



**STRATEGY
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**RESPONDING TO THE THREAT OF WEAPONS OF MASS
DESTRUCTION AFTER SEPTEMBER 11, 2001**

BY

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2001**

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ABSTRACT

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This paper addresses the threat posed by weapons of mass destruction as it is understood following the events of 11 September 2001 and the anthrax attacks directed at congressional and media offices in the weeks that followed. The various types of risks are explored with emphasis on chemical agents, biological pathogens, and radiological weapons. Then, the planned governmental response is evaluated with concentration on the role of the Department of Defense and the Armed Forces with a particular focus on the Reserve Components. Based on this analysis, conclusions and recommendations are offered in the context of better ensuring that the planned response to possible employment of weapons of mass destruction is adequate to meet the threat.

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PREFACE

I would like to offer my sincere appreciation to the Army War College for its assistance in the preparation of this strategy research project. At the outset, I must thank Dr. Kent Butts for his invaluable advice and assistance. I am indebted to Colonel Jeffery C. Reynolds of the Center for Strategic Leadership for sharing the voluminous data on weapons of mass destruction contained in the CSL archives. Like other students at the War College, I enjoyed the considerable help and assistance of its world class library, Communicative Arts personnel, and the very patient staff of the Directorate of Information Management. I am very grateful to the Office of the Chief, Army Reserve and its extended family for its continuing support and assistance. I am grateful to my daughter, Stephanie Lewy, for her detailed proofreading help. Finally, I need to thank my wife, Dorothy Lewy, specifically for her patience during Christmas vacation and afterwards and for her proofreading help as well.

This paper is dedicated to the people, both in government and not, who perished in the anthrax attacks in the fall of 2001 and to the thousands of wonderful Americans who died in the attacks on the World Trade Center and the Pentagon on 11 September 2001. In particular, I wish to mention the name of my good friend, COL David M. Scales, who was among the Pentagon victims.

RESPONDING TO THE THREAT OF WEAPONS OF MASS DESTRUCTION AFTER SEPTEMBER 11, 2001

There is no more serious threat to America today and the survival of the American people than the threat of weapons of mass destruction (WMD). The purpose of this paper is to analyze the nature of that threat and detail how it puts 21st Century America at risk. It examines the various permutations of this peril—nuclear, chemical, and biological. Next, the analysis addresses the Nation's preparedness to deal with this menace using the recent DARK WINTER exercise as an illustration of how America might respond to a major WMD incident. The implications of WMD incidents and the responses to them lead to strategic and operational concerns in United States national security policy. This paper identifies those concerns and examines how they are being addressed by the U.S. military—active, Reserve, and National Guard—and the newly established Office of Homeland Security. The study concludes with a review of how well America is prepared to deal with this threat and offers recommendations that focus on the best way to address this major problem.

TODAY'S WEAPONS OF MASS DESTRUCTION THREAT

With advanced technology and a smaller world of porous borders, the ability to unleash mass sickness, death, and destruction today has reached a far greater order of magnitude. A lone madman or nest of fanatics with a bottle of chemicals, a batch of plague-inducing bacteria, or a crude nuclear bomb can threaten or kill tens of thousands of people in a single act of malevolence.¹

Warnings of attacks on the American homeland with weapons of mass destruction now seem prophetic and have an increased sense of urgency since terrorist attacks by hijacked commercial airliners on the World Trade Center and the Pentagon on 11 September 2001. On 7 October 2001, radical terrorist leader Osama bin Laden praised these attacks in a prerecorded videotape following American and British retaliation in Afghanistan. He reaffirmed his underlying support for these atrocities in a widely played videotape captured in Kandahar, Afghanistan² and in another videotape played in late December 2001.³ Bin Laden's statements are often considered to presage one of the terrorist strikes at his command.⁴ Given his pattern of varying the style of his attacks and heightened watchfulness against additional air strikes, there is now considerable worry among the American people that a future attack could be from a weapon of mass destruction. This apprehension has become more acute in light of bin Laden's most recent threats against the American people.⁵ Today, in particular, the American people have good reason to be concerned with the threat of weapons of mass destruction.

The present WMD threat comes from both non-state actors, *i.e.*, bin Laden's al Qaeda and Aum Shinrikyo, and "states of concern" (formerly referred to as "rogue" states). As early as 1984 followers of Bhagwan Shree Rajneesh, the blind sheik who masterminded the earlier 1993 World Trade Center bombing, sickened, but did not kill, 751 Oregonians with salmonella. From 1990-1995 Aum Shinrikyo released anthrax or botulism in Japan as many as 12 times. Al Qaeda has sought to obtain botulism toxin and anthrax in Eastern Europe, and poisoned dogs were found near bin Laden's training camps in Jalalabad, Afghanistan.⁶ Yet Americans also have state actors to fear. Iraqis have been confirmed in buying three types of anthrax and five strains of botulinum.⁷ In addition to the Iraqis, states of concern like Cuba, Iran, Libya, North Korea, Sudan, and Syria have confirmed biological warfare programs; all except Cuba have confirmed chemical warfare programs as well; and Iraq, Iran, Libya and North Korea have confirmed nuclear programs.⁸ The common denominator is that the asymmetric leverage of WMD capabilities of all of these actors threatens U.S. interests. When these actors determine that a conventional attack on the world's only remaining superpower risks being suicidal, they will undoubtedly explore the WMD option. The deaths from a weaponized version of anthrax that occurred in the weeks following the World Trade Center attacks are a case in point. Exactly who might be responsible for these attacks remains unknown. The perpetrators might be Americans or might be individuals with ties to foreign states or international terrorist organizations like al Qaeda.

