The terrorist cell was formed two years ago. Never exceeding more than six members, the cell had worked quietly and with efficient determination. During the months prior to going operational, targeting data had been painstakingly acquired, escape routes chosen, traffic patterns analyzed, weather and atmospheric conditions studied. Money needed to fund the operation was carefully laundered so that it became untraceable. Much of it was actually raised under the guise of relief organizations here in the United States. The operation had been rehearsed, refined, and re-rehearsed, until, it could be executed with split-second alacrity. Logistical hurdles had been surmounted and the deadly weapons needed to accomplish the mission were in place. The target, a mid-sized American city of just over 200,000, had never known terrorism before. Most of its citizens had never heard the exotic sounding names of the biological and chemical agents that would soon kill them.

The operation called for the activation of the weapons at three different sites within the city limits. The sites were carefully chosen for their population density, vehicular traffic congestion, and distance from each other. At the prearranged time the weapons are detonated. The first three explode within minutes of each other while a second series of blasts is intentionally timed to detonate only after police and fire units arrive at the scene of the initial attacks, thus making them immediate victims of the terrorist onslaught. Unseen amid the growing carnage, small canisters of biological toxins are electronically opened at several more sites in the city, releasing microscopic payloads into the atmosphere.

Simultaneously, but thousands of miles away, malicious code, not unlike a computer virus, is surreptitiously inserted through the public switching network, virtually crippling the city's phone system, including its 911 service. It also has the cascading effect of overloading police and fire communications frequencies.

The resulting carnage is horrific. Within minutes the chemicals have sown death over a ten square block swath of the city's business district. The university, three miles from the city's hub, is also paralyzed by the attack. And in the densely populated housing projects in the northeast quadrant of town, thousands are already dead. Police and fire assets are quickly overwhelmed, isolated from each other amid the concerted chaos that has now seized the city, and unable to communicate over their emergency radio bands, the rescue personnel are rendered powerless to confront the holocaust around them. Victims now pour towards hospitals which are ill equipped and have limited supplies of antidotes to treat their symptoms. Unless they have been decontaminated prior to arriving at the hospital most find the doors to medical treatment shut, as hospitals fear exposing patients and health care workers to the unknown toxin.

Two days later, thousands more begin to die as the delayed effects of the biologicals--the silent killer--are at last apparent. The initial casualties are now compounded many fold, as the symptoms begin to manifest themselves.

The effect upon the city is devastating--tens of thousands of corpses and dozens of city blocks contaminated--but the impact upon the country is even greater, for this disaster marks the first successful use of weapons of mass destruction (WMD) in the United States. The political aftershocks are of seismic proportions as the nation's trust and confidence in its government is shaken to the bedrock. Equally alarming is the seeming ease with which the attack was accomplished and the total inability of emergency personnel to manage the crisis. America is exposed as defenseless. It cannot even retaliate.

A Clear and Present Danger
The above scenario, though fictional, is one that keeps federal, state, and local officials awake at night. Often euphemistically referred to as the "worst-case scenario," the potential for terrorism on American soil is generating heightened interest, especially in light of the recently aborted plot to bomb the New York City subway system, the February 1998 arrest of two men charged with conspiring to possess the biological agent Bacillus anthracis for use as a weapon, the 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City, the 1993 attack on the World Trade Center, and the foiled 1992 attempt in Minnesota by members of an antigovernment tax group, the Minnesota Patriots, to kill...
government officials by using the deadly toxin ricin, a powdered protein extract of common castor beans, all of which were intended to cause a maximum number of casualties. In the past six years at least eleven states have experienced terrorist incidents.\(\text{n2}\)

The face of terrorism is changing and so are its methods. A new breed of terrorists is seeking out and using weapons of greater lethality that can affect scores of victims over large areas. For conspirators hoping, or at least willing, to inflict mass casualties, nuclear, chemical, and biological weapons are the tools of choice in their arsenal. With the tremendous impact that the use of these weapons carry, the terrorist target often becomes not those actually killed, but the millions watching CNN and the nightly news at home.\(\text{n3}\)

Nor do these terrorists represent only the traditional zealots promoting national liberation or ethnic self determination.\(\text{n4}\) Rather, the terrorist brew has been fortified by single-issue extremists, cults, religious fanatics, and insurgent reactionaries. Such second-generation terrorists are motivated by vengeance, rage, racial or religious hatred, intense antigovernment feelings, or extreme nationalism. Their agendas differ markedly from their classical terrorist counterparts in that they are not seeking a seat at the negotiating table. They want to blow up the table altogether and build a new one in its place.

