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**WEAPONS OF MASS DESTRUCTION AND DOMESTIC FORCE
PROTECTION: BASIC RESPONSE CAPABILITY FOR
MILITARY, POLICE & SECURITY FORCES**

BY

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ABSTRACT

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Weapons of Mass Destruction (WMD) and Force Protection are two critical topics rapidly gaining attention throughout the world. An increasing recognition of the vulnerability of our citizens and of our military forces due to recent terrorist attacks has caused the President of the United States and Congress to take several actions to improve preparedness.

This paper examines what a minimum basic response capability for all military, police and security forces should be to ensure at least some chance for their own survival and possible early warning and protection of others in the case of a domestic WMD incident. The capabilities of awareness, protection and detection are studied including the aspects of training and equipment.

The paper shows that the WMD threat to America is significant and increasing and makes several recommendations including that all first responders receive training to increase their awareness and understanding of WMD, the adoption nationally of a minimum personal protection equipment standard for first responders to accomplish EPA Level C protection, and the development of a WMD response capability modeled on national level asset capability for all cities, counties, or states.

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**WEAPONS OF MASS DESTRUCTION AND DOMESTIC FORCE
PROTECTION: BASIC RESPONSE CAPABILITY FOR MILITARY,
POLICE & SECURITY FORCES**

Metropolitan police officers Sam Manto and Mike Hammond had completed roll call, finished an early dinner, and were on the street looking for arrests. They were assigned to the elite, high risk Special Operations Section. That is how the newspapers always described the unit.

The plan for the evening was pretty much their typical routine. They would spend some time trying to track down known homicide offenders, then focus on getting some gun arrests, and, worst case, if all else failed, make some drug arrests. Throughout the evening, they'd also monitor the radio for gun-related or serious in-progress calls on both the citywide and district radio channels.

It was a hot and humid Saturday night and Mike and Sam both felt that it would be a good evening. Good, of course, meant busy and full of action and adventure. It was Sam's turn to drive and tonight they were in a fully marked police vehicle. Sam had been back to work as a policeman for only a couple of weeks. In fact, he was still debriefing Mike about his yearlong

leave of absence to attend the Army War College in Carlisle, Pennsylvania. In addition to being a police officer, Sam was a lieutenant colonel in the Army Reserve.

An hour had passed with no arrests for homicide. Time to look for guns. They were just about to pull over a possibly stolen vehicle containing suspicious occupants when they heard a more interesting and critical call on the citywide radio.

"Units in one, units on citywide, shots fired, 300 West Jackson, on the street and in the lobby, multiple calls."

Sam floored the accelerator and Mike activated the emergency lights and siren at the same moment. Both knew that they could get to the high rise building at that address within several minutes. Both thought, unfortunately, that other police would probably get there first.

They were making great time and were only blocks away when the radio blasted with the first police arriving at the scene. "Shots fired at the police, officer down, multiple offenders with automatic weapons, dark clothing, black masks, maybe gas masks."

The squad car took the low curb at high speed without any problem. The car skidded to a stop just outside the building entrance. Mike and Sam were out of the car and through the doors in seconds as they saw the offenders disappear up the escalators. They were on the radio as they flew up the

escalator to advise that they were in the building with the offenders. The top of the escalator opened to another lobby area. No offenders were in sight. Motionless bodies were strewn everywhere. Sam and Mike stopped in their tracks to try to figure things out. One body, a middle-aged male, was still moving and turned over. The man was sweating profusely and trembling uncontrollably. Mucous was pouring out of his nose and he was bleeding from his mouth.

Sam's heart sank as he got on the radio to advise that the building be secured and a perimeter be set up sealing off the entire block. He reported that there were approximately 40 fatalities on the second floor, possibly victims of a chemical or biological attack. Sam thought of his own protective masks, one in his police locker and the other with his Army equipment at the unit. A loud, two-tone siren or alarm started blasting. Sam was confused. It wouldn't stop. He jumped up. The alarm continued. It was dark but he could see the eerie green glow of numbers on the alarm clock. It was 5:00 AM. Things became more clear; he turned off the alarm. The nightmare seemed real but he was still at the Army War College. His Strategy Research Project on weapons of mass destruction was due soon. What an opportunity to improve the preparedness of first responders throughout the military, police, and security arenas.

Although the preceding scenario was only a dream, and a fabricated one at that, the challenges it presents are quite real. This paper examines some of those challenges. The premise is that the threat of weapons of mass destruction (WMD) to America is significant and increasing. It is conceivable that the United States will be hit by such a weapon in the near future. Yet most military, police, and security first responders to a possible WMD incident currently do not even have the ability to protect themselves, and they certainly are not prepared and equipped to successfully handle such an incident and accomplish their mission of protecting others.

