Annex C. Private Sector

Summary

Private-sector organizations participated in the Top Officials (TOPOFF) 3 (T3) exercise as partners with Federal, State, and local (FSL) government entities to test their combined ability to prepare for and respond to simulated biological and chemical terrorist attacks in Connecticut and New Jersey. The private sector's participation in the exercise was extensive. Over 140 private-sector organizations—representing critical infrastructure sectors, industry associations, public works, faith-based organizations, and multinational non-governmental organizations—played from 450 locations across the United States. The exercise allowed these participants to test the roles defined for private-sector organizations by the National Response Plan (NRP) while also testing new coordination mechanisms, including Private Sector Liaisons and a Private Sector Cell at both the State and Federal levels.

The T3 private-sector participants' involvement in the exercise raised key issues capable of exerting substantial effects on public-private coordination during real-world events. The issues are identified and categorized as follows:

- Prototype Private Sector Coordination Mechanisms
- Public-Private Coordination and Communication
- Testing Internal Emergency Response and Business Continuity Plans
- Cross-Sector Coordination and Communication
- Private Sector Planning
- Volunteer and Donations Management Support

This T3 Private Sector After-Action Report Annex captures the planning process conducted by the Private Sector Working Group, Private Sector Planning Group, and T3 Exercise Planning Team; provides an overview of and analyzes the private sector's participation in the Full-Scale Exercise (FSE); and identifies significant observations and key issues captured by the participants during the conduct of the exercise. The body of this annex concludes with recommendations for improving the integration of the public and private sectors in order to prevent, prepare for, respond to, and recover from weapons of mass destruction (WMD) terrorist attacks.

Introduction

T3, the nation's largest, most comprehensive domestic terrorism response and recovery exercise, offered private-sector organizations an unprecedented and unparalleled opportunity to test their current level of integration into the unified and nationwide structure for disaster response and emergency preparedness. The scope and extent alone of private-sector participation was unprecedented—approximately 1,200 individuals representing over 140 private-sector organizations played at 450 locations across the nation during T3. The participating private-sector organizations ranged from small businesses and local transportation providers to Fortune

100 corporations controlling major subsectors of the nation's critical infrastructure, from individual public works to multi-million member business associations, from local faith-based organizations to multinational nongovernmental organizations.

T3 also permitted FSL government organizations to exercise their mechanisms and procedures for coordination and communication with the private sector. FSL government organizations assessed the private sector's roles and responsibilities in the context of a realistic disaster scenario and gauged the resources that the private sector would need and could provide in order to respond to and recover from a large-scale WMD attack by terrorists.

Private-sector integration is a key component of the emerging unified national structure for disaster response and emergency preparedness. The National Strategy for Homeland Security states that the Federal government has responsibility for fostering "unprecedented levels of cooperation" between the private sector and all levels of government. Homeland Security Presidential Directive-5 emphasizes "the role that the private and nongovernmental sectors play in preventing, preparing for, responding to, and recovering from terrorist attacks, major disasters, and other emergencies." The Directive further requires the Department of Homeland Security (DHS) to "coordinate with the private and nongovernmental sectors to ensure adequate planning, equipment, training, and exercise activities and to promote partnerships to address incident management capabilities."

TOPOFF 3 tested the plans, policies, and procedures defined in the NRP, and the NRP repeatedly highlights the necessity of private-sector integration. The preface to the NRP states that the implementation of the plan and its supporting protocols "will require extensive cooperation, collaboration, and information-sharing …. between the government and the private sector at all levels."[1]

The NRP includes two support annexes that address private-sector integration in whole or in part. The Private Sector Coordination Support Annex "[o]utlines processes to ensure effective incident management coordination and integration with the private sector, including representatives of the Nation's Critical Infrastructure/Key Resources sectors and other industries."[2] The Volunteer and Donations Management Support Annex "describes the coordinating processes used to ensure the most efficient and effective utilization of unaffiliated volunteers and donated goods during Incidents of National Significance."[3] T3 private-sector integration was designed to test the coordination processes and mechanisms of these two NRP annexes.

[1] NRP, p. i.
[2] NRP, p. xi.
[3] NRP Volunteer and Donations Management Support Annex, p. VOL-1.

Purpose of the Private Sector Annex

The Private Sector Annex fulfills the fourth overarching objective for T3: "Evaluation: To identify lessons learned and promote best practices." The description and analysis in this annex are intended to provide a basis for more robust and realistic private-sector play in future TOPOFF exercises. More importantly, the intent is to identify lessons learned that may be used by Federal, State, Local, and Tribal (FSLT) government and private-sector organizations alike to improve their real-world, day-to-day integration into FSLT emergency preparedness and disaster response. The overall goal is to improve the nation's ability to mount an effective, integrated public-private response to and recovery from a WMD terrorist attack.

A second purpose of this annex is to facilitate the Federal government's mandate for a meaningful critique of T3 private-sector integration, a critique that may be appropriately shared with the private sector. The NRP's Private Sector Coordination Support Annex states that the Federal government "conducts after-action critiques of the procedures detailed in this annex with private-sector participants when they are exercised in national-level, DHS-sponsored exercises" and "shares such critiques appropriately with private-sector participants." T3 was a national-level, DHS-sponsored exercise which tested procedures defined in the NRP's Private Sector Coordination Support Annex. This Private Sector After-Action Report Annex is intended to serve as the basis for an appropriate T3 critique that will be shared with the private sector.

Scope of Annex

This annex addresses significant issues arising out of the design, planning, execution, and analysis of T3 private-sector integration. This annex does not purport to be a comprehensive review of the entirety of private-sector play in T3. This is not possible, in part because data collectors were not provided for every private-sector organization, nor were they specifically focused on the private sector in the T3 Master Control Cell (MCC). The unprecedented scope and magnitude of private-sector play was deemed in advance to be too great for comprehensive data collection to be effective.