One such neoterrorist organization is the Aum Shinrikyo, a shadowy quasi-religious cult founded in Japan by Shoko Asahara. Seeking to create a chemically induced doomsday that would cripple national governments, Asahara ordered his followers to begin making sarin in 1993. By March 1994, a large production facility was operational, Aum's aim was to produce enough Sarin to annihilate a large Japanese city. Its method of delivery was to be helicopter or drone aircraft, both of which the cult owned. Due to a number of failures with its airborne delivery plan, Aum changed its tactics, eventually deciding on a Sarin attack on the Tokyo subway in March 1995. This assault injured 5,500 people and killed 12. (Only a poor dispersal device and a miscalculation of the subway's ventilation system prevented the deaths of thousands.) They had similar plans to attack major cities in the United States. In the wake of this attack, investigators learned that the cult had in excess of 50,000 members in Japan and Russia, and may have had assistance in purchasing its chemical weapons production plans and training from high-ranking officials in the Russian government. Furthermore, the sarin attack marked the crossing of a major threshold--an indiscriminate chemical attack--hence increasing the danger of setting a "copycat" trend in terrorism.\(\text{n5}\)

Reducing American vulnerability to terrorism is an exceedingly complex and multifaceted process that must incorporate means of prevention, deterrence, preemption, and crisis and consequence management. On November 14, 1994, in recognition of the threat that WMD terrorism poses to our national security, President Clinton issued Executive Order 12938, "Proliferation of Weapons of Mass Destruction," in which he declared a national emergency to deal with the threat.\(\text{n6}\)

In June 1995, Clinton promulgated Presidential Decision Directive 39 (PDD-39), which established U.S. policy on deterring, defeating, and responding to terrorism, including WMD.\(\text{n7}\) Under PDD-39, the National Security Council is responsible for coordinating interagency counterterrorism policy and reviewing ongoing crisis operations. It also spells out agency roles and missions and indicates that the State Department is the lead agency overseas and the FBI within the continental United States.\(\text{n8}\) The Federal Emergency Management Agency (FEMA), in turn, has the lead with respect to consequence management, including the terrorist use of nuclear, chemical, and biological weapons.

With respect to WMD, federal agencies under the leadership of the Departments of Defense (DOD), Energy, and State, together with the FBI and CIA, have worked diligently to monitor the proliferation of WMD and potential customers of such weapons and materials.\(\text{n9}\) Detection of and protection against a WMD attack are particularly difficult tasks, however, since many substances needed to produce such weapons, especially chemical and biological ones (for which no infrastructure is needed), are easily obtained or produced. Likewise, there are multiple methods of delivery or dissemination available, but few signatures from which to provide early warning.

A more robust use of intelligence assets is needed today to prevent and repel terrorist activities. While any success entails all-source intelligence collection, and maintaining a substantial technical intelligence base is important, it is critical that the United States augment human intelligence (HUMINT) capability, since only human sources can provide timely indications and threat warnings regarding future plans such as target selection and weaponry. Moreover, HUMINT must be used in a highly innovative manner in
order to penetrate these "hard" targets and acquire the "right" sources within the decision-making loop of terrorist organizations.

Unfortunately, no matter how vigilant we are in our efforts to detect WMD and preempt those who would use them, the success rate can never reach 100 percent. The sad truth is that the determined terrorist, especially one who is prepared to accept his own destruction in the course of a terrorist act, is exceedingly hard to frustrate.

