, it is imperative that state D/As are aware of which laboratories are available for the needed environmental assessments.

In addition, LTR TTX participants discussed the importance of developing clear objectives for sampling and then developing a sampling plan that achieves those objectives efficiently. Such planning can help minimize the number of samples requiring analysis.

Food: Laboratory capacity for testing radionuclides in foods is also limited. At D+50, the FDA was still assessing the first set of samples it had received. At present, there are only three labs in the nation equipped to conduct food testing following an RDD event.

Recommendations: Develop plans to maximize existing clinical, food, and environmental laboratory capacity.

1. Define and communicate current clinical and food laboratory capacity (EPA has defined and communicated environmental laboratory capacity).
2. Investigate the use of the Integrated Consortium Laboratory Network (ICLN) as a formal coordinating entity during times of emergency.
3. Develop a CONOPS plan that includes strategies for maximizing existing clinical, environmental, and food laboratory capacity as well as expanding existing laboratory networks for clinical, environmental, and food samples.

Capability 5: Intelligence/ Information Sharing and Dissemination

Capability Summary: Intelligence/Information Sharing and Dissemination is the multi-jurisdictional, multidisciplinary exchange and dissemination of information and intelligence among the international, federal, state, local, and tribal layers of government, the private sector, and citizens. The goal of sharing and dissemination is to facilitate the distribution of relevant,

[40] U.S. Representative Brad Miller. *Radiological Response: Assessing Environmental and Clinical Laboratory*. U.S House of Representatives Committee on Science and Technology. October 25, 2007.

actionable, timely, and preferably declassified or unclassified information and/or intelligence that is updated frequently to the consumers who need it. Related to this capability are information gathering activities, such as the collection, consolidation, and retention of raw data and information from both human sources and open sources. When analytical products are disseminated, they are the result of synthesis of data and information for the purpose of creating timely and actionable intelligence with an emphasis on the larger public safety and homeland security threat picture. The information provided in this section is summarized from a classified annex to this report

Activity 5.1 Conduct Vertical/ Horizontal Flow of Information

Observation 5.1.2 Area for Improvement: The Common Intelligence Picture/COP varied considerably at the different venues.

Analysis: The intelligence picture varied. Further analysis will be conducted on data collected via the ODNI Evaluator Team and Intelligence Control Cell.

Recommendations: See classified annex.

Observation 5.1.3 Strength: T4 provided a valuable format to examine horizontal and vertical flow of intelligence.

Analysis: The T4 exercise scenario provided the Intelligence Community (IC) an opportunity to share and disseminate intelligence and information among law enforcement, intelligence, emergency management, and other D/As at the local, territorial, state, federal, and international levels.

Observation 5.1.4 Area for Improvement: Intelligence dissemination shortfalls occurred at all levels.

Analysis: Participants failed to receive several key intelligence reports due to classification/tearline and/or information sharing system technology issues. Further analysis will be conducted on data collected via the ODNI Evaluator Team and Intelligence Control Cell.

Recommendations: See classified annex.

Observation 5.1.5 Area for Improvement: Multiple RFI processes and procedures created an inefficient and ineffective system.

Analysis: Multiple RFI processes and procedures created confusion among participants, and resulted in incomplete or slow RFI responses. Further analysis will be conducted on data collected via the ODNI Evaluator Team and Intelligence Control Cell.

Recommendations: See classified annex.

SECTION 4: CONCLUSION

More than one hundred organizations were involved in planning T4, including DHS and other federal agencies; state, territory, and local agencies from the states of Arizona and Oregon and the U.S. Territory of Guam; private sector entities and NGOs; and three international partners: Canada, the United Kingdom, and Australia. The T4 FSE used an RDD scenario to test the full range of federal, state, territorial, and local capabilities. This scenario included coordinated attacks in Guam, Oregon, and Arizona.

A major goal of T4 was to test existing plans, policies, and procedures to identify planning and resource gaps, and ultimately to implement corrective actions to improve the state of the nation's WMD preparedness. Nearly every capability in the DHS TCL was exercised. This AAR focused on national policy and planning issues related to five of those capabilities: On-Site Incident Management, Emergency Operations Center Management, Emergency Public Information and Warning, Economic and Community Recovery, and Intelligence/Information Sharing and Dissemination. The overall exercise was successful in highlighting improvements since previous exercises and Hurricane Katrina, as well as identifying areas requiring further improvement.

Considerable planning and preparedness efforts have been underway to address shortfalls identified in previous TOPOFF exercises and during real-world events. The exercise clearly identified places where the nation's preparedness has improved. It also identified a considerable number of areas that need further improvement. These improvement areas include recurring themes – issues that have been identified in previous TOPOFF exercises and real-world events – along with several new areas highlighted by this scenario.

At the AAC held on January 15, 2008, participating agencies met to review the findings and recommendations in this AAR and draft corrective actions. The IP included in Appendix A lists the corrective actions. The DHS NEP has established a process for tracking and monitoring the implementation of these corrective actions.

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APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the T4 FSE conducted on October 15 – 20, 2007 and the LTR TTX conducted on December 4 – 5, 2007. These recommendations draw on the AAR, LTR TTX Quick Look Report, and the AAC. In many cases, these corrective actions will require the establishment of interagency working groups. This IP assumes that the primary responsible agencies will determine the appropriate support agencies and establish working groups, as required. This IP does not include corrective actions already entered into the CAP system or being separately tracked and monitored.

Table A.1 *Improvement Plan Matrix*

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Support Agency
On-site Incident Management/ EOC Management	1. Incident Command/ Unified Command	1.1 Establish scenario-based guidance to support national-level plans	1.1.1 Convene an interagency working group to develop concepts and mechanisms to facilitate "unified management of the national response."	Planning	DHS IMPT	
			1.1.2 Review existing national-level planning initiatives (e.g., NIMS, NRF, Incident Annexes, Strategic Plans, Operational Plans, Field Manuals) to identify the appropriate places within the federal family of plans (strategic, operational, and tactical) to incorporate more detailed scenario-based information and better account for the complexities of large-scale emergency response management (such as those involving radiological contamination or multiple levels of government response teams). Specifically address the establishment of multi-jurisdictional unified command structures to support NIMS implementation.	Planning	DHS IMPT	

			1.1.3 Develop scenario-specific training modules for response personnel to improve coordination between federal, state, and local jurisdictions.	Training	DHS NIC	
		1.2 Engage in regional planning, training, and exercise efforts	1.2.1 Incorporate national scenario-based guidance into regional planning, training, and exercise programs such as the RISC or the Regional Assistance Committee (RAC).	Planning	DHS IMPT	
			1.2.2 Document how the FRMAC will incorporate with specific state/local agencies responsible for radiological response in national guidance.	Planning	DHS IMPT	DoE NNSA, EPA
		1.3 Clarify how Incident and Support Annexes are executed within the federal incident management structure executed by the FEMA regions	1.3.1 Review the JFO structure described in the NRF and supporting SOPs to clarify how elements of specific Incident and Support annexes can be incorporated.	Planning	DHS IMPT	
			1.3.2 Develop national-level guidance on how to integrate the FRMAC into the overall command structure during a radiological incident.	Planning	DHS IMPT	DoE NNSA, EPA
On-site Incident Management	2. National Guard WMD CSTs	2.1 Further develop the ability of the CSTs to effectively integrate into WMD HAZMAT responses	2.1.1 Integrate the CSTs into national and regional planning, training, and exercise initiatives described under recommendation 1.1 (such as the review of the NRF and incident annexes).	Planning	States, National Guard Bureau, DHS IMPT	FBI Laboratory Division, HAZMAT Response Unit
			2.1.2 Assess CST equipment caches and TTPs for shortfalls and compatibility to support and complement EPA and DoE site assessment teams.	Equipment	States, National Guard Bureau	EPA, DoE NNSA, FBI Laboratory Division, HAZMAT Response Unit

EOC Management	3. LD/ HD Assets	3.1 Develop contingency plans for multiple RDD/IND incidents	3.1.1 In the review of national planning initiatives, incorporate more details in the federal family of plans on the allocation of specific LD/HD response and protection assets that could be required to respond to multiple incidents.	Planning	DHS IMPT	
			3.1.2 Clarify the roles and responsibilities of different agencies and coordination nodes (e.g., NRCC, CAT) in supporting the process noted above.	Planning	DHS IMPT	
			3.1.3 Develop a training package for senior leadership describing the capabilities of radiological response and protection assets.	Training	DHS NIC NPT	DoE, EPA, FBI, DoD, DHS ICE
			3.1.4 Develop decision matrices for senior leadership for the activation and deployment of radiological response and protection assets.	Planning	DHS IMPT	DoE, EPA, FBI, DoD. DHS ICE
		3.2 Identify assets that can partially replicate LD/HD assets	3.2.1 Investigate the cost/benefit of NOT deploying the early phase assessment functions of the FRMAC to an incident site and augmenting CMHT capabilities to increase the FRMAC's ability to support multiple incident sites.	Planning	DoE NNSA	EPA
			3.2.2 Identify contingencies where specialized DoD assets would likely be requested to support FRMAC operations and develop pre-scripted mission assignments/pre-scripted formal requests for assistance under the Economy Act to expedite the request and response process in an emergency.	Planning	DoE NNSA, DoD	EPA
			3.2.3 Request DoD planners (JFCOM) evaluate Collaborative	Planning	DoD	

