

**The National Guard Weapons Of Mass Destruction
Civil Support Team – Structured For Success Or Failure?**

**A MONOGRAPH
BY
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The National Guard Bureau, following the publication of the *Defense Against Weapons of Mass Destruction Act of 1996*, and the 1998 *Department of Defense Plan for Integrating National Guard and Reserve Component Support for Response to Attacks Using Weapons of Mass Destruction*, created the Military Support Detachment-Rapid Assessment and Initial Detection (MSD-RAID) team to assist in the consequence management of incidents involving weapons of mass destruction. The mission of the MSD-RAID, recently renamed the Weapons of Mass Destruction Civil Support Team (WMD-CST), is to assess a suspected nuclear, biological, chemical or radiological event in support of a local incident commander; advise civilian responders regarding appropriate action; and facilitate requests for assistance to expedite the arrival of additional state and federal assets to help save lives, prevent human suffering, and mitigate great property damage. The National Guard has fielded twenty-seven of these teams and eventually plans to establish one in every state and territory.

The fact that the WMD-CST program is still in its infancy presents the Department of Defense with a tremendous opportunity to modify the structure or mission of these teams, if necessary, before they are fully fielded to every state and territory. It is appropriate to evaluate whether or not these teams, initially fielded in 1998, satisfy a strategic necessity. They must be assessed as to whether or not they accomplish the objectives outlined in the Nunn-Lugar-Domenici legislation. Their structure, mission, and capabilities must be analyzed to determine if they are able to successfully mitigate the consequences of a WMD incident. More important, however, is whether or not the contemporary threat environment warrants their existence.

While the WMD-CST does enhance the National Guard's response capability, its mission and structure do not completely satisfy the strategic need that prompted its creation. The team's four-hour response time presents a tremendous challenge to its effectiveness in assessing the nature of a WMD incident, and advising the incident commander in ways to mitigate the consequences of the disaster. Nor does the structure of the WMD-CST contain sufficient personnel to conduct effective public affairs and liaison operations, which may significantly degrade the ability of the team to support the incident command system. Public affairs and liaison operations are necessary throughout all phases of WMD incident response. Another shortfall in the team's structure lies in the inherent challenge of maintaining long-term personnel readiness due to the lack of a defined career progression model for its members and the low availability of qualified replacement personnel. Modifying both the mission of the WMD-CST to include the task of training first responders, and its structure to enhance its public affairs and liaison operations will ensure the National Guard's ability to provide sustained support to the consequence management of a WMD incident.

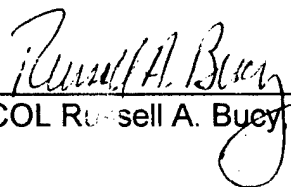
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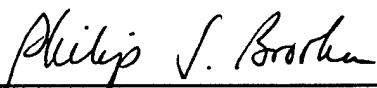
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CHAPTER 1

INTRODUCTION

In March and April of 1995, two distinctly separate events, the Tokyo subway incident and the Oklahoma City bombing, prompted President William J. Clinton to sign Presidential Decision Directive 39 (PDD/NSC 39) to address ways to protect the United States from the use of weapons of mass destruction (WMD) by terrorists. PDD/NSC 39 is a significant document because it defines the United States Government's responsibilities toward the threat, or use of, WMD by terrorists in either domestic or international incidents. PDD 39 divides the response of the United States into two categories: crisis response and consequence management. Crisis response is defined as those "activities conducted prior to the use of weapons of mass destruction by terrorists," and charges the Federal Bureau of Investigation and the Office of Counterterrorism of the Department of State with the responsibility of domestic and international crisis response activities.¹ Consequence management is defined as "mitigating and alleviating the effects of a chemical or biological attack, including preparatory work." PDD/NSC 39 charges the Federal Emergency Management Agency (FEMA) with the overall responsibility for the consequence management of domestic WMD incidents. The Director of Military Support (DOMS) of the Department of Defense serves as the link between FEMA and active duty, National Guard, and reserve military forces. The National Guard assists in the consequence management of domestic weapons of mass destruction incidents through the employment of its Weapons of Mass Destruction Civil Support Team (WMD-CST)—a state-owned team that is responsible to the Governor and the federal government. When the structure of this organization was originally conceived in 1998, it was referred to as the Military Support Detachment-Rapid Assessment and Initial Detection (MSD-RAID) team. However, in January of 2000 the name of the MSD-RAID team was changed to the Weapons of Mass Destruction Civil-Support Team.²

The WMD-CST is trained and equipped to operate safely alongside the first responders in the consequence management of a nuclear, chemical, or biologically contaminated incident. It is designed to assist and support the efforts of first responders in order to enhance our nation's war fighting ability. Is

the WMD-CST structured appropriately to accomplish its assigned mission and satisfy the needs of the first responder community? What changes to the structure or mission of the team are necessary in order for it to satisfy the strategic need that prompted its creation? Answering these questions requires an introduction to the statutory and regulatory background of the WMD-CST and an analysis of its mission and structure.

The concept of the National Guard WMD-CST originated with the *Defense Against Weapons of Mass Destruction Act of 1996*, which was sponsored by Senators Samuel Nunn (D-Georgia), Richard G. Lugar (R-Indiana), and Pete V. Domenici (R- New Mexico).³ The central objectives of this Act were to enhance the nation's level of domestic preparedness and its ability to respond to terrorist attacks involving nuclear, radiological, biological, and chemical weapons. This Act authorized the procurement of the resources necessary to improve the capability of federal, state and local emergency response agencies to prevent and, if necessary, respond to domestic terrorist incidents involving weapons of mass destruction. The Secretary of the Army, under policy and funding oversight by the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, was designated as the Executive Agent for implementing the necessary Department of Defense programs to satisfy the Act's military requirements. The Secretary of the Army designated the DOMS to serve as the staff action agent, under the direction of the Assistant Secretary of the Army for Installations, Logistics, and Environment (ILE). Requests for federal assistance during a WMD incident come from FEMA to the DOMS, or from the Governor to the President.

The *Defense Against Weapons of Mass Destruction Act of 1996* also mandated that the director of the Federal Emergency Management Agency (FEMA) chair a Senior Interagency Coordinating Group (SICG) to direct, coordinate, and orchestrate the overall national domestic consequence management program to ensure that all terrorism-related federal preparedness programs enhance state and local response capabilities.⁴ Using the Tokyo Subway and World Trade Center bombing (26 Feb 1993) incidents as models, this group, who answers directly to the National Security Council, published the *Interagency Strategic Plan*, which seeks to enhance domestic response to peacetime WMD attacks. The

plan emphasizes the need to train first responders in large U.S. cities on the consequence management of WMD incidents. Under the purview of the *Interagency Strategic Plan*, interagency teams coordinate with local city officials including fire, law enforcement, and medical responders to tailor training to meet their specific needs and requirements.

The integration of the National Guard and Army Reserve into the Nunn-Lugar-Domenici sponsored WMD programs originated with a Defense Review Board meeting on 3 October 1997 where the Assistant Secretary of the Army (ILE) was asked to provide an assessment of ways to integrate the National Guard and Reserves into the WMD domestic preparedness programs. Deputy Secretary of Defense John J. Hamre rejected the original reserve component integration plan submitted by the Assistant Secretary of the Army (ILE) on 19 October 1997, because he believed it to be incomplete.⁵ On November 3, 1997, Hamre directed the Under Secretary of Defense for Personnel and Readiness, Rudy de Leon, to oversee the development of a plan to integrate the Reserve Components into a consequence management response plan for domestic terrorism incidents involving WMD. Two months later, in January 1998, a group of subject matter experts, referred to as the "Tiger Team," representing each military service, the Joint Staff, the Office of the Secretary of Defense, the National Guard, Army Reserve, and the Coast Guard published the *Department of Defense Plan for Integrating National Guard and Reserve Component Support for Response to Attacks Using Weapons of Mass Destruction*. The Tiger Team's report is critical to understanding role and structure of the National Guard WMD-CST for two reasons. First, it identifies the capabilities that the United States military might be called upon to provide in support of local, state, and federal authorities during a WMD attack. Second, it contains the concept, model, overall program direction, and describes the funding necessary to support the integration of the reserve components into the overarching Department of Defense WMD consequence management strategy.

Two contributions of the Tiger Team's report are particularly noteworthy. The first is the manner in which it completely integrates the National Guard WMD-CST response model into the *Federal Response Plan*.⁶ The second is the team's comprehensive analysis of the availability of DoD resources to

support potential missions in the consequence management effort of a WMD incident. One of the key assumptions of the Tiger Team is that a domestic WMD incident, while the United States is conducting a smaller-scale contingency or a major theater war, would severely degrade the nation's capability of further responding to additional domestic or international crises. In order to satisfy the needs of force protection, and the necessity of protecting facilities that enable the United States to conduct a major theater war or smaller-scale contingencies, the Tiger Team analyzed the current military units in the force structure and their capabilities to respond to WMD attacks. As a result of their assessment, the Tiger Team identified the need to create a new military unit—the Rapid Assessment and Initial Detection (RAID) team. The RAID team, now known as the WMD-CST, was designed by the Tiger Team to serve as the core Department of Defense technical response capability for the consequence management of domestic WMD attacks. The WMD-CST was designed upon the premise that the most likely technical areas where Department of Defense support will be requested during a domestic WMD incident are: early assessment and detection of a WMD agent, identification of the concentration of the release, and the areas to evacuate.⁷ The 1998 Tiger Team report serves as the foundation for the development, structure, mission, training program, and fielding of the first ten RAID (WMD-CST) teams. These teams are equipped with a mobile laboratory for the field analysis of chemical or biological agents, and a command suite that provides communications interoperability among the various responders at the scene of a WMD incident.⁸

The WMD-CSTs form a small part of a larger and jointly staffed Department of Defense program that reports to the Secretary of Defense through the Department of Defense Director of Military Support that supplements local, state, and federal consequence management teams.⁹ This comprehensive Department of Defense plan is based upon the four elements of the incident command system (information and planning, operations, logistics, and finance) and the twelve emergency support functions of the *Federal Response Plan*.¹⁰ According to the DOD plan, military resources will be incorporated into existing interagency task force structures as required by the incident commander, the Governor, or the CINC responding in support of the *Federal Response Plan*. The National Guard WMD-CST represents

the first military response element during the consequence management of a WMD incident. Subsequent military response capabilities include an information and planning element, an NBC reconnaissance element, an NBC patient decontamination element, an NBC medical response element, a triage medical response element, a trauma medical response element, a preventive medicine element, a stress management element, a security/law enforcement element, mass care elements, a mortuary affairs element, a communications element, an engineering element, transportation elements, and the US Coast Guard national strike force. The overall Department of Defense program seeks to dramatically increase the number of military elements that are available to respond to a WMD incident. These military elements range in size from small teams of five or six people, to larger elements of fifty or sixty personnel. During the first year of the program (1998), the Department of Defense established or identified three of the sixteen types of WMD response elements: ten WMD-CSTs, sixty-five decontamination elements, and twenty-seven reconnaissance elements, and began training medical personnel.

The National Guard WMD-CST is designed to assist local responders in assessing the situation, providing advice, and facilitating requests for additional state or federal response assets. The initial design of WMD-CST, as originally designed in the Tiger Team report, consisted of twenty-two full-time National Guard soldiers and airmen, commanded by a Lieutenant Colonel. The original WMD-CST consists of seven elements: a command and control cell, a reconnaissance cell, a medical support cell, a security cell, a logistics cell, an air liaison cell, and a communications cell.¹¹ The command and control cell provides overall command and control of the assessment team and conducts hazard modeling. The reconnaissance cell provides early detection, initial sample collection, and nuclear, biological, and chemical reconnaissance in an effort to determine the nature and extent of the contamination. The medical support cell provides an initial Department of Defense medical assessment and advice to civilian first response personnel. The security cell provides an initial assessment of security requirements, manages force protection, and coordinates with law enforcement officials. The logistics cell determines initial resource requirements and provides supply and maintenance support for the assessment element.

The air liaison cell coordinates for the transportation and air movement of the assessment element. The communications cell provides internal communications with the assessment element, coordinates for communications connectivity with civilian responders, and maintains a "reach back" capability for additional technical expertise.

As a part of the National Guard, the Tiger Team designed the WMD-CST so that the State Governor could employ it as part of a state response or for it to be federalized to respond with other federal assets. The *1999 Defense Appropriations Act* allocated \$19.9 million to field a National Guard WMD-CST to each of the ten FEMA regions. These teams, located in California, Colorado, Georgia, Illinois, Massachusetts, Missouri, New York, Pennsylvania, Texas, and Washington became fully operational in January 2000. Eventually, the Department of Defense plans to place a twenty-two man WMD-CST team in each of the fifty-four states and territories. Until this occurs, the Army National Guard is establishing "light," or *ad-hoc* WMD-CSTs, from the existing full-time and drill-status force structure in order to provide limited chemical/biological response capabilities to the other states and territories. On 13 January 2000, Secretary of Defense William S. Cohen announced the fielding of seventeen additional National Guard WMD-CSTs by March and July 2000.¹² These teams will be based in Alaska, Arizona, Arkansas, California, Florida, Hawaii, Idaho, Iowa, Kentucky, Louisiana, Maine, Minnesota, New Mexico, Ohio, Oklahoma, South Carolina, and Virginia. These states were selected in order to optimize population and geographic coverage and to minimize the overlap in the teams' areas of responsibility. California hosts two WMD-CSTs in the northern and southern parts of the state due to its large population. Although all of the WMD-CSTs will not be operationally certified, the Department of Defense will field a total of twenty-seven teams by July 2000.

