

The Impact of a Catastrophic Terrorist Attack in the Nation's Capitol on Local  
Law Enforcement

Article

By

Lieutenant Jan Makowski  
Vacaville Police Department

Command College Class XXXIV

Sacramento, California

October 2003

## INTRODUCTION

In a Wall Street Journal article dated March 11, 2002, Norman Ornstein questioned the state of readiness of our federal government in the event of a catastrophic terrorist attack on Washington, D.C. In the article, Preparing for the Unthinkable, Mr. Ornstein described his concern with issues of succession in the event much of Congress and the executive branch of government were wiped out by a surprise terrorist attack. Mr. Ornstein raised additional questions about the ability of government to provide basic functions for America, including the protection of the public from attack, and/or foreign invasion, if Congress were unable to establish a quorum and conduct business.

Ornstein's comments raised additional points of concern regarding the impact such an event would have on local law enforcement. Consider for a moment the effects on police agencies across the country if suddenly the federal government ceased to function in Washington, D.C. Much of the responsibility for maintaining order and allowing for the peaceful resurrection of government would fall on the shoulders of local police and sheriff departments throughout the land. This concern served as the basis for a research project to determine the impact on local law enforcement of a catastrophic terrorist attack on the nation's Capitol.

## POTENTIAL TERRORIST ATTACKS

There are numerous methods terrorist organizations could use to attack Washington, D.C. Some have the potential to obliterate the federal government, while others would merely be disruptive to ongoing business. Methods for these attacks could include a biological attack using any manner of biological agent to sicken or kill people, the proven-effective hijacked airliner intentionally crashed into a high profile target, or a conventional bomb left in place or delivered by a suicide bomber. Other methods include a conventional bomb dispersing radioactive waste, a nuclear bomb detonated within the Capitol, or a nuclear bomb detonated at high altitude creating an electromagnetic pulse (EMP) capable of destroying the electronic infrastructure in the surrounding area.

It is clear that the severity of impact upon local police agencies is dependant upon the type of terrorist attack carried out. A biological attack in Washington, D.C. could have a great impact on the immediate area of the attack. Depending upon the type of biological agent deployed and its ease of transmission through human contact, it could be spread throughout the country, and even the world, aided by the highly mobile population that inhabits and conducts business in that city. The greater the reach of the biological agent, the more impact it will have on local law enforcement across the country. Impact could include responsibility for enforcing quarantines of hospitals and residences that contain people exposed to the

biological agent. There may also be increased workload due to community vigilance and reporting of suspicious people, packages, and letters that would require investigation by local police.

The impact on local law enforcement across the country would be minimal in the event of a conventional or suicide bombing in Washington, D.C. Even if terrorists were able to successfully commandeer another airliner and crash it into the nation's Capitol, it would only moderately impact local law enforcement. The extent of the impact on local police agencies would be dependant upon the number of people killed and their status in the United States government.

For example, if the President, his entire cabinet, and much of Congress were killed in one bombing, the effect on the country would be significant and thereby cause greater issues for local law enforcement than if only a few prominent people were killed or incapacitated. If the bombing were so successful that much of the federal government were incapacitated and there were lengthy delays in selecting a new president, local law enforcement could be challenged with keeping the peace during very tumultuous and chaotic times. This would probably last for only a few weeks, and then order would gradually be restored.

The explosion of a dirty bomb in Washington, D.C. would be similar to the impact of a biological attack. There would be damage to the immediate area and casualties would be limited to those in the immediate and

downwind areas. The greatest impact on local policing across the country would again be increased workload caused by heightened vigilance of civilians, causing the reporting of suspicious people, packages, and letters, that would require investigation.

The successful detonation of a nuclear bomb in Washington, D.C. would create tremendous issues for police across the country. The immediate impact in Washington may include the decimation of the federal government, which would lead to security issues discussed earlier while the federal government is reestablished. The fact that a terrorist group was able to obtain and move a nuclear weapon into Washington, D.C. would create new security issues for police agencies across the country. There would be great citizen clamor for increased security and intelligence gathering to prevent further attacks. Police agencies would be stretched to the limit to safeguard high-risk targets and maintain the peace while the government was restored.