			Force Analysis, Sustainment and Transportation (CFAST) sourcing of units in a crisis to ensure answers are provided in hours vs. the current deliberate planning process which takes days.			
			3.2.4 Identify contingency circumstances where MOUs or other agreements with foreign countries would be appropriate and required to support FRMAC operations.	Planning	DoE NNSA, DoS	EPA
	4. Federal Interagency Operational Cycle	4.1 Establish a framework for the federal interagency operational cycle	4.1.1 Review and align meeting and reporting schedules.	Planning	DHS Office of Operations Coordination	Federal interagency
			4.1.2 Consider scope, attendance, and classification level of senior leadership meetings, as well as procedures for capturing and disseminating discussions, decisions, and taskings.	Planning	DHS Office of Operations Coordination	Federal interagency
			4.1.3 Summarize working group recommendations in a draft policy for review and approval by the HSC.	Planning	DHS Office of Operations Coordination	Federal interagency
	5. Federal SOs	5.1 Review and clarify the roles and responsibilities of SOs in the policies, procedures, and training that support the JFO cell	5.1.1 Clarify SO roles/ responsibilities in JFO SOPs and incorporate in training.	Planning	DHS NIC	
	6. Private Sector Integration	6.1 Continue to institutionalize and formalize relationships between government, private sector, non-	6.1.1 Clarify private sector partnership models in policies, plans, and procedures in accordance with national response and recovery policies.	Planning	DHS OIP, DHS PSO, DHS/FEMA PSO	Private sector organizations, S/L
			6.1.2 Review and update policy documents to clarify the purpose,	Planning	DHS OIP, DHS PSO,	Private sector organizations,

		government, and CI/KR organizations	roles, and responsibilities for various private sector NGOs.		DHS/FEMA PSO, DHS CRCL	S/L
			6.1.3 Articulate and institutionalize a process for private sector and NGO engagement in national-level exercises, including authority for planning, programming, and budgeting for national and venue working groups.	Planning	DHS OIP, DHS PSO, DHS/FEMA PSO, DHS CRCL	Private sector organizations, S/L
	7. Special Needs Integration	7.1 Continue to incorporate special needs play within national-level exercises	7.1.1 Articulate and institutionalize a process for special needs engagement in national-level exercises with additional objectives to focus specifically on decisions regarding special needs.	Planning	DHS NEP, DHS NIC, DHS CRCL	
	8. International Assistance	8.1 Clarify the relationship of the IAS CONOPS and the procedures/ authorities for considering and accepting cash donations	8.1.1 Address issue through the working group that created these procedures (currently underway).	Planning	DoS	
Public Information and Warning	9. Information Sharing	9.1 Continue teleconferences and consider further methods to share information	9.1.1 Consider the use of virtual tools (such as web conferencing and chat rooms) to supplement NICCL calls.	Planning	DHS OPA	
		9.2 Develop additional information sharing tools and processes	9.2.1 Evaluate smart practices and suggestions on information management identified in the AAR.	Planning	DHS OPA	
			9.2.2 Investigate information technology solutions that support e-mail distribution lists that can be easily modified.	Equipment	DHS OPA	
	10.	10.1 Investigate	10.1.1 Continue work underway by	Planning	IMAAC	DoE/FRMAC

	Incorporating Scientific Information Into Public Messaging	ways to facilitate the integration of scientific information into public messaging	the interagency IMAAC and FRMAC Working Groups to develop hazard area graphics (maps and summary language) for RDDs that can be easily understood by local, state, and federal officials and to highlight key information such as the IMAAC operations center phone number.		Working Group	
			10.1.2 Investigate ways to provide subject matter expertise to JICs and other public affairs personnel; consider arrangements with the private sector and universities in addition to using government experts.	Planning	F/S/L public affairs agencies	IMAAC Working Group
			10.1.3 Conduct IMAAC training exercises as standalone events or in coordination with national-level exercises to help institutionalize IMAAC process/procedures at the state/local level as IMAAC funding permits or with external funding (e.g., from NEP).	Training	DHS NEP, DHS NIC NTP	IMAAC Working Group
		10.2 Investigate ways to help local, state, territorial, and federal government officials explain and clarify different actions across jurisdictions	10.2.1 Consider mechanisms to promote cross-jurisdictional coordination by public affairs officials, such as ESF-15 coordination calls (in addition to NICCL calls).	Planning	DHS OPA	
			10.2.2 Develop and promulgate written Strategic Communication Planning guidance, establish and exercise interagency strategic communication team to address: a) national themes, effects, and tasks b) international engagement strategy c) processes and procedures.	Planning	HSC	Federal Interagency

Economic and Community Recovery	11. Recovery Planning	11.1 Fully incorporate recovery into national-level policies and plans	11.1.1 Expand the national planning scenarios to provide more details on recovery.	Planning	DHS IMPT	
			11.1.2 In the review of national planning initiatives, incorporate recovery into the federal family of plans, (strategic, operational, and tactical).	Planning	DHS IMPT	
			11.1.3 Clarify the role and responsibilities of governments, NGOs, and private sector organizations and entities in recovery.	Planning	DHS IMPT	PSO, FEMA/ PSO, and IP
			11.1.4 Develop and incorporate policies for communications to support recovery efforts.	Planning	DHS OPA	
			11.1.5 Ensure that the needs of unique entities, such as territories, islands, and tribal lands, are adequately addressed in recovery documents.	Planning	DHS IMPT	
			11.1.6 Develop a guidance document for state, territory, tribal, and local agencies on available federal interagency individual assistance programs and how to access them.	Planning	DHS DAD	
			11.1.7 Address the coordination of access control and credentialing in SOPs and plans.	Planning	DHS IMPT	Federal interagency, S/L, private sector organizations
			11.1.8 Establish a national policy to encourage redundancy in CI systems (e.g., water supply).	Planning	DHS OIP, DHS PSO, DHS/FEMA PSO	Private sector organizations, S/L, SSAs
			11.1.9 Pre-develop options for private sector and NGO incentives	Planning	DHS OIP, DHS PSO,	Private sector organizations,

			as well as liability protections that could be offered to attract private sector and NGO involvement in restoring infrastructure.		DHS/FEMA PSO, DHS CRCL	S/L
			11.1.10 Identify options (legislative, regulatory, or federal policy) to provide federal support to other jurisdictions outside of the incident site that sustain what could be long-term spikes in demand on infrastructure due to mass migrations and displacement.	Planning	DHS NPPD	Federal interagency, S/L
			11.1.11 Identify available disposal capacity and potential gaps for radiologically contaminated waste from an RDD. Include the assessment of existing DoE sites, and any limitations that might exist on using them for RDD waste.	Planning	DoE, NRC, EPA, USACE	
			11.1.12 Clarify statutory authority and roles and responsibilities for all jurisdictions in dealing with issues surrounding property condemnation, reimbursement, and subsequent reoccupation of condemned and contaminated structures after receiving certification for reoccupation.	Planning	DHS FEMA	S/L, private sector organizations, EPA, USACE
			11.1.13 Develop an interagency plan for assistant states in conducting health monitoring and leveraging resources from other federal agencies.	Planning	HHS	DoE, S/L
			11.1.14 Develop an HHS deployment, tracking, screening, and surveillance program that can serve as a best practice for other responder agencies.	Planning	HHS	Federal interagency

			11.1.15 Develop a policy for helping state and local agencies establish registries for tracking health effects in affected populations.	Planning	HHS	OSHA, S/L
			11.1.16 Develop policies and procedures for A-Team activation and operation.	Planning	HHS	DoE NNSA, EPA, USDA
			11.1.17 Identify and utilized existing funding, programs, and training to address the disaster mental health planning.	Planning	HHS/ SAMHSA	S/L
	12. RDD/IND Protective Action Guides	12.1 Provide guidance for implementing the site optimization process	12.1.1 Develop detailed guidance for implementing the site optimization process.	Planning	EPA	
	13. Laboratory Capacity	13.1 Develop plans to maximize existing clinical, environmental, and food laboratory capacity	13.1.1 Define and communicate current laboratory capacity for clinical and food (EPA has defined and communicated environmental laboratory capacity).	Planning	HHS	USDA
			13.1.2 Investigate the use of the ICLN as a formal coordinating entity during times of emergency.	Planning	DHS S&T	HHS, EPA, DoE, DoD, USDA
			13.1.3 Develop a CONOPS that includes strategies for maximizing existing clinical, environmental, and food laboratory capacity.	Planning	HHS	EPA, USDA

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APPENDIX B: ACRONYMS

Table B.1: *Acronyms*

Acronym	Meaning
AAFC	Agriculture Canada
AAR	After-Action Report
ACE	U.S. Army Corps of Engineers
ACS	Australian Customs Service
AcTIC	Arizona Counter-Terrorism Information Center
ADHS	Arizona Department of Health Services
AFP	Australian Federal Police
AGD	Attorney-General's Department (Australia)
AMS	Aerial Measuring System
ANSTO	Australian Nuclear Science and Technology Organisation
AOC	Agency Operations Center
ARC	American Red Cross
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
ARRA	Arizona Radiation Regulatory Agency
ASD-HD	Assistant Secretary of Defense for Homeland Defense
ASIO	Australian Security Intelligence Organisation
ASU	Arizona State University
ATF	Bureau of Alcohol, Tobacco, Firearms, and Explosives
BOC	Business Operations Center
CAT	Crisis Action Team
CBSA	Canadian Border Services Agency
CDC	Centers for Disease Control and Prevention
CEWG	Control and Evaluation Working Group
CI/KR	Critical Infrastructure/Key Resources
CIC	Citizenship and Immigration (Canada)
CIR	Critical Information Requirement
CMHT	Consequence Management Home Team (DoE NNSA)
CMHT/OR	Consequence Management Home Team for the Oregon Incident
CMRT	Consequence Management Response Team (DoE NNSA)
CNSC	Canadian Nuclear Safety Commission
COGCON	Continuity of Government Readiness Conditions
CONPLAN	Concept of Operations Plan
COOP	Continuity of Operations
COP	Common Operating Picture