Therefore, the purpose of this paper is to assess the threat and to examine and recommend a feasible, basic, standardized response capability that all military, police, and security forces should have in threat awareness training, personal protection equipment, and WMD agent detection. Although a more complete response capability would include decontamination and medical response components, this paper does not address those aspects of the challenge. Instead, the focus is limited to the first responder issues.

THE THREAT

“Weapons of mass destruction pose the greatest potential threat to global security.” This quote from A National Security Strategy For A New Century¹, published by the White House in 1997, is a profound statement regarding the threat to the world from the proliferation of weapons of mass destruction (WMD). Joint Pub 3-11, titled Joint Doctrine for Nuclear, Biological, and Chemical (NBC) Defense, defines weapons of mass destruction as weapons that are capable of a high order of destruction and/or of being used in such a manner as to destroy large numbers of people. They can be nuclear,

chemical, biological, and radiological.² It is also significant and profound that the WMD threat is consistently identified and discussed in numerous, important U.S. government and defense policy, strategy and planning documents.

Weapons of mass destruction and force protection are two critical topics rapidly gaining attention throughout the world. An increasing recognition of the vulnerability of our citizens and our military forces due to recent terrorist attacks has caused the President of the United States and Congress to take several actions to improve preparedness to limit and/or prevent the horrible consequences of an attack with weapons of mass destruction. Moreover, recent catastrophic terrorist attacks throughout the world have demonstrated that no location is safe and that terrorist attacks with conventional weapons and/or weapons of mass destruction can occur at any time. Examples of these include the 1993 World Trade Center bombing in New York, the 1995 attack by Aum Shinrikyo in the Tokyo subway system with the nerve agent sarin, the 1995 Oklahoma City bombing and the 1996 bombing of Khobar Towers in Saudia Arabia.

Several studies have been conducted to research possible scenarios and results of chemical and/or biological attack against the United States. In one study, the United States Office of Technology Assessment calculated that 100 kilograms of anthrax spread over Washington could kill from one to three million people if disseminated effectively under the right environmental conditions.³ Investigations into cases of the use or the threat of use of WMD are also increasing. A senior FBI official reported in October 1998 that the FBI is opening an increasing number of investigations into the threatened or actual use of chemical, biological, or nuclear materials. In 1997, the FBI opened 68 investigations of this type. As of September 1998, they have opened more than 86 similar probes.

In November 1998, AP News Service reported that federal authorities were searching for the person who sent letters threatening to contaminate eight Midwestern abortion clinics with anthrax. In

December 1998, the Associated Press reported that 91 people were held for almost eight hours in Los Angeles as a health precaution after an anonymous threat claimed anthrax had been released into the air ducts of a federal building. The people were given antibiotics and special suits to wear over their clothes before preliminary tests showed that none of them had been infected with the deadly bacterium.

The purpose of this paper is not to conduct an extensive terrorist threat analysis. But the previously identified documentation of the threat in multiple national security documents and the world's recent experience with catastrophic terrorist incidents confirm agreement throughout the public and private sectors that the threat to U.S. citizens, including military, police, and security forces, from attack by weapons of mass destruction is significant and increasing.

Interestingly, our preeminent military power is very relevant to the current WMD threat situation. It is expected that the continuing United States conventional military dominance will influence both state and non-state actors to turn to WMD as their weapon of choice to threaten and/or attack U.S. interests. Indeed, our enemies may perceive that WMD may be their only potentially effective weapon.

Given this increasing and serious WMD threat, this paper will examine what a basic response capability for all military, police and security forces should be, to ensure at least some chance for their own survival, and to increase the likelihood that they can provide possible early warning to, and protection for, others.

FIRST RESPONDERS

The first emergency personnel to arrive at the scene of a WMD incident are called first responders. Military, police, and security personnel will likely be among the first responders, along with

fire and/or emergency medical personnel. They are our first line of defense and their effectiveness may ultimately decide how many lives are saved or lost in a WMD incident.

The Department of Defense Dictionary of Military and Associated Terms defines force protection as follows: "Security program designed to protect soldiers, civilian employees, family members, facilities, and equipment, in all locations and situations, accomplished through planned and integrated applications of combatting terrorism, physical security, operations security, personal protective services, and supported by intelligence, counterintelligence, and other security programs."⁴

An important aspect of force protection is the ability to defend against an attack. Given the increasing likelihood of a WMD attack, all military forces must be prepared to defend against such an attack and to operate effectively before, during, and after a WMD attack. The military has been planning and training to operate in a nuclear, biological, and chemical (NBC) environment since the horrors of mustard gas attacks in World War I. During the Cold War, the military significantly improved its ability to operate in an NBC environment and is the best prepared segment of the American population to defend against a WMD attack. Notwithstanding the above, the military continues to work hard to improve its NBC defensive capability.