The terrorist attack on Washington, D.C. with the greatest potential to disrupt local policing across the country would be the detonation of a nuclear bomb on the ground in the U.S. Capitol, in combination with the detonation of several nuclear devices at high altitude, causing an EMP event across the country. This would immediately disrupt the national power grid and destroy unprotected electrical components in the path of the EMP. This one-two nuclear punch could eliminate the federal government leadership, while

simultaneously destroying the electronic, monetary, and communication infrastructure of the country. Most police agencies across America would be plunged into darkness, radio and telephone communication would be lost, and food, fuel, and water would soon be unavailable.

### ELECTROMAGNETIC PULSE

A detonated nuclear device creates an EMP that destroys most electronic equipment in its path. If the device is detonated at ground level, the effects of the electromagnetic pulse are minimal, in that the pulse only spreads in a line-of-sight configuration, which allows buildings, hills, and mountains to contain the pulse and thereby limit the damaging effects. However, if the pulse is detonated at a high altitude, the line-of-sight for the pulse becomes much greater and the damaged area grows significantly. In an October 2002 interview with Dr. Lowell Wood, Jr., a leading American astrophysicist and Congressional Commissioner on the National Commission on EMP Threat, Dr. Wood explained an electromagnetic pulse is formed when a nuclear device is detonated at high altitude. The explosion rapidly deploys radiation that, when exposed to the earth's magnetic field, converts the atmosphere into a great antennae, which radiates an intense pulse of energy toward the earth. The pulse of electromagnetic energy is 100,000 times faster than lightening. In one millionth of a second, the pulse will short circuit all unprotected electrical equipment in its path. Electronic equipment especially susceptible to electromagnetic pulse includes low voltage circuits,

conductors, sensors, and systems common in most modern electronic technology. Major M. Cajohn (1988) of the United States Marine Corps has studied EMP and explains:

A vast array of collectors forms a huge grid over the entire United States. Its power cables, telephone lines, towers, antennas and railroad tracks have the capability of collecting EMP energy and transferring it to anything physically or electronically connected to them. Thus, for example, any electronic device attached to a telephone line or power line has the capability of receiving large amounts of EMP (p. 10).

This means computers, communication equipment, automobiles, transportation systems, the power grid, and any other unprotected electronic device would be vulnerable to complete failure. The failure would also extend into space, where commercial satellites that traverse the Van Allen radiation belt (a belt of radiation on the outer reaches of the earth's atmosphere) would be subjected to "electron densities several orders of magnitude higher than the natural electron environment" (Wood, 2002). This would result in rapid failure of satellite systems and could quickly paralyze communication systems on the North American continent, leading to confusion, panic, and chaos. Such an event would obviously place a heavy burden on local law enforcement agencies of all sizes.

According to Dr. Wood, most electronic equipment will be disabled or destroyed. Major Cajohn (1988) explains how an EMP destroys electrical equipment:

The fact is especially significant when considering EMP's power density of 1,000,000 watts per square meter versus the typical signal strength of .001 watt per square meter, which a radio receiver is designed to accept. Accordingly, since EMP is capable of delivering a signal a billion times stronger than the receiver is designed to accept, one can see the urgency to find solutions to this problem (p. 9).

The National Commission on EMP Threat was scheduled to release a report in the spring of 2003. The report is expected to provide information on strategies for the hardening of America's electronic infrastructure from the effects of EMP.

A secondary effect of a high altitude nuclear explosion involves a rapid direct current surge that will be picked up by power transmission lines on the ground and travel through the national electrical grid, destroying most large transformers, effectively disabling the system. These transformers are often found in remote areas, are exceptionally large, and there are no replacements in reserve should a massive failure occur. These transformers are so difficult to replace that, when one fails under normal circumstances, it takes from six to twelve months for the transformer to be manufactured and

replaced. In an EMP event, much of the manufacturing infrastructure of the country would be destroyed, leading to significantly longer replacement times for the more than 1,000 transformers nationwide.