CHAPTER 2

MILITARY CAPABILITIES REQUIRED FOR THE CONSEQUENCE MANAGEMENT OF A WMD INCIDENT

Strategic Need for a WMD Consequence Management Capability

President William J. Clinton outlined eight factors in his 1997 report to Congress on the ability of the United States to respond to a WMD incident, laying the foundation of the administration's threat assessment and establishing the strategic necessity of a domestic WMD consequence management program.¹³ First, chemical and biological agents are readily available and inexpensive to produce. Second, their chemical precursors and biological production processes are easily obtainable. Third, small amounts of chemical/biological agents intended for clandestine use are very portable. Fourth, there is great potential for large-scale public impact based on the limited ability to quickly identify and/or contain the effects of a WMD incident. Fifth, the clandestine stockpiles of WMD munitions are increasing despite chemical and nuclear weapons treaties. Sixth, there is great potential for theft and acquisition of the weapons by criminal or terrorists groups. Seventh, WMD incidents have the capability of inflicting mass casualties that can easily exceed the response capabilities of governmental organizations. And eighth, increased media coverage on the use of WMD may actually inspire organizations to use them to advance political or social agendas. These eight factors, argues Clinton, establish an environment that results in an increased national threat to the United States. Clinton suggests that these conditions can easily be exploited by an internal, or an external, threat.

The procedures in which the Department of Defense (DoD) supports the Federal Emergency Management Agency (FEMA) in response to domestic disasters are identified in the *Federal Response Plan*, published in 1998. This plan implements the specific requirements and authority of the *Stafford Act* (Public Law 93-288), which authorizes the President to issue emergency, and major disaster declarations, in response to a governor's request, and provides FEMA with authority to assign missions to federal agencies in the event of a Presidential declaration of a disaster or emergency. Department of Defense

Directive 3025.15, published in 1997, assigns responsibilities to both active and reserve components for providing military assistance to civil authorities. In the *1997 DoD Quadrennial Defense Review*, Secretary of Defense Cohen declared his intent to make "U.S. forces as preeminent in combating terrorism as they are in other forces of warfare." Similarly, the in-depth 1997 report of the National Defense Panel addressed the homeland defense mission for DoD, both from a crisis response and a consequence management perspective. The report concluded that "homeland defense will be a much more important mission in the future."¹⁴ The 1997 study of the Defense Science Board corroborated this conclusion in their recommendation to "address needs that have long been viewed as 'too hard,' e.g., biological weapons."¹⁵ The Defense Science Board emphasized the use of state-level civilian and National Guard assets in the homeland defense mission. They recommended the National Guard establish a national consequence-management capability to enhance state and local agency responses to domestic terrorist incidents and to support training and exercises with first responders.

The provisions of PDD/NSC-39 and the *Defense Against Weapons of Mass Destruction Act of 1996* call for the Department of Defense to share roles and responsibilities with other federal, state, and local government agencies involved in emergency management services. This Act, also known as the Nunn-Lugar-Domenici legislation, tasks DoD to share its expertise and capabilities with federal, state, and local officials. It also specifically addresses the requirement to provide military support to civilian authority (MSCA) in emergency situations involving chemical and biological weapons. The National Guard, with its distributed presence throughout the country in states, cities, and communities, provides a "grass roots" level of support to local and regional emergency management services. Moreover, the dual status of the National Guard as both a state force and a federal force provides the National Guard with a tremendous capability to enhance the domestic WMD consequence management system. The National Guard's continuous community involvement that stems from missions such as disaster assistance and counterdrug operations enable the WMD-CST to enhance the existing relationships with state and local officials in the law enforcement, firefighting, emergency, and medical communities.

President Clinton, in his 1999 *A National Security Strategy for a New Century*, further illustrates the strategic need for a domestic WMD response capability in his identification of six categories of threats and challenges to the United States and its interests. Three of the six—regional or state-centered threats, transnational threats, and the spread of dangerous technologies specifically address the danger that weapons of mass destruction pose to the United States.¹⁶ According to the National Security Strategy, the United States is concerned with regional and state centered threats that seek to obtain, develop, and deliver nuclear, biological, or chemical weapons over long distances. Clinton also recognizes the threat posed by terrorists, criminal actors, and other non-state actors that may employ WMD to threaten the interests, values, and citizens of the United States. He declares that weapons of mass destruction “pose the greatest potential threat to global stability and national security,” and that the proliferation or employment of these weapons can provide rogue states, terrorists, and international crime organizations with the means to inflict terrible damage on the United States, its allies, citizens, and soldiers.

The national security strategy describes the necessity of “defending the homeland” from states or terrorists who may be likely to resort to attacks against vulnerable civilian targets within the United States. Clinton fears that the availability of sophisticated technology will allow potential adversaries to use unconventional tools such as WMD to threaten critical domestic infrastructure. Thus, the United States must be prepared to defend against these attacks, limit the damage they cause, and respond effectively against the perpetrators. The success of this endeavor, argues Clinton, lies in the ability to effectively “forge a partnership of federal, state, and local government agencies, industry and other private sector organizations.” Clinton reinforces this concept by declaring the need for the federal government to “rapidly and effectively respond to any terrorist or hostile incident in the United States involving weapons of mass destruction by working with local and state governments to restore order and deliver emergency assistance.” The national security strategy states that the purpose of Clinton’s Domestic Terrorism Program is to enhance the readiness of the United States by integrating the capabilities of federal agencies to support the FBI, FEMA, the Department of Health and Human Services, local, and state governments in both crisis response, and WMD consequence management. He

commits to developing a comprehensive strategy to protect the U.S. population from nuclear, biological, and chemical weapons. Also, he commits to upgrading public health and medical surveillance systems to enhance domestic preparedness for a chemical weapons attack, and to provide essential resources to local, state, and federal emergency response personnel to deal with the consequence management of a WMD incident.

Weapons of Mass Destruction Threat

Compared with other parts of the world, the United States has enjoyed relative isolation from terrorist attacks using weapons of mass destruction. However, the February 1993 bombing of the World Trade Center in New York City and the April 1995 bombing of the Alfred P. Murrah Federal Office Building in Oklahoma City created public awareness that the United States is not immune from devastating terrorist activity. The release of sarin, a chemical that interferes with electrical impulses between the muscle and the brain resulting in respiratory collapse and heart failure, into the Tokyo subway system by the Aum Shinrikyo religious cult on March 20, 1995, serves as an indicator of the type of WMD threat that may exist in the United States. The Tokyo emergency was caused by five members of the cult, each of whom carried a sharpened umbrella and two sealed plastic pouches that contained dilute sarin nerve agent. As the subway trains converged near the center of Tokyo, the five men placed the bags on the floors of their train cars, punctured them with their umbrella, and left the area. The sarin used in this attack killed twelve people and injured more than 5,000 others. An analysis of the Tokyo subway incident serves as a useful threat model for the United States. Little was known about the Aum Shinrikyo sect that made this attack prior to March 1995, and yet the post-incident investigation revealed the cult actually conducted several test releases of lethal chemicals prior to the subway attack.¹⁷ The capacity of the cult to manufacture and store those chemicals was apparently unknown to Japanese authorities. The cult is reported to have had over 50,000 members in Russia at the time of the attack. Moreover, the post-incident investigation also revealed that the cult actively recruited nuclear scientists, owned a radio station in Vladivostok, and tested sarin gas in Australia against sheep. Despite the cult's

scope of operations, neither the United States nor Japan was able to interdict their activities prior to a WMD incident. It is easy to comprehend the enormity of the potential threat that faces the United States when one considers the resources available to organizations such as the Aum Shinrikyo cult, who had accumulated over \$1 billion in assets and established offices in six countries on four continents. They succeeded in producing chemical weapons, including toxic chemical agents such as sarin, VX (persistent nerve agent), and sodium cyanide (poison); and they were in the process of developing biological weapons, including anthrax, botulism, and Q-fever (from the Rickettsia family). The implications of the cult's activities are sufficient to cause even the most skeptical to question how many more organizations like the Aum Shinrikyo cult may exist, and will they one day threaten the United States?

Although conventional explosives were used in the bombing of the World Trade Center in New York, the trial judge, at the sentencing of those responsible, released some alarming information concerning the terrorist's intentions to incorporate a chemical strike into their attack.¹⁸ Judge Kevin Duffy's comments at the terrorist's sentencing illustrate how two aspects of their plan, if successfully executed, would have dramatically increased the consequences of the attack. First, the objective of the terrorists, according to Duffy, was to get one of the towers to fall down over its twin tower next door—it was apparently only lack of an empty parking space for the vehicle containing the explosives that prevented this from happening. Second, Duffy stated that the terrorists attempted to lace the bomb with sodium cyanide in order to produce cyanide gas during the explosion. Fortunately, cyanide gas was not released because the force of the blast apparently vaporized the chemicals. Otherwise, the smoke and fumes that were drawn into, and up through, the tower would have been far more lethal. The very fact that the World Trade Center bombing may represent the nation's first chemical attack by a terrorist substantiates the existence of a credible WMD threat to the security of the United States. This threat is sufficiently strong that President Clinton, on November 14, 1994, nearly a year and a half after the World Trade Center bombing, declared a state of national emergency in Executive Order 12938.¹⁹ Clinton, who has extended this state of emergency each year since 1994, signed the most recent national emergency declaration on November 10, 1999. He justified this action by emphasizing the "unusual and

extraordinary threat to the national security, foreign policy, and economy of the United States posed by the proliferation of nuclear, biological, and chemical weapons and the means of delivering such weapons.” It is the regulatory authority of this national emergency declaration that allows the use of federal military resources in the consequence management of domestic WMD incidents.

While President Clinton’s decision to maintain the nation in a state of emergency may, at first glance, appear to be an extreme and unwarranted action, it appears justifiable when one considers the number of recent terrorist incidents where the use chemical or biological weapons are either employed, or suspected of being employed. The Center for Nonproliferation Studies (CNS) of the Monterey Institute maintains a database of terrorist incidents involving either the known or suspected use of chemical or biological agents.²⁰ They track the specific agent, delivery method, and the motivations and capabilities of the terrorist group responsible for the attack. During the course of the last thirty years, there have been eleven prominent terrorist incidents where the use of nuclear, biological, or chemical effects was either suspected or confirmed. According to their database, in 1970, the Weather Underground Organization was suspected of employing biological agents. Similarly, the 1970s eco-terrorist group R.I.S.E. planned to destroy all life on the entire planet with several different microbial pathogens and then repopulate the world with their own genes. In 1972, members of the Order of the Rising Sun, an American fascist organization, was found in possession of 30-40 kilograms of typhoid bacteria culture which they reportedly planned to introduce into the water supplies of Chicago and Saint Louis. The Alphabet Bomber, in 1974, threatened to assassinate President Gerald Ford with nerve agents. In 1975, the Baader-Meinhof Gang was suspected of using mustard gas in Stuttgart, Germany. The Red Army Faction, in 1980, was suspected of employing the botulinum toxin in Paris. Similarly, in 1984, the Rajneeshee Cult disseminated salmonella, a food poisoning bacterium in Oregon. The Covenant, the Sword, and the Arm of the Lord, in 1986, employed cyanide in their Arkansas compound. In 1992, the Minnesota Patriots Council employed ricin. Terrorists attempted to employ sodium cyanide in the 1993 bombing of the World Trade Center. Also, the Aum Shinrikyo cult, in 1995, employed nerve agents (sarin, VX), anthrax, and botulinum toxin. Last, Larry Wayne Harris, in 1995, illegally obtained bubonic plague bacteria

through the mail, which he planned to shatter in a New York subway station in an effort to ruin the economy and surprise the military. Harris, a member of the Ohio Aryan Nation, speculated that Iraq would be blamed.

In addition to the internal threat posed by radical extremists such as those involved in the World Trade Center and Murrah Federal Building bombings, known foreign terrorist organizations that operate within the United States may also employ WMD in the furtherance of their objectives and political agendas. According to the Federal Bureau of Investigation, three large middle-eastern terrorist organizations have established an active presence in the United States: Palestinian Hamas, Iranian-backed Hizballah, and Egyptian-based al-Gama' at al Islamiya.²¹ At present, the activities of the American wings of these organizations generally revolve around fund-raising and low-level intelligence gathering. Although not as noteworthy as a known terrorist organization, the FBI also suggests that another potential threat exists in the number of Iranian students attending U.S. universities and technical institutions who are believed to be members of the pro-Iranian student organization known as the Anjoman Islamie. This organization is apparently comprised almost exclusively of fanatical, anti-American, Iranian Shiite Muslims. These students could be called upon to employ a WMD by their government.