Recognizing both the increasing threat to American society from weapons of mass destruction, and the military's nuclear, biological, and chemical expertise, Congress passed the Nunn-Lugar-Domenici legislation in 1996 giving the Department of Defense the responsibility to provide training to improve the preparedness of emergency management personnel in 120 cities. In addition to the 120 city training program, the Nunn-Lugar-Domenici legislation and other laws mandated the development and implementation of national level assets to improve our national WMD response capability. These assets include the US Marine Chemical Biological Incident Response Force (CBIRF), the US Army Technical Escort Unit (TEU) and the future US Army Rapid Assessment & Initial Detection (RAID) teams and

other capabilities. The RAID teams will be comprised of highly trained experts in several functional areas that can deploy and assess a WMD situation, advise the local, state, and national response elements, define requirements, and expedite employment of additional assets.

While these capabilities represent a significant improvement to our overall capabilities, they are just the beginning of a solution to a difficult and complicated problem. The national level response capability identified above is important and long overdue, but it is just the very first step in developing an effective response capability. Even though always on alert, available, and rapidly deployable, these assets take too long to get to the scene of a WMD incident. Federal sources identify a desired 4-6 hour response but recognize that an 8-16 hour response is more likely, and that it may take as long as 24 hours to respond. ⁵

Given these response time parameters, and the fact of the extremely limited number of national assets, it makes great sense that responsible government in cities, counties, and states throughout the country should recognize the need to develop their own basic, quality response capability to isolate and deal with a WMD incident. Even if national assets are available and on the way, the local capability must manage the situation until the more capable, national asset mobilizes, deploys, and arrives at the scene. The military serves as a great starting point due to their existing expertise in nuclear, biological, and chemical defense. More specifically, the current national response assets probably represent an excellent long-term standard to shoot for, even though they still have their own shortcomings in budgets and in the lack of existing technology.

First responder challenges can be seen in the following anecdote. A fire fighter at a hazardous material incident exercise was asked how to determine the size of a required protective perimeter. The anonymous firefighter allegedly responded, “when you get to the first dead policeman, back up one block”. This is sarcastically known as the blue canary method. The “canary” refers to the birds that old-

time miners took with them into the mineshafts to detect poisonous gases. The “blue” refers to the typical blue police uniform.

The point of the anecdote is simple. First responders must be prepared to effectively handle a weapons of mass destruction incident to protect their own lives and to protect the lives of others. Unfortunately, the current readiness of first responders to handle a WMD incident is practically nonexistent. This is due to several factors. The first is the lack of threat awareness and understanding. The second factor is an almost complete lack of any personal protection equipment. The third is a lack of any radiological, biological, or chemical detection capability. This paper will examine a basic, first responder capability in these areas.

AWARENESS & TRAINING

The first step in developing a standardized basic response capability is to establish a foundation of awareness and understanding of the threat of weapons of mass destruction. Fortunately, an outstanding training program for this very purpose already exists. The US Army Soldier and Biological Chemical Command (SBCCOM) developed the training program for the previously mentioned 120-city program required by the Nunn-Lugar-Domenici legislation. This program, called Domestic Preparedness,⁶ is already being taught to emergency personnel in selected cities and could be made available to military, police, and security organizations throughout the country. It is primarily a “train the trainer” program and relies on the city to ensure that it follows through and develops and conducts subsequent training for other personnel with their newly qualified trainers.

The Domestic Preparedness program is all-encompassing and addresses aspects of preparedness including awareness and understanding of the threat, WMD incidents, characteristics of radiological, biological, and chemical agents, and first responder training and equipment. Decontamination, medical

response, incident command, references, and exercise information are also addressed. This program is already packaged as a potential distance learning tool on CD-ROM and could be added to military, police, and security training with minimal effort.

PROTECTION

Awareness and understanding of the threat of WMD is a critical first step and a requirement for first responder survival. The next step is probably the most difficult and the most controversial. This is the personal protection issue. If first responders are not protected, they will become casualties themselves and will not be able to warn and protect others. Also, the incident they are responding to and trying to contain will most likely expand geographically, result in increasing casualties, and certainly be harder to eventually contain and resolve.