NUCLEAR THREAT

The WMD threat is generally broken down into three categories: nuclear, chemical, and biological. The nuclear threat can be a nuclear weapon or radiological scattering. Nuclear weapons attacks can be sent by ballistic missiles, which are now an unlikely means of delivery for states of concern and for many years to come. A more promising means of delivery would be relatively low-cost cruise missiles available in the black market weapons bazaar. More likely, would be a mode of employment that didn't involve missiles at all, but could, like the events of 11 September 2001, involve terrorist suicide bombers. Massive, Chernobyl-like releases of radiation must be feared from scenarios such as terrorists trying to ram hijacked jets into nuclear power plants.⁹

The more urgent and immediate threat is that terrorists might obtain small amounts of weapons-grade uranium or plutonium and build a crude but still devastating bomb. Some 603 tons of these materials are stored across the former Soviet Union, under security conditions that have raised alarms around the world. Seven years ago, the U.S. committed \$2.2 billion to

helping Russia secure its nuclear arsenal. The U.S. General Accounting Office reported last February that only 14% of Russian nuclear weapons have been fully secured—and the Bush Administration recently cut the budget for the program.¹⁰ An additional concern is Pakistan, which definitely would benefit from an expansion of Nunn-Lugar cooperative threat reduction program to improve the security of its nuclear weapons arsenal. Under Nunn-Lugar, American vaults, sensors, alarms, tamper-proof seals, closed-circuit cameras and labels to secure Pakistani nuclear materials could be made available.¹¹ This is of particular concern at a time of hair trigger tension between Pakistan and India over Kashmir, and when al Qaeda forces may have escaped into Pakistan from Afghanistan.

The International Atomic Energy Agency reports a two-fold increase in nuclear smuggling in the last eight years, with 370 confirmed cases. Prospective buyers include Al Qaeda, Iraq and Iran. Engineering graduates of American universities are probably capable of fashioning crude radiological material scattering devices from relatively small amounts of fissionable material and fairly common electronic components. Of greater concern would be the lack of moral qualms of those who controlled the trigger on such devices.¹²

The simple release of radioactive material is easier than using smuggled nuclear materials to make crude bombs. Example of such materials include smuggled plutonium and uranium 235, radioactive cobalt from medical laboratories (a frequent source of worry), and cesium, a commonly smuggled, albeit not considered weapons grade, substance.¹³ Al Qaeda has worked to obtain nuclear material and design information since the early 1990s.¹⁴ Captured al Qaeda documents from Afghanistan indicate that, along with chemical and biological weaponry, Osama bin Laden and his followers were examining radioactive materials and electronic needed to make a “dirty” nuclear device.¹⁵ Such a weapon could make an area uninhabitable for 250,000 years.¹⁶

CHEMICAL THREAT

Chemical agents, of persistent and non-persistent classifications, have been used in combat since World War I. Adolf Hitler is perhaps the best known victim. He was temporarily blinded at Ypres during his wartime service by gas weapons that ironically had been developed by the Germans.¹⁷ Vintage World War I weapons, like the blister agent mustard gas, can, with a degree of difficulty, still be obtained today. The dangerous choking agent phosgene, which accounted for 80 percent of all chemical deaths in that war,¹⁸ is still available. World War II introduced the deadly nerve agents Tabun,¹⁹ Sarin (the weapon Aum Shinrikyo used to kill 12 people in Tokyo in 1995), and Soman (the mainstay of the former Soviet Union’s chemical

arsenal—now thought to be in Iraqi hands).²⁰ Iraq actually employed the blood agent hydrogen cyanide (also used as a method of American gas chamber execution) in its war with Iran.²¹

BIOLOGICAL THREAT

Of perhaps even greater concern is the threat of biological weapons, which, like chemical weapons, can be produced in common, civilian operated facilities like breweries that do not necessarily have an apparent military signature. Unlike chemical and nuclear weapons, biological attacks are not noted at the time of attack, and health care workers, not law enforcement or military personnel, sound the first alarms. While perhaps deterred by the fact that a world wide epidemic could infect their own families, terrorists can nevertheless unleash unprecedented devastation with a variety of very dangerous biological agents. In contrast to chemical agents, biological agents are natural, non-volatile, replicating, odorless, tasteless, and in some instances are subjects of legitimate medical use. They can be easy to procure, inexpensive to produce and difficult to detect, and they can be deployed in invisible clouds and can disseminate over long distances. The first signs of the employment of biological agents are usually the illnesses themselves. They would first become apparent long after the perpetrators have escaped and have the potential of overwhelming medical capabilities and panicking the public. Biological agents can be cultured, purchased legally or illegally, or carried by hired researchers.²²