One way in which federal and state officials can make an immediate impact upon the terrorist threat is in the area of consequence management, by mitigating the deadly effects of such acts. As the above scenario illustrates, state and local emergency response capabilities, and the first responders themselves, are inherently vulnerable to a well-planned WMD attack. The situation is simply exacerbated when information warfare is used as a force multiplier to disrupt emergency communications and hinder civil response during a terrorist attack.

The challenge then is to empower our states and municipalities to minimize the effects of a terrorist attack by training our police, fire, and emergency medical personnel in such areas as WMD agent identification and detection, on-site decontamination, crowd control, symptom recognition, medical triage and initial treatment of casualties, handling of the deceased, safe transport of victims, media relations, and emergency communications. The federal government, recognizing the importance of consequence management, funded a $52.6 million domestic preparedness program in fiscal year (FY) 1997 in 120 U.S. cities.

In preparation for the recent G-7 meeting at Denver, that city was logically selected for such a pilot program that began in January 1998, with New York, Los Angeles, Chicago, Houston, the District of Columbia, Philadelphia, San Diego, and Kansas City to begin their training in FY 1997. By the end of 1999, a total of 120 cities should have received training and assistance from the federal government. Using instructors from the army, the Department of Energy, the Environmental Protection Agency, FEMA, and the FBI, the aim of the program is to train first-responders to manage a chemical, nuclear, or biological attack. In doing so, the Departments of Defense and Energy are expanding on existing capabilities present in the Marine Corps's Chemical and Biological Incident Response Force (CBIRF), the army's Technical Escort Unit (TEU), and the Energy Department's Nuclear Emergency Search Team (NEST). These units, however, are small and cannot provide the rapid response capability that is needed should a WMD be used against a population center in the United States. Often based in remote locations, they may need as much as six to twelve hours to deploy to the site of a terrorist act.

During the so-called "golden hour," the clinically relevant window of opportunity in which initial medical treatment must be administered in order to turn victims into patients, emergency response personnel must be prepared for immediate action. But with the exception of fire fighters, emergency medical technicians, and police, there are no other first responders who can be mobilized during that critical time. In any case, few, if any, of these personnel have the equipment, resources, and training they need to respond effectively to VVMD. Thus, the initiatives currently launched to assist in major disasters, including those of the National Defense Medical System and Disaster Medical Assistance Teams, must be augmented with well-trained and disciplined local units who, because of their geographical location, can respond quickly to an emergency.

A Clear and Present Response
Fortunately, such forces potentially exist today, and in all fifty states--the National Guard and reserves. Numbering over 910,000 persons, these forces are already trained in combat and combat support roles that mirror many of the capabilities of their active duty counterparts.

Using National Guard and reserve forces to counter the effects of terrorist acts would pen-nit these units to recalibrate their training from a regimen that stressed the old superpower rivalry to one that recognizes the contemporary environment in which asymmetric terrorist tactics may be employed by adversaries seeking to level the playing field with the United States. In the case of the National Guard this new mission would, ironically, mean a return to its historical role as a militia force empowered to safeguard and maintain public safety at home.

Training the National Guard and reserves to assume these new duties would be cost effective since guardsmen and reservists have already received nuclear, chemical, and biological weapons orientation
as part of their basic military training. Many are already part of the first responder community and have a
good understanding and working relationship with other units at the state and local level. The National
Guard in particular has a long history of assisting civilian authorities in reconstruction and reconstitution of
civilian infrastructure during natural disasters. Accordingly, the learning curve to prepare them to function
as emergency preparedness and response managers would not be prohibitively steep or expensive since
it would piggyback on existing capabilities and assets. Moreover, the integration of the National Guard
and reserves into the federal emergency response umbrella would not constitute a drain on the readiness
of the active components who are responsible for ensuring that our troops are protected from WMD on
the battlefield.