COSIN	Control Staff Instructions
CRCL	Civil Rights and Civil Liberties (DHS)
CSE	Communications Security Establishment
CSG	Counterterrorism Security Group
CSIS	Canadian Security Intelligence Service
CST	Civil Support Teams
CWG	Cyber Working Group
D	Detonation
D/As	Departments/Agencies
DEST	Domestic Emergency Support Team
DFAIT	Department of Foreign Affairs and International Trade (Canada)
DFAT	Department of Foreign Affairs and Trade (Australia)
DHS	Department of Homeland Security
DIAC	Department of Immigration and Citizenship (Canada)
DND	Department of National Defence (Canada)
DoC	Department of Commerce
DoD	Department of Defense
DoE	Department of Energy
DOHA	Department of Health and Ageing (Australia)
DoL	Department of Labor
DoS	Department of State
DoT	Department of Transportation
DRG	Domestic Readiness Group
DSAT	DHS Situational Awareness Team
EAWG	External Affairs Working Group
ECC	Emergency Command Center
EMA	Emergency Management Australia
EMG	Emergency Management Group
EMS	Emergency Medical Services
ENDEX	End of Exercise
EOC	Emergency Operations Center
EOD	Explosive Ordnance Disposal
EPA	Environmental Protection Agency
EPA NCERT	EPA National Counter Terrorism Evidence Response Teams
EPA RERT	EPA Radiological Emergency Response Team
ERT	Emergency Response Team (FEMA)
ESC	Executive Steering Committee
ESF	Emergency Support Function
EVALPLAN	Evaluation Plan

EXPLAN	Exercise Plan
FBI	Federal Bureau of Investigation
FCO	Federal Coordinating Official
FCO	Foreign & Commonwealth Office (United Kingdom)
FD	Fire Department
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
~~FOUO~~	~~For Official Use Only~~
FRMAC	Federal Radiological Monitoring and Assessment Center
FSE	Full-Scale Exercise
GFP	Guam Fire Department
GIS	Geographic Information System
GOC	Government Operations Centre (Canada)
GPD	Guam Police Department
HAZMAT	Hazardous Materials
HHS	Department of Health and Human Services
HMRT	HAZMAT Response Team (FBI)
HMRU	HAZMAT Response Unit (FBI)
HSAS	Homeland Security Advisory System
HSC	Homeland Security Council
HSEEP	Homeland Security Exercise and Evaluation Program
HSIN	Homeland Security Information Network
IAS	International Assistance System
IC (Canada)	Industry Canada
IC	Incident Command
IC	Intelligence Community
ICE	Immigration and Customs Enforcement (DHS)
ICLN	Integrated Consortium Laboratory Network
ICP	Incident Command Post
ICS	Incident Command System
IDETF	Inter-Departmental Emergency Task Force
IMAAC	Interagency Modeling and Atmospheric Assessment Center
IMPT	Incident Management Planning Team
IND	Improvised Nuclear Device
IOF	Interim Operating Facility
IP	Improvement Plan
IWG	Intelligence Working Group
JFO	Joint Field Office
JIC	Joint Information Center

JIS	Joint Information System
JOC	Joint Operations Center (FBI)
JTF-HD	Joint Task Force-Homeland Defense
LD/HD	Low Density/High Demand
LEO VCC	Law Enforcement Online Virtual Command Center
LNO	Liaison Officer
LRN	Laboratory Response Network
LTR	Long-Term Recovery
MSEL	Master Scenario Events List
NCC	National Crisis Committee (Australia)
NCR	National Capital Region
NED	National Exercise Division
NGO	Non-governmental Organization
NICC	National Infrastructure Coordinating Center
NICCL	National Incident Communications Conference Line
NIH	National Institutes of Health
NIMS	National Incident Management System
NJIC	National Joint Information Center
NNSA	National Nuclear Security Administration
NOAA	National Oceanic and Atmospheric Administration
NOC	National Operations Center
NORTHCOM	U.S. Northern Command
NPS	National Planning Scenario
NRAT	Nuclear/Radiological Advisory Team
NRCan	Natural Resources Canada
NRCC	National Response Coordination Center
NRF	National Response Framework
NRP	National Response Plan
NSC	National Security Committee of Cabinet (Australia)
NSC	National Security Council
NWS	National Weather Service
OCD-GHS	Office of Civil Defense – Guam Homeland Security
ODNI	Office of the Director of National Intelligence
OIP	Office of Infrastructure Protection (DHS)
OPA	Office of Public Affairs (DHS)
OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration
PACOM	U.S. Pacific Command
PFO	Principal Federal Official

PFR	Portland Fire and Rescue
PIO	Public Information Officer
PM&C	Department of Prime Minister and Cabinet (Australia)
POC	Point of Contact
POD	Partnership and Outreach Division
POEM	Portland Office of Emergency Management
PPB	Portland Police Bureau
PSC	Public Safety Canada
PSCC	Protective Security Coordination Centre (Australia)
PSO	Private Sector Office
PSWG	Private Sector Working Group
PWGSC	Public Works and Government Services Canada
RAP	Radiological Assistance Program (DoE)
RCMP	Royal Canadian Mounted Police
RDD	Radiological Dispersal Device
REAC/TS	Radiation Emergency Assistance Center/Training Site (DoE NNSA)
REOC	Regional Emergency Operations Center (EPA)
RFI	Request for Information
RISC	Regional Interagency Steering Committee
RPS	Radiation Protection Services (Oregon)
RRCC	Regional Response Coordination Center (FEMA)
SAC	Special Agent in Charge (FBI)
SBA	Small Business Administration
SC	Service Canada
SEO	Senior Energy Official
SEOC	State Emergency Operations Center
SFLEO	Senior Federal Law Enforcement Official
SIMCELL	Simulation Cell
SIOC	Strategic Information and Operations Center (FBI)
SITREP	Situation Report
SL	Senior Leadership
SLG	Senior Leadership Group
SME	Subject Matter Expert
SO	Senior Official
SOP	Standard Operating Procedure
STR	(b)(6) Recovery
STRATCOM	U.S. Strategic Command
SVTC	Secure Video Teleconference
SWAT	Special Weapons and Tactics

SWG	Scenario Working Group
T2	Top Officials 2
T3	Top Officials 3
T4	Top Officials 4
TC	Transport Canada
TCL	Target Capabilities List
TOPOFF	Top Officials
TPEP	Terrorism Prevention Exercise Program
TSA	Transportation Security Administration
TTP	Tactics, Techniques, and Procedures
TTX	Tabletop Exercise
UA	Universal Adversary
UC	Unified Command
USAR	Urban Search and Rescue
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USG	United States Government
VA	Department of Veterans Affairs
VAMC	Veterinary Medicine Advisory Committee
VIPR	Visible Intermodal Protection and Response
VNN	Virtual News Network
VSIN	VA Network
VTC	Video Teleconference
WMD	Weapon of Mass Destruction

APPENDIX C: REFERENCE LIST

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27. TOPOFF 3 After-Action Report
28. TOPOFF 4 Command Post Exercise After-Action Report
29. Lawrence Livermore National Laboratory. TOPOFF4 IMAAC After-Action Report. November 21, 2007.
30. U.S. Representative Brad Miller. *Radiological Response: Assessing Environmental and Clinical Laboratory*. U.S House of Representatives Committee on Science and Technology. October 25, 2007.
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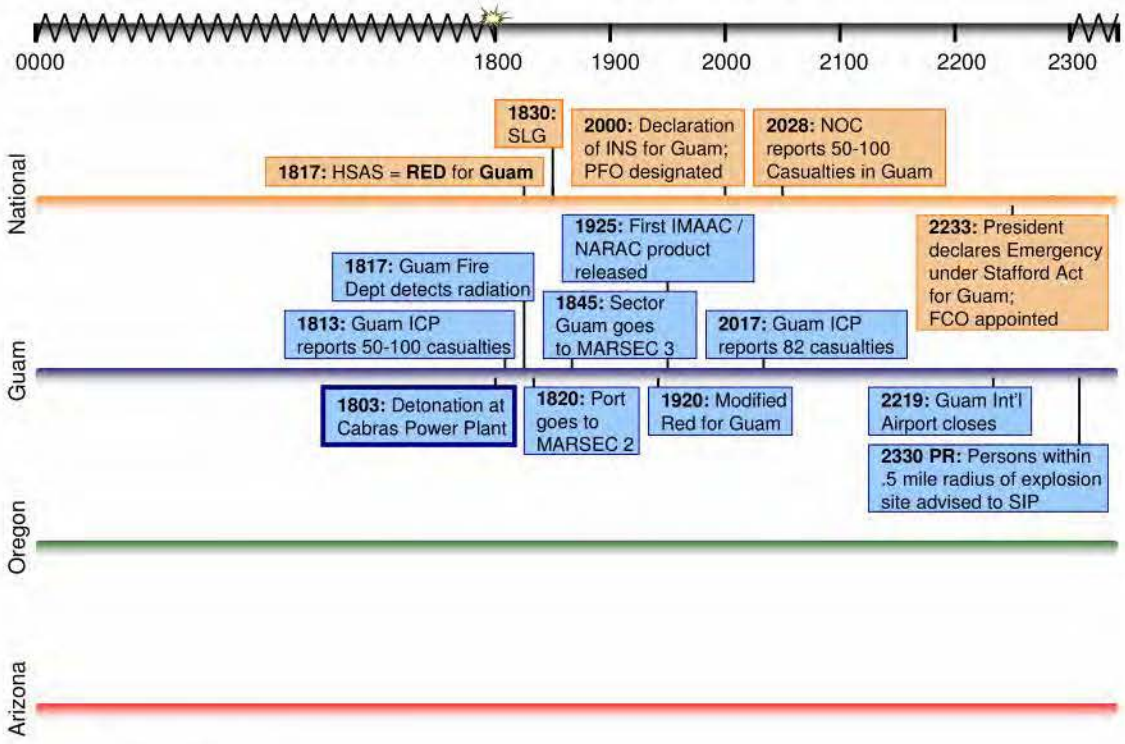
32. White House Homeland Security Council, *The Federal Response to Hurricane Katrina, Lessons Learned*. February 2006.