Although the potential for terrorism does exist in the United States, whether or not an individual, state, terrorist or criminal organization will actually become motivated to either acquire or use a weapon of mass destruction may be based upon two premises: the belief that the possession of such weapons will advance their relative status and power, and that the threat of their employment may deter a state from interfering in their political or social agenda. If these premises are true, then it follows that one of the primary WMD threats to the United States stems from extremists, subnational factions, rogue states, or movements who hold various grievances against the government, or against society. Such individuals and groups are not likely to be deterred from using weapons of mass destruction by the present national policy of "overwhelming retaliation" against a terrorist organization, or its sponsoring/supporting state. Moreover, it is difficult to apply the concept of "overwhelming retaliation" when one is unable to identify who is responsible for the incident in the first place, or if the responsible party doesn't care about the

retaliatory consequences resulting from their employment of a WMD. An example of this attitude was recently demonstrated in Chechnya.

The placement of a 30-pound package of radioactive material in a Moscow park in November 1995 by Chechen rebels marked the first act of nuclear terrorism in the post-cold-war era.²² Although the container was not rigged with the necessary explosives to generate radiation dispersion, the Chechens did demonstrate to Russia that they posed a credible terrorist threat. In essence, they planned to augment conventional explosives with nuclear material in order to produce radiological contamination. Were an explosion that generates radiological dispersion to occur, it might have generated panic in the local population, and presented Russia with a tremendous consequence management problem. The consequence management of a WMD attack of this nature is a complex task that will severely tax the government's resources. The Chechen rebels, in a state of civil war with Russia, would not have cared about the response that would have ensued had their bomb exploded.

The Chechen rebel incident suggests that the collapse of the former Soviet Union, and the emergence of today's multi-polar society may be another source of a WMD threat to the United States. The collapse of the Soviet Union resulted in a decay of their nuclear custodial system to the point that both states or non-state actors can now buy or steal the nuclear fissile materials that they previously had to produce on their own. The results of Project Sapphire serve as classic example of the potential for this kind of threat, which is based upon is the lack of inventory control systems in the former Soviet Union.²³ The U.S. Departments of Energy and Defense initiated Project Sapphire and when the government of Kazakhstan found 600 kilograms (enough material for thirty-two nuclear weapons) of highly enriched uranium that had been inadvertently left in Almaty, Kazakhstan, when the Soviets left. After the project began, investigators determined that the inventory of the 600 kilograms, which was conducted using Soviet-measuring techniques, was inaccurate by four percent—which is enough to make almost two additional nuclear weapons. The Department of Energy secured the nuclear material and transported it to the Oak Ridge National Laboratory. Project Sapphire clearly demonstrates the potential catastrophe that can occur when a state does not apply the same degree of safeholds to nuclear materials as are applied in

the United States. This problem, however, still exists in the former Soviet Union. According to the Nunn-Lugar-Domenici testimony, nuclear material is still unsecured in the former Soviet Union.²⁴

Chelyabinsk-65, a warehouse with glass windows and a padlocked door, serves as a bulk plutonium storage facility in Russia for over 10,000 ingots of separated plutonium that is stored in thermos-sized containers. This facility is tremendously vulnerable to break-in and theft.

Potential Weapons, Tactics, and Delivery Means

Terrorists, criminal organizations, or states may employ a range of both commercially available and military grade chemical and biological agents in a WMD incident. These may include biological agents, such as anthrax (dried and liquid slurry), cholera, the plague (*Bubonic and Pneumonic*), *Tularemia* (a blood poisoning disease), *Rickettsia* (Epidemic and Endemic Typhus, Rocky Mountain Spotted Fever, and Q- Fever), encephalitis, or smallpox. These attacks include fungi such as foot-and-mouth disease, or rice blast. Or, they may also include neurotoxins and cytotoxins such as ricin, botulinin, or saxitoxin. Alternatively, attacks may include chemical agents such as sarin and methylparathion, either of which can easily be combined with conventional explosives to generate a baited attack. Baited attacks are those that combine conventional explosives with a chemical or biological weapon. Regardless of the type of chemical or biological weapon employed, it is very difficult for a population to defend itself against these types of attacks. Baited attacks contaminate both the victims and emergency response personnel—who are unprepared for a WMD incident. Therefore, regardless of a nation's military might, vulnerability to biological and chemical weapons remains an "Achilles heel" that plagues every state in the world.²⁵

Unlike conventional warfare, where a state can defend itself against a known enemy who is constrained by the forms of offensive and defensive maneuver, the numerous forms of WMD attack is further compounded by a seemingly endless number of available delivery means. A nation can't defend against them all. Terrorists may employ a baited attack, such as was attempted during the World Trade Center bombing, or they may conduct simultaneous chemical attacks in the same, or multiple cities in an effort to overload the emergency response capability of the government. They may also tamper with food

in a restaurant using biological agents in order to infect a large population. Liquid slurry of a biological agent may be employed in a heating, ventilation, and air conditioning (HVAC) system in a public building—also infecting a large population. Dried biological agents may be released using a crop duster, or in a public place such as an airport. The national challenge of a WMD attack is that it may occur anywhere with or without warning. Moreover, in a worst-case scenario, the very emergency response forces that the nation relies upon to manage the consequences of a WMD incident may be infiltrated with sympathizers. Arguably, the sheer number of possibilities generated by the potential forms of attack and the means of delivery exceed the capabilities of the government to erect a shield to protect the population against all of them. A possible solution to this problem, then, is to adequately prepare for these attacks at the state, local, and federal level.

Implications of the Present State of National Preparedness

The ability of local first responders to properly respond to an incident where a weapon of mass destruction may have been employed is critical to the successful consequence management of the disaster. Although military and other federal response forces may arrive on the scene in a timely manner (within four hours in the case of the WMD-CST), local first responders have the immediate requirement to deal with the incident and care for victims since they arrive within fifteen minutes of an incident. Senator Nunn, as he sponsored what is now the *Defense Against Weapons of Mass Destruction Act of 1996*, summarized the results of a series of exercises conducted by the Federal Emergency Management Agency wherein the ability of the nation to respond to a nuclear, chemical, biological, or radiological attack was tested.²⁶ During the exercise, the first hundred or so emergency response personnel (police, firemen, and medical personnel) rushed headlong into the emergency scene and were promptly declared dead by the referees. In other words, the people responsible for the immediate consequence management of the disaster were among the first victims. During the second exercise, involving both chemical and biological weapons use, contaminated casualties brought to the nearest hospital were handled so carelessly by hospital personnel that within hours most of the staff were judged to have been killed or incapacitated by

spreading contamination. Nunn stated that his purpose in sponsoring and arguing for this legislation was to “persuade the Congress and the American people that we face a new and severe national security threat for which all governments at all levels are woefully inadequately prepared.”

Nunn further argued that three things must occur if America is to prepare for the consequence management of weapons of mass destruction.²⁷ First, the expertise that has been built up over the years in both the Departments of Defense and Energy must be made available to federal, state, and local emergency preparedness and response teams. Nunn suggested that the Departments of Defense and Energy should train state, local, and federal officials in the detection, recognition, containment, and treatment of emergencies arising from the use of weapons of mass destruction. He also proposed they train first responders in the use of detection equipment, protective gear, and how to avoid becoming casualties themselves. Nunn specifically recommends that the Department of Defense train emergency medical personnel in the appropriate triage, treatment, and the administration of casualties arising from a weapon of mass destruction incident. The second point that Nunn also proposes is that the Departments of Defense and Energy should be provided with the necessary fiscal resources needed to provide this training to first responders since they, at present, are the only practical source of this kind of expertise. Nunn argues that the United States must be prepared for a WMD incident, so it does not suffer another “Pearl Harbor.” Nunn’s third point is that customs procedures must be modified to stop weapons of mass destruction at their source before they enter the United States.

Many of the principles contained in the *Defense Against Weapons of Mass Destruction Act of 1996* are similar to the objectives of the Civil Defense program used by the United States during World War II and the Cold War. In 1980, as a part of the Civil Defense Program, the federal government published a list of civil preparedness standards that were developed jointly by local, state, and federal civil preparedness professionals for communities with respect to the mitigation of a nuclear strike.²⁸ Although now out of date, the purpose of these standards was to provide in-place protection of the population, at or near their places of residence, and to accomplish the orderly relocation of people from high-risk areas to low-risk host jurisdictions during a period of severe crisis. These standards emphasized

the ability of local governments to act swiftly and effectively to save life and preserve property should the community be threatened by any kind of emergency or disaster—whether a peacetime emergency, or as the result of an enemy attack upon the United States. Moreover, these standards emphasized the need to make effective, coordinated use of all assets available to the community. A common theme of these standards emphasizes training and assisting people in working together. Although the potential of geo-thermonuclear war is now quite low, the fundamental premise of the civil preparedness standards can certainly be applied to community preparedness for a WMD incident. The need for these standards is emphasized by the Tokyo subway incident, whose three key lessons heightened the awareness of the state of preparedness of the nations of the world for a WMD attack: first, the lack of knowledge, training, and coordination among law enforcement agencies caused fatal delays and errors in investigating the acquisition and use of weapons of mass destruction—catching the state off guard; second, like Tokyo, other large cities may be unprepared to manage man-made disasters such as chemical attacks—increasing their effects; third, the ability of the Aum Shinrikyo cult to clandestinely manufacture a nerve agent like sarin suggests that the production of weapons of mass destruction is possible when one has the knowledge and financial resources.²⁹

It follows that the ability of the United States to successfully manage the consequences of a WMD incident is based upon its level of preparedness before the incident and the effectiveness of its response efforts after the incident. At present, the United States is only minimally prepared to adequately handle a WMD incident—despite the significant opportunities for low-cost measures to reduce the vulnerability of the United States.³⁰ For example, recent medical research shows the effectiveness of a biological attack can be reduced a thousand-fold through proper hygiene, prophylaxis, and the use of \$5 respiratory masks for the duration of the attack.³¹ According to the results of modeling experiments, the immediate prophylaxis of the affected population during an anthrax incident wherein 50,000 people are infected will result in about 5,000 deaths and an incident cost of approximately \$28-55 million. Delay of treatment until day six of the WMD incident will result in approximately 32,875 deaths, and an incident cost of \$194-237 million.³² The problem with these measures is that the population must realize that it is under

attack. The delayed effects of biological agents preclude these measures, unless an attack is detected early. Richard A. Falkenrath, author of *America's Achilles Heel*, argues that the United States, on the whole, is poorly prepared to respond to a covert WMD attack for three reasons. First, local first responders lack the training, equipment, and resources necessary to mount the first stage of consequence management. Second, the current WMD response capabilities, both federal and military, are still insufficient in scope and resources to respond to attacks in metropolitan areas since a WMD incident, if effectively executed, could produce seven possible results: mass casualties, contamination, panic, degraded response capabilities, economic damage, loss of strategic position, and social-psychological damage/political change.³³ Arguably, were all seven results to occur, they would quickly overcome the capabilities of local, state, and the federal governments. Third, comprehensive rehearsals that integrate the response capabilities of multiple local, state, and federal agencies involving WMD incident response are infrequent. Falkenrath suggests that because consequence management is not effectively exercised in the United States prior to a WMD incident, it will not be effectively executed during an incident. Thus, the United States has a very low level of preparedness for a WMD incident.

Falkenrath further states that there are five key areas in which increased emphasis could improve the ability of the United States to contain and respond to an unconventional WMD threat.³⁴ These are: 1) the development of a national strategy with appropriate planning and coordination; 2) improved intelligence and threat identification; 3) increased operational preparedness at the local, state, and federal level; 4) enhanced security of fissile material security; 5) the adoption of a declaratory policy. Falkenrath's argument supports the premise that it is a strategic necessity for the United States to prepare itself for the consequence management of a WMD incident. The Tiger-Team's purpose in designing the WMD-CST was to satisfy, in part, this necessity. The following chapter describes the structure and capabilities of this team.

CHAPTER 3

THE NATIONAL GUARD WEAPONS OF MASS DESTRUCTION CIVIL SUPPORT TEAM

Mission of the Weapons of Mass Destruction Civil Support Team

The mission of the WMD-CST is to “assess a suspected nuclear, biological, chemical or radiological (NBC/R) event in support of a local incident commander; advise civilian responders regarding appropriate action; and facilitate requests for assistance to expedite arrival of additional state and federal assets to help save lives, prevent human suffering and mitigate great property damage.”³⁵ This mission is very similar to that originally contained in the Tiger Team report—“provide early assessment, initial detection, and technical advice to the incident commander during an incident involving weapons of mass destruction. Facilitate identification of Department of Defense asset requirements.”³⁶

The WMD-CST deploys rapidly (within four hours) to the site of a suspected attack and assists first responders in the identification and assessment of the nature of the attack and the chemical or biological agent. They provide medical and technical advice and identify the appropriate federal or military assets that could assist in the consequence management of the attack.³⁷ Team members identify the need for follow-on support elements from the Department of Defense that may further support the incident commander and local first-responders. The WMD-CST is not intended to replace the incident command system (ICS), nor the duties of the first-responder.