Of great concern is the highly contagious smallpox virus, be stable in an aerosol form, and capable of killing about one-third of all those infected. It was mass produced in the former Soviet Union, and part of this supply was purchased by Saddam Hussein.²³ American vaccine stocks are sufficient for only a small percentage of the population over the next several years. The Department of Health and Human Services aims to have 300 million doses on hand, enough to vaccinate the entire American population by the end of 2002,²⁴ however there is some question whether the \$300 million budgeted for this purpose is adequate or additional \$600 million is needed. Anthrax, while not contagious, is lethal in its aerosol form and is known to have been made or obtained by Iraq and Aum Shinrikyo. In recent highly publicized incidents, weaponized anthrax in letters sent to news media outlets and members of Congress resulted in 22 documented infectious cases. Inhalation anthrax caused four deaths as a result of direct exposure and cross contamination in postal facilities.²⁵ Anthrax is treatable with antibiotics and can be avoided with vaccination; however, the effectiveness of the two treatments in combination is still an open question—resulting in opposition to vaccination by many exposed postal workers.²⁶ Bubonic plague, while less contagious than smallpox, can be

aerosolized and sprayed, and is almost invariably fatal without antibiotics. Fabrication of engineered, gene-spliced weapons would result in biological agents even more virulent than the pathogens of today.²⁷ State actors with confirmed biological weaponry programs, past or present, include Iraq, South Africa, the former Soviet Union, and the United States.²⁸

Two recent exercises demonstrate the effects of biological pathogen release. In one February 1999 scenario, a student who attended a speech of the U.S. Vice President at Johns Hopkins and a janitor who cleaned up afterwards developed what appear to be flu-like symptoms eleven days later: high fever, muscle aches, fatigue, and headache. Two days later, thirteen days after initial exposure, they were fighting for their lives as the result of smallpox infection. Ultimately, 15,000 people and 14 countries worldwide are affected by and die from smallpox in this raging epidemic.²⁹

DARK WINTER

In June 2001, the Center for Strategic and International Studies, the Johns Hopkins Center for Civilian Biodefense Studies, the ANSER Institute for Homeland Security, and the Oklahoma National Memorial Institute for the Prevention of Terrorism, participated in a senior-level war game called DARK WINTER. It examined the challenges to national security and the related intergovernmental and information challenges of a biological attack on the American Homeland.³⁰ The context was a period of rising tension in the Taiwan Straits and a major crisis that developed in Southwest Asia. Participants included former high level Federal officials, representatives of major media outlets, one retired Army general, Oklahoma Governor Frank Keating, and (playing the role of the President) former Senator Sam Nunn.³¹

"DARK WINTER was an exercise to simulate possible U.S. reaction to the deliberate introduction of smallpox in three states during the winter of 2002."³² In this exercise, Iraqi-supplied Afghan terrorists spray smallpox viruses in shopping malls in Oklahoma City, Atlanta, and Philadelphia.³³ An outbreak of smallpox was first confirmed in Oklahoma City, and subsequent outbreaks were quickly identified in the other two cities. The bulk of the cases occurred in Oklahoma and were confirmed after patients, complaining of rashes and fevers, showed up in emergency rooms. The source of the infection was unknown, and, due to the lengthy incubation period for smallpox, exposure was presumed to have occurred more than nine days earlier. The disease was unnoticed in the interim. During the thirteen days of the exercise, smallpox spread from the original unknown loci to 25 states and 15 other countries. Despite aggressive consequence management actions, e.g., closing airports and borders, a nationwide epidemic began and raged out of control. Commerce, air travel and food deliveries

halted. The stock market shut down. Within three weeks 16,000 people were sick and 5,000 were dead. After two months, 3 million were ill, and one million would die.³⁴ The only mitigating factor was the significant technological difficulty in mass producing and weaponizing pathogens such as smallpox.³⁵

Participants in the exercise discussed and debated the public health response, inadequate vaccine supplies, state and federal responses, civil liberties issues associated with quarantine and isolation, information dissemination, the role of the Defense Department, and potential military responses to an anonymous attack.³⁶ They formed the following conclusions:

1) An attack on the United States with biological weapons could threaten vital national security interests. Massive civilian casualties, breakdowns in essential institutions, violations of democratic processes, civil disorder, loss of confidence in government and reduced US strategic flexibility abroad are among the ways a biological attack might compromise US security.

2) Current organizational structures and capabilities are not well suited for the management of a BW attack. Major "fault lines" exist between different levels of government (federal, state, and local), between government and the private sector, among different institutions and agencies, and within the public and private sector. These "disconnects" could impede situational awareness and compromise the ability to limit loss of life, suffering, and economic damage.

3) There is no surge capability in the US health care and public health systems, or the pharmaceutical and vaccine industries. This institutionally limited surge capacity could result in hospitals being overwhelmed and becoming inoperable. It could impede public health agencies' ability to analyze the scope, source and progress of the epidemic, hinder their ability to educate and reassure the public, and limit their capacity to help reduce casualties and contain the spread of disease.

4) Dealing with the media will be a major, immediate challenge for all levels of government. Information management and communication (e.g., dealing with the press effectively, communication with citizens, maintaining the information flows necessary for command and control at all institutional levels) will be a critical element in crisis/consequence management.