While there would be an initial need to employ active duty forces to train the trainers, once a program is
created to integrate the National Guard and reserves into the consequence management calculus, the
reliance upon the active military would necessarily decrease. Once trained, operational units from the
National Guard would respond to their state’s governor under Title 32 of the United States Code, and if
necessary could be quickly federalized under Title 10 in the event of a terrorist triggered emergency.
Reserve forces can also be mobilized provided a request for reserve support is made and approved in
accordance with the DOD Directive 3025.15, Military Assistance to Civilian Authorities.

Guard and reserve units based in close proximity to virtually every major metropolitan area in the United
States could swiftly and easily arrive at any crisis area in the nation. With time of the essence in a terrorist
scenario, the speed of the first responders is of critical concern to emergency planners. Having pre-
positioned forces from the National Guard and reserves available for quick mobilization in the event of a
terrorist attack ensures that no part of the country is without coverage. Certainly the deterrent effect of
having such highly trained forces dispersed throughout the nation and, dedicated to the detection of WMD
and management of a WMD incident would be not lost on potential terrorists.

**What Is to Be Done**

Enhancing our ability to respond to a WMD incident by using National Guard and reserve forces would
require several changes in the way we think about national security and emergency preparedness.

First, the training that is now being given to police and fire departments in 120 U.S. cities should be
offered to selected units in the guard and reserves. This can be initially accomplished by selecting one
state as a pilot location. Selection criteria should include a state with well-defined pockets of urban
population, a state having large and well-trained National Guard and reserve units, and optimally a state
that will be agreeable toshouldering some of the cost of the training.

Secondly, coordination among the Departments of Defense and justice, FEMA, the Public Health Service,
the intelligence community, and other federal agencies is critical to design an effective training program
that can be implemented in the reserves and National Guard. With the passage of Public Law 104-201,
The Defense Against Weapons of Mass Destruction Act, the DOD has been designated as the lead
agency for domestic preparedness against WMD.\(^{n13}\) Within the DOD, the office of the Secretary of
Defense for Special Operations and Low Intensity Conflict (OSD/SOLIC) is responsible for supervisory
oversight. The assistant secretary of defense provides resource oversight for actual equipment
procurement and the secretary of the army is designated the executive agent responsible for planning,
implementation, and procedures. The secretary of the army, subsequently named the director of military
support of the army staff, as the DOD staff action agent, and the army’s Chemical/Biological Defense
Command are responsible for actually implementing the program. These offices now need to take a hard
look at the feasibility of integrating the National Guard and reserves into the crisis response and
consequence management portions of the defense from WMD program.

Thirdly, procurement of specialized detection and decontamination kits, currently designed for and used
by active units, must be made available to the National Guard and reserves. These would include
sophisticated computer and communications equipment, detection kits, personal protective suits, sensors,
decontamination tents, and specialized medical equipment and antidotes adapted for biological, chemical,
and radiological casualties.

Fourthly, a mentoring program must be established between the National Guard, the reserves, and those
elements in the federal law-enforcement and intelligence communities responsible for antiterrorism
programs. The skills contained in the Marine Corps’ excellent CBIRF program, for example, now need to
be extended to select National Guard and reserve units. Once sufficient National Guard and reserve
training cadres have been established, these trainers can begin the important process of training others in the various state units. Nothing less than a seamless integration between the National Guard and reserves and the various intelligence, law-enforcement, and operational communities now responsible for antiterrorism must be achieved. A prototype of how this operation should be orchestrated was demonstrated in Atlanta during the 1996 Olympic Games.

Of course, proposing such changes to our domestic national security posture is one thing; actually making those changes is another. Doubtless some restructuring of the existing domestic emergency preparedness equation will be needed, but the changes will not be without precedent nor will they involve ab initio planning and implementation. By using existing DOD emergency response forces as a template, an effective, responsive, and feasible plan to integrate reserve and National Guard forces into the domestic preparedness scenario can be achieved. The Defense Department should simply construct National Guard and reserve regional response forces (RRFs) by using the Marine Corps' CBIRF as a model. CBIRF, which itself was patterned after the Department of Energy's NEST team, acts as a small, readily deployable asset that can move to a crisis location, secure the area, identify the threat, and take the necessary measures to mitigate the effects of the chemical, biological, nuclear, or radiological event.