Structure of the WMD Civil Support Team

As it is presently organized, the WMD-CST is a joint organization that is composed of twenty-two full-time Army and Air National Guard personnel which are organized into six elements: a command and control element, an operations element, a medical support element, a communications element, a survey element, and an administrative and logistics team.³⁸ When the WMD-CST structure was originally conceived in the Tiger Team report, it consisted of seven elements: a command and control cell, a reconnaissance cell, a medical support cell, a security cell, a logistics cell, an air liaison cell, and a

communications cell.³⁹ Although the current WMD-CST structure differs slightly from the original model in terms of the number and names of cells, the overall mission and duties have not changed. This monograph will analyze the current six-element structure of the WMD-CST.

The WMD-CST's command element consists of the commander in the grade of Lieutenant Colonel (O-5), and a deputy commander in the grade of Major (O-4). These positions are branch immaterial in order to facilitate their being filled with the most qualified Army or Air National Guard officer. The mission of the command element is to provide command and control of the WMD-CST. This element also conducts liaison with the incident command system, the federal response task force, and other local, state, and federal agencies involved in the consequence management of a WMD incident. The commander and deputy provide guidance as requested, or required, on appropriate incident response. In conjunction with the higher military headquarters responsible for incident response, they identify and assist in the introduction of follow-on support elements from the Department of Defense forces into a consolidated response team. They are also responsible for the coordination of public affairs issues for the WMD-CST.⁴⁰

The operations element consists of four personnel: a branch immaterial assistant operations officer in the grade of Captain (O-3), a senior operations NCO in the grade of Master Sergeant (E-8) who is qualified in nuclear, biological, and chemical warfare, an operations NCO in the grade of Sergeant First Class (E-7) responsible for hazard modeling, and an assistant operations NCO in the grade of Staff Sergeant (E-6) qualified in nuclear, biological, and chemical warfare. The operations element conducts hazard plume modeling, establishes an operations center, and is responsible for force protection.⁴¹ Members of the operations element coordinate the air and ground movement of the WMD-CST. They also coordinate and direct nuclear, biological, and chemical surveys, and provide real time meteorological data. They are responsible for the training of the WMD-CST and participate in the planning and conduct of interagency exercises.

The medical support element, like the operations element, also consists of four personnel: a certified physician's assistant in the grade of Major (O-4), a medical operations officer in the grade of

Captain (O-3), a nuclear medical science officer in the grade of Captain (O-3), and a senior medical aidman in the grade of Sergeant First Class (E-7). The mission of medical support element is to provide medical support to the WMD-CST and conduct mobile lab analysis of samples obtained by the survey element.⁴² Medical support personnel are responsible for the conduct of a medical surveillance program for all team members. They also advise emergency first responders and hospital personnel on health effects and long-term impacts of a WMD incident. As appropriate, they coordinate with Department of Defense medical labs, and other subject matter experts, on ways to mitigate and contain the effects of a WMD incident.

The communications element consists of a senior communications chief in the grade of Sergeant First Class (E-7) qualified as a communications specialist, and an information systems operator in the grade of Staff Sergeant (E-6) qualified as an information systems specialist. The mission of the communications team is to provide voice, video, and data communications through a variety of networks designed to support WMD-CST operations.⁴³ They are also responsible to maintain communications with the higher military headquarters and other agencies responsible for providing expert advice during the incident. They establish secure communications links as required.

The survey element, the largest organization within the WMD-CST, consists of eight personnel. The survey team leader is a Captain (O-3) who is qualified in the chemical branch. The rest of the team consists of a nuclear, biological, chemical reconnaissance NCO in the grade of Sergeant First Class (E-7), two NBC team chiefs in the grade of Staff Sergeant (E-6), and four NBC NCOs in the grade of Sergeant (E-5). The mission of the survey element is to enter a suspected contaminated zone and conduct a search and survey in order to obtain samples for analysis.⁴⁴ They detect, collect, and conduct field identification of suspected chemical, radiological, and biological agents. They mark contaminated areas, and conduct personnel decontamination for the members of the WMD-CST as necessary. They conduct operations in personal protection equipment up to Level A and provide the results of their survey operations to the incident command system (ICS) through the WMD-CST operations center.

The administrative and logistics element consists of a logistics NCO in the grade of Sergeant First Class (E-7) who is qualified in unit level logistics, and an administrative specialist in the grade of Sergeant (E-5) who is qualified in administration. The mission of the administrative and logistics element is to sustain the ability of the WMD-CST to conduct operations.⁴⁵ They secure the samples obtained from an incident site, maintain the legal chain of custody, and prepare them for transport. They interface with the integrated logistics system, and procure, secure, and store required operational equipment for WMD-CST.

Capabilities of the WMD Civil Support Team

Based upon its present structure, the WMD-CST has the capability to “conduct reconnaissance, provide medical advice and assistance, perform detection, assessment, hazard prediction, and offer technical advice concerning WMD incidents and assets.” The WMD-CST plans the consequence management of a WMD incident in five phases: the pre-incident phase, the alert phase, the deployment phase, the response phase, and the post-incident phase.⁴⁶ These phases occur in a cycle—allowing the team commander to allocate the resources necessary to ensure mission accomplishment. The pre-incident phase occurs when the team is not deployed, and its focus is on those actions necessary to ensure deployment readiness. The pre-incident phase is defined as “that period of time prior to the occurrence of an incident requiring a response from the WMD civil support team.” While in the pre-incident phase, the WMD-CST focuses their efforts on two elements: planning and preparation. The alert phase consists of “those actions that occur to notify and assemble the members of the team.” It also consists of two elements: notification and assembly.

The deployment phase consists of “the period of time during which the unit leaves the unit assembly area and travels to the incident site.” At present, the WMD-CST will deploy using ground (organic unit vehicles), air (movement of team and vehicles via Department of Defense fixed wing aircraft), or helicopter air insertion (dependent upon landing zone, and the availability of follow-on transportation to the incident site.) The WMD-CST’s objective is to deploy to an incident site within

four hours. The commander monitors the WMD-CST's objective of a four-hour response time. In order to attain that objective, members maintain 24-hour contact with the notification system.⁴⁷ The response phase consists of the "period of time in which the element is actively engaged in its mission at an incident site." In other words, it starts when the team's commander reports as a support asset to the incident commander through the mitigation of the incident, until officially relieved of support by the incident command system. The post-incident phase consists of two elements: redeployment and recovery operations. This phase begins when the higher military commander, in coordination with the incident commander, has determined that the WMD-CST is no longer required for consequence management.

Because of the low threat of a domestic WMD incident, the majority of the WMD-CST's time will be spent in the pre-incident phase. The overarching training objective that governs the WMD-CST during the pre-incident phase is to "employ joint, interagency, and intergovernmental efforts to mitigate the effects of a WMD incident."⁴⁸ The fact that this is a fairly broad training objective presents advantages and disadvantages to the WMD-CST commander. A broad interpretation of the pre-incident training objective suggests that the WMD-CST's training may depend upon interagency support and cooperation in the area of response management. A narrow interpretation of the WMD-CST's training objective suggests that pre-incident training should focus specifically on military operations such as contaminant identification, decontamination operations, the restoration of public order, or the prevention of additional casualties. As it is presently written, however, the pre-incident phase training objective allows the commander the flexibility to meet the team's operational needs in its assigned area of responsibility.

The WMD-CST is suited to its overall mission of "assessing, advising, and facilitating" during a domestic WMD incident due to the fact that, in twenty-two of the fifty-four states and territories, the Adjutant General is also the senior emergency response official in the state.⁴⁹ In other words, the Adjutant General not only commands the National Guard resources of the state, but also serves as the director of the state's disaster services division, or emergency response capability. This relationship places the WMD-CST in the unique position of being able to assist in the realization of the intent of the

Defense Against Weapons of Mass Destruction Act of 1996, the recommendation of the Defense Science Board, and Senator Nunn's proposal that DOD resources be used to assist in the enhancement of the nation's level of domestic preparedness. The other thirty-two states and territories where the Adjutant General is not the senior disaster response official will still benefit from a WMD-CST, but may not enjoy the same degree of interagency cooperation and ease of obtaining additional military resources. Much will depend on the relationship between the Adjutant General and the state's senior disaster response official.

Proposed WMD Civil Support Team Tasks

With the passage of the *Defense Against Weapons of Mass Destruction Act of 1996*, Congress directed the National Guard Bureau (NGB) to submit a report to the congressional defense committees that address the following areas relating to the National Guard's role in the WMD consequence management effort. First, NGB was to define and clarify the National Guard's domestic consequence management mission with respect to other federal/state and local authorities with similar responsibilities. Second, NGB was to conduct a comprehensive domestic WMD threat assessment. Third, NGB was to develop a model to train both National Guard personnel and state/local emergency responders in the consequence management of domestic WMD incidents. Fourth, NGB was directed to evaluate and acquire new chemical/biological defense technology. Fifth, NGB was to develop a series of WMD incident response plans. In order to satisfy the first congressional directive, the National Guard Bureau requested that the Science Applications International Corporation (SAIC) conduct an independent and detailed assessment of the role of the National Guard in preventing and countering domestic attacks by terrorists using WMD compared to the roles of other federal, state and local authorities.⁵⁰ In 1999, SAIC concluded their study and published an exhaustive report on the role of the National Guard in the consequence management of a WMD incident.⁵¹ This report analyzes the current role of the WMD-CST and recommends other potential tasks to enhance its utility in the overall consequence management effort. While the majority of their recommendations appear to encompass the National Guard as a whole, several

are particularly cogent to the WMD-CST. These recommendations are characterized by five specific functions: coordination; knowledge base; training resource; command, control, communications, computers, and intelligence (C⁴I) support; public affairs; and operational support.

As a major emphasis in the functional area of coordination, the SAIC report proposes that the WMD-CST enhance the coordination between the emergency responder community and federal agencies. It also suggests that the National Guard should monitor ongoing equipment and technology developmental programs (Defense Advanced Research Projects Agency, Chemical Biological Defense Command, and Academia) to identify military and civilian resources that may have utility in civilian WMD defense, and either advise or help make them available to the emergency responder community. As a part of the knowledge base functional area, the SAIC report suggests that National Guard WMD-CST teams serve as a central repository for general strategic threat information or other operational information needed by emergency responders. In other words, the WMD-CST maintains a general threat, equipment, or technology database that can be made available to all agencies involved in WMD consequence management through the National Guard's distance learning and general network resources. This general, non-time sensitive information will assist first responders, and other agencies, in the conduct of their training, exercises, and actual response operations. Within this context, the WMD-CST could also provide the regional-specific and non-time sensitive operational threat information that it receives from the intelligence community, or other sources, to non-law enforcement emergency responder organizations.

Within the functional area of training, the SAIC report describes the potential community benefits of using the WMD-CST to assist in the establishment of terrorism threat working groups. By focusing on the information needed by first responders to effectively understand, train, plan, equip and respond to a WMD terrorism event, these working groups will foster interagency coordination and cooperation between members. As a part of the functional area of operational support, the SAIC report recommends that the WMD-CST assist in conducting vulnerability assessments of key infrastructure that is not covered by federal critical infrastructure protection programs. These assessments include the

identification of terrorist capabilities, critical infrastructure targets, the vulnerabilities of potential targets, and options to reduce target vulnerability. Also, the SAIC report suggests that the WMD-CST be tasked with the responsibility of assisting state and local emergency planners in the drafting of emergency operations plans, all-hazards operations plans, the updating of procedural or policy manuals, and the development of potential evacuation routes.

The SAIC report strongly recommends that the WMD-CST broaden the scope of its C⁴I support to the first responder organization in two ways. First, the team should provide automation support to enhance the conduct of interagency training exercises. Second, the team should assist in the augmentation of local C⁴I systems, in order to bring interoperable, secure voice and data to support the incident commander. This support includes planning, technology integration, and the use of equipment such as mobile command posts and computer equipment. A further recommendation of the SAIC report is that the WMD-CST enhance the scope of their hazard prediction and modeling support to the incident commander to include plume and fallout prediction.

In the functional area of public affairs, SAIC recommends that the WMD-CST establish an outreach program to federal, state, local jurisdictions, and emergency responder associations in order to familiarize them with Army and Air National Guard capabilities to support their WMD response efforts. SAIC argues that in order to be successful in mitigating the consequences of a WMD strike, a concerted effort must be made to keep the public informed of appropriate issues and procedures using a variety of educational and training media. The effort required to fully implement this recommendation will ultimately benefit the National Guard since the occurrence of a WMD incident may require creative techniques to disseminate information to the affected population in order to mitigate the incident. The National Guard could use these techniques during their routine disaster support operations. In other words, the better the outreach/educational program prior to the incident, the greater the possibility of favorable mitigation of the incident. The SAIC study further identifies a need for the WMD-CST, in conjunction with FEMA, to provide community preparedness training to non-professional responder organizations. They argue that this training should include information on WMD terrorism and

appropriate instructional materials that are geared toward groups of persons who may wish to receive response training in order to benefit members of families, communities, school systems, commercial companies, and social/fraternal/religious organizations, or other groups.