5) Should a contagious bioweapon pathogen be used, containing the spread of disease will present significant ethical, political, cultural, operational and legal challenges.³⁷

Smallpox itself is a particularly worrisome pathogen because of its high mortality rate (30 percent) and easy transmissibility. The infectious dose is quite small, and, in contrast to anthrax, it is communicable from infected patients to the uninfected. Data derived from outbreaks in Europe (in a population that was significantly less dense, less mobile, and more vaccinated than what exists today) show that one smallpox victim has the potential to infect 10

to 20 others. Smallpox is physically disfiguring, and there is no treatment for the disease. Because it is currently stored in but two laboratories, one in the United States and the other in Russia, an outbreak would almost certainly indicate a deliberate attack. The DARK WINTER report indicated that, at the time of the exercise, only seven to twelve million doses of vaccine comprised the entire American supply. Additional stocks will be very difficult to obtain and not soon forthcoming because production facilities were dismantled in 1980.³⁸

STRATEGIC AND OPERATIONAL CONCERNS

Strategic implications of the use of WMD could include the loss of popular will to prosecute ongoing or potential military operations. Actors who employ WMD hope this deters the United States from employing its armed forces at all or that, when employed, it precipitates their withdrawal. The employment of WMD might inhibit America's ability to deploy or reinforce deployed forces, and this could result in altered wartime strategic and operational objectives. It could disrupt the formation of coalitions, or it could affect their cohesion if they are already formed. WMD use certainly could cause the actual capitulation of a defended country. Their use, or potential use, could inhibit coalition operations by denying staging areas and bases in threatened neighboring countries. Degradation of U.S. and coalition forces from an altered military balance would offer adversaries opportunities to exploit.³⁹ Economic damage from WMD attacks is a matter of significant concerns as well. A good illustration of this is the damage to the American stock market and travel industry that followed the 11 September attacks. Moreover, bad as the economic fallout was, an actual WMD attack certainly could have had an even more devastating effect on the American economy.

From an operational standpoint, merely establishing the presence of a chemical or biological capability in the hands of an adversary could compromise the overall prosecution of a campaign. The presence of WMD in enemy hands would clearly affect what military operations could or could not be realistically undertaken. Likewise, it would affect what potential coalition partners might be willing to help the United States with staging bases, troops or resources. The presence of WMD could force the U.S. and other coalition troops to carry protective gear at all times and otherwise alter their activities. Use of this capability would compel the actual wearing of this gear, resulting in a loss of effectiveness. Troops subject to such attacks risk further physiological and psychological damage and a subsequent loss of effectiveness. Decontamination would take units out of action and result in the effective loss of critical equipment.⁴⁰

DETERRENCE

Despite active diplomatic efforts, nonproliferation efforts have not been entirely effective, particularly in the case of states of concern and non-state actors like al Qaeda and Aum Shinrikyo. Consequently, we rely on deterrence for protection, and it does work. Whereas Iraq had no compunction against using chemical weapons against Iran, the threat of nuclear retaliation did, according to Iraq, deter it in the Gulf War. The credibility of Iraqi statements is always open to question in the United States, and this is no exception. Iraq could have made a pragmatic assessment that passive WMD defensive measures negated the military utility of employing chemical or biological weapons against coalition forces. Alternatively, Iraq might have found itself incapable of putting them to use because of lost operational capability that was a direct result of the unanticipated speed and violence of the American led military campaign.⁴¹ Given the right conditions, deterrence, though complicated, can work; however, the U.S. must recognize the possibility of failure.⁴² It is important that the United States retain a policy of "deliberate ambiguity" about employing its nuclear arsenal in response to enemy WMD attacks. America should be prepared to severely punish the next identified user of a WMD, making clear that it will hold a national leader personally accountable and bring down his regime.⁴³

ROLE OF THE ARMY AND THE DEFENSE DEPARTMENT

The Armed Forces have had a vital role in homeland security since the beginning of the republic. The Preamble to the Constitution notes the need to insure domestic tranquility, provide for the common defense and secure the blessings of liberty. Under the Stafford Act, § 5121 of Title 42 of the U.S. Code, federal assets may "provide an orderly and continuing means of assistance... to state and local governments in carrying out their responsibilities" with or without a presidential declaration and with or without a request from a governor. § 3062 (a) (1) of Title 10 charges the Army with the responsibility to preserve the peace and security of the United States and its territories and areas it occupies. The Army has conducted homeland security throughout the history of this Nation.

As a means of dealing with the WMD threat, President Bill Clinton signed Presidential Decision Directive (PDD) 39, dated 21 June 1995 (reaffirmed by PDD 62, dated 22 May 1998) following the Sarin gas attack by Aum Shinrikyo. Crisis response, the situation where the perpetrator of an assault is known prior to an actual release is the "crisis management" responsibility of the FBI in the U.S. It is the responsibility of the State Department, through its Office of Counterterrorism, abroad. Domestic Consequence management is the responsibility of the Federal Emergency Management Agency (FEMA),⁴⁴ which coordinates the response of