Accordingly, we advocate the establishment of a highly trained force composed primarily of reserves and National Guard personnel.(n14) These troops would function as the first specialists at a WMD disaster site and would assist civilian authorities in the initial assessment and detection of WMD and agent decontamination, as well as assisting in the immediate evacuation of casualties.

The teams would consist of a small number of personnel, no more than thirty per state or geographic region. They would train as an organic unit of the National Guard or reserves, but would be under the operational control of the United States Special Operations Command (USSOC). In this regard they would operate like National Guard Special Forces or reserve Civil Affairs Units, but affiliation with USSOC would allow them greater training opportunities with active component counterparts, provide streamlined procurement practices, and permit them access to special operations funding, which is considerable.

Another option would be to create a commander in chief USA responsible for "homeland defense" and assuring the protection of key facilities in order to maintain readiness and to project and deploy forces. Each unit assigned to "homeland defense" would be composed of specialists in communications, intelligence, explosive ordnance demolition, medicine, transportation, media relations, security and crowd control, and logistics. The teams, while able to operate independently, would need considerable support from other National Guard and reserve elements, active duty components, and members of state and local emergency response teams in the areas where they are operating. In every sense, while they would be the first DOD personnel at the scene of a WMD incident, they would operate in harmony with local fire, police, and medical personnel. This relationship is essential for crowd control, evacuation, area security, transport, medical care, disaster relief, and identification of casualties.

Equally important would be the relationship of each RRF to the federal authorities involved in the defense against terrorism, WMD terrorism in particular. Accordingly, an office should be established at the assistant secretary level to set up the program. Since OSD/SOLIC has been given the supervisory authority over programs concerning the defense against WMD, this office would be the logical one to coordinate the National Guard and reserves program. A corollary office could then be established in the office of the Assistant Secretary of Defense for Guard and Reserve Affairs. This office would act as the direct link to both the National Guard Bureau (NGB) and the Office of the Chief, Army Reserve (OCAR). Since the majority of personnel are envisioned as coming from the army, OCAR would take the lead in coordination with other services' reserve components.

At the assistant secretary, NGB, and OCAR levels, coordination must be made and memoranda of understanding signed with other federal agencies and subagencies to establish relationships between them, OSD/SOLIC, NGB, and the reserve components.

The relationships established would have to include many agencies so that the reserve and National Guard forces have access to a full array of federal assets. Hence, as the RRFs begin, it is critical that they establish contact with the panoply of federal offices and agencies charged with responsibility for WMD research, detection, and prevention, These DOD and interagency laboratories and units include the Agency for Toxic Substances and Disease Registration (ATSDR); the army's Atmospheric Sciences Laboratory, Biomedical Research and Development Laboratory (USABRDL), Chemical Research and Development Center (AMC/CRDEC), Material Command (AMC), Medical Research and Material
Command (MRMC), Medical Research Institute of Infectious Diseases (USARMIID), Radiological Research Institute, Walter Reed Institute of Research (WRAIR), and TEU; the Center for Disease Control of the U.S. Public Health Service (CDC); the Institute for Chemical Defense (ICD); the Naval Explosive Ordnance Disposal Technology Center (NEODTC); the air force's Radiation Assessment Team and Technical Applications Center; the armed force's Radiobiology Research Institute; the Defense Technical Response Group; the Defense Special Weapons Agency; the Department of Agriculture's Exotic Disease Laboratory; the FBI Crime Laboratory; the Fifty-second Ordnance Group; the Lawrence Livermore National Laboratory; the Sandia National Laboratory; and other institutions and agencies.\(n15\)

Once the memoranda of understanding have been signed between the Defense Department and other federal agencies, parallel coordination must be made with state and local authorities, hospitals, nongovernmental organizations, and other civilian emergency agencies, all of which would enter into the disaster response mix in a WMD scenario. Subsequent to establishing these links to the federal and state/local emergency response communities, National Guard and reserve personnel picked for the RRFs need to embark upon training and exercise programs with their counterparts at the federal and local levels. RRF members handpicked for the force must attend special courses and seminars on chemical, nuclear, and biological hazards, decontamination, detection, crowd control, ordnance disposal, and other key skills they will need in the case of a terrorist triggered event. RRFs will need to participate in exercises with local police and fire departments and with members of the federal emergency response community. Wargaming scenarios involving RRFs from several states or regions must be an annual priority training event.