APPENDIX D: TIMELINE OF KEY EXERCISE EVENTS

Figure D.1: *Key Events (October 15, EDT)*



PR = Press Release

Figure D.2: *Key Events (October 16, 0001 – 1600 EDT)*

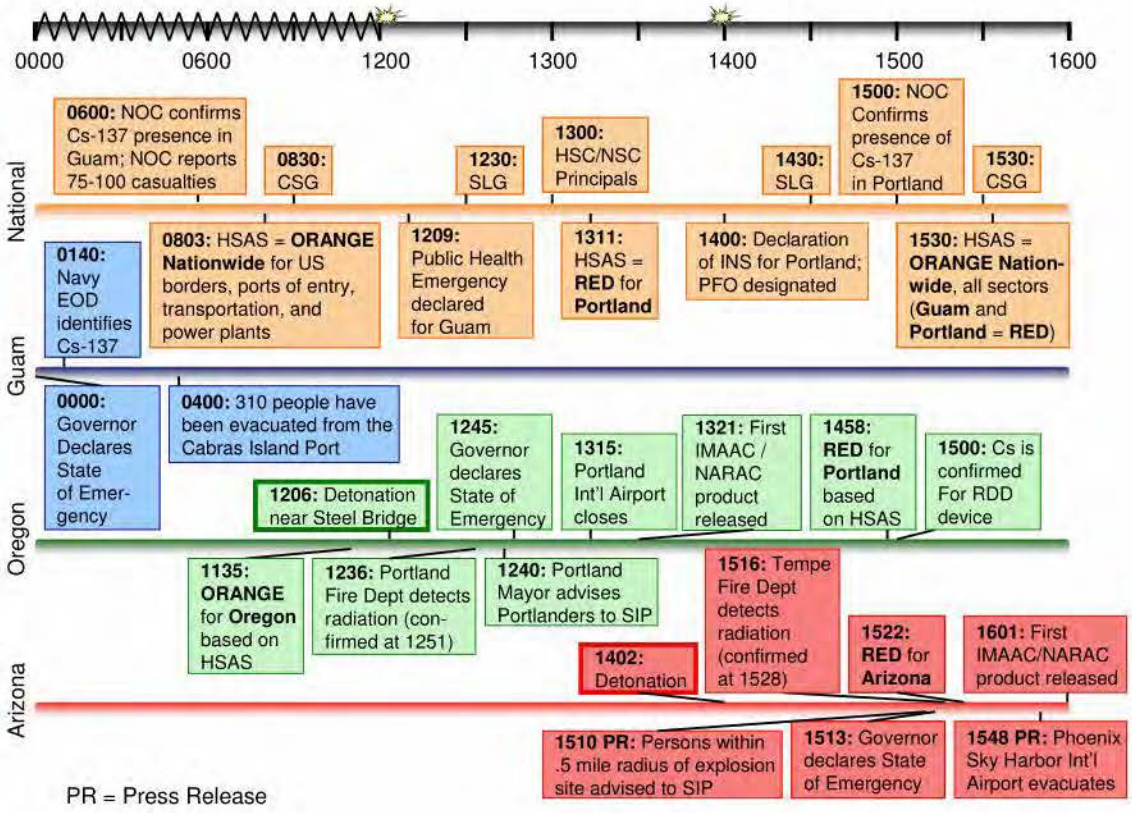


Figure D.3: *Key Events (October 16, 1600 – 2400 EDT)*

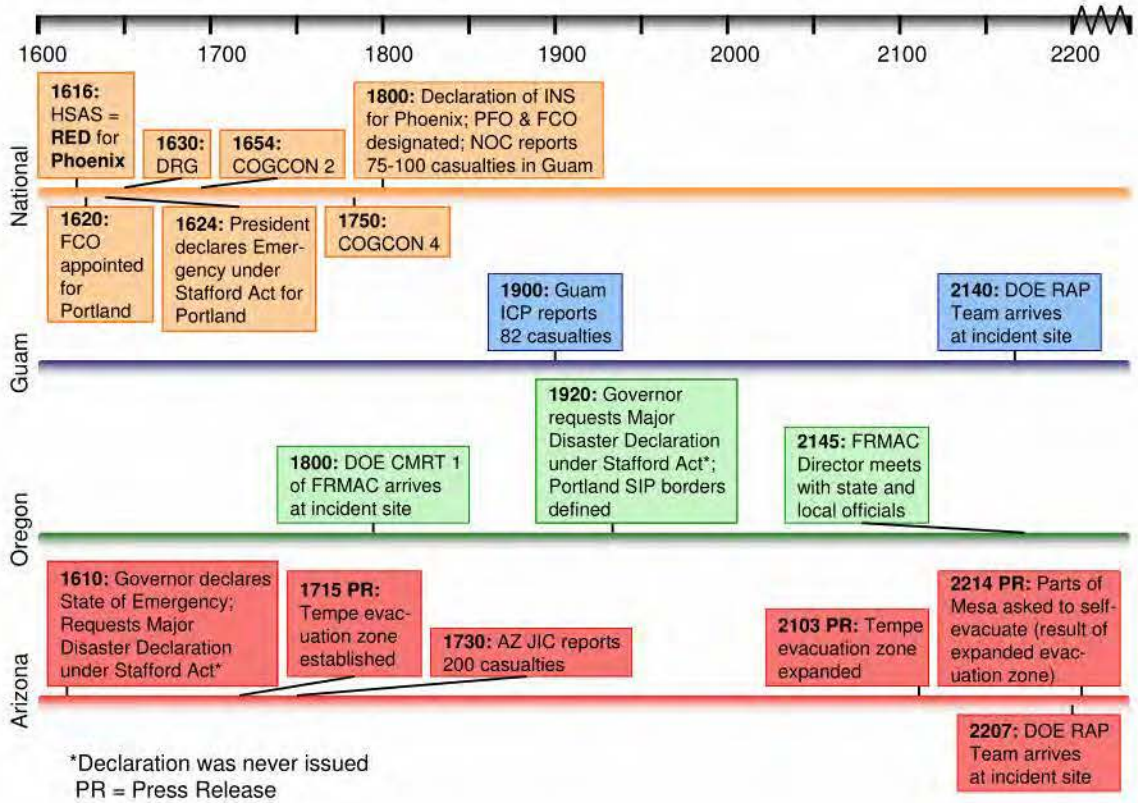


Figure D.4: *Key Events (October 17, EDT)*

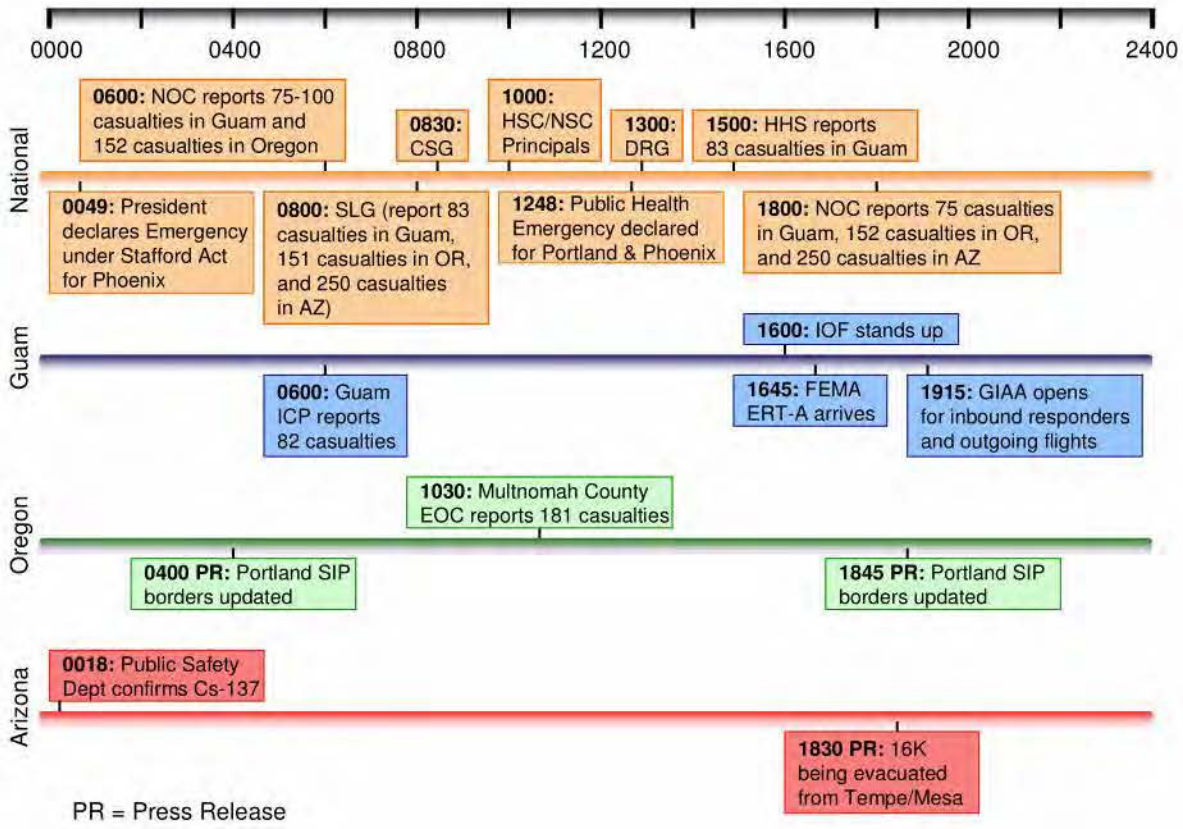
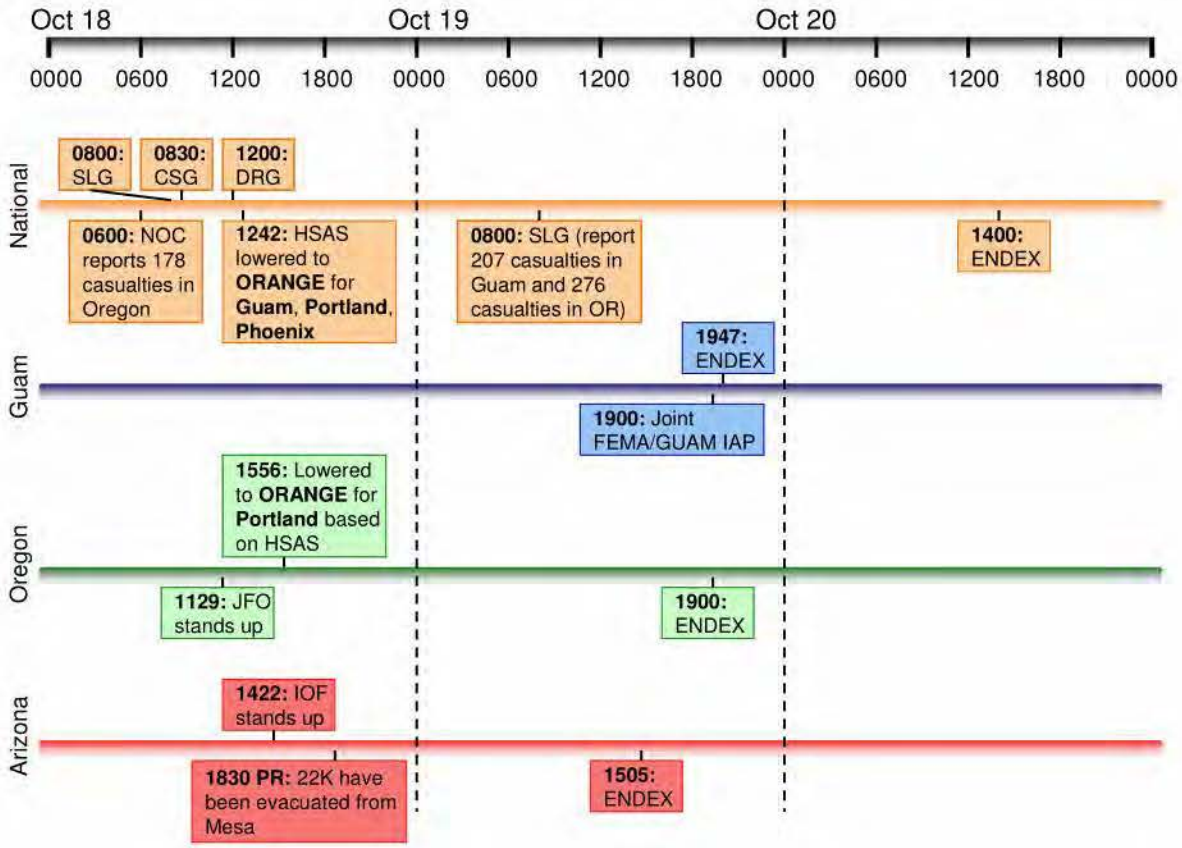