27 departments and agencies.⁴⁵ The Nunn-Lugar-Domenici Act of 1996, Public Law 104-201, directed the President to enhance the ability of the federal government to respond to WMD incidents and help improve the abilities of states and localities to respond to WMD incidents. A result of this Act is the idea of formally integrating Reserve Component forces in consequence management activities.⁴⁶ Of the twelve emergency support functional areas, the Department of Defense plays the lead role in the area of public works and engineering and a supporting role in the other eleven: transportation, communication, firefighting, information and planning, mass care, resource support, health and medical services, urban search and rescue, hazardous materials, food, and energy.⁴⁷

The DoD mission, heavily dependent on non-DoD capabilities, cannot be defined by the Department itself and, therefore, requires guidance from the President and Congress. The Department already has consequence management capable assets for domestic response role, e.g., the National Guard. Ignoring the homeland defense mission is not an option. Inaction would discount the potential for domestic attacks to impede deployments, risk American exposure to catastrophic homeland attacks, and ignore the legitimate security concerns of its citizenry.⁴⁸

NATIONAL GUARD

In 1998 Secretary of Defense Cohen created 10 National Guard Rapid Assessment and Initial Detection (RAID) teams, now known as Civil Support Teams (CSTs). Each is manned by 22 full-time National Guard personnel. An additional 17 CSTs are scheduled to be added over the next few years. The mission of the teams is to assess suspected WMD events, support of local authorities, advise civilian responders about appropriate actions, and facilitate requests for additional state and federal assistance in order to save lives and mitigate damage. CSTs respond as part of a state emergency response, and they can also respond to support other states' emergency responses. They also can support a commander in chief (CINC) as part of a joint task force. Currently there are 54 forward deployed, readily available joint task forces that are fully integrated into the emergency response plans of the states, FEMA, and the CINCs. On order, they can establish operations, provide command and control, and logistics support, as well as joint reception, staging, onward movement and integration. The Reserve Components, both National Guard and Reserves, are already particularly well suited to perform this consequence management mission and have relevant training and experience in coping with natural disasters. They will be the "Tip of the Spear" in Federal responses to WMD incidents.

The potential for success of Reserve Component forces performing consequence management depends on how well they are resourced, managed, and trained.⁴⁹

The National Guard serves under the operational control of the governors of their respective states during periods of non-federal service while maintaining its status as a functional member of the Reserve Components. However, the Guard's state status allows it to assist local police authorities without running afoul of *Posse Commitatus* restrictions prior to federalization.⁵⁰

Homeland defense in general, and response to incidents involving weapons of mass destruction in particular, is now a primary mission of the National Guard. The Guard performs WMD simulations, assesses and rehearses WMD scenarios, and practices WMD response in field exercises. In any WMD incident the National Guard can utilize its skills in medicine, criminal investigation, and logistics. With some 3,200 Army National Guard facilities and 88 Air National Guard bases in 2,700 communities, the Guard is well positioned to respond to local WMD incidents.⁵¹

However, when the Department of Defense Inspector General assessed the new Civil Support Teams it described an "unmitigated catastrophe."⁵² The teams were supposed to be positioned within 250 miles of 90 percent of the American population, but the practical effect of some stationing decisions made this impossible. For example a Florida based CST at Camp Blanding was within 250 miles of Atlanta but more than 350 miles from Miami.⁵³ Only 5 of 10 teams had recruited all of their 22 members, and many of the team members were unable to take part in training exercises.⁵⁴ Equipment problems included missing protective clothing and hand held biological detection equipment, untested gas masks with incompatible parts, partially filled air tanks, and improperly designed and configured mobile vans. Testing of biological samples was complicated by the FBI's refusal to allow the presence of critical consequence management personnel at the scene of an incident based on its view of its own role as lead agency for crisis management.⁵⁵

These findings are not inconsistent with recommendations of the Hart-Rudman report of the Commission on National Security/21st Century. That report recommended that the National Guard should:

- Participate in and initiate where necessary, state, local and regional planning for responding to a WMD incident;
- Train and help organize local first responders;
- Maintain up-to-date inventories of military resources and equipment available in the area on short notice; [and]

- Plan for rapid inter-state support and reinforcement...⁵⁶

However, the Commission stated that the National Guard needed to redistribute resources currently allocated to fighting wars overseas in order to provide greater support to the preparation and response of civil authorities for disasters WMD emergencies.⁵⁷

ARMY RESERVE

Much of the emphasis on military responses to WMD incidents has focused on the National Guard who, in its state capacity, performs the consequence management mission in support of local first response elements. However, when FEMA coordinates the federal response to state and local efforts, it can draw on the Armed Forces in their entirety. Within the armed forces, the Army National Guard's sister component, the Army Reserve, is well constituted to assist in WMD consequence management in areas of command and control, chemical, medical, mortuary affairs, civil affairs and related areas, logistics, aviation, military police, and engineers.⁵⁸

With respect to the function of command and control (C2), the Army Reserve contains many units capable of providing C2 for homeland defense operations in support of WMD consequence management. The Army Reserve has 10 Regional Support Commands, aligned by the Federal Standard/FEMA region, and containing 24-hour emergency operation capability. Additional units include 5 Area Support Groups, 10 Corps Support Groups, and 22 Corps Support Battalions. The Army Reserve also operates five installations and 1,200 other facilities throughout the 50 states and territories, which can greatly assist and enhance the efforts of local and state authorities.⁵⁹