Another proposal of the SAIC is that the WMD-CST provide operational support to first responders in the form of trained personnel who are able to operate equipment that is too costly to train for, and operate, at the state and local levels. The study's authors propose that it may be more cost effective to the public to keep a small number of highly specialized operator teams ready for deployment than to train emergency responders across the nation on the use of certain types of equipment. Last, SAIC recommends that the WMD-CST assist the incident commander in the hasty decontamination of personnel and equipment in order to reduce the impact of chemical-biological incidents upon the local populace and response personnel.

In keeping with the recommendation of the 1997 report of the Defense Science Board that the National Guard assume the day-to-day control over the implementation of the Department of Defense program for improving NBC preparedness, Falkenrath *et. al.* suggests that each State Adjutant General be held accountable for the level of operational preparedness of the cities and counties in his or her state—an appropriate expectation, especially in states where the Adjutant General is also the senior emergency response official. Falkenrath suggests that the levels of community preparedness could be verified by regular review by national inspection teams.⁵² He further suggests that the National Guard of each state acquire the equipment (protective suits, detection systems, and decontamination gear) and training necessary to assist in short-notice operational response to large-scale biological and chemical attacks.⁵³

Although the National Guard WMD-CST has not deployed to the site of a suspected WMD incident since they were established, the teams have been fielded long enough to evaluate the effectiveness of their stated mission and organizational structure with respect to the strategic need that established them, the contemporary threat environment, and the recommendations of the SAIC report.

CHAPTER 4

EFFECTIVENESS OF THE STRUCTURE OF THE NATIONAL GUARD WMD CIVIL SUPPORT TEAM

Evaluation Criteria

Synthesizing the strategic need for the consequence management of a WMD incident with the mission of the WMD-CST and the recommendations of the SAIC report yield nine criteria from which one can evaluate the suitability of the structure and mission of the WMD-CST. These criteria are the ability of the WMD-CST to: assess, advise, facilitate, coordinate, serve as a knowledge base, serve as a training resource, conduct public affairs, provide operational support, and provide C⁴I. Before each of these criteria can be used effectively to evaluate the present design of the WMD-CST, it is necessary to first define them. Three of the nine criteria directly relate to the essential tasks found in the current mission statement of the WMD-CST. The remaining six relate to the strategic need of the United States as outlined in Chapters One and Two, and the recommendation of the SAIC report.

The criterion “assess” is defined as the ability of the WMD-CST to characterize the nature of a WMD incident. The criterion “advise” refers to the ability of the WMD-CST to provide guidance to civilian responders regarding appropriate action on the effective consequence management of a WMD incident. The criterion “facilitate” refers to the ability of the WMD-CST to process requests for assistance in order to expedite the arrival of additional state and federal assets to help save lives, prevent human suffering and mitigate great property damage.

In keeping with the intent of the Nunn-Lugar-Domenici legislation and the recommendations of the SAIC report, the criterion of “coordination” refers to the ability of the WMD-CST to exchange information and conduct operations with other state, local, and federal agencies in a unity of effort. The criterion of “knowledge base” refers to the ability of the WMD-CST to serve as a repository of information related to the consequence management of WMD incidents. The criterion of “training resource” refers to the ability of the WMD-CST to provide, or facilitate, the training of civilian first

responders on the effective management of a potential WMD incident. The criterion of "public affairs" refers to the ability of the WMD-CST to both inform the public and employ the media to mitigate the consequences of a potential WMD incident. "Operational support" refers to the ability of the WMD-CST to conduct vulnerability assessments, provide operational intelligence and support to civilian first responders, and provide personnel who are able to operate equipment that is too costly to train for, and operate, at the state and local levels. The criterion "C⁴I" refers to the ability of the WMD-CST to provide automation support to enhance the conduct of training exercises and to augment local C⁴I systems in order to bring interoperable, secure voice, data, and communications to support the incident commander.

Effectiveness of the Ability of the WMD-CST to "Assess"

The biggest challenge to the WMD-CST's ability to assess the nature of a WMD incident may be the ability of the team to maintain an appropriate level of personnel readiness. If one assumes that it is possible for the National Guard to hire sufficient personnel who are qualified in the necessary career field, then the duty positions contained in the present structure of the WMD-CST clearly seem to support the technical requirements necessary to identify a WMD attack. Two questions must be addressed, however, if the National Guard is going to retain this capability within their WMD-CST over time. First, are there enough qualified soldiers available to the National Guard in each state to man the technical positions in the WMD-CST? The technical positions identified in the present WMD-CST structure are a very low-density military occupational specialty. There simply are not many qualified soldiers to draw from to fill these full-time positions. The National Guard must compete with civilian employers who will pay far more lucrative salaries to hire soldiers qualified to fill the positions in the WMD-CST. Will the National Guard be able to retain these experienced, and technically proficient, soldiers within their force structure once trained? Moreover, the ability of the WMD-CST to assess the nature of a suspected nuclear, biological, chemical or radiological (NBC/R) incident requires a scientific/technical proficiency that can only be developed over time and through experience. To accomplish this, an individual must hone their proficiency over the course of years in order to develop the skills required to assist in the consequence

management of complex nuclear, biological, or chemical incidents. Thus, once such an individual is identified, the National Guard can't afford to let him or her leave the team without damaging its operational readiness.

The second question that must be answered is how can the National Guard, at the state level, manage the career progression of the WMD-CST personnel? A state that lacks sufficient military force structure to ensure the career progression of the technical soldiers working in the WMD-CST will, in time, be unable to sustain the readiness levels required of the team. These capable soldiers will, by necessity, eventually leave the team in search of promotion or other leadership opportunities. Because of the low-density requirement for technical occupational specialties within the National Guard, by statute the principal combat reserve of the nation, the career progression of these personnel will often involve a change in their military occupational specialty. The National Guard does not have the force structure to provide the soldiers with sufficient leadership and promotion opportunities within their technical military occupational specialty. This generates two problems. First, experienced and qualified individuals with a critical-hard skill and invaluable experience, leave the team—taking knowledge, experience, and wisdom with them. Second, because of the limited number of available applicants, these vacancies will most likely be filled with new, inexperienced individuals. Thus, career progression issues will degrade the operational readiness of the team over time. Potential applicants to the WMD-CST, who witness the fact that assignment to the WMD-CST limits career advancement opportunities, will be less inclined to join the team than if there was an established career progression model.

The complications arising from personnel readiness and career progression issues suggest that although the structure of the WMD-CST does appear to accomplish the need to “assess” the nature of a WMD incident, the team commander will face readiness problems over time. Without doubt, the team's successful assessment of a WMD incident will be proportional to the severity of personnel readiness and career progression issues. Thus, a career model for WMD-CST personnel is clearly required in order to ensure long-term readiness. If this is not accomplished, then the team may not be able to accomplish its mission.

Effectiveness of the Ability of the WMD-CST to "Advise"

The ability of the WMD-CST to successfully advise civilian responders regarding appropriate actions during the consequence management of a WMD incident is based upon three factors. First, has the WMD-CST established a level of credibility with the emergency response personnel in their area? The mere fact that a WMD-CST makes a suggestion doesn't mean that someone will believe, or apply it. It takes time to develop rapport, and an effective working relationship, between agencies. It is this rapport and working relationship that establishes interagency credibility—not necessarily the fact that the suggestion came from an alleged subject matter expert. Initially, the WMD-CST can take advantage of the very positive relationship that the National Guard already has with local community emergency response personnel through their disaster support operations. Eventually, however, the WMD-CST will need to be viewed on its own merits as the absolute subject matter experts in military support to WMD consequence management. It will require participation in interagency exercises, workshops, and training events to establish this level of credibility. Until this happens, the team's ability to communicate a meaningful assessment of the nature of a WMD incident to civilian responders is questionable. This directly leads to the second factor, is the team trained in their area of responsibility? Much like the requirement to assess a WMD incident, the structure of the WMD-CST also contains the appropriate mix of technical specialties necessary to advise first responders on the appropriate action to mitigate the consequences of a WMD incident. This does not mean, however, that the team's members are adequately trained. Training readiness is a historic challenge for Guardsmen due to funding, the availability of training areas and resources, and multi-echelon training opportunities. It remains to be seen whether the Guard can overcome these obstacles to the degree necessary to be able to provide credible advice to the incident command system during a WMD incident.

The third factor is the team's deployment time-line, which is not optimized to effectively satisfy the need to provide timely advice to the incident commander. In other words, the WMD-CST's four-hour response time significantly degrades the effectiveness of its advisory role. By the time the WMD-CST

arrives at the incident site, the consequences of the incident may already be well underway—especially in the case of a biological or chemical strike. A contaminant can travel a long distance in four hours—especially during a downwind hazard in the case of a chemical strike, or a large gathering of people in the case of a biological strike. Thus, it is unlikely that the advice provided by the WMD-CST will be timely in its ability to substantially mitigate the damage of a WMD incident. This response time challenge is further compounded by the fact that with the fielding of only twenty-seven teams, many of the WMD-CST's are responsible for incidents outside of the State where they are based. Arguably, four-hour-old advice concerning the consequence management of a weapon of mass destruction may be too little, too late.

Effectiveness of the Ability of the WMD-CST to “Facilitate”

The structure of the WMD-CST appears to adequately support the requirement to facilitate requests for assistance to expedite the arrival of additional state and federal assets. This is especially true when one considers that the team can draw upon the full resources available to the Adjutant General in order to acquire and deploy the resources necessary to help save lives, prevent human suffering, and mitigate property damage. In other words, the WMD-CST's command and administrative/logistics elements appear to be adequately staffed and able to draw upon the capabilities of the force structure of the National Guard of the state where they are operating. The WMD-CST's role in facilitating the arrival of additional state and federal assets satisfies President Clinton's stated desire to “forge a partnership” between all concerned agencies in the homeland defense effort. This is especially true in the twenty-four states and territories where the Adjutant General is also the senior emergency response official.

One question, however, must be answered with regard to the role of the WMD-CST to facilitate follow-on support. How does the WMD-CST's role of facilitating support differ from that accomplished by the National Guard liaison officer in the various emergency operations centers during a disaster? National Guard liaison officers are very effective in both communicating support needs to their chain of command and facilitating the arrival of this support to the community. Therefore, one can easily argue

that there is not an overarching need for a WMD-CST to perform this mission. An experienced disaster liaison officer can easily accomplish this mission. On the other hand, there may be a great deal of value in having a subject matter expert at the site of a WMD incident to describe the exact requirements for follow on support. Presumably, WMD-CST members will know exactly what resources to ask for, and will be able to serve as a quartering party for this follow-on DOD support.

Effectiveness of the Ability of the WMD-CST to "Coordinate"

It is doubtful that, without augmentation, the WMD-CST will be able to effectively coordinate their actions with the numerous agencies that will arrive on the scene during the consequence management of something as complex, destructive, and chaotic as a WMD incident. In large disasters like floods, hurricanes, and earthquakes a veritable multitude of agencies, organizations, and volunteer groups surface to assist in the mitigation of the disaster. The sheer number and different interests of these organizations suggest that attaining a unity of effort between them is very difficult. Therefore, short of direct coordination between individuals and organizations working side by side at the disaster site, the kind of coordination necessary to attain a unity of effort in the consequence management of an emergency as severe as a WMD incident should only occur within the context of an emergency operations center. National Guard liaison officers are normally assigned to emergency operations centers at the local, county, and state level. One of the primary duties of these officers is to coordinate with agencies involved in disaster mitigation—the same mission proposed for the WMD-CST by the SAIC report. The relationship between these liaison personnel and the WMD-CST is not clear. During a WMD incident, the WMD-CST supports the incident commander, but then so does everyone else. Therefore, reason dictates that liaison and coordination should occur at the incident command level, and not at the team level. Were liaison to occur at the team level, then the WMD-CST would not only need to coordinate directly between forces "on the ground," but also with the incident command system and emergency operations centers at the local, state, or regional level. The manning model of the WMD-CST's command and control cell does not have sufficient personnel to satisfy these coordination demands and still provide

operational leadership to the team. The WMD-CST must be augmented with additional liaison personnel drawn from the National Guard force structure in order for it to be effective in the requirement to “coordinate” with the numerous agencies involved in the consequence management of a WMD incident.

Effectiveness of the WMD-CST as a “Knowledge Base”

The National Guard WMD-CST team has the capability to maintain a database of general, strategic, or operational threat information that is particular to their assigned region of responsibility. This database can also include other information needed by emergency responders, such as an equipment/technology database. The National Guard has a distinct advantage in its access to soldiers with backgrounds in military intelligence or information technology that can occupy one of the branch immaterial positions in the WMD-CST. The National Guard can also draw upon the civilian-assigned skills of other members of the National Guard to assist in establishing the database. The WMD-CST can also make full use of the distance learning and general network resources available to the National Guard to easily provide this information to first responders, or other agencies involved in WMD consequence management throughout their geographic area of responsibility. Establishing this database will not only assist them in the conduct of their operations, but will also make the WMD-CST an effective training resource. The National Guard can establish this database for minimal cost, and it will be very beneficial to the overall consequence management effort.