Most first responders, by definition, will be responding to or will come across a WMD incident with absolutely no protection other than the clothes or uniform they happen to be wearing. The possible exception is a deployed military unit in a high state of readiness with NBC protective equipment immediately accessible. For first responders without any personal protection equipment, but armed with an awareness and understanding of the threat, the best that could be hoped for would be the ability to recognize a WMD situation, and to sound the alarm for others before becoming casualties themselves.

Since most first responders are currently not provided with WMD personal protection equipment, perhaps the major issue is whether it is needed. If it is needed, related issues would include how much and what type of equipment they should carry and who should pay for it. There are probably many administrators, and maybe even some first responders, who would argue that it is not practical, necessary, or affordable to provide protection equipment to all first responders. Some might argue that it might only make sense for first responders in the largest cities or in areas with potentially higher threat

levels. These are certainly challenging and controversial issues. Given the significant and increasing threat of potential WMD incidents, this author believes that there should be a minimum standard requirement for first responders throughout the country to be equipped with some level of WMD personal protection equipment. All cities or counties should have a full response capability modeled on the current national assets designed for WMD response.

The minimum personal protection equipment standard for first responders should accomplish EPA Level C protection. EPA Level C protection requires a National Institute of Safety and Health (NIOSH) -approved full-face or half-mask air purifying respirator, hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and chemical-resistant boots.⁷ In simpler terms, this means a protective mask and protective clothing including gloves and boots. This equipment obviously does not have to be worn all the time, with the possible exception of the mask, but needs to be immediately accessible. Immediate accessibility may mean in the trunk of a vehicle.

Most police and security personnel currently have no WMD personal protection equipment. The military has the capability of Level C protection when properly equipped to achieve Mission-Oriented Protective Posture (MOPP) level 4.⁸ The biggest challenge to military personnel in potential first responder situations is that even though they may have been issued WMD personal protection equipment, it is probably not immediately accessible unless they are deployed in a high threat environment.

Special units and anyone expecting to conduct hot zone operations require a higher standard of protection to EPA Level A. EPA Level A requires a completely encapsulating, gas/vapor-proof, chemical-resistant suit; self-contained breathing apparatus (SCBA) or positive pressure supplied air respirator with escape SCBA; both outer and inner chemical-resistant gloves; and chemical-resistant boots, with steel toe and shank.⁹

If, for whatever reason, Level A or Level C protection is not provided, an even lower level of protection is achievable, more affordable, and far better than the current standard of no protection at all. This might include a disposable protective mask, gloves, and boots. Even a protective mask by itself is far better than no protection at all.

DETECTION

After achieving an awareness and understanding of the threat, and after providing first responders with personal protection equipment, the next issue is detection. Detection and identification equipment is necessary to determine exactly what type of agent (radiological, biological, or chemical) is involved in the incident. Some of this equipment can also potentially provide advanced detection and warning of agents. The previously described national level WMD response assets contain significant detection capability. Advances in technology have significantly improved chemical and biological detection, identification, and warning capabilities since 1991 and advances are still being pursued in remote detection, miniaturization, lower detection limits, and biological detection capability.

First responders and local communities do not have this advanced detection, identification, and warning capability. The most available local detection asset usually exists within the fire department's hazardous material response capability. This capability usually includes radiation measurement and detection devices and some capability to detect commercially used chemical agents.

The problem for the local community once again is the delayed response and arrival time of the national level asset. First responders need to have some level of detection and identification capability to hold them over until the arrival of more sophisticated and capable national level assets. Ideally, there should be some level of local capability to detect and identify radiological, biological, and chemical agents to determine the type of WMD incident. Early detection and identification of the type of agent is

crucial to the safety of first responders and victims. This is important for medical response and treatment, as well as for determining decontamination procedures.

Given the limitations of today's technology, it is not practical for all first responders to always have radiological, biological, and chemical detection equipment immediately accessible. The best short-term solution is probably improving the current local hazardous material response capability with a military chemical and biological agent detection, identification, and warning capability. Hopefully, the day will come when each first responder can easily wear a personal detection and alarm system that provides early warning and identification of any agent, so that the responders can don their personal protection equipment before becoming casualties.

SUMMARY & RECOMMENDATIONS

The threat to America from a potential weapon of mass destruction incident is significant and increasing. Our nation has made great progress in developing increased awareness and national level, WMD response assets to improve our domestic preparedness. However, one significant weakness is the lack of awareness, training, and personal protection equipment for the first responders who are our initial line of defense in managing a WMD incident. The following recommendations, if implemented, would significantly improve our WMD incident response capability. These recommendations would improve our ability to save lives and to minimize casualties.