Chemical operations are a core competency of the Army Reserve, which has 63 percent of the Army's chemical assets. The Army Reserve, with 25 companies stationed throughout the U.S., has the largest decontamination capability within the Defense Department. Additional chemical units in the Army Reserve force structure include 2 Nuclear, Biological, Chemical (NBC) Reconnaissance Companies, 4 Mechanized Smoke Companies (specialized in NBC), 2 Special Forces Reconnaissance Detachments, and 16 NBC Warning and Reporting Detachments. Four brigades and eight battalions provide the Army Reserve with robust command and control structure.⁶⁰

Designated chemical units are being reequipped and retrained for use as Biological Integrated Detection Systems (BIDS). These units are capable of detecting a variety of biological agents and are designed for long duration monitoring tasks such as deployments to National Security Special Events. By 2004, the Army Reserve will have five functional BIDS

companies that will be geographically dispersed throughout the United States in five FEMA regions.⁶¹

Medical units, providing essential consequence management support are another core competency of the Army Reserve, which has 59 percent of the Army's total medical assets. Army Reserve medical units train to handle contamination casualties. In terms of hospitals, the Army Reserve provides 23 Combat Support Hospitals, 4 General Hospital, 8 Field Hospitals, 1 Surgical Hospital Unit, 1 Medical Holding Company, and 22 Forward Surgical Teams. Other Army Reserve medical assets include 27 Medical Augmentation Teams, 9 Evacuation, 32 Dental, 10 Combat Stress Control, 10 Medical Logistics, 15 Medical Command and Control, and 24 Installation Medical Support units, 26 Preventive Medicine Detachments, and 11 Veterinary Detachments used to treat dogs used in rescue operations.⁶²

Additionally the Army Reserve has three Medical Regional Training Site (RTS-Med) units responsible for training medical personnel to respond to chemical and biological medical events. The Army's Surgeon General has recommended that these RTS-Med units become training centers for civil-military medical agencies in WMD response.⁶³

Mass casualties involving significant loss of life could invoke the valuable assistance of Mortuary Affairs units. The Army Reserve has 50 percent of the Army's complement of these units.⁶⁴

Should a WMD attack cause a breakdown of civil authority or simply cause such authority to be diminished, Civil Affairs units, now preparing for use in homeland defense scenarios, are available to help. The Army Reserve has 97 percent of the Army's and 92 percent of the total Defense Department's Civil Affairs capability housed within its 4 Civil Affairs Commands, 8 Civil Affairs Brigades, and 24 Civil Affairs Battalions. The personnel in these units are highly trained experts with specialties across twenty diverse functional areas. They can reestablish civil administration and rebuild shattered social, civil and physical infrastructure. In addition to these units, the Army Reserve's Psychological Operations (PSYOP) units (84 percent of the Army's capability from 2 PSYOP Groups, 8 PSYOP Battalions, and 21 PSYOP Companies) can legally respond to attacks disabling communications media infrastructure or causing casualties to civilian communications personnel.⁶⁵

The Army Reserve also has a significant logistics capability, another one of its core competencies. In terms of transportation, it has 26 petroleum, 35 truck, and 5 boat companies. Should a chemical or biological attack contaminate water supplies, the Army Reserve has 31 water purification companies, detachments and teams, as well as 14 water supply battalions,

companies and detachments. Army Reserve aviation assets, like other DoD aviation, are also available for WMD logistic support.⁶⁶

Military Police units, particularly the Army Reserve's 14 Resettlement Battalions can support a total of 56,000 displaced personnel. This capability is in addition to traditional Military Police missions such as crowd and traffic control.⁶⁷

Engineer units can rebuild and restore infrastructure after a WMD incident in the period before civilian capabilities are restored. The Army Reserve has 68 Battalions, Companies, and Teams in the construction arena. Personnel in these units are trained to work in chemical and biological attack environments—specifically to provide support to civil authorities, a traditional engineer mission.⁶⁸

Under § 12304(b) of Title 10, the President may activate as many as 200,000 members of the Selected Reserve for periods up to 270 days in order to respond to emergencies involving the use or threatened use of weapons of mass destruction. This is in addition to the full mobilization (entire Armed Forces for duration plus six months) authority (§ 12301) and the currently invoked partial mobilization (§ 12302) authority (up to 1 million reserve component members for up to 24 months) already provided in Title 10.

OFFICE OF HOMELAND SECURITY

In Executive Order 13228, dated 8 October 2001, President George W. Bush established the Office of Homeland Security. Its mission is to develop and coordinate the national strategy to secure the United States against terrorism. The Office coordinates the executive branch's efforts to detect, prepare for, prevent, protect against, respond to, and recover from terrorist attacks within the United States. In coordination with the Office of Management and Budget and the heads of the executive departments and agencies, the Office of Homeland Security reviews existing laws and budgetary authority and determine their adequacy to carry out necessary homeland security responsibilities. The Office is directed by the Assistant to the President for Homeland Security who will be a member of the Homeland Security Council along with the President, Vice President, Secretaries of Defense, Transportation, and Health and Human Services, and the Directors of FEMA, Federal Bureau of Investigation, and Central Intelligence. Other key members of the White House staff, agency, and department heads either have standing invitations to attend Council meetings or attend when it considers matters within their purview.⁶⁹