Figure D.5: *Key Events (October 18 – 20 EDT)*



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ANNEX 1: EXERCISE DESIGN AND DEVELOPMENT

This Annex is provided to summarize key issues and observations noted during the portion of the AAC focused on the design and development process of the T4 exercise. Under the guidance of the T4 ESC, working groups were formed at the national level to support the design and development process with the support of participating D/As within the NCR. These working groups were replicated at each venue to provide key planners the required insight and background for exercise development at the regional, state, territorial, and local levels.

The overall T4 exercise design and development process consisted of identifying capabilities, tasks, and objectives; designing the scenario; developing documentation; coordinating external affairs events and logistics; planning exercise conduct; and selecting an evaluation and improvement methodology. A summary of the key observations (strengths and areas for improvement) noted by each of the working groups and venue sponsors during and following the AAC are provided in the paragraphs below.

Prevention Component

Strengths:

- The significant level of commitment and play by state and local law enforcement participants to the expanded prevention element added a new and necessary element to the TOPOFF exercise package. State and local law enforcement, along with in-venue federal entities (most notably, FBI field offices in Guam, Phoenix, and Portland) devoted time and resources to exercise planning and conduct.
- The structure and duration of the prevention component allowed for immediate "return on investment" to the participating agencies. The areas for improvement identified during the prevention element allowed players to attempt to resolve issues and improve capabilities during the response portion that followed.

Areas for Improvement:

- Some elements of prevention play were limited by the need to constrain the scenario and roll into the response phase. Although discrete prevention successes were developed that did not interfere with the response scenario, some constraints required by the follow-on response exercise prohibited full realistic and comprehensive prevention play.
- Fiscal constraints kept some agencies from providing optimum commitment to the prevention scenario. Some elements of the scenario were overly focused at the state and local law enforcement level due to the inability of federal agencies in the NCR to commit to full play. Attempts to simulate federal play were not always adequate to generate a realistic environment for participating law enforcement agencies at the state, territorial, and local level.
- The prevention component needs to be more effectively coordinated with the IWG. Better coordination will allow prevention play to incorporate more D/As that would

support real-world prevention activities. Better integration of the intelligence effort would also support the requirement for improved coordination/ visibility across unclassified and classified information systems. During exercise execution, better integration of prevention and intelligence MSELs would provide more effective training for participating agencies.

- Future prevention exercises should consider what other entities (e.g., the private sector, public safety professionals, etc.) would be impacted by the information and intelligence that is gathered and shared during the lead up to the response element. These additional factors should be accounted for in the integrated MSEL development of the prevention exercise.

Scenario Working Group

Strengths:

- In NPS-11, "*...the Universal Adversary (UA) purchases stolen cesium chloride to make a radiological dispersal device (RDD), or 'dirty bomb.' The explosive and the shielded cesium 137 (137Cs) sources are smuggled into the U.S. Detonator cord is stolen from a mining operation, and all other materials are obtained legally in the United States. Devices are detonated in three separate, but regionally close, moderate-to-large cities.*" With this substantive scenario as its foundation, the SWG was able to adapt the overarching T4 objectives into a plausible and effective exercise scenario. The NPS provided an appropriate level of technical and operational specificity, yet adequately accommodated the unique directions provided by the T4 ESC to allow the SWG to tailor the story to specific requirements provided by the federal, state, territorial, and local participants.

Areas for Improvement:

- The ESC directed the SWG to lock the scenario on July 2, 2007. Despite this, several organizations made changes or additions to the scenario to support their organizational objectives without informing the SWG. While most of these changes were eventually accommodated, changes made after the designated locking of the scenario resulted in extensive re-work.
- Elements of the Ground Truth relating to technical or physical aspects of the simulated source material acquisition, transportation, and weapon construction required subject matter expertise and consultation. While help from several key federal D/As and national laboratories was provided, it was offered on an ad-hoc, voluntary basis. Responsibility for this expertise was never officially assigned or accepted. The lack of accountability resulted in an ill-defined level of technical expertise and support.
- Designated D/As with recognized subject matter expertise should be ultimately responsible for developing of the Ground Truth technical details required to support the scenario. Ground Truth details should include technical details about weapons systems and effects, characteristics of UA individuals and organizations, and detailed information essential to law enforcement investigation. A dedicated group focused on the Ground Truth should be set up to augment the work of the SWG to ensure the integration, de-confliction, and validation of required information.

Intelligence Working Group

Strengths:

- Controllers, evaluators, and observers noted the very good cooperation at all levels within IWG. During exercise execution, communication among controllers within the ICC was free flowing and could be an example of how intelligence agencies, defense, and law enforcement could work together in a centralized fusion center.
- The Scripting Conferences facilitated by the IWG provided a forum where all participating representatives could provide input and comment on key intelligence-related aspects of the scenario that could not be discussed at SWG meetings due to their classification. Because the overall script at the national level generally remained unchanged, there were few disconnects due to scripting and writing of ad-hoc events.
- Access to SVTCs conducted during the exercise by the CSG was invaluable for the ICC. This insight allowed ICC controllers to monitor player action and response to intelligence implementers in real time.

Areas for Improvement:

- A chairperson for the IWG should be designated who would be responsible for defining the intended level of effort of each member organization, including instructions, roles, responsibilities, and milestones. Additionally, the IWG chairperson and staff should identify the intelligence community controller and evaluator staffing requirements early in the exercise design process to help planning continuity.
- There was an inadequate level of realistic "white noise" in the intelligence database system to plausibly replicate a real-world threat stream. Incorporating additional information not critical to the scenario's main threat stream would provide players and analysts with a more challenging and complex intelligence picture. This information should be incorporated more effectively into the UA database.
- A DHS exercise portal and web-based content management system similar to the Extranet Secure Portal (ESP) should be created based upon other more commonly used Homeland Security classified and unclassified networks (e.g., HSIN, HSDN, and C-LAN/JWICS). These systems should provide role-based access to appropriate intelligence, defense, and law enforcement users by exercise.
- A law enforcement working group should be considered in order to encourage better integration of the intelligence and law enforcement communities.
- Further development and funding of the UA database would provide a more realistic threat stream for intelligence exercise support. Ideally this database would be housed within a national-level SIMCELL.
- Coordination of international partners' integration into intelligence planning early in the exercise planning process is integral to the realistic representation of information sharing. Early miscommunication among U.S. and partner nation planners resulted in an unrealistically restricted information sharing process.