The WMD-CST is also very capable of serving as a knowledge base. Unlike first responders, the WMD-CST can dedicate itself full-time to WMD consequence management. Because the first responder must respond to every emergency that surfaces in the community, its’ ability to dedicate itself to actions in a WMD environment is extremely limited. In other words, the first responder has to divide its training opportunities between numerous focus areas. This is not true for the WMD-CST, who has the luxury of dedicating the training of its twenty-two personnel to one focus area. It is, therefore, the logical choice to serve as a regional knowledge base for information related to the consequence management of WMD.

incidents. This capability naturally segues into a possible role for the WMD-CST to serve as trainers to those first responders who are involved in the consequence management of a WMD incident.

Effectiveness of the WMD-CST as a "Training Resource"

A major shortfall in the WMD-CST design is that while it has the capability to serve as a training resource, it lacks sufficient personnel and resources to enable it to provide training to first responders, and carry out its stated mission. Use of the WMD-CST as a training resource is a very appropriate task—especially when one considers that proper training of the first responder, as outlined in the *Defense Against Weapons of Mass Destruction Act of 1996*, is one of the nation's strategic needs. The 1997 recommendation of the Defense Science Board also identified this training need. Moreover, the SAIC report also suggests the need for the WMD-CST to become more involved in the training of first responders. These three documents, combined with the conclusions of the *Interagency Strategic Plan* produced by the SICG, suggest that the primary focus of the WMD-CST should be shifted from "assess, advise, and facilitate" to "train." At the very least, the essential task of "train" should be added to the WMD-CST's mission.

The National Defense Authorization Act of 1997 directed the Secretary of Defense to "provide civilian personnel of federal, state, and local agencies with training and expert advice regarding emergency responses to a use or threatened use of a weapon of mass destruction...and improving the responses of such agencies to emergencies involving chemical or biological weapons and related materials."⁵⁴ Training, therefore, seems to be a very logical mission for the WMD-CST. However, on April 17, 2000, President Clinton designated the Attorney General as the lead federal official with responsibility of carrying out the Domestic Preparedness Program—replacing the Secretary of Defense. The full implications of this decision on the National Guard WMD-CST remain to be seen. At present, we will assume that this decision does not adversely affect the availability of the WMD-CST to provide training to civilian first responders in a Title 32 status.

Another reason to use the WMD-CST as trainers lies in the amount of time it takes to deploy the team to the incident site. Although the WMD-CST has a four-hour response time, this may simply be “too little, too late” for them to effectively “assess, advise, and facilitate” in order to mitigate the consequences of the attack. When chemical weapons are employed, a great deal of damage may already be done before the WMD-CST is able to arrive on the scene. It follows, therefore, that the primary focus of the WMD-CST should be on the training readiness of the first responder, rather than advising the responders on incident management procedures four hours after an attack. The incident’s consequences may be very severe after four hours of contaminant exposure. It is certainly responsible to conclude the effective consequence management should begin within minutes of an attack, not hours after an attack.

An authoritative and historical example of the importance of the first responder being trained in the consequence management of WMD incidents is demonstrated by a case study of the December 2, 1943, bombing of the Italian town Bari by Von Richtofen’s Luftflotte Two. At the conclusion of the bombing raid, which lasted only twenty minutes (1930 hours – 1950 hours), seventeen Allied ships in the Bari harbor were either sinking or severely damaged. It was not the air raid, however, that produced the large number of casualties in Bari. One of the American ships, the “John Harvey,” was loaded with one hundred tons of mustard agent, which was stored in 100-pound bombs. As a result of the air raid, the bombs burned and then exploded. The black cloud from John Harvey’s wreckage, which contained the mustard agent, joined that of the other ships in the harbor and drifted over the city. Many died from inhaling these fumes.⁵⁵

The Bari incident is a valuable case study in that it describes a disaster that had WMD implications—and yet, nobody was aware of it until long after the event. This same situation could have existed in the bombing of the World Trade Center if the simultaneous employment of sodium cyanide had been effective. All of John Harvey’s crew, which included a complement of ten chemical warfare service personnel, were killed. Thus, nobody was able to warn the civilian population of the possibility of chemical contamination. The population was caught unaware. Consequently, 678 allied servicemen and over 1,000 civilians who came into contact with the mustard agent died—despite receiving extensive

medical treatment. Many of the casualties were, in fact, the very rescuers who responded to the disaster. Others were medical personnel who treated the disaster victims. The majority of the victims were unknowingly contaminated in the first few hours of the incident. Much like the Bari incident, it is unlikely that a terrorist or a rogue state will publish a WMD in advance in order to give everybody time to adequately prepare to manage the consequences. Many of our nation's first responders could become casualties unless they are properly trained.⁵⁶

Moreover, it is doubtful that the arrival of a National Guard WMD-CST could have mitigated the consequences of the Bari WMD disaster, since the results of the incident suggest that survival may be more directly related to preparedness, rather than post-attack consequence management.⁵⁷ Procedural measures prior to an incident may be more beneficial than procedures instigated at the suggestion of a response team following the incident. First, the fact that few at Bari recognized the garlic smell associated with mustard gas as the ships were burning clearly indicates a training failure on the part of the first responder and a preparedness failure on the part of the community.⁵⁸ Second, unburned mustard agent, also mixed with the leaking oil from the ships, creating casualties of anyone who touched the oil in the harbor. Like the black smoke from the Harvey's wreckage, this was another source of death for the population of Bari. Civilians waded into the harbor to escape the danger of the burning city since they knew that they would not be burned while standing in water. Unfortunately, this brought them into contact with the mustard-oil mixture. Well-intentioned citizens increased the consequences of mustard exposure by wrapping the victims and rescue workers who came into contact with the oil in the harbor in blankets, keeping them warm, and giving them hot tea—all of which were optimal for mustard absorption. The first example illustrates how the proper training of first responders would have been beneficial in the consequence management of this disaster. The second example illustrates how situational awareness on the part of the first responder may have limited the effects of the chemical agent.

A possible way to increase the first responder's situational awareness is to employ the National Guard WMD-CST and the U.S. Marine Corps Chemical Biological Incident Response Force (CBIRF) function in a manner similar to the Chemical Warfare Service during World War II.⁵⁹ The Chemical

Warfare Service, an organization comprised of 323 training personnel who operated out of nine universities and three military schools, were responsible for the training of approximately two thousand first responders (then Civil Defense workers) and over two million civilians. As Allied victory during World War II increased in probability, and the concern of a homeland attack was no longer eminent, interest in the civil defense program began to wane. Arguably, the current employment model of the WMD-CST and the Marine CBIRF teams are merely a “first solution” to a larger WMD problem, and that the real solution to the consequence management of a WMD incident is to increase the level of domestic preparedness and to either enhance the capability of the federal government to respond, or provide an enhanced capability to civilian response agencies.

The mission and present structure of the WMD-CST, however, are not conducive to making the training of first responders its primary focus. The team either requires augmentation with additional full-time, or traditional National Guard personnel, or an adjustment needs to be made to its mission in order to free personnel and resources from the present mission priorities to fulfill this critically important responsibility. Were the National Guard to use the WMD-CST as a training element, in cooperation with the US Army Chemical and Biological Defense Command’s (CBDCOM) initiative to train first responders in 120 US cities, the degree of national preparedness for a WMD incident would be significantly increased. The efforts of twenty-seven WMD-CSTs and the CBDCOM training teams can prepare all of the major population centers in the United States for WMD incidents in a fairly short time. By including the task of training with the requirement to “assess, advise, and facilitate,” the WMD-CST is postured to play a decisive role in the overall effort of mitigating the consequences of a WMD incident.

Effectiveness of the WMD-CST to conduct “Public Affairs”

The responsibilities of the WMD-CST’s command and control element, which consists of only the commander and a deputy, to conduct liaison, provide command and control, and coordinate public affairs issues appears to be overwhelming. To be effective, the WMD-CST command element must incorporate public affairs into each of the five phases of WMD consequence management operations.

The critical nature of the first few hours following a WMD attack make public affairs an absolute necessity. It is a vitally important function of the WMD-CST. The United States relies on rapid response and information dissemination during emergency management operations. Therefore, effective public affairs, combined with an effort on the part of the WMD-CST to train first responders, are arguably the most effective things that the WMD-CST can do to mitigate the consequences of a WMD incident.

At present, the WMD-CST lacks the number of personnel required to conduct effective public affairs operations. A proactive and comprehensive public affairs campaign requires support from the appropriate National Guard state headquarters, or the dedication of a team-member to the task. In other words, either the team expands, or another organization shoulders the public affairs responsibility of the WMD-CST. The priority and scope of the team's public affairs campaign should be based upon a vulnerability assessment of their region of responsibility. Just as some regions of the United States will be at greater risk to a WMD incident than others, some of the WMD-CST public affairs programs will be larger than others. Regardless, based upon the present structure of the WMD-CST, it will be difficult to establish the outreach program envisioned in the SAIC report to federal, state, local jurisdictions, and emergency responder associations to familiarize them with Army and Air National Guard capabilities to support WMD response efforts. The team lacks the resources and will require augmentation to accomplish this expectation. Therefore, like the functional area of training, effective public affairs operations represent a critical role of WMD-CST operations that is not adequately resourced.

Effectiveness of the WMD-CST's Ability to Provide Operational Support

One of the core recommendations of the SAIC study was that the WMD-CST provide operational support to first responders in the form of trained personnel who are able to operate equipment that is too costly to train for, and operate, at the state and local levels. Although this concept appears reasonable due to the ability of the WMD-CST to focus its training efforts solely on WMD incidents, its four-hour response time mitigates the effectiveness of this proposal. As illustrated by the incident at Bari, by the time the WMD-CST arrives at the incident site, a significant amount of damage may have already been

done. In these instances, nothing is gained from the WMD-CST providing an equipment operator to the first responder. There are far more first responder teams in the nation than there are WMD-CSTs. Even if every state and territory were to receive a WMD-CST, they would still be unable to provide timely operational support to every first responder team in the state. The SAIC recommendation is not feasible. While the present structure and mission of the WMD-CST does indeed provide for this kind of support capability in the survey cell, the team simply might not be able to make it to the incident site in order to be effective in operating equipment that is critical for the first responder.

The SAIC report also recommends that the WMD-CST assist the incident commander in the decontamination of personnel and equipment in order to reduce the impact of chemical-biological incidents upon the local populace and response personnel. While the WMD-CST does have the capability to decontaminate its own team members and equipment, expansion of this capability is not practicable or prudent since a large-scale hasty or deliberate decontamination clearly lies outside the capabilities of the twenty-two-man team. This, however, is an ideal mission for an existing chemical company in the Army's force structure inventory, or the NBC Patient Decontamination Element—both of which are identified as potential follow-on forces in the Department of Defense WMD package. The WMD-CST can certainly facilitate the request for, and serve as a quartering party for such units. But it is clearly outside of the scope, mission, and capabilities of the WMD-CST to conduct public decontamination operations.

Therefore, despite the fact that the WMD-CST does contain some organic capability to provide operational support to the incident commander and first response elements, it may not be an effective use of the team's resources to employ it in this manner. In all probability, the advantages gained by training first responders, and facilitating the arrival of additional forces to provide the operational support needed, exceed the advantage of dedicating the team's scant resources to large-scale decontamination or equipment operation.

Effectiveness of the WMD-CST in Providing "C⁴I"

The SAIC report recommends that the WMD-CST provide C⁴I support to first responder organizations through the conduct of training exercises, and the use of interoperable, secure voice and data communications systems to support the incident commander. Although this kind of support does seem to be a very appropriate to assign to the WMD-CST, it exceeds the capabilities of the present manning model. It, however, does not exceed the capabilities of the resources available to the National Guard force structure within the state. As necessary, other National Guard resources could be used to augment the WMD-CST in order to provide C⁴I support. This is especially true in the case of training. With a couple of exceptions, the National Guard force structure in each state and territory already contains a state-of-the-art training capability for its military forces. This architecture includes robust distance learning technologies. Moreover, the majority of states and territories have already developed the protocols, procedures, and generated the resources necessary to train civilian organizations such as law enforcement personnel through the counterdrug program. The National Guard of many states possess state of the art training sites for military operations on urbanized terrain, enhanced classrooms configured for distance learning in every armory, interoperable equipment, and have established memorandums of agreement between law enforcement and other state agencies. With minimal effort, these same resources could be applied to the training of first responders in WMD consequence management.