LEGISLATIVE AND BUDGETARY ENVIRONMENT

At the close of the First Session of the 108th Congress in December 2001, some 38 bills related to bioterrorism had been introduced in the period following the attack on the World Trade Center. Additionally, two major farm bills and the fiscal year 2002 Defense Appropriation, previously introduced, contained major amendments related to bioterrorism. The most prominent of these bills is H.R. 3448, Public Health and Security Bioterrorism Response Act of 2001, which is pending conference committee action, authorizes \$2.96 billion for fiscal 2002 bioterrorism response. The bulk of this will go to the Department of Health and Human Services for vaccines (\$455 million for smallpox vaccine alone), detection, and Federal Drug Administration food inspection, as well as state and local first responders.⁷⁰ Also completed at the end of the First Session was the fiscal year 2002 Defense Appropriation Act, which allocated \$20 billion in previously authorized emergency supplemental funds and additional \$881 million in new counter-terrorism funding.⁷¹

This legislation will have to be accounted for as the budget for homeland defense, including defense against WMD, for the upcoming year is prepared. However, whether Governor Ridge, Director of the Office of Homeland Security, will even have budgetary powers, or whether or not such budgetary powers require congressional authorization, is currently a matter subject to debate. Hence, funding will still have to be prepared by individual cabinet departments like Defense, Agriculture, Justice, Treasury, Commerce, and Health and Human Services, and it will be subject to overall coordination by the Office of Management and Budget that has a fiscal mission not focused on homeland defense. Also open to conjecture is whether sufficient federal money would be allocated to the as yet unmet needs of the local health treatment facilities responsible for containing infectious outbreaks.⁷² Although a full legislative cycle following the creation of the Office of Homeland Security has yet to be completed, initial budget levels and congressional support have been promising. However, the adequacy of the homeland defense budget has not as yet been subjected to rigorous analysis. It is difficult to predict whether initial successes might presage similar results in the future, particularly in one that has different leaders.

CONCLUSIONS

In contrast to conventional weaponry, weapons of mass destruction have a much more limited history of employment. Furthermore, prior to October 2001, there is no recent history of their employment within the United States. In fact the initial employment was concomitant with the creation of the Office of Homeland Security, which was, therefore, unable to participate in

the DARK WINTER exercise. While any innocent death as a result of employment of WMD is tragic, the U.S. is most fortunate that the American anthrax deaths numbered only four rather than the millions of deaths DARK WINTER predicted. Given these facts, it is very difficult to critically evaluate how well current consequence management procedures would operate in a more substantial attack.

Responses to a major attack are now to be directed by the Office of Homeland Security with the assistance of FEMA and 26 federal departments and agencies (The Defense Department is but one) prepared to perform twelve critical emergency functions. Reaction to a major crisis is an extremely complex undertaking, recently demonstrated by the massive and complicated response to the "conventional" explosions that brought down the World Trade Center on 11 September 2001. A WMD incident requires an equally complex, massive, and dedicated response from the local, state, and national levels. The steps involved in such a response should, to the maximum extent possible, be preplanned so that the number of kinks in such an operation that are not worked out until an actual emergency are kept to a minimum. Such an emergency should not be the first opportunity the United States takes to optimize speed and responsiveness of the federal, state, and local responders. This clearly requires the same degree of synchronization as large, combined arms military operations.

Just as the military regularly conducts exercises employing conventional weapons, the Office of Homeland Security, FEMA, DoD, *et. al.*, likewise need to conduct regular consequence management exercises like DARK WINTER. Exercise scenarios should be realistic and account for state and local activities. DoD has considerable expertise in planning, conducting, and evaluating exercises that test complex synchronization issues. This expertise should be capitalized in future tests and evaluations of consequence management responses. If this mission is to be a priority for the Armed Forces, it needs to be recognized as such and regularly tested and evaluated in a professional and sophisticated manner.

Current force structure of the Armed Forces is based on wartime missions and responsibilities. Homeland security, while a mission of primary importance, is an additional mission. Consequence management exercises will test the capability of current force structure to handle WMD incidents. It is obviously better to identify weaknesses and take corrective action based on lessons learned from an exercise than to discover forces are required but unavailable at a time of actual crisis. Even if current structure were merely to be validated, this would not be without benefit.

The correct resources need to be brought to bear in any federal response to a WMD incident. In most cases this will mean employment of the Reserve Components because of

their core competencies in logistics and other areas of combat service support, especially when or because active forces are otherwise engaged in support of the CINCs. It is a natural tendency to focus on the National Guard with their Civil Support Teams and the fact that they can respond at the state level without federal intervention. However, this diverts attention from many other equally or more appropriate Reserve Components such as the Army Reserve.

As discussed in depth earlier in this report, the Army Reserve has a preponderance of the Army's chemical, medical, and civil affairs assets, in addition to other critically useful personal such as engineers, military police and logisticians. It is true that the Army Reserve is subject to Posse Comitatus restrictions, but the same is true for federalized National Guard members and CSTs with their federal missions. Furthermore, Posse Comitatus restricts how the military can be used in crisis management, which in contrast to consequence management, is under the leadership of the FBI. The Army's two reserve components complement each other. Therefore, while activation of a local unit might remove members who are local first responders (e.g., police, fire, and medical) a unit from a neighboring locality could be called without the drawback of impeding local consequence management efforts.