It is important to remember that without electricity, the banking industry would be incapacitated for an undetermined amount of time, and the ability to pump fuel would end, which would effectively stop the transportation sector and lead to an interruption in the food supply. Further, long-term power interruption would stop water and sewage treatment, and in the winter, most home heating systems would fail. In short, the sudden elimination of electricity in our society would return America to a time equivalent to the year 1900.

Another concern involves the Supervisory Control and Data Acquisition (SCADA) system, an industrial measurement and control system used extensively across America. This is a system of inexpensive, reliable valves and switches, electronically linked through computers, microwave relays, and telecommunication lines, that remotely control everything from the flow of fuel through pipelines to dam spillways and traffic signals. There is no way of knowing how these systems will react to the sudden surge of energy caused by an electromagnetic pulse.

Also of concern are correctional facilities with electric locks. There are many manufacturers of these systems, and none have designed any system to withstand an electromagnetic pulse. It is possible the electric locks in

prisons could become frozen in an open or closed position. In either situation, there is a great potential for critical issues in correctional institutions and surrounding communities in such an event.

The complete lack of national preparedness for an EMP event is of critical concern to local law enforcement throughout the continent. Several factors at work in the world today make it quite possible for a terrorist group or a rogue nation to launch a nuclear armed missile from just off shore and to detonate nuclear warheads at high altitude over the continental United States. One or more cargo ships could easily carry out such an attack. If this happens, the burden of maintaining order and control will fall to the hands of local law enforcement.

### STRATEGIC PLANNING

In light of this, a strategic planning model was developed using the Vacaville Police Department as a sample organization faced with the impact of a catastrophic terrorist attack on Washington, D.C. The plan dealt with more than just the threat of an EMP event, with the basic tenants of the plan applying equally to a discussion dealing with other forms of terrorist events, such as biological or conventional attacks. The Vacaville Police Department is a medium-sized, urban California agency. Many of these elements could apply to other agencies throughout the country, and the strategic planning process described here will help any police department prepare for a future catastrophic terrorist attack on the nation's Capitol.

The objectives and goals of the strategic plan allow the Vacaville Police Department to:

- Take preparatory actions in advance to minimize or negate the local impact of a catastrophic terrorist attack on the nation's Capitol.
- Maintain the peace.
- Restore order.
- Give the public a sense of security through their confidence in law enforcement.

The strategic planning process utilized a SWOT analysis, a process in which organizational strengths and weaknesses are considered with environmental opportunities and threats from a broad spectrum of points of view. The perspectives included social, technological, economic, environmental, and political, while considered from local, regional, or national perspectives. Another critical component of a SWOT analysis is the identification of all the stakeholders for the circumstances. This provides a clear analysis of all factors affecting a given set of circumstances, and increases the opportunity for a complete analysis of the situation and the formation of a sound strategic plan.

The SWOT analysis brought to light the need for local law enforcement to develop a plan before the event takes place. If nothing is done in advance, it will be too late once a catastrophic terrorist attack occurs. The

plan includes issues surrounding EMP, biological terrorism, and maintaining peace and security in the community. The analysis identified the need to safeguard the electronic infrastructure from the effects of an EMP event, as well as the threat such an event would be to the staffing of emergency response organizations, including long-term hardships of providing shelter, food, clothing, and water for staff and their families. Weaknesses in transportation and fuel supplies were also discovered. Threats of civil unrest were identified as a result of sudden food, water, fuel, banking, and medical service shortages.

Other issues identified include the impact of communication interruptions to the point where telephone, television, and radio cease to function and newspapers are unable to print. The scarcity of information could cause serious issues from public fear and a lack of understanding about what is happening. Militia groups may seek to capitalize on the situation to further their goals, while fearful citizens take up arms to protect themselves from opportunistic criminals. The analysis pointed to the necessity of safeguarding the community by developing plans to maintain order and to give the public a sense that responsible people are in charge and the crisis is being managed.

The development of a strategic plan for the Vacaville Police Department illustrates the importance for every community to develop their own strategic plan based upon the circumstances unique to that community.

The plan should take a broad-spectrum approach to the problem and seek long-term, permanent solutions. This would assure the plan meets