Recommendation #1. Recommend that all first responders be provided training to increase their awareness and understanding of the threat of weapons of mass destruction. This training should include how to identify and respond to WMD incidents. The Domestic Preparedness Training Program developed by the US Army SBCCOM already exists and meets this purpose perfectly.¹⁰ Recommend that this training be a required part of military, police, and security basic entry training programs and

that this training also be conducted immediately for those already working in the field. Periodic refresher training should also be conducted throughout the first responder's career.

Recommendation #2. Recommend that a minimum personal protection equipment standard for first responders be adopted nationally. The minimum personal protection equipment standard for first responders should accomplish EPA Level C protection. This equipment should be provided by the employing organization at no cost to the first responder.

Recommendation #3. Recommend that cities, counties, or states develop a WMD response capability modeled on the national asset capabilities of the US Army Technical Escort Unit (TEU) or the US Marine Chemical Biological Incident Response Force (CBIRF). Also recommend that as a national priority, we continue research and development efforts to improve and miniaturize radiological, biological, and chemical detection, warning, and identification capability. The goal should be a pocket device that can be individually worn by first responders to provide agent detection, warning, and identification.

The above recommendations cannot be implemented without effort or cost, but they can be implemented. Our current, significant vulnerability to a potential WMD incident is due in part to our lack of awareness, capability, and willingness to pay the price to protect ourselves. We must improve our domestic preparedness. We must improve the capabilities of our first responders. By doing so, we reduce our vulnerability and thereby reduce the likelihood that weapons of mass destruction will be used against us. If they are used against us, at least we will be better prepared to minimize loss of life and to better manage the consequences of a weapons of mass destruction incident.

Word count: 4,506.

ENDNOTES

¹ The White House, A National Security Strategy For A New Century (Washington, D.C., The White House, May, 1997), 6.

² Department of Defense, Joint Doctrine for Nuclear, Biological, and Chemical (NBC) Defense, Joint Publication 3-11 (Washington, D.C.: U.S. Department of Defense Joint Chiefs of Staff, 10 July 1995), GL-4, 5.

³ U.S. Congress, Office of Technology Assessment, Proliferation of Weapons of Mass Destruction: Assessing the Risks, (Washington, DC: Government Printing Office, August, 1993), pp. 53-54.

⁴ Department of Defense, DOD Dictionary of Military and Associated Terms, Joint Publication 1-02, (Washington, D.C.: U.S. Department of Defense Joint Chiefs of Staff, 23 March 1994), 151-152.

⁵ Department of the Army, Domestic Preparedness Training Program, CD-ROM Training Program v7.0, (Washington, D.C.: U.S. Department of the Army, 1998), Module 4, Incident Command, 21.

⁶ Ibid.

⁷ Ibid., Module 4, Operations, 4-5.

⁸ Department of the Army, Soldier's Manual of Common Tasks, STP 21-1-SMCT (Washington, D.C.: U.S. Department of the Army, October 1994), 376-382.

⁹ Department of the Army, Domestic Preparedness Training Program, CD-ROM Training Program v7.0, (Washington, D.C.: U.S. Department of the Army, 1998), Module 4, Operations, 10.

¹⁰ Ibid.

BIBLIOGRAPHY

- Clinton, William J., President of the United States. "U.S. Policy on Counterterrorism". Presidential Decision Directive #39. Washington, D.C., 21 June 1995.
- Defense Budget Project, Nonproliferation & Counterproliferation: Investing For A Safer World? Washington, D.C., April 1995.
- The White House, A National Strategy For A New Century. Washington, D.C., The White House, May, 1997.
- U.S. Department of the Army and U.S. Marine Corps, Chemical and Biological Contamination Avoidance. Field Manual 3-3. Washington, D.C.: U.S. Department of the Army and U.S. Marine Corps, 16 November 1992.
- U.S. Department of the Army and U.S. Marine Corps, NBC Protection. Field Manual 3-4. Washington, D.C.: U.S. Department of the Army and U.S. Marine Corps, 29 May 1992.
- U.S. Department of the Army and U.S. Marine Corps, Chemical Operations Principles and Fundamentals. Field Manual 3-100. Washington, D.C.: U.S. Department of the Army and U.S. Marine Corps, 08 May 1996.
- U.S. Department of Defense, Proliferation: Threat And Response. Washington, D.C.: U.S. Department of Defense, November, 1997.
- U.S. National Defense University, Strategic Assessment 1998: Engaging Power for Peace, Washington, D.C.: U.S. Government Printing Office, 1998.
- U.S. Office of the Deputy Secretary of Defense, Report on Nonproliferation and Counterproliferation Activities and Programs. Washington, D.C.: U.S. Department of Defense, May, 1994.