International Working Group

Strengths:

- The International Working Group was a successful forum for coordinating international partner participation with U.S. government D/As. This coordination was further facilitated by scheduling International Working Group meetings to coincide with DHS National Planning Seminars and T4 planning conferences.
- International participation in National Seminars and planning conferences allowed key partner nation representatives to learn more about U.S. emergency response policies and procedures. Additionally, their participation provided U.S. federal, state, and local representatives with valuable insight into the international dimension of domestic incidents, and fostered bilateral working relationships that are key to response and recovery activities.
- The early establishment of international and DoS objectives facilitated focused exercise planning and participation, and supported the deployment of a DoS representative and international consular officials to Portland. Exercising the consular affairs aspect of emergency response was new to TOPOFF and added realism to live play.
- The creation of the Quadrilateral Public Affairs Agreement among the four participating nations during exercise planning facilitated information sharing among key U.S. and partner nation players.

Areas for Improvement:

- Unlike T3, when international partners conducted domestic exercises, there were no terrorist events in the partner nations during T4. International planners agreed that events in partner nations related to the U.S. domestic incident would drive more realistic play for international players, vs. only reacting to a U.S. domestic event.
- Given the wide disparity in time zones, the lack of consistent 24/7 exercise play in all venues hindered the full integration of international play and response efforts. Additionally, levels of play among partner nations and U.S. role players varied widely, impacting exercise realism.
- Federal identification of international partner nations and international observer nations earlier in the planning process would facilitate exercise and observer program activities.
- Procedures for sharing ~~"For Official Use Only" (FOUO)~~ documents with international partners were established on a delayed basis. Planners should have these procedures in place early, in the event that future international partners go beyond Australia, Canada, and the United Kingdom.
- No more than three international partner nations should be considered for future NLEs because of finite USG resources and ability to incorporate international participation in domestic play.

Private Sector Working Group

Strengths:

- The defined schedule of meetings helped participants to follow the progression of exercise design. The support and materials provided by the DHS team allowed private sector entities to continue the development of key issues and to integrate the efforts of the other exercise working groups.
- The T4 experience gave exercise planners an appreciation for the breadth and depth of private sector capabilities to recover from a crisis. Awareness was raised in key areas including supply chain issues, operational shortfalls, and public-private sector incident management system relationships. The different levels of participation, (e.g., TTX, Looking Glass, or SIMCELL) provided organizations with choices.
- The exercise provided participating agencies with opportunities to learn about and expand existing methods of integrating national-level policies (e.g., NIMS) into private sector processes. The exercise illustrated the need for additional clarity on information sharing materials and processes required in emergency situations.

Areas for Improvement:

- Private sector integration and engagement needs to be continually expanded and developed. In order to integrate the objectives of private sector entities, NGOs, and special needs organizations, input should be sought much earlier in the planning process. There should be careful planning about when and where participation should be included. This integration would support scripting of MSEL injects to ensure both realism and relevance to real-world situations.
- The term "private sector" lacks a clear definition. There should be clear distinction between the level of participation of CI/KR entities and their representative organizations (Partnership for Critical Infrastructure Security/PCIS), individual large corporate partners (e.g., Wal-Mart, Boeing, Cisco Systems, etc.), NGOs and voluntary organizations, and state and local business partners. Each of these distinct representatives of private sector interests would have different objectives and requirements for participation in national-level exercise events.
- Although great progress was made to include large private sector entities, there was inadequate participation by NGOs and local service organizations. This resulted in a significant gap in human services delivery during response and recovery. Local NGOs and voluntary organizations are most familiar with the types of support needed to maintain the population's physical and mental well-being. Local organizations are the foundation for long-term recovery and should be encouraged to participate early in the planning process.
- Security and handling of official documents used by the private sector should be established early in the process to be fully understood, appreciated, and implemented by all participants. Policies should address requirements for and restrictions on document sharing and disclosure limitations for sensitive information. A designated team with specific disclosure control responsibilities would be most effective.

- Many exercise terms (e.g., "planner", "controller") may not be familiar to private sector entities, NGOs, or special needs exercise participants. An "Exercise 101" course should be made available to support their involvement in the exercise process.

Control and Evaluation Working Group

Strengths:

- The expanded attention to MSEL development by a broader cross section of D/As led to the creation of a more complex and realistic exercise in many targeted areas of interest. Several organizations at the federal level that had not previously participated in TOPOFF took the opportunity to develop MSEL events that stressed defined training objectives. MSEL injects supporting special needs populations, international consular affairs issues, and CI areas were noteworthy.
- Increased access to federal operations centers – especially the placement of evaluators in the NOC – led to more insightful evaluation and analysis. Evaluators were able to observe the multi-tasking done by the IMPT and the NOC CAT. Enhanced access to the NOC and other key operations centers allowed the evaluation team to better assess processes across the spectrum of federal, state, and local participating agencies.
- Due to the exceptional efforts of the FBI Tactical Response Unit, access to classified communications systems was available for the first time in a TOPOFF exercise at the same location as the MCC. The portable systems installed by the FBI allowed the exercise directors and their key leadership teams to communicate in real time with the ICC and numerous DoD and law enforcement elements of the exercise control structure.

Areas for Improvement:

- Attendance at the NCR Working Group meetings and training sessions was limited. Exercise planning teams need to redefine the objectives of the CEWG and lay out specific milestones and timelines during the planning process. A defined schedule would contribute to an effective control and evaluation architecture that could begin with a small focused group that grew in attendance and responsibilities as exercise execution approached.
- HSEEP guidance should be reviewed to ensure that it effectively addresses and supports the unique requirements and level of participation expected in a Tier 1 NLE. Current guidance does not adequately address the full spectrum of interagency participation at the highest federal level.
- The current process of planning, developing, executing, and evaluating TOPOFF is not linked to a common training program that would teach knowledge, skills, and abilities to the "top official" target audience. Training standards are established and administered for operational and tactical participants by their own agency or governmental authority, but strategic decision makers at all levels of government receive information and knowledge on an ad-hoc basis. A training program linked to the NLE would significantly enhance the participation and success of "top officials" in the NEP.

- The continued development of a standing DHS exercise control cell facility with classified and unclassified IT connectivity is essential to exercise quality and continuity. The current need to build the control architecture, (i.e., computers, video projection, telephones, etc.) just prior to exercise execution intensifies the demanding work of supporting an NLE. An adaptable MCC that could be expanded or contracted as exercise requirements dictate would provide a greatly improved capability to support interagency federal, state, and local training and exercise objectives.
- Additional emphasis must be put on synchronizing the MSEL, particularly events that affect multiple agencies. These synchronization efforts should be incorporated into the planning during CEWG meetings at both the national and venue level.
- The training plan for controllers and evaluators should be expanded. The complexity of the Tier 1 exercise program requires more extensive training tailored to the specific requirements of each exercise venue. If controllers and evaluators could be identified earlier in the exercise planning process, a control and evaluation training schedule could be integrated into the venue visit and interagency group meeting schedules.
- The development of a more extensive SIMCELL within the MCC and VCCs would enhance the realism for many participating agencies needing to interact with specific departments, agencies, or organizations that are not scheduled to participate (e.g., adjacent jurisdictions, NGOs and special needs agencies). Additional coordination with key planners would help to identify organizations that should be represented and ensure that training objectives can be more effectively met.
- Experienced senior-level controllers should be carefully selected to support deputies and principals meetings and ensure that high-level exercise objectives are being met. They could prompt or re-direct players towards decisions that had been scripted for exercise purposes. For example, no formal decision was reached to deploy the DEST after the October 16, 2007 senior leadership morning meetings. However, the requirement to deploy the DEST had been previously planned to support numerous other training objectives. An experienced and qualified controller could have stepped in during the meeting and reviewed the situation with the participants to illustrate that the specific decision to deploy the DEST to Oregon would achieve exercise objectives.

Cyber Working Group

Strengths:

- The CWG promoted good coordination and information-sharing among the various federal D/As, as well as private sector participants.
- The CWG created various exercise documents that promoted a realistic approach to cyber play for participants in the FSE.
- The coordination and management of exercise injects with federal D/As was coordinated well.

Areas for Improvement:

- There was inadequate coordination and information-sharing between the CWG and other T4 working groups during the planning phase, especially the IWG. This less-

than-optimal integration hindered the training opportunity and critical information that was disseminated among interagency D/As and other key stakeholders during the FSE.

- There was inadequate intra- and inter-jurisdictional coordination at the federal and state levels of cyber- and communications-related information resulting in unnecessary challenges for integration of injects into the FSE.

External Affairs Working Group

Strengths:

- The early participation of a wide cross-section of federal public affairs representatives enhanced the public affairs level of play throughout the exercise. The designation of ESF-15 leads and interagency participation (e.g., FEMA, FBI, ATF, ACE, USCG) supported an effective networking opportunity for problem solving and planning. Venue visits by federal representatives from DHS OPA, FEMA, USCG, and the FBI enhanced the interaction between federal and regional or venue counterparts and supported the development of public affairs-focused tabletop and conference call exercises in the weeks preceding the FSE. In total, approximately 450 public affairs representatives participated "inside" the FSE.
- National Seminar 2 was completed dedicated to the external affairs function. Public affairs representatives from all three venues, international partners, and most federal agencies participated. Well-received presentations on public health, special populations, law enforcement, ESF-15 and risk communications provided a basis for outstanding information exchange, training, and exercise planning. The seminar was replicated in all three venues to provide regional, state, territorial, and local public affairs representatives with similar opportunities for information exchange and training.
- The VIP/Observer program designed by the EAWG provided an opportunity for over 400 domestic and international observers (representing 17 nations) to witness response efforts, share information, and collaborate on future preparedness and training efforts. By developing daily themes during exercise play, the program was designed so that observers could view different parts of the response effort as events unfolded. Among the elements of the program were information exchange opportunities and tours at incident sites, healthcare facilities, non-governmental agency support locations, and federal, state, territorial, and local EOCs.
- Allowing international VIPs and observers to be fully integrated with the DHS observer program gave them a unique perspective on the exercise and U.S. domestic incident response activities, and should be included in future NLEs.
- The real-world media program involved the coordination of daily media activities in each venue to manage media inquiries about the exercise. The program allowed media to observe various parts of the exercise while maintaining exercise integrity. More than 170 members of the media covered the FSE. Media coverage raised the visibility of the program and DHS. The exercise was covered by all local print and broadcast sources and several national news sources including CNN, MSNBC, the Associated Press, and *The Washington Post*.