Today the Office of Homeland Security has a published mission but no published doctrine. This needs to be written. Responsibilities should be defined and delineated. This as yet unwritten doctrine needs to incorporate lessons learned from subsequent WMD consequence management exercises and scenarios.. State and local response protocols should be inventoried and synthesized for national application. Conversely, model state plans can be formulated at the national level. If the Office of Homeland Security does not have the staffing and resources that it requires, it should obtain them. The feasibility of doing so without a formal organization, statutorily based budget authority, or organic legislative and public affairs operations—while having to beg or borrow personnel and resources from departments and agencies that do—remains to be seen. If severe shortages of manpower, money, facilities and other resources do occur, Congress can be expected to intervene with a legislative solution.

One potential problem is the adequacy of funding of consequence management efforts. Congress certainly appreciates the urgency of the situation and has responded by providing substantial emergency funding in the fiscal year 2002 Defense Appropriation and additional authority in the nearly complete Public Health and Security Bioterrorism Response Act of 2001. With some 41 bills related to consequence management either introduced or amended in this regard since 11 September 2001, Congress has been very active. The Office of Homeland Security needs to carefully monitor federal and consequence management efforts and ensure that budget submissions funding those efforts is sufficient to fully accomplish the task.

The consequence management of an attack on the United States with weapons of mass destruction is as important an undertaking as the federal government has ever undertaken. Whether its goal is to provide for the common defense, promote domestic tranquility or secure the blessings of liberty mentioned in the Preamble of the Constitution, this mission is of fundamental national importance. American preparedness for this mission is not something that can be tested at a time of actual crisis, and it should be formally evaluated on a regular basis. Experts in the Defense Department who know how to conduct such training and evaluation should be called upon to do so in future exercises like DARK WINTER. The right military resources need to be brought to bear in WMD attacks by people who have a full and detailed understanding of the military and who are best suited to perform specific missions. Often, that means the calling upon Reserve Components like the National Guard, which trains to work with state authorities, or the Army Reserve with its core competencies in the areas of chemical operations, medicine, civil affairs, and logistics.

RECOMMENDATIONS

Do not presume that a regime change in Afghanistan implies that it's now safe to let down the guard regarding weapons of mass destruction. It does not. Yes, America successfully used its national power to remove one particular sanctuary, and some al Qaeda and Taliban members have been brought to justice. However, many other terrorists remain at large and many sanctuaries remain untouched by American firepower, most notably some within the United States itself, where terrorists resided prior to the 11 September attacks. This is not a time that America can relax, declare the battle won, and divert resources away from this continuing problem that clearly affects its survival as a nation.

Be prepared to utilize all the national power necessary to be prepared to deal with weapons of mass destruction. In the case of the military, this means using all the resources that might be necessary. This translates into using all components of the military—active duty forces, the Reserves and the National Guard. Focusing on anything less than the totality of the military components reveals a lack of understanding of the scope of the problem. Applying anything less than the full resources of the military to address weapons of mass destruction consequence management leads to overwhelming the forces that are employed ones that do being overwhelmed, particularly when the Nation fails to take advantage of skills resident in various components (e.g., the Army Reserve's biological detection and chemical expertise).

Ensure that the Office of Homeland Security has the resources its needs to perform its vital mission. The Office of Homeland Security, which, with the assistance of FEMA and others,

leads the Nation's consequence management activities must be given the resources it needs—money, personnel or doctrine—to complete its job. In the case of funding, this cannot simply be left to the good offices of the Office of Management and Budget. They doubtlessly do their best to comply with the President's dictates for the homeland security mission to get the resources it needs. However, OMB also has to balance the needs for homeland security and preparedness for weapons of mass destruction consequence and crisis management with the myriad other needs of the Federal government, as well as the dictates of federal fiscal policy. The risks associated with weapons of mass destruction are far too serious and real to not have full-time advocates free of conflicting agenda, no less so than the cabinet departments and agencies that do have such advocates. Only if this is done, can Congress be able to properly evaluate the adequacy of potential appropriations. The absence of any evidence today of discord between the Office of Homeland Security and OMB does not mean that there will be no possibility of future disagreements, particularly if different leadership is involved.

The Office of Homeland Security must have permanent, statutorily authorized, budget authority and staffing. An area of responsibility this vital requires institutional commitment and expertise. People who know that their jobs will not be in jeopardy if they have to tell an inconvenient, or politically unpopular, truth must be employed. Because "politics isn't beanbag," the personnel who perform vital homeland security missions dealing with the threat of weapons of mass destruction need the security permanent staffing provides. Furthermore, the Office of Homeland Security needs the same budget authority, as do other competitors for a share of the federal budget, to ensure that it has the credibility and clout to get its job done right.

The United States cannot afford to let down its guard as a nation following transitory successes or periods of extended quiet. Letting down its guard, is an invitation to enemies to strike. However, if America continues a steady pursuit of the proper goals, perhaps the handful of deaths that occurring in the fall of 2001 will just be a footnote to history rather than a precursor of a horrendous future.

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