As a part of the C⁴I function, the SAIC study further recommends that the WMD-CST augment hazard prediction modeling support to the incident commander. Hazard prediction, in this context, expands the scope of the plume and fallout prediction that already exists in the capabilities of the WMD-CST. It is, therefore, possible to satisfy this recommendation. Providing interoperable, secure communications systems to those responding in the incident command system, however, is a challenging problem that exceeds the capabilities of the WMD-CST. Solutions to interoperability problems require a great deal of time and the participation in interagency training exercises. Communications protocols and

equipment needs are most easily identified during these interagency exercises—and should be developed on a regional basis. For example, equipment and interoperability protocols appropriate in the Midwest may not work on the East Coast because of the differences in communication equipment. To be successful in this endeavor, the WMD-CST requires augmentation from the state's National Guard force structure in order to provide this kind of support.

The discussion presented in this chapter suggests the need to modify either the structure or mission of the WMD-CST in order to fully satisfy the strategic need for a WMD consequence management capability as identified in the *Defense Against Weapons of Mass Destruction Act of 1996* and the national security strategy. Nearly two years has passed since after the original concept for the WMD-CST evolved from the Tiger-Team report. It is appropriate to analyze the structure, mission, or focus of the team since these elements are most easily modified while the program is in its infancy. The following chapter addresses proposed changes to the mission and structure of the WMD-CST.

CHAPTER 5

CONCLUSIONS

The Department of Defense decision to use the National Guard as the “tip of the military response spear” in the consequence management of a WMD incident is rational and prudent. The historical role of the National Guard in disaster response, and the relationship that it has fostered in communities, make it a strategic resource in the nation’s homeland defense initiatives. The contemporary structure and mission of the WMD-CST appear, at first glance, to be an ideal solution to the problem of mitigating the consequences associated with a WMD incident. However, closer analysis reveals that the structure and mission of the team should be modified in order to improve its alignment with the strategic needs of the nation and the objectives associated with WMD consequence management.

The fact that the WMD-CST exists with the National Guard force structure lends it tremendous flexibility in that it can access the entire resource base of the Air and Army National Guard units in its assigned state. This allows the Adjutant General to augment the team with additional personnel and resources, as needed, according to the circumstances surrounding the WMD incident. This ability, however convenient, is not a long-term solution that compensates for a critical shortfall in the mission and structure WMD-CST. A few modifications, discussed below, to the structure and mission of the WMD-CST will enhance its effectiveness in assisting the mitigation of the consequences of a WMD incident.

Modifications to the WMD-CST Mission

The present mission of the WMD-CST contains three essential tasks: “assess,” “advise,” and “facilitate.” This, however, may not be the most appropriate focus for the WMD-CST. The Bari disaster case study demonstrates that properly trained first responders are essential to the successful consequence management of a WMD incident. The arrival of a WMD-CST four hours after the destruction of the John Harvey may not have significantly mitigated the consequences of this disaster, no matter how much they “assessed” and “advised.” At best, the WMD-CST would have identified the mustard agent and recommended effective medical treatment, and additional protocols to limit exposure to the contaminant.

The team may have also been able to facilitate the arrival of additional medical and decontamination personnel. The initial damage, however, would have already been done. Therefore, "training" should be added as one of the essential tasks for the WMD-CST and incorporated into its mission statement. The fact that first responders lack the ability to dedicate their training focus to WMD increases the viability of this proposal. The National Guard WMD-CST, therefore, becomes a logical resource to facilitate that training. But, even if the first responders were properly trained, the question still remains on whether or not they would have been able to immediately recognize the agent effects of a WMD incident.

The decision on whether to make training the sole mission of the WMD-CST, or to simply add it to the existing essential tasks in its mission statement, becomes a question of resource availability. Does the National Guard have the resources for the WMD-CST to train first responders and conduct their stated mission of "assessing, advising, and facilitating?" The present personnel structure is not suitable to all the team to perform each of the four tasks (train, assess, advise, and facilitate.) A possible solution to the problem of adding the task of training to the WMD-CST's mission statement is to augment the team with additional full-time (AGR) or traditional National Guard personnel. Because of the difficulty of maintaining long-term personnel readiness, and the team's four-hour incident response time, the tasks of "assessing" and "advising" first responders on post-incident consequence management border on the impractical and are probably not the most efficient use of resources. The fact that assessments occurring hours after the incident are not as effective as an assessment within the first fifteen minutes of an incident is most clearly demonstrated in the Bari disaster case study and the potential release of cyanide gas at the World Trade Center bombing. It is, therefore, more practical for the WMD-CST to emphasize the training of first responders prior to an incident over the sharing of advice on crisis management to first responders four hours after an incident.

Modifications to the WMD-CST Structure

In addition to modifying the mission of the WMD-CST to address the need to train first responders, the team's personnel structure should also be modified to address public affairs, expanded

liaison, and personnel readiness. The need for the WMD-CST to be able to conduct effective public affairs operations is particularly noteworthy. A WMD incident has the potential to generate tremendous public disruption—causing chaos to reign at a time where order is desperately needed. Thus, effective public affairs are critical to the ability of the WMD-CST to conduct successful consequence management operations during a WMD incident. The implementation of public affairs operations is appropriate during all five phases of the WMD-CST operational response cycle. Furthermore, it is essential that these operations are continuous if order is to be re-established, and the consequences of an attack mitigated. Despite the importance of public affairs operations, the team lacks sufficient resources to conduct them. Short of effective first responder training, public affairs are, perhaps, the single element in today's information age that can shape the public conditions necessary for the successful mitigation of the consequences of a WMD incident. Failure to conduct a proper public affairs campaign will cause the incident command structure to face tremendous public complications with during the chaos associated with post-incident operations. Therefore, the need to train first responders and other agencies involved in WMD consequence management and to conduct public affairs are mutually supporting activities. Both enable incident mitigation.

Because the public affairs offices at the National Guard's state headquarters are often so overtaxed they can barely satisfy the existing requirements of the Guard Force structure, an additional public affairs representative dedicated to WMD consequence management issues should either be added to the WMD-CST or to the public affairs office at the state headquarters where the WMD-CST is assigned. Because of the complexity of WMD consequence management operations, and the necessity of developing long-term relationships with the media, full-time (AGR) National Guard soldiers should conduct the public affairs efforts of the WMD-CST. While the public affairs architecture that is generated by the incident command system can certainly satisfy post-incident requirements, the lack of this asset during the pre-incident phase precludes the WMD-CST's reliance upon it to meet the community educational objectives suggested by Falkenrath and the SAIC report. Modifying the WMD-CST personnel structure will satisfy this requirement.

In addition to the public affairs shortfall, the SAIC report suggests that the National Guard WMD-CST also lacks a sufficient number of liaison personnel to allow it to successfully coordinate its actions with emergency operations centers, agencies participating in the incident command structure, and other organizations operating at the incident site. Additional soldiers, either traditional or full-time (AGR), should be assigned to the team as liaison officers to satisfy these requirements. Liaison is a logical assignment for a traditional Guard soldier. Many National Guard field grade officers already have experience in interagency operations and liaison through their participation in disaster support operations. When needed, the additional liaison personnel assigned to the WMD-CST could be drawn from a pool of these experienced soldiers from the National Guard force structure of the state where the WMD-CST is assigned or operating. These liaison officers, however, could be better utilized if they were trained in WMD-CST operations so that they could properly inform others about actions, resources, and capabilities of the team.

The third shortfall in the structure of the WMD-CST lies in the inherent challenge of maintaining long-term personnel readiness. The WMD-CST, as it is presently designed, is comprised of a large number of technically proficient soldiers from low-density MOS's. There is a very limited "pool" of these personnel available from which to draw in order to staff a WMD-CST. Proficiency in the skills required of the WMD-CST must be developed over time. Therefore, optimal operational readiness is contingent upon stability and low personnel turnover. Because most states lack an adequate career progression structure for these soldiers, the senior enlisted positions of the WMD-CST should be converted from NCO to warrant officer positions. The Army uses the warrant officer rank structure to maintain proficiency and personnel readiness in technical career fields. A warrant officer structure will allow a soldier to stay with the team, progress in his or her military career, and continue to develop the technical proficiency and intuition that will be required to successfully accomplish WMD consequence management operations. Otherwise, under the present model, soldiers will leave the team to pursue career advancement opportunities such as platoon sergeant, or first sergeant, thereby degrading the team's readiness by taking valuable experience with them. The WMD-CST, unlike a tactical military unit, does

not have the flexibility to maintain operation readiness with high personnel turnover. Conversion of the senior enlisted positions to warrant officer positions will allow the most experienced WMD personnel to stay with the team and establish a stable knowledge base that will ensure mission accomplishment.

Implications for the State Area Command (STARC)

The State Area Command responsible for the WMD-CST must address two important matters if the team is to be successful in its assigned mission. First, it must develop a career model for both enlisted soldiers and officers selected to serve on the team. The development of the technical skills required of the WMD-CST requires longevity and extensive training. Consequently, STARC's career model must facilitate the career path of team members and ensure the development of a "pool" of soldiers from which to fill the junior ranks of the WMD-CST. STARC must develop a pattern for the follow-on assignment of nontechnical branch immaterial soldiers who serve on the WMD-CST so that they can complete professional military education requirements and participate in military leadership assignments required for advancement. The career model implemented by the STARC may be further complicated by the restrictions of the AGR program. Most soldiers enter the AGR program at the grade of E-5/E-6 or O-3, with little or no active duty time. Therefore, the STARC must determine how to manage these technical soldiers for approximately 18 years of active service time. This is challenging if the state lacks a large military force structure. Moreover, because the AGR program requires mandatory retirement at twenty years, the STARC must identify a way to retain the technical knowledge, experience, and expertise of these soldiers when they enter mandatory retirement.

The STARC must develop policies and procedures on how to augment the WMD-CST with additional resources that it may need from those available within the state's force structure. The resources available to the STARC can satisfy many of the proposed roles of the WMD-CST. The STARC, therefore, must determine how, and which, of these resources it will use to augment the WMD-CST. The STARC, for example, can employ WMD-CST augmentation forces in either a state active duty status, in a status incidental to training, or as federal forces. Each of these three provides the STARC a

great deal of flexibility to compensate for incident related circumstances that may exceed the capabilities of the WMD-CST's structure. The appropriateness of conducting WMD-CST support operations in a status incidental to training depends of the unit and its mission essential tasks. STARCs must, therefore, develop procedures on the employment of WMD-CST augmentation forces in each of these three statuses.

Although it appears that the National Guard WMD-CST satisfies the strategic need for WMD consequence management, the current mission focus neglects the greatest asset in mitigating the consequences of a WMD incident—training the first responder. While the mission of the WMD-CST to “assist, advise, and facilitate” can certainly benefit the incident command system, it will, most likely, arrive too late to be of optimal benefit. If properly trained, the first responders who are expected to arrive at the incident site within fifteen minutes can begin a chain of events that will minimize the casualties and the consequences of the disaster. The activities of the WMD-CST, upon their arrival four hours after the incident, can build upon the successful foundation laid by the local first responder and facilitate the arrival of necessary DOD forces. Modifying the personnel structure of the WMD-CST to ensure the career progression and retention of experienced members will enhance the operational readiness of the team. A concerted public affairs campaign between the team and the civilian population will assist in establishing an appropriate environment for consequence mitigation. Last, augmentation of the WMD-CST with resources from the state's National Guard force structure provides the team with the flexibility to compensate for any immediate incident-related shortfalls. The National Guard has consistently demonstrated outstanding response capabilities during a disaster. The concept of a WMD-CST will enhance the National Guard's ability to continue the same degree of support in a WMD environment. The application of the recommended mission and structural changes to the WMD-CST will ensure the National Guard's ability to provide sustained support to the consequence management of a WMD incident.

ENDNOTES

¹ William J. Clinton, *U.S. Policy on Counterterrorism (PDD/NSC 39)* [Web Page] (The White House, 21 June 1995, accessed 18 April 2000); available from <http://www.fas.org/irp/offdocs/pdd39.htm>. The Federation of American Scientists obtained this unclassified extract of PDD 39 under the Freedom of Information Act. The directive, in its entirety, is classified at the Secret level.

² Ronald G. Jones, *Name Change for MSD-RAID* [Electronic Mail] (Weapons of Mass Destruction Division, 11 Jan 2000, accessed 26 Jan 2000). The Secretary of Defense approved the name change of the MSD-RAID to the WMD-CST in an effort to further clarify the role of the team to support the first responder in the consequence management of a WMD incident.

³ Federation of American Scientists, *Title XIV-Defense Against Weapons of Mass Destruction* [Web Document] (1996 Congressional Committee Report (104-724), 1996, accessed 11 Feb 2000); available from <http://www.fas.org/spp/starwars/congress/1996/hrpt104-724-xiv.htm>. Section 1416 of this report grants additional authority, over that already present in 10 USC 18, to the President and the Attorney General to request military support to local authorities in incidents involving chemical and biological weapons. Committee members agreed that the use of the military in any WMD related emergency should be limited both in time and scope to dealing with the specific chemical or biological weapons-related incident.