Areas for Improvement:

- The wide range of duties and demands on the public affairs teams to support the external aspects of the exercise limits their ability to actually participate "inside" the exercise. During T4, the DHS OPA had responsibility for coordinating public affairs play within the exercise as well as the VIP/Observer program. DHS/FEMA public affairs had responsibility for real-world media coordination. These important demands outside the exercise limited public affairs representatives' ability to respond to the demands of VNN and notional media requirements and to meet the public affairs training objectives presented by the exercise itself.
- There could be an even more effective public messaging campaign during the planning phase of the exercise to explain the NEP and the tiered concept of exercise events, particularly the comprehensive nature of the Tier 1 TOPOFF series. This program could include press releases surrounding the national seminars and planning conferences and other milestone planning events.
- Thirty-seven countries and international organizations were invited to send two representatives each to the observer program, but several countries sent more than two. To effectively manage invitations, the number of countries and international organizations for future NLEs should not exceed this number. The number of reserved spaces for each observer country should be increased to three. Invitations should still request only two, but by reserving a larger number, a hidden margin would be built in to allow countries to send more representatives.

Virtual News Network (VNN)

Strengths:

- The VNN team provided 195 live segments of broadcast during the FSE. These events included coverage of events, press conferences, interviews, and on-scene updates from all three venues and the NCR (across 14 time zones). VNN adds realism to the exercise, holds decision makers accountable, and provides a valuable way to provide timely injects that move the scenario forward.
- VNN footage can be used in the future to support numerous DHS/FEMA tabletop or functional exercise requirements.

Areas for Improvement:

- The VNN Live broadcast hours (12:00 Noon – 8:00 p.m. Eastern Time) were designed to best support all three venues, given funding considerations. The lack of 24-hour coverage did weaken the intensity of play when the broadcast was not on the air.
- There was no posting of fact sheets or press releases on VNN.com throughout the night (Eastern Time).
- The positive contribution to the exercise provided by VNN is demonstrated by the demand among participants and players for an expanded simulated media product (e.g., competing networks, blogs, web pages, etc.).

Venue Observations and Recommendations

The participation of thousands of planners, controllers, evaluators, and exercise participants at the three T4 venues was a critical element of success for the entire training audience. During the AAC, T4 venue representatives were asked to provide summary observations of the exercise design and development process from a venue perspective for the interagency participants. The paragraphs below provide an overview of the most noteworthy discussion points and recommendations for consideration by future venue planners and those teams responsible for support in the venues. More extensive discussion and documentation of venue exercise design issues has been conducted with venue leaders and planners for use in future exercise planning efforts.

Arizona

Discussion Points and Recommendations:

- **Level of Play:** Determine the level of play of participating communities and agencies as early as possible, and recommend that similar size communities support similar levels of play.
- **Benchmarks:** Venue planners should set guidelines and benchmarks for levels of participation to ensure that there is an adequate cost/benefit to support. Even when a community or organization commits to only a short period of participation, there is still considerable effort required to ensure that a training benefit is achieved. Personnel requirements for the agreed-upon level of support should be established early in the planning process.
- **Mentor Program:** Establish and maintain the TOPOFF mentor program among previous participating venue representatives. The expertise provided by these venue counterparts provides a unique insight into important exercise planning elements and more importantly, supports real-world best practices development.
- **Venue Visit Schedules:** Consideration should be given to modifying the duration of visits by venue support teams to optimize the use of their time. Especially when there are travel requirements within the venue (e.g., Phoenix to Tucson), consideration should be given to extending visits to best accommodate planning efforts.
- **Workshops:** Schedule a designated training objective workshop for participants early in the planning process and hold agencies and communities accountable for defining their participation level based upon those objectives.
- **Local Federal Representatives:** Institutionalize a program to engage local and regional federal representatives from early planning through ENDEX. The participation of these regionally-based federal resources provides a critical link to their respective NCR-based D/As and facilitates important relationship building that will continue well after exercise completion.

Guam

Discussion Points and Recommendations:

- **Mentor Program:** The vital benefit provided by the mentor program to the TOPOFF planning process was never fully utilized during T4 planning. Learning from a former state or territorial planner about his or her experiences when preparing for and executing TOPOFF would have provided a unique advantage to the planning process and would have enhanced the exercise. DHS should present the mentor program to the venues and clearly define which specific opportunities each venue can take advantage of during the TOPOFF planning process. The mentor program should be open to any former TOPOFF planners, not only those from the most recent TOPOFF exercise.
- **Venue Seminars and Conferences:** Seminars and planning conferences are vital elements of the exercise planning process. During the T4 planning cycle, the venue conferences and seminars were intended to follow the format and topics of the preceding national conference and seminars. Although the format and topics of the national events were closely followed in each of the venues, many federal presentations were not conducted by the most appropriate speakers. Many times, venue planners had to present federal presentations due to the lack of federal representation. This circumstance proved to be a disadvantage to those venue-based planners who had not had the opportunity to attend the national conferences and seminars. In order to provide additional exposure and integration among the venues, consideration should be given to holding the national conferences and seminars at venue locations, similar to the events conducted during the T3 planning process. This will also give the federal presenters and participants the opportunity to visit the venues and meet with the local and regional federal planners.

Oregon

Discussion Points and Recommendations:

- **Level of Play:** During the exercise design and development hot wash, several agencies commented that their level of play depended on other agencies' level of play. The consequence of this "wait-and-see" decision model was that agencies arrived at level of play commitments that were not always aligned with exercise budget decisions that had been made several months (or years) earlier. Additionally, some agencies made level of play decisions that were dependent on the commitment of other non-affiliated agencies. These agencies were not always prepared to meet the demands of the exercise. Since many agencies did not commit to their level of play until very late in the planning process, these interdependencies were not always identified in time. One reason behind some agencies failing to establish a firm level of play was the late development of the national-level federal agency objectives. This caused the regional federal agencies to delay making commitments and thus affected the work of the other local planners. Establishing an agency's exercise level of play, determining their exercise objectives, and developing an exercise budget were all identified as critical planning elements. Each of these elements has a direct effect on the others. All of

these items need to be decided at the earliest point possible during the exercise planning process.

- **Real-World Media and VIP Visits During Exercise Play:** During the exercise, real-world media opportunities were planned that competed for time with the participation of several top official players. During the peak of exercise play, several key players were at the exercise site addressing the media. While this was an effective forum for presenting the exercise to the media, it had some negative consequences for exercise play. (For example, the governor was unable to sign a disaster declaration in timely manner; the PFO was not in Bothell or Salem to meet with players, etc.) Several observers and members of the media toured various exercise EOCs. The visit of one VIP pulled the City of Portland EOC manager away from exercise play and caused the POEM EOC to miss an early critical planning conference call with the state and county EOCs. One VIP visit to the Rapid Screening Point was cited as an example of a visit with a direct negative impact because it distracted the exercise training audience from their focus on exercise objectives. The visit halted the two-hour exercise play for 30 minutes causing the players to fall well short of their throughput goals. While all planners agreed that it was important for local elected officials to take time to deliver positive messages to the public about the exercise, due consideration should be given to the impact that removing the officials from play could have on the exercise. There were various suggestions about how this could be approached in the future to minimize the effect on the exercise. One suggestion was for elected officials to pre-brief the media prior to the STARTEX and then remain totally inside the exercise for the remainder of the event. Another suggestion was that elected officials could appoint a spokesperson to update the media throughout the exercise. A third suggestion was to take all media events to a segregated area near but separate from the exercise site. For example, the media area at the PIR site worked well and provided the media with a good backdrop while not interfering with the exercise. This was in contrast to the Rapid Screening Point and some EOCs where the observers, media, and press events were allowed to mix with the exercise players. This mixing often resulted in significant interference with the exercise. Thorough planning of VIP/Observer and real-world media events is essential to ensure that these important elements of the exercise do not have an undue or unanticipated impact on the actual "inside the exercise" training opportunity.

ANNEX 2: CUSTOMS AND BORDER PATROL AARS

Office of Intelligence and Operations Coordination
Operations Coordination Division

U.S. Customs and Border Protection

AAR for T4 National Emergency Preparedness Exercise

Background: T4 is a congressionally-mandated national emergency preparedness and response exercise conducted every two years, involving every federal agency and a variety of state and local authorities. The T4 scenario presented for this year's exercise involved the terrorist detonation of radiological material (Cesium-137) in three separate venues (Guam; Phoenix, Arizona; and Portland, Oregon). The exercise was heavily weighted on response and recovery issues.

Exercise Scenario: Due to the geographic location of each attack and CBP's current operations, its participation was primarily limited to the Office of Field Operations, Directors of Field Operations (DFO) in San Francisco, California and Tucson, Arizona; and the subordinate Port Directors in the events venues. Each DFO and Port Director assigned specific individuals to actively participate in each exercise activity as a representative of CBP.

Objectives: Headquarters (HQs) and Field

- Use of established common response communication language to ensure that information dissemination is timely, clear, acknowledged, and understood by all receivers.
- Demonstrate the ability to issue, manage, and update emergency notification systems under all conditions to ensure that all employees are accounted for.
- Demonstrate the ability to activate their COOP plans, redeploy officers to alternate locations, account for overtime, assume post-event business resumption protocols, and deploy under ESF-13, if activated.
- Demonstrate the ability to activate the proper channels of communication to include reporting to the Commissioner's Situation Room or as requested by HQ, reporting to DFO, Port Management, and Lead Field Coordinators (LFCs) in respective regions.
- Demonstrate the ability to coordinate with other agencies and appropriate emergency management contacts according to agreements/policies to facilitate information sharing and solve issues while remaining in accordance with NIMS/NRP.