Such events will afford the RRFs, the civilian first responders, and federal officials the opportunity to build working relationships, establish protocols, and conduct didactic after-action reviews of each year's training exercise.\(n16\) The training exercises can be held either during the two-week annual training all guardsmen and reservists receive or in shorter measure during a scheduled weekend unit training assembly (drill).

Another training option for RRF personnel is the employment of distance learning as a training tool. The National Guard Distance Learning Initiative that is already in existence has trained over 6,000 National Guardsmen between 1996 and 1997. This program needs to be expanded and special courses on vital anti-terrorism and WMD topics need to be tailored to fit the needs of RRF forces, their civilian first responder counterparts, and members of the federal interagency community.\(n17\)

An Elite Civil Defense Force

Because of the high training tempo that the RRFs will be expected to maintain, it is clear that assignment to an RRF will not be for the typical "weekend warrior." Rather, a highly motivated, skilled, and talented soldier is required for this duty. Initially it will probably be necessary to cull such assets from the ranks of the active components, where the skills needed to staff the RRFs are more readily available. This task can be accomplished rather simply by assigning active duty soldiers to reserve and National Guard billets while still retaining their active duty status. These troops should already possess the expertise needed in the RRFs and they would work to train other National Guardsmen and reservists in those skills. This "train the trainers" program will be an essential component of the RRF program during its start-up phase. Around this cadre of "regulars" the RRF can grow with the eventual goal of filling most of the slots with either active duty guard and reserve troops (AGRs) or the more typical "one weekend a month" civilian-soldiers.

In the end, the units will probably have a mix of active duty troops vetted to the National Guard and reserves, full-time guardsmen or reservists, AGRs, and the more traditional civilian soldierly that makes up the bulk of the reserve components.

In October 1996, Congress ratified the Emergency Management Assistance Compact as Public Law 104-321. This law penalizes the federal government and participating states to augment immediate response efforts during a WMD crisis and quickly resolve fiscal and legal issues, thus facilitating emergency response across state lines. The time to institutionalize and exercise common policies, plans, and procedures is before, not during or after, an incident occurs.
A terrorist attack involving WMD, no matter what the source, would have catastrophic effects on American society beyond the deaths it might cause. As such, we cannot afford a major incident. Preventing and deterring groups from engaging in such activities must be a national priority. But to the extent complete prevention is impossible, being prepared to respond efficiently and seamlessly to such an attack and reducing its effects becomes crucial. Given its unique capabilities, assets, and experience, the DOD must assume the leadership role in preventing, deterring, compelling, and responding to WMD terror within the continental United States. The keys to success are continued leadership as a policy priority and sustained funding through the out-years to ensure that all agencies, local, state, regional, and federal, are sufficiently equipped, trained, exercised, and prepared to respond effectively to a WMD attack. It is in the nation's interest that the Pentagon remain the executive agent for the domestic preparedness program in WMD defense, hence its mandate must be extended beyond FY 1999, as initially required by the Defense Authorization Bill.

The fuse on a major terrorist event in the United States may already be lit, in which case it is no longer a matter of whether, but when and where an incident occurs. The federal government, elected representatives, and state and local government officials should begin a concerted effort now to enhance our national security by maximizing the unique abilities within the National Guard and reserves to safeguard our nation from WMD terrorism.

(n1) The charges were dismissed after laboratory tests determined that the seized material was in fact an anthrax vaccine.


(n3) WMD terrorism has figured prominently in every major recent DOD study such as the Quadrennial Defense Review, the Defense Science Board Summer Study on Transnational Threats, Chem-Bio 2010 (joint