As is true of all T3 evaluations, this annex focuses on high-level issues involving the private sector's emergency preparedness and disaster response coordination. It does not focus on individuals or even on organizations. In the few instances in this annex where organizations are mentioned by name or characterized in a way that may suggest their identity, doing so was necessary to provide adequate context for the issue being addressed or because the organizations are uniquely situated or have unique responsibilities in the nation's integrated structure for disaster response and emergency preparedness.

Objectives Guiding Preparation of Annex

In addition to the four primary objectives detailed in the body of the T3 After-Action Report, private-sector integration was designed to fulfill two additional sets of exercise objectives.

The following are the objectives for T3 private-sector integration as determined by the Private Sector Working Group (PSWG):

Intelligence and Information Sharing:

- Exercise communications links with relevant government agencies.
- Improve information sharing processes and capabilities.
- Test the Federal government's Protective Critical Infrastructure Information (PCII) program.

Incident Management:

- Examine private-sector emergency response and business continuity plans.
- Gain and maintain situational awareness of an emerging event.

The second set of objectives designed specifically for private-sector integration into T3 was developed jointly by the DHS Office for Domestic Preparedness (ODP), Private Sector Office (PSO), and Infrastructure Coordination Division (ICD). These DHS organizations identified the following as the objectives for T3 private-sector integration from the perspective of FSL government:

Intelligence and Information Sharing:

- Explore options for integrating Federal government/private-sector decision making, incident planning, response, and recovery operations.
- Evaluate information sharing, coordination, and dissemination between private sector and FSL agencies before, during, and after an incident.
- Test the Homeland Security Information Network.
- Test the new DHS/PSO/Federal Emergency Management Agency (FEMA) volunteer and donations website.

Incident Management:

- Test the infrastructure coordination mechanism of the NRP as a single U.S. government point of contact for incident response relative to privately owned critical infrastructure.
- Delineate a course of action for private-sector engagement in the response and recovery mechanisms of FSL departments and agencies.
- Explore the implications and economic impact to the private sector of short-, medium-, and long-term recovery aspects resulting from sustained threat levels and disaster recovery operations.

These objectives guided the data selection, analysis, and reporting reflected in this annex.

Background

Private Sector Play and Players

Private-sector play during T3 focused on exercising the functional integration of FSL government's coordination mechanisms and processes with the private sector's emergency planning and disaster response and recovery operations. The NRP identifies four summary roles in which private-sector organizations operate during Incidents of National Significance (INS):

- Impacted Organization or Infrastructure
- Response Resource
- Regulated and/or Responsible Party
- State/Local Emergency Organization Member

One or, more often, several private-sector participants functioned in each of these roles during T3. The level of private-sector organizations' participation in the exercise ranged from individuals operating from their organization's offices to a corporate emergency operations center (EOC) and hundreds of employees notionally carrying out their responsibilities under the company's emergency response and business continuity plans.

T3 involved far more private-sector representatives of the nation's critical infrastructure sectors than were initially expected. The Private Sector Working Group initially hoped to have at least three of the nation's critical infrastructure sectors represented and tested from among those on the following list: transportation (trucking, rail, maritime), chemical/HAZMAT, real estate/commercial, energy (oil and gas), water, and public health. Ultimately, every one of the 13 critical infrastructure sectors identified in the National Strategy for Homeland Security was represented by more than one player and was exercised during T3. Table 1 lists the industry and critical infrastructure sectors and subsectors and provides the total number of private-sector players that represented each one during T3.

In order to be approved for play, all private-sector participants were required to complete a Player Fact Sheet[4] and submit it for approval to the T3 planning team. Private-sector players were also required to provide a written commitment to communicate exercise-related information according to the protocol defined in the T3 Private Sector Coordinating Instructions and to provide a minimum of one page of feedback after the exercise.

Planning and Training Considerations

To ensure that T3 was properly designed and executed to account for the specific and unique characteristics of the private sector, two specific private-sector groups were formed for the exercise planning process: the PSWG and the Private Sector Planning Group (PSPG). The PSWG was composed of all T3 private-sector participants, as well as the private-sector planners from DHS and the individuals responsible for private-sector integration on the Exercise Planning

[4] The Player Fact Sheet form is an appendix to the T3 Private Sector Integration Concept of Operations.

Team. Each of the three venues—Connecticut, New Jersey, and National—had its own PSWG. Each venue's PSWG met approximately once a month from September 2004 through February 2005 to disseminate information to the private-sector participants and to generate and capture relevant ideas for the continued planning and execution of T3 private-sector integration.

The PSPG, by contrast, was composed of only those private-sector participants in T3 who were designated by their organizations as T3 planners. The PSPG was far smaller than the PSWG because those private-sector organizations playing in the private-sector Tabletop Exercise (TTX) mode[5] were not required to have a planner; about 100 private-sector participants elected to play in this mode. The approximately 40 private-sector representatives who were members of the PSPG were granted access during the T3 planning stage to the draft scenario and Master Scenario Events List (MSEL). They also provided proposed events (injects, expected player actions, and requests for information) for the MSEL.

ODP exercised final decision-making authority over all questions and design issues affecting private-sector integration. In addition, the DHS PSO and ICD were heavily involved in the design, planning, and execution of T3 private-sector integration. Among other efforts, the PSO and ICD attended PSWG and PSPG meetings; reviewed the draft exercise scenario; proposed private-sector-specific injects, expected player actions, and requests for information for the MSEL; and facilitated key relationships with and participation by private-sector organizations. The ICD NICC director and his staff also planned and provided all of the logistics and other support for the Private Sector Cell co-located at the NICC during the FSE and planned and hosted a T3 private-sector planning meeting in February 2005 and the dry run for the NICC Private Sector Cell.

Exercise Artificialities and Design

This section describes private-sector-specific exercise artificialities and design considerations that had a substantial impact on private-sector play in T3. An exercise artificiality is a feature of the exercise that could not be played true to reality or freely scripted. Artificialities generally are limitations or constraints on the exercise design. The following artificialities were chosen based on multiple factors. In some cases, the artificiality would not have occurred in a real-world situation; in others, the artificiality was noted because it had a substantial overall impact on exercise play. These artificialities influenced both the exercise design and the conduct of players throughout the exercise. The overall evaluation of the design and execution of T3 private-sector integration should be conducted with an understanding that these artificialities, and others, existed.

T3 private-sector integration was designed to accommodate characteristics of the private sector that are distinct from most FSL government organizations. Few private-sector organizations or personnel have emergency preparedness and disaster response as one of their primary job functions. Before 9/11, relatively few private-sector organizations engaged in disaster response

[5] The four private-sector-specific modes of play are defined and described more fully below under the heading "Flexible Modes of Private Sector Play."

exercises involving substantial interaction with FSL government organizations. Similarly, although many private-sector organizations have well-defined plans for emergency preparedness and business continuity, far fewer have clear, well-defined roles and responsibilities for interacting with FSL government during a disaster response.

It thus was determined during the exercise planning stage that private-sector integration should be designed to flexibly accommodate the various levels of time, personnel, and exercise experience each individual private-sector organization could commit to T3. Flexible modes of play and flexible hours of play were two key features designed to accommodate private-sector integration.

Flexible Modes of Private Sector Play

Each participating private-sector organization selected one of the four exercise modes described below which were designed specifically for private-sector play: TTX, Command Post Exercise (CPX), Closed Loop Exercise (CLX), or FSE. The extent of private-sector organizations' play ranged from notional participation by a few individuals (TTX) to full-scale on-the-ground involvement (FSE). Each private-sector organization worked closely with the exercise planning team for the venue in which it was playing (Connecticut, New Jersey, or Interagency) to determine which play mode would be most appropriate. Almost all private-sector players participated in T3 in the TTX, CPX, or CLX mode and executed the great majority of their response activities notionally. Few played in FSE mode and carried out their activities "on the ground."

The added artificiality of not playing in FSE mode would have had the most significant effects on private-sector players in critical infrastructure sectors such as the electricity sector and the telecommunications sector. In a real event, they would have had to provide services, maintain equipment, and make critical employees available in the affected areas despite major obstacles such as travel restrictions and limited prophylaxis distribution. Playing in a private-sector mode other than an FSE would have had far less effect on the ability of participating organizations to conduct internal tests of their own emergency response and business continuity plans.

The four exercise modes are described in greater detail below. They are listed from lesser to greater levels of coordination within and among organizations and from lesser to greater levels of real-world, rather than notional, responses.

- **TTX:** Internal play within a single location of a private-sector organization

Approximately 100 private-sector organizations played in the private-sector TTX mode by mobilizing components of their emergency response staff or corporate emergency response experts and engaging in notional and limited real-world response activities. In the TTX mode, a participant's emergency response team, director, or subject matter expert (SME) monitored real-world and simulated channels providing information on the unfolding WMD scenario. In some cases, the organization activated its EOC for internal testing, but, in TTX mode, this action was not intended to enable the organization to integrate its response with that of other organizations.

Exercise-related information was disseminated to an internal, contained group of responders at one location who assessed impact and determined appropriate responses in accordance with the organization's emergency response plans and business continuity procedures. Responses were primarily carried out notionally in TTX mode.

- **CPX:** Integrated notional response with other T3 players

Approximately 36 private-sector organizations played in the private-sector CPX mode. In this mode, the response activities by private-sector organizations ranged beyond the internal use of exercise-specific information to communication and integration with other organizations. Private-sector organizations not only tested and assessed their emergency response and business continuity plans, but also issued notional commands (i.e., commands that were not carried out and not intended to be carried out) to an isolated group of responders within the organization. The extent of play in the CPX mode ranged from the notional exercise of a full range of support functions to activating an organizational command post or EOC with a skeleton crew to handle two-way communications with other relevant registered T3 players from both the private and public sectors.

Characteristics of play in the CPX mode included:

- exercise-related information used within an internal, contained group of responders at the organization site to assess impact and determine response in accordance with emergency response plans and business continuity procedures;
- an EOC or command post being activated to monitor information channels and conduct active information exchange with other relevant registered players; and
- integrated response strategies defined and executed through two-way communications with other registered players relevant to private-sector integration.

- **FSE:** Integrated response with tactical field operations

The most significant difference between the FSE and CPX mode is that, in the FSE mode, organizations actually performed emergency response operations, including tactical field operations. Organizations that conducted full-scale integration were expected to conform their play as closely as possible to the activities they would actually conduct in response to a real-world event. The Exercise Planning Team and the PSWG deemed FSE mode to be more appropriate for nonprofit organizations. Although a few private-sector organizations actually mustered and exercised their first responder units during T3, it was determined before the exercise that not many for-profit organizations would play full-scale by actually shutting down their operations or deploying participants for tactical field operations.

In addition to those in the CPX mode, characteristics of play in the FSE mode included:

- exercise-related information used at the private-sector organization's site to assess impact and determine response in accordance with the organization's emergency response plans and business continuity procedures; and
- tactical field operations conducted in support of incident response; these required a Memorandum of Agreement with ODP and the applicable local authorities as well as integration with the venue support team and exercise planning team.

CLX: Information exchange within a closed loop

During the latter stages of the exercise planning phase, it was concluded that a fourth mode of play was needed to accommodate three private-sector organizations and associations, each of which represented a large group of players (50+) within a highly specific critical infrastructure or unique sector. The individuals within these organizations and associations needed to share exercise-related information with one another in order to test their respective emergency response and business continuity plans. But the concern was that the information and inquiries any one of these three groups would generate in response to the exercise events could potentially be too voluminous and multifaceted to be handled efficiently by the rest of the exercise.

CLX mode enabled all players within each closed loop to share information freely with one another. But the information fed back into the exercise was filtered through a single command post.

Characteristics of play in the CLX mode included:

- exercise-related information used within the closed loop to assess overall impact and determine collaborative and individual responses in accordance with emergency response plans and business continuity procedures; and
- a single EOC or command post activated to represent the closed-loop members as a whole and to monitor information channels and conduct active information exchange with other relevant registered players.

Table 1 shows the number of private-sector organizations that played in each of the four private-sector exercise modes.

	TTX	CPX	CLX	FSE
National	59	14	3	0
Connecticut	11	13	0	2
New Jersey	30	9	0	2
Total	**100**	**36**	**3**	**4**

Table 1. Number of Organizations Playing in Each Private Sector Exercise Mode

Information Exchange in CPX and FSE Modes

Importantly, private-sector organizations playing at the CPX or FSE level were responsible for ensuring that all private-sector organizations with which they exchanged T3 information were authorized to play in T3. A private-sector organization was authorized to play in T3 when the T3 Exercise Director approved the organization's Player Fact Sheet. The exchange of exercise-related materials and information with any individual or organization that was not approved for T3 play was prohibited.

Organizations playing at the CPX or FSE level were required to designate an organizational point of contact to interface with the T3 exercise team. This individual functioned before the exercise as an exercise planner and during play as a field controller/data collector. During play, this individual also ensured that the organization stayed within the prescribed boundaries of the exercise.

Rather than identifying an individual to fulfill the pre-exercise planner requirement, an organization playing at the CPX or FSE level could rely on an overarching organization, such as the DHS NICC, the State EOC, or FEMA's National Response Coordination Center (NRCC), to fulfill the pre-exercise planner requirement.[6] This could be accomplished by co-locating at the overarching organization's command post or EOC. Planners (field controllers/data collectors) were required to attend a one-day training program that was held in Connecticut, New Jersey, and Washington, D.C., during the weeks leading up to the FSE.

Flexible Hours of Private Sector Play

In addition to multiple modes of play, T3 private-sector integration offered participants flexible hours of play to accommodate the amount of time and number of personnel each organization could make available for the exercise. Private-sector planners and players determined the best hours of play for themselves and their organizations.

The official hours of play for private-sector players in the FSE were chosen to permit the players to allocate their time efficiently to correspond with the major private-sector-related events in the exercise scenario. The official hours were:

April 4 (Monday)	12:00–15:00	STARTEX (NICC Alert Sent via ENS at 1508)
April 5 (Tuesday)	08:00–16:00	
April 6 (Wednesday)	07:30–16:00	
April 7 (Thursday)	08:00–14:00	ENDEX for NICC Private Sector Cell, NICC Hotwash 1430–1600
April 7 (Thursday)	08:00–11:30	ENDEX for Other Private Sector Participants

[6] Examples of overarching organizations that acted in this role in the State venues during T3 include ASIS International and the Fairfield County Business Council in Connecticut and the New Jersey Business Force in New Jersey. The DHS/ICD National Infrastructure Coordinating Center and the FEMA NRCC acted in this role in the National venue.

Because most private-sector participants did not play during this entire range of hours, private-sector organizations were provided a play schedule for all private-sector participants in their same broad industry or infrastructure sector.

Knowing in advance the approximate timing of the initial disclosures of the simulated terrorist attacks, the Exercise Planning Team informed private-sector participants to be ready to play sometime between 12:00 and 15:00 on the first day of the FSE.[7] Pre-exercise documentation and other communications emphasized that, if private-sector participants failed to receive notification, those who wanted to play from the beginning of the private-sector-related events should arrive at their play locations by no later than 15:00.[8]

Play ended for all private-sector participants other than those playing at or through (i.e., virtually) the NICC Private Sector Cell at approximately 11:30 on Thursday, April 7. End of play for the NICC Private Sector Cell was the same day at 14:30. An NICC Private Sector Cell Hotwash followed immediately afterwards. Private-sector T3 players attended the Hotwash physically and via teleconference.

Prototype Positions for Private Sector Coordination

During the exercise, three new positions were created and played to facilitate private-sector coordination with FSL incident management. A Private Sector Liaison position was created and played in the Connecticut EOC and a Private Sector Liaison Cell in the New Jersey EOC. A Private Sector Cell was established in the NICC.

These positions do not actually exist yet. They were prototyped in part to facilitate the T3 private-sector integration objective of improving public-private information sharing processes and capabilities.

As artificialities, these mechanisms provided private-sector players the opportunity for increased intra-sector coordination, particularly at the national level. As a result of being physically or virtually located at the NICC, private-sector representatives were able to gain a better understanding of the actual operations of the national mechanisms and procedures for coordinating and communicating with the private sector.

Without these prototypes, there would have been less understanding and greater confusion among the private sector about overall situational awareness, including each agency's incident management and emergency response responsibilities. In addition, much of the cross-sectoral coordination and communication during T3 occurred at or through the NICC Private Sector Cell. Without this cross-sectoral coordination and communication, there would have been far less interaction between critical infrastructure representatives and FSL government representatives.

[7] On the first day of the exercise, April 4, 2005, VNN made its first report of plague (type unspecified) at 11:50. VNN made its first report of the explosion at the New London City pier in Connecticut about an hour and a half later at 13:30.

[8] The actual alert to the private sector of the simulated events was sent by the NICC via the Emergency Notification System at 15:08 on April 4, 2005.

Minimal Testing of Unsolicited, Unmanaged Volunteers and Donations

In response to real events of the magnitude of T3, the public has a history of providing large numbers of donations and volunteers that incident management officials have not solicited, do not have the resources or authority to manage, and often find do not meet the real needs in the field. The 9/11 terrorist attacks are just one real-world example in which the number and magnitude of unsolicited, unmanaged volunteers and donations substantially interfered with critical response and recovery activities.

In T3, such unsolicited and unmanaged volunteers and donations did not appear even notionally, much less actually. The exercise was designed to have private-sector players from faith-based organizations act as role players and place dozens of telephone calls to FEMA/Volunteer Organizations Active in Disasters (VOAD) to offer substantial numbers of unsolicited volunteers and donations. But, in order to avoid overwhelming the resources of FEMA/VOAD that were available for the exercise, the faith-based organizations' play was terminated on the exercise's second day. Thus, the FSL incident management teams did not have to address and solve the volunteer and donations management problems that a real-world event would have produced.

Multi-State Effects on Private Sector

Multi-state effects on the private sector were largely absent in T3. In a real incident of this nature, the effects propagating to states other than Connecticut and New Jersey would have had a profound impact on the private sector.

For example, it is unrealistic to believe that other states or the Federal government would have allowed unrestricted travel by members of the trucking industry and the public who had recently been present in New Jersey. Distribution centers and warehouses would have been likely to refuse shipments that originated in New Jersey. Those that had accepted such shipments before the plague attack was discovered would be in crisis mode trying to determine whether they were infected or clean, as well as whether they could continue to ship and receive goods. The results would have included cascading delays in supply chains and possible shortages of key resources.

Airline passengers who had recently been in New Jersey also would have been subjected to some type of official procedures to determine that they did not pose a health threat to others. It is probable that this would have had a significant effect on the operations of the airline industry, and possibly a negative economic effect as well.

Similarly, the arrangements private-sector representatives in the transportation sector made with New Jersey officials to transport key resources and other goods into New Jersey after the travel restrictions were imposed relied on neighboring states, including Pennsylvania and Delaware, for staging. But those states were not playing in T3. All decisions and cooperation by these neighboring states' officials had to be assumed or simulated. Thus, it cannot be concluded that these public-private arrangements that were forged to adapt to the travel restrictions would have been possible in a real incident.

Lack of Real-World Demand for Key Resources

During the exercise, the public did not demand food or other basic necessities when shortages of these key resources occurred or were threatened. The exercise's lack of real-world demand pressure for these key resources is a significant artificiality.

The transportation sector players in the NICC Private Sector Cell reported that they had a difficult, but manageable, arrangement for transporting food into the affected areas in New Jersey before the travel restrictions. After the restrictions were imposed, this arrangement was no longer workable and they scrambled to fashion an alternative. But the food warehousing, distribution, and retailing systems in a state typically contain just three to five days' worth of food under normal demand conditions. Although the "just-in-time" supply system is flexible and responsive to market forces under normal conditions, it is fragile and difficult to restore when shut off or severely disrupted, even for short periods. More importantly, the public's confidence in the key resource supply chain is perhaps its most vulnerable link.

It was not possible to simulate the real-world demand for food, and the cascading effects of potential shortages could not be calculated. However, private-sector representatives of the food sector in New Jersey played the supply chain disruptions and consequences out notionally and concluded that the food shortages would be significant enough to engender civil unrest. The extent of damage from this civil unrest would cause the food industry in New Jersey to still be in the recovery mode at least 30 days after the end of the exercise.

Lack of Real-World Stresses on Specific Critical Infrastructure Sectors

Some critical infrastructure sectors were not stressed to the extent and degree they would have been if the T3 attacks had been real events. As one example, a private-sector participant representing the electricity sector noted that the sector was only lightly tested, but would have undergone far greater stresses had the scenario played out beyond the scheduled four days.

The telecommunications sector in particular was subjected to a noteworthy lack of significant stresses during T3. As one participant at the NICC Private Sector Cell noted, telecommunications facilities across the board were expected to and (notionally) remained fully operational and underutilized for the entire exercise. But even real-world events that are much more localized and result in far fewer casualties than the simulated T3 events cause significant stress and over-utilization of telecommunications facilities.[9] Thus, any overall assessment of the ability of the nation's critical infrastructure to weather a real-world attack similar to the simulated T3 attack must take into account the exercise's designed-in lack of stress on telecommunications systems and facilities.

Similarly, the play of the financial sector was, by design, confined within a CLX. This CLX reported that it successfully tested its critical ringdown system, which ensures that key

[9] (See *London rocked by explosions*, CNN.com, July 7, 2005 (available at http://www.cnn.com/2005/WORLD/europe/07/07/london.tube/index.html).)

representatives of the financial sector can contact and share information with each other during an emergency. But little financial information from that loop was communicated to or played within the rest of the T3 exercise. Therefore, there is little to be gleaned from T3 regarding the effects of events of this nature on the financial sector and the national economy.

Exercise Observations

This section describes observations of issues that arose that involved the private sector and were not expected before the exercise. The observations were derived from the private-sector secure messages, the venue chat logs, and NICC data collector logs. The three main observations were:

- FEMA/VOAD chose not to exercise the NRP Volunteer and Donations Management Annex;
- surprisingly little official information flowed from FSL government to the private sector; and
- only a few days' worth of reserves exist in the supply chain for key resources such as food and hospital supplies.

On the second day of the FSE, a conference call took place between four faith-based organizations and the American Red Cross (ARC), VOAD, and FEMA. At that time, the faith-based organizations offered both volunteers and donations. The support was turned down. Volunteers and/or donations would be solicited through the partner organizations already in place on the local or statewide level. The faith-based organizations were told to contact their local chapter of the ARC which would draw on its constituency if needed. Due to the refusal of unsolicited volunteers and donations, the coordination mechanisms defined in the Volunteer and Donations Management Annex of the NRP were not able to be exercised.

Throughout the FSE, FSL governments made decisions that affected the private sector, but were not communicated to the private sector. The decision to raise the threat condition to Red in New Jersey and the protective measures to be taken under that condition were areas in which the private sector did not receive official information from the public sector. During the New Jersey government discussions on the lifting of travel restrictions, a decision was made to open one lane on the highway to allow for the movement of supplies. At least one large shipping firm was not told of the access lane until well after the government had opened it. If it had been involved in the decision-making process, the firm could have scheduled and positioned its assets to make efficient use of the limited travel access. Also, the private sector was never informed of recommended protective measures that were developed by DHS.

The scenario in New Jersey and Connecticut demonstrated the scarcity of reserves of food and medical supplies that would be essential in a real-world incident. Not long after the plague began to spread in New Jersey, hospitals experienced critical shortages of supplies such as masks, gloves, and IV fluids. As New Jersey was put under threat condition Red and travel restrictions were put in place, the food sector was severely hampered. Most retail food stores and distribution centers only have a few days worth of supplies on hand and food shipments were stopped at the border. In Connecticut, a shelter-in-place order was given by the Governor for an area

surrounding New London. If the shelter-in-place order had lasted for just two or three days, companies subject to the order who were sheltering their employees would have run out of food.

Key Issues

This section addresses significant issues identified during the planning and execution of T3 private-sector integration. These issues are derived from private-sector participants' observations and feedback contained in comments and documents from Hotwashes and After Action Conferences and numerous other feedback sources. The issues culled from those documents are grouped into six broad categories:

- Prototype Private Sector Coordination Mechanisms
- Public-Private Coordination and Communication
- Testing Internal Emergency Response and Business Continuity Plans
- Cross-Sector Coordination and Communication
- Private Sector Planning
- NRP Volunteer and Donations Management Support Annex

Prototype Private Sector Coordinating Mechanisms

The effectiveness of three private-sector coordinating mechanisms prototyped during the exercise —the Connecticut Private Sector Liaison position, the New Jersey Private Sector Liaison Cell, and the NICC Private Sector Cell—led private-sector players to request that they be institutionalized for real-world incidents. The Private Sector Liaison in the Connecticut EOC provided briefings and updates three times a day during the FSE. Electronic bulletins were broadcast to every registered e-mail address, pager, and cellular telephone notifying private-sector participants of an upcoming situational awareness briefing, which was then broadcast to all registered cellular telephones. After the situational awareness briefing, registered private-sector players had the opportunity to engage in a question-and-answer session with representatives of the Connecticut EOC. On average, over 20 private-sector organizations participated in each one of these question-and-answer sessions held during the exercise.

The Private Sector Liaison Desk at the New Jersey Office of Emergency Management (OEM) handled "hot issues" from companies in New Jersey and passed along questions to the appropriate Infrastructure Advisory Committee chair. The Private Sector Liaison served as a single, centralized point of contact in the State government for representatives of critical infrastructure sectors and industry, making it easier for the private sector to determine who they needed to contact with their problems, requests, and offers of assistance.

The Private Sector Cell at the NICC integrated the DHS specialists with their counterparts representing each critical infrastructure sector. Participants also included private sector players representing other industries and sectors who were playing at the National (as opposed to the State). The NICC provided two briefings each day, including via secure teleconferencing and presentation facilities to those participating in the Private Sector Cell virtually. Private-sector players reported that physical or virtual participation in the Private Sector Cell facilitated

effective coordination within and, with some exceptions, between sectors. Participants also reported that they gained a better understanding of the Federal government's actual operations during an INS.

Public-Private Coordination and Communication

Issues surrounding coordination and communication between the government and the private sector dominated the comments and feedback from the private-sector players. The issues fall into three categories:

- Lines of Communication
- Method of Communication
- Coordination

Lines of Communication

For many private-sector participants, T3 illuminated the official links for coordinating and communicating with FSL government, and highlighted some the weaknesses in those links. Private-sector participants frequently mentioned in their feedback that the exercise enabled them to gain a better, more realistic picture of what information and resources would be available from FSL government during a real-world response to a WMD terrorist attack. They learned what steps the private sector would have to take to coordinate effectively with the government to obtain this information and these resources.

Private-sector participants were surprised by the lack of information coming to them during the execution of the exercise from official channels in FSL government. For the private-sector players in the National venue, this surprise centered on communications from the top down, starting from the White House to the DHS Secretary, the IIMG, and ultimately to the DHS sector specialists and their private-sector counterparts. Notwithstanding the benefits provided by co-locating the Private Sector Cell prototype at the NICC, participants concluded that the information they received back from the IIMG, the NICC, and other Federal organizations was slow and of insufficient quality. For example, at the end of the first day of the FSE, private-sector players were concerned by and had received little information explaining why transportation was not "locked down tight" to contain the plague. Furthermore, the lines of communication and authority between the NICC, the IIMG, and other organizations were unclear to the private sector.

Methods of Communication

One of the primary methods by which the private sector and the Federal government communicated during the exercise was through the request for information (RFI) process. But private-sector participants found the process confusing and inefficient. The process for responding to RFIs received by private-sector players via the NICC was not well-defined or well-communicated. Private-sector players in the NICC Private Sector Cell reported that they spent too much time on RFIs as a whole and that the time they spent on each one was not used efficiently because the RFIs they received were not prioritized. They further commented that

they should have received feedback to the responses; this would have enabled them to assess the appropriateness of and priority given to the information they provided.

Private-sector participants repeatedly asked that when they send out an RFI, they receive a timely response, even if the response is nothing more than the status of their request. For example, the Real Estate ISAC had to request information on the cancellation of sporting and convention events multiple times on multiple days before the commercial facilities sector received relevant information from the NICC. To permit timely responses, the RFI process needed to be clarified so that the information necessary to the private sector is managed by appropriate Federal personnel who can distribute it to Federal coordination mechanisms to be acted upon and shared with the private sector

A second method through which the public and private sectors communicated was through e-mails. However, many private-sector participants had problems with the e-mail system provided. Many players were not able to keep up with incoming e-mail pertaining to the exercise. Also, most e-mails were not clear as to who the message was supposed to go to, who was supposed to respond to the e-mail, and whether or not it was a question or a statement. In order to remedy that situation, the private-sector participants requested more dedicated phone lines, cell phones, and modes, other than e-mail, for private sector office officials to be reached in emergency situations.

Participating private sector organizations emphasized that they have the ability, capacity, and redundant systems necessary to pass information quickly and efficiently to their sectors, industries, nationwide locations, and workforces. In the absence of timely information from public officials, the private sector turns to other sources, sometimes resulting in decisions that do not match the actual situation. For example, at the time when representatives of the transportation/rail sector responded to an RFI, they had not received the information that New Jersey was raising its threat advisory level to Red. If the railroad sector had known about the raise in threat level, their response to the RFI may have been different. If the private sector does not receive credible and reliable information from official sources, businesses and industries go ahead and adjust the supply chain according to their own continuity plans or in response to perceived threats based upon unofficial, back-door communication links.

Public-Private Coordination

Critical decision making by the government in the midst of a crisis can have significant unintended consequences if not fully coordinated with the private sector in advance. Throughout the exercise, there was a widespread lack of knowledge of the protocols involved and the appropriate private-sector responses to a decision by a State government or by DHS to raise the threat advisory to the Red level. For many private-sector participants, the greatest challenges faced during the exercise were a result of the State of New Jersey declaring Red and imposing travel restrictions, both with little or no advance coordination with the private sector. Emergency travel restrictions seriously limited the movement of critical employees and supplies within the private-sector workforce. When the discussions regarding the lifting of such restrictions take

place, the private sector should be involved. The private sector requested clarification of and involvement in the decision-making process for raising and lowering threat advisory levels.

The private sector would also like to improve the coordination during response and recovery efforts of private-sector assets. The private sector has an array of assets at its disposal: facilities, materials, supplies, vehicles, and even aircraft. When governmental response resources are stretched or stressed, the private sector could provide assistance. DHS, as well as State OEMs, must know in advance who within the private sector owns or controls which assets. Pre-coordinating these assets would enhance preparedness and facilitate a more effective response within each state.

The DHS PCII Program was developed to enhance public-private coordination and information sharing. This program enables members of the private sector to voluntarily submit to the Federal government sensitive information regarding the nation's critical infrastructure with assurances and safeguards protecting the information from public disclosure. Testing the PCII Program was one of DHS' expressed objectives for T3 private-sector integration. The NICC established a PCII Coordination Cell for the exercise to handle and expedite PCII protections for critical infrastructure information submitted by the private-sector participants.

The data show that some testing of the PCII Program took place during the exercise, including PCII approval of information submitted by the chemical sector and subsequent use of that information by the Transportation Security Administration (TSA). It was also noted that the TSA sought to share this information with a State EOC until a PCII representative explained that the PCII Program has not yet approved states to receive such information. But it appears that the PCII Program was tested only lightly, and the data are insufficient to support any conclusions about the program's effectiveness or efficiency during disaster response operations.

Testing Internal Emergency Response and Business Continuity Plans

T3 raised the level of awareness of many private-sector organizations' employees regarding the critical roles that their business functions and emergency response plans play during an event. The exercise illustrated to private and public sector players that cascading effects of absenteeism, especially of critical employees, can shut down organizations and sub-sectors. Private-sector organizations must be able to get critical employees to work to maintain continuity of operations. A large percentage of the huge (notional) financial losses in the New Jersey chemical sector (estimated at $557 million during the first week of the FSE alone) was caused by absentee-related plant closures or slowdowns. Even an automated operation requires critical employees to enter areas affected by events when vital systems go down. But during the FSE, a lurking, unresolved question arose about the definition of a critical employee and whether the criteria applied by law enforcement will match the private sector's definition. It is unclear whether the necessary training and coordination has been undertaken to enable law enforcement personnel to recognize specially marked company vehicles.

T3 also provided a useful, realistic opportunity for private-sector organizations to test their emergency response and business continuity plans. With some exceptions, a large majority of

responding private-sector organizations reported that the realism and richness of the FSE scenario and events permitted them to gain a better understanding of the strengths and weaknesses of their plans. The commercial facilities sector reported that large disparities continue to exist in the sector's response capabilities and emergency plans, which range from excellent to non-existent. Some facilities' management plans to automatically self-evacuate during an event, and there is no industry standard response to a shelter-in-place instruction by a State. For this purpose, the private-sector participants sought improved information and coordination on appropriate private-sector protocols and responses to heightened Federal and State threat alert levels.

Several companies said that they would consider volunteering their facilities to be Points of Dispensing (PODs) under the Strategic National Stockpile program. Many private-sector participants felt that hosting a POD would be part of their business continuity planning. Community Emergency Response Team training for company volunteers would be necessary to enable private-sector organizations to fulfill this commitment.

Cross-Sectoral Coordination and Communication

T3 provided many examples demonstrating that coordination and communication between various sub-sectors of the private sector are both indispensable and often insufficient to respond effectively and efficiently to an event of this magnitude. Private-sector organizations themselves gained a greater awareness of the extent of critical infrastructure interdependencies, and the NICC Private Sector Cell provided many opportunities for and examples of positive, effective cross-sector communication and coordination. The food and agriculture sectors and the transportation sectors engaged each other and many other sectors in decision making and information gathering, which had important effects on the movements of key resources during the FSE. Representatives of the private-sector players in the NICC Private Sector Cell repeatedly organized and coordinated cross-sectoral lines of communication.

In many cases, participating private-sector groups did not know what decisions were being made in other sectors and by whom they were being made. They reported that their knowledge, or their lack of knowledge, of those decisions would have significant impacts across sectors in a real-world event. It was noted that in real time, a useful display of critical information could be presented at the NICC Coordination Center Cell, which would include a summary of the current situation, a timeline of events, and the time and substance of major governmental decisions that have been made. Several private-sector participants expressed support for the creation of a private sector analog to the IIMG, which would, in their view, improve cross-sector integration for planning and evaluation.

Private Sector Integration Planning and Training

A large majority of the private-sector organizations that provided feedback stated that the exercise was thoroughly and professionally planned in a manner that allowed them to participate effectively and realistically in the event scenario and response and recovery efforts. A few commented that the involvement of private-sector participants in the planning process was insufficient and did not enable them to exert sufficient influence on the design of the exercise to ensure meaningful, realistic play for their organizations. Some private-sector participants also felt that they would have benefited from additional or more in-depth training. A key observation was that those who represent the private sector in exercises must be SMEs who are well-versed in each subject matter and sector for which they are responsible. In addition, those representing the private sector during actual events must have substantial exercise and/or real-world disaster response and recovery experience.

Private-sector participants commented on the need for greater private-sector input into the National Infrastructure Protection Plan and the NRP. The private-sector integration in these plans needs to be more robust, and this requires substantial private-sector assistance.

Volunteer and Donation Management Support Annex

Little actual testing of the NRP Volunteer and Donations Management Support Annex was conducted during T3. Faith-based organizations who had been trained to execute injects by simulating members of the public telephoning VOAD to offer unsolicited volunteers and donations were requested by agency-affiliated players to stop participating on Day 2 of the FSE. Protocols were apparently not in place for handling VOAD-type donations and volunteers. The decision was made to suspend this play because the telephone call injects would have flooded the local VOAD centers. It was stressed that the volunteer and donations management function was unprepared to handle the influx of calls and donations that could potentially come in during a real-world crisis. The lesson learned was that VOAD is not yet prepared for massive offers of voluntary assistance and donations at the local or national levels. Additional testing and emergency response operations development is necessary for the volunteer and donations management system to be prepared to handle a 9/11-style outpouring of volunteers and donations in a future exercise or real-world event.

Faith-based organizations' participation in T3, particularly in the planning stages, did provide them experience in coordinating with the Federal government for disaster response efforts. A leader of one of the faith-based emergency management organizations stated immediately after faith-based play was shut down that their involvement in T3 led his local VOAD director to offer to meet with him after the exercise to share lessons learned, as well as how faith-based organizations can be a part of that VOAD district's working emergency response plan.

Conclusions

Exercise play in T3 provided an unprecedented range and number of private-sector organizations an opportunity to exercise their coordination and communication with FSL government in

response to a domestic WMD terrorism attack. The scope and magnitude of private-sector participation in T3 were far greater than in T2. A significant majority of the private-sector participants who provided feedback agreed that the planning and execution of T3 private-sector integration was effective and facilitated robust play by their organizations. They further reported that T3 enabled them to test their emergency response and business continuity plans in an effective, realistic manner. Numerous organizations are improving these internal plans as a result of the exercise.

Private-sector participants also reported good coordination and communication within their own sectors and with their sector's DHS sector specialists. Much of this was facilitated by the prototype Private Sector Liaison mechanisms in Connecticut and New Jersey and the prototype Private Sector Cell in the NICC. There is a broad consensus among private-sector participants that these mechanisms should be institutionalized for operation during real-world events.

But T3 also demonstrated that real-world integration of the private sector into FSL government disaster response and recovery efforts is still in or near its infancy. Official government sources provided private-sector participants little of the information they needed to make sound, informed decisions. Private-sector participants perceived themselves to have been omitted from the decision-making processes on critical issues affecting their interests, as well as their ability to respond to the attacks. Private-sector participants deemed the lack of communication and coordination with official government sources to be particularly inadequate regarding travel restrictions, threat advisory level changes, and the availability and priority of necessary prophylaxis measures. Little or no advance private-sector coordination was provided before these decisions were announced. Once made, these decisions' specific objectives and recommended responses were not effectively communicated to the private sector. As a result, private-sector participants were left to rely on their own sources of information (often that meant only VNN) and their own criteria for deciding how to protect their employees, keep critical employees on the job, and continue to provide services and resources essential to effective public-private response operations. Also, despite private-sector representatives' efforts to provide effective responses to governmental RFIs, FSL government entities reported that the roles, responsibilities, and resources that private-sector organizations offer in a disaster response operation remain unclear.

Some cross-sectoral coordination occurred during the exercise, particularly through the operation of the prototype private-sector coordination mechanisms in Connecticut and New Jersey and at the NICC. But, most private-sector participants reported that cross-sector coordination and communication was inadequate to mount an optimal response to attacks of the magnitude simulated in T3.

Two key testing objectives for private-sector integration were not realized in T3: testing the NRP's Volunteer and Donations Management Support Annex and testing the PCII Program. Little attempt was made to respond to the telephone calls that were planned as exercise injects from role players from faith-based organizations who offered unsolicited volunteers and donations. The only reported result is that the faith-based players have a greater understanding of how to interact with the Federal government for disaster response and recovery. Similarly, given

the lack of exercise data involving the PCII Program, no conclusions regarding its efficacy can be drawn from T3.