All of the objectives were met to varying degrees and timelines. The following observations and recommendations will address the objectives:

Observations and Recommendations:

Observation: It was noted in all three venues that there was an overabundance of acronyms and technical terms in use that often required definition.

Recommendation: Use common language. The ICS principals clearly identify the requirement to use common language and terms.

Observation: There was a lack of training and connectivity during the initial report of the incident. While local authorities attempted to engage officials of various organizations, there was no uniform notification system available to alert federal, state, and others to the emergency event. CBP largely depended on the media for notification.

Recommendation: It is recommended that (nationally) CBP managers in all facilities develop and foster relationships and a means of communicating first responder alerts or notifications of any event within their area of responsibility. This recommendation could be as simple as creation of basic telephone contact trees to high-tech internet protocol-linked radio frequencies accessible by all authorities within an affected geographical area.

Observation: CBP field participants were not provided with an official notification of changes in the HSAS threat level from Yellow to Orange and Red. The changes were provided via the media and local officials.

Recommendation: For future exercises, as in real-world reporting of emergencies, an HQ SIMCELL should be created to provide top-down communications of official policy changes with the appropriate guidance. Staffing issues curtailed this activity and it was only addressed in a notional sense.

Observation: There appeared to be too many EOC facilities engaged in this exercise. It was not practical to co-locate CBP personnel in every EOC. (State EOC, City EOC, Airport/Seaport EOC, plus the JIC, JOC, and JFO.)

Recommendation: A single centralized facility under a unified command structure would have streamlined the information flow, connectivity process, and communications. CBP should focus on the JOC first and than EOCs with a direct CBP nexus.

Observation: CBP officers were unable to access the JOC. The JOC is operated by the FBI and serves as the location and activity responsible for conducting a criminal investigation of the event. Access to the JOC requires a secret clearance at a minimum, and the security clearance must be on file with the FBI at HQs. The FBI SAC of the JOC arranged for limited access for several CBP officers, out of recognition of the need for information related to the border crossing and international travel of the terrorists.

Recommendation: LFCs should pre-identify JOC/ EOC personnel who possess appropriate clearances.

Final Observation: A recurring theme discerned from all exercise venues identified the fact that CBP appears to operate in a vacuum. Operational activities, capabilities, authorities, and responsibilities are relatively unknown to many within the law enforcement or civil government

communities. Anecdotal reports from various sources throughout the exercise indicated a pleasant surprise and welcome once CBP assets arrived to assist in an activity. Issues as simple as the ability to detect the presence of radiation or assist with traffic control and security measures were resolved once CBP officers became engaged in the emergency.

Recommendation: A greater emphasis on "CBP 101" outreach programs to the public, private sector entities, and community governments.

Office of Intelligence and Operations Coordination
Operations Coordination Division

U.S. Customs and Border Protection

AAR of CBP T4 "Preventative Play" Radiation Protocol Field Testing Exercise

Background:
In January 2007, DHS announced the T4 National Preparedness Exercise. The premise of this exercise is based on terrorist-detonated RDD attacks in three geographically separate locations. The venues were identified as Guam; Portland, Oregon; and Phoenix, Arizona. Of particular interest to CBP is the exercise scenario, which scripted the smuggling of 5,000 curies of the radioactive isotope Cesium-137 across the southwest border from Mexico into the United States by the members of a terrorist organization.

This scripting of a perceived failure by CBP was designed to permit the simulated detonation of the RDDs within CONUS, requiring a subsequent emergency response by various assets of the federal, state, and local authorities.

Within CBP, the Offices of Anti-Terrorism, Internal Affairs, Human Resources, and Border Patrol coordinated to develop a "no notice" field activity, where designated role players attempted to pass through a U.S. Border Patrol (BP) checkpoint outside of Nogales, Arizona with a small quantity of Cesium-137.

Primary Goal of Testing:
The primary goal of this exercise was to test CBP's radiation detection policy and procedures, as well as to assess the ability and the willingness of the BP agents involved to detect, detain, and process a radiation-based terrorist threat. CBP leadership decided to leverage the T4 scenario and the supporting simulated intelligence to conduct an internal CBP exercise, which focused on testing CBP's ability to respond to specific border-threat-related intelligence and to assess CBP radiation detection policies and procedures. Ultimately, DHS leadership agreed to include CBP's internal exercise as an annex to the actual T4 exercise.

Field Test Development

Radioactive Field Test Material: 0.075 Mil-Rems of Cesium-137

Training and Coordination:
The participating role players received formal radiation safety training and certification from the Office of Occupational Safety and Health. In addition, a specific use permit was issued by DoT for movement and use of the radioactive material based on the Nuclear Regulatory Commission (NRC) license maintained by CBP Radiation Safety Officer (b)(6) The Office of Internal Affairs (b)(6) supported the exercise by helping to coordinate the transport of the material via FEDEX (Dangerous Goods) and provide safety equipment for secure handling of the material.

Concealment:
The Cesium-137 was contained inside a standard metal shipping "pig" case with the top removed and secured inside a cardboard box in a side pocket of a canvas backpack. The "pig" was positioned in the backpack with the unshielded beam facing the driver's side door in the middle row of a Dodge mini-van. All other sides of the "pig" were provided with a lead apron covering to effectively shield the driver and other passengers participating in the exercise. A personal radiation detector (PRD) screening of the vehicle's driver's side exterior indicated a numerical reading fluctuating between a 6 and 8.

Exercise Role Players:
(b)(6)
(b)(6)
(b)(6)

Role Players Script:
The role playing team posed as employees of "Care International," which is a Northern Virginia-based charitable organization with suspected ties to terrorist money laundering activities. The role players claimed that they were returning from a short vacation in Puerto Penasco (Rocky Point), Mexico, and were en-route to Tucson International Airport. Prior to the exercise, role players divested themselves of any and all identification and material links to government employment. The role players carried only some cash and local Virginia/ Maryland driver's licenses.

Actual Field Test Results:
The field-testing exercise commenced at 1115 hrs (PDT), with the role players driving north approximately 12 miles out of Nogales on Arizona Highway 82, where a BP tactical checkpoint was encountered. The role-playing team was stopped by a BP agent who, while attempting to determine the citizenship of the team, recognized the audible alert and visual indicators of his PRD. Upon receiving this audible alert, the BP agent escorted the team to a secondary inspection area where additional BP agents were located.

BP agents interviewed the role players briefly while in the vehicle, discussing the citizenship and travel of the team. The role players were requested to exit the vehicle and asked to provide identification while the questioning continued. The role players observed the BP agents communicate with each other and use additional PRD(s) and a Radioactive Isotope Identification Device (RIID) along the exterior of the vehicle.

The role players were questioned as a group by the BP agents, who asked why radiation was detected and if they had any knowledge that radioactive material was in their possession. The role players denied having knowledge of any radioactive material and agreed to the BP agent's request to search the vehicle. However, they declined a request to search personal baggage contained in the vehicle.

During the questioning, the role players were individually searched for weapons to ensure the safety of the BP agents. For additional safety considerations, the role players were required to wear radiation dosimeter badges at about chest-level for later testing and evaluation. BP agents did discover similar dosimeter badges on each role player during the search for weapons. The dosimeters found on the role players by the BP agents were not marked and there was no indication as to their purpose or function. Each role player individually declined to comment as to the purpose of the dosimeters when asked about them by the BP agents.

The role players were then separated and escorted to individual BP vehicles for secure detention purposes. At this point, the BP agents began:

- Contacting the Nogales Station to describe and identify the dosimeters
- Researching the role players' identification for criminal history
- Researching the crossing data on the vehicle
- Researching the employer organization "Care International"

The "hot" baggage was identified and isolated. The RIID identified the material as Cesium-137. The BP checkpoint Field Operations Supervisor (FOS) initiated contact with the Nogales Station and Laboratory Scientific Services (LSS) in preparation to transmit the isotope spectral signature to LSS for analysis (LSS management had been previously advised of the field testing team's covert activities and was awaiting the call).

Exercise Conclusion:
The field testing team leader (b)(6) identified himself and members of the role playing team to the senior agent on duty and requested that the he contact the exercise "trusted agent", Assistant Patrol Agent in-Charge (APAIC) Dolph Hunt from the Nogales BP Station. APAIC Hunt responded shortly afterwards and member identification was validated and the exercise was concluded. A de-briefing and hot wash was then conducted with the entire checkpoint group.

Observations and Recommendations:
As stated previously, the primary purpose of this exercise was to highlight and demonstrate the capabilities of the BP to detect, detain, and process a radiation-based terrorist threat as linked to the T4 National Preparedness Exercise scenario. While deemed a successful interdiction of the terrorist event, several "gaps" were identified during the hot wash with the BP agents:

1. **Education:** Although agents effectively managed this field test, they were unsure of specific legal authorities and radiation properties. Basic courses should be reviewed and edited to ensure that they address radiation sources, the identification of types of radiation, specific hazards, and their legitimate uses. agents should be aware of the legal requirements to possess and transport radioactive material (i.e., licenses, permits, etc.) and also possess the capability to validate the licenses or permits. In addition, knowledge of the civil or criminal penalties for illegal possession of radioactive materials as well as an understanding of when other authorities are required to be notified should also be addressed.

- Office of Intelligence and Operation Coordination (OIOC)/ IMOC will coordinate with the Office of Training and Development to discuss these issues.

2. **Technical connectivity:** Although this specific checkpoint was not considered permanent, all checkpoints should have the technical means necessary to transmit the data required by LSS without having to secure and move vehicles and suspects to a station.

    - OIOC/ IMOC will discuss the technical issues and coordinate with the Office of Information Technology and Office of Border Patrol regarding this issue.

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