⁴ John Pike, *Domestic Preparedness* [Web page] (Federation of American Scientists, 30 Jan 1997, accessed 11 Feb 2000); available from <http://fas.org/spp/starwars/program/domestic.htm>. One of the recommendations of the advisory group was for the United States Army's Chemical and Biological Defense Command (CBDCOM) to deliver domestic preparedness training to emergency responders in 120 cities as mandated by the Nunn-Lugar-Domenici Legislation. These Train-the-Trainer programs were developed, and are being executed, as a partnership among six federal agencies (DOD, DOE, FBI, FEMA, PHS, and the EPA) and the emergency response community. A cooperative effort between the CBDCOM and the National Guard WMD-CST to train the first responders will certainly enhance the level of national preparedness for a WMD incident.

⁵ Roger C. Schultz, *Department of Defense Plan for Integrating National Guard and Reserve Component Support for Response to Attacks Using Weapons of Mass Destruction*, (Washington D.C.: Department of Defense Tiger Team, 1998), 3. Prior to chairing the "Tiger-Team" responsible for producing the plan, Schultz served as the Deputy Adjutant General for the state of Iowa.

⁶ Federal Emergency Management Agency, "Federal Response Plan," (Washington D.C.: Federal Emergency Management Agency, 1997), 21. Change 11 (dated 7 February 1997) to the Federal Response Plan (FEMA 229) contains a multi-agency crisis management structure for the pre-incident, trans-incident, and post-incident phases of a WMD attack. It also identifies the relationships between the various federal plans to implement PDD-39. It divides responsibilities between agencies in order to attain a unity of effort at the federal level in the consequence management of a WMD incident.

⁷ Schultz, *Plan*, 69. Chapter three of this report outlines the tasks that the military might be required to perform in the event of a WMD incident.

⁸ Charles L. Cragin, *Defense Leaders Commentary: The Facts on WMD Civil Support Teams* [Electronic Press Release] (American Forces Information Service News Articles, U.S. Department of

Defense, 31 March 2000, accessed 5 April 2000); available from http://www.defneselink.mil/news/Mar2000/n03312000_20003311.html.

⁹ Roger C. Schultz, *Statement by Brigadier General Roger Schultz before the United States House of Representatives Committee on National Security Military Research and Development Subcommittee* [Web Page] (Deputy Director of Military Support Department of Defense, 21 March 1998, accessed 11 Feb 2000); available from http://fas.org/spp/starwars/congress/1998_h/3-21-98schultz.htm.

¹⁰ Federal Emergency Management Agency, *Emergency Support Function Annexes to the Federal Response Plan* [Web Document] (Federal Emergency Management Agency, 1999, accessed 23 April 2000); available from <http://www.fema.gov/r-n-r/frp/frpesf.htm>. The twelve emergency response functions are: transportation; communications; public works and engineering; firefighting; information and planning; mass care; resource support; health and medical services; urban search and rescue; hazardous materials; food; and energy.

¹¹ Schultz, *Plan*, 30. Chapter five of the Tiger Team report outlines the original structure of the MSD-RAID team. A minor internal reorganization within the WMD-CST from seven to six elements occurred at the time of the publication of the draft RAID team handbook on 17 December 1998.

¹² Office of Assistant Secretary of Defense Public Affairs, *DOD Announces Plans for 17 New WMD Civil Support Teams* [Press Release] (Department of Defense, 13 Jan 2000, accessed 11 March 2000); available from http://www.fas.org/spp/starwars/program/news00/b01132000_bt017-00.htm.

¹³ William J. Clinton, *Report to Congress on Response to Threats of Terrorist Use of Weapons of Mass Destruction* [Web Document] (The White House, 31 January 1997, accessed 25 February 2000); available from http://www.fas.org/spp/starwars/program/wmd_970131.htm. The National Defense Authorization Act for Fiscal Year 1997 (Public Law 104-201), Title XIV, Section 1411 requires the President to transmit a report to the Congress that assesses the capabilities of the federal government to prevent and respond to terrorist incidents involving weapons of mass destruction, and to support state and local prevention and response efforts.

¹⁴ National Defense Panel, "Transforming Defense: National Security in the 21st Century—Report of the National Defense Panel," (Arlington, VA: National Defense Panel, 1997), 80. This authoritative report makes several key recommendations on restructuring the Department of Defense to better align it with contemporary and future threats associated with the multi-polar global security environment. Although the panel lacks the authority to implement the changes that it recommends, the report is valuable reading for the military professional, and its conclusions should be considered carefully by decision makers.

¹⁵ *Ibid.*, 80.

¹⁶ William J. Clinton, *A National Security Strategy for a New Century* (Washington, D.C.: The White House, 1999), 2. This version of the National Security Strategy expands the scope of the homeland defense responsibilities of the United States by mandating the development of a plan to defend critical national infrastructures by May 2001. This plan is to be fully operational by December 2003. The Department of Defense also plans to use National Guard force structure to satisfy this requirement.

¹⁷ Samuel Nunn, *Nunn Cooperative Threat Reduction - NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 1997 (Senate - June 26, 1996)* [Web document] (Congressional Record, 1996, accessed 25 February 2000); available from <http://www.fas.org/spp/starwars/congress/1996/s960626b.htm>, pages S6988-S7001.

¹⁸ Ibid., S6988.

¹⁹ William J. Clinton, *Continuation of Emergency Regarding Weapons of Mass Destruction* [Web Page] (The White House, 1999, accessed 25 Feb 2000); available from <http://www.fas.org/news/usa/1999/11/991112-wmd-usia1.htm>. President Clinton justified his placing the nation in a state of emergency from the threat posed by weapons of mass destruction under the provisions of section 202(d) of the National Emergencies Act (50 U.S.C. 1622(d)).

²⁰ Monterey Institute of International Studies, *NBC Terrorist Attacks* [Database] (Center for Nonproliferation Studies, 2000, accessed 7 March 2000); available from <http://cns.miis.edu/dbinfo/index.htm>. This is a restricted database. A password is required for access.

²¹ Dale Watson, *Foreign Terrorists in America: Five Years After the World Trade Center* [Web Document] (International Terrorism Section, National Security Division, Federal Bureau of Investigation, 1998, accessed 25 Feb 2000); available from http://www.fas.org/irp/congress/1998_hr/s980224w.htm. Dale Watson testified to the role of law enforcement, and other public service organizations in terrorism counteraction before the Senate Judiciary Committee Subcommittee on Technology, Terrorism, and Government Information, United States Senate.

²² Nunn, S6991.

²³ Office of the Secretary of Defense, *Highlights of Current CTR Activities in Kazakhstan* [Web page] (Office of the Secretary of Defense—Cooperative Threat Reduction, 1995, accessed 22 March 2000); available from <http://www.ctr.osd.mil/brochure/kazakhstan6f.htm>. Project Sapphire was a part of a larger cooperative threat reduction initiative to “free Kazakhstan from nuclear weapons capability.” This entailed the removal of ICBM’s, heavy bombers, nuclear infrastructure, and other military reforms. While the details of this initiative are classified, the above web site provides a solid overview of the efforts and results of the program.

²⁴ Nunn, S6988-S7001.

²⁵ Robert D. Newman Richard A. Falkenrath, Bradley A. Thayer, *America's Achilles Heel: Nuclear, Biological, and Chemical Terrorism and Covert Attack*, BCSIA Studies in International Security (Cambridge, Mass.: MIT Press, 1998).

²⁶ Nunn, S6988-S7001.

²⁷ Ibid.

²⁸ Defense Civil Preparedness Agency, “Standards for Local Civil Preparedness,” (Washington D.C.: Federal Emergency Management Agency, 1980), 24. Although out of date, this publication contains a framework of preparedness concepts—many of which remain in effect today. Others, such as radiological defense and the use of shelters, are no longer emphasized at the community level. The Federal Emergency Management Agency (FEMA) was created by an executive reorganization plan in 1979. FEMA consolidated the disaster response agencies from several federal departments: the Defense Civil Preparedness Agency from the Department of Defense; the Federal Disaster Assistance Administration and flood, riot, and crime insurance programs from the Department of Housing and Urban Development; the United States Fire Administration and National Academy for Fire Prevention from the Department of Commerce; and the Federal Preparedness Agency from the General Services Administration. FEMA’s main emphasis is earthquake hazard reduction, dam safety, natural and nuclear

disaster warning systems, and the consequences of terrorist incidents. When FEMA was first organized, they simply adopted the publications of the separate agencies, and republished them as a FEMA document.

²⁹ Falkenrath, 22.

³⁰ Ibid., 253. Falkenrath argues that a free and open society, such as the United States, cannot construct a perfect defense against terrorists using WMD. Attempts to do so will result in a less open and free society. Therefore, the author's stated objective is to identify procedures and courses of action that would reduce the vulnerability of the United States to covert NBC threats without restricting societal freedom. This is an authoritative work, and should be mandatory reading by all military professionals.

³¹ Ibid., 252. According to the authors, the effectiveness of a biological attack lies in the ability of the disease, virus, or toxin to be transmitted from person to person. Proper hygiene, respiratory masks, and prophylaxis will minimize the scope of the attack since the biological agent will not be as widely disseminated.

³² Ibid., 155.

³³ Ibid., 5.

³⁴ Ibid., 12.

³⁵ Department of the Army Headquarters, *Military Support Detachment (Rapid Assessment and Initial Detection) Operations* (Washington D.C.: Department of the Army, 1998), 17. This publication, still in draft form, contains the doctrine, and general standard operating procedures for the WMD-CST.

³⁶ Schultz, *Plan*, Chapter five of this report identifies the response elements that the Department of Defense plans to provide to the incident commander in response to a WMD attack. The WMD-CST is designated to be the first DoD element to arrive at the incident site.

³⁷ M. Lizotte, *ARNG/FEMA Region 1 Rapid Assessment and Initial Detection Element (RAID-E)* [PowerPoint Presentation] (MA National Guard, 1999, accessed 16 December 1999). Three sets of standards govern the personnel qualifications required of personnel serving on the WMD civil support teams: military standards as outlined in individual, mission, and army training plans (ITEP/ARTEP-MTP), OSHA standards as outlined in 29 CFR 1910.120(q), and NFPA Standards (471, 472, 473).

³⁸ Headquarters, *Operations*, 18.

³⁹ Schultz, *Plan*, Chapter five of this report also contains a detailed breakdown of the mission and composition of each element of the WMD-CST.

⁴⁰ Headquarters, *Operations*, 18.

⁴¹ Ibid., 19.

⁴² Ibid., 19.

⁴³ Ibid., 20.

⁴⁴ Ibid., 20.

⁴⁵ Ibid., 21.

⁴⁶ Ibid., 22-24.

⁴⁷ Ibid., 48.

⁴⁸ Schultz, *Plan*. Chapter six of the Tiger Team report contains the training guidance, requirements, and performance standards for the WMD-CST. It emphasizes the importance of conducting joint exercises that incorporate local, state, federal government officials.

⁴⁹ National Guard Bureau, *Army National Guard Capabilities* [Electronic Briefing] (NGB-ARO-OM, 27 August 1999, accessed 7 March 2000); available from http://www.ngb.dtic.mil/wmd/volumeII/annex_d/annex_d2ngbriefmsca/index.htm, slide 15.

⁵⁰ Science Applications International Corporation, *Report to the National Guard Bureau Weapons of Mass Destruction Study* [Web Document] (SAIC, 1999, accessed 9 December 1999); available from <http://www.ngb.dtic.mil/wmd/index1.htm>. This exhaustive and comprehensive two-volume report is available on the Internet.

⁵¹ Ibid.

⁵² Falkenrath, 302. The authors suggest that all state and local response personnel receive basic NBC awareness training. They argue that specialized first-responder units (HAZMAT, bomb squad) should receive more intensive training in NBC crisis and consequence management if the nation is to enhance its level of domestic preparedness.

⁵³ Ibid., 314.

⁵⁴ Office of the Press Secretary, "Designation of the Attorney General as the Lead Official for the Emergency Response Assistance Program Under Sections 1412 and 1415 of the National Defense Authorization Act for Fiscal Year 1997," (Washington, D.C.: The White House, 2000), 2.

⁵⁵ Glenn B. Infield, *Disaster at Bari* (New York: Macmillan, 1971), 258-274. LTC Stewart F. Alexander, a consultant to the Medical Corps on Chemical Warfare Medicine, published a report on the Bari Incident that was originally classified at the Secret level. He addressed the report to the Director, Medical Service, Allied Force Headquarters Surgeon, NATOUSA on 27 December 1943—almost one month after the incident.

⁵⁶ Russell A. Bucy, "The Campaign for Homeland Defense--What do We Really Need?" (Monograph, United States Army Command and General Staff College, 1999), 25. Colonel Bucy's proposal to use the WMD-CST and the CBIRF forces to train first responders on the recognition and proper consequence management of a WMD incident will, over time, enhance the state of national preparedness.

⁵⁷ Ibid., 24.

⁵⁸ Infield, 259. LTC Alexander determined that in the "fire and excitement any specific odor either was not detected or escaped recognition."

⁵⁹ Bucy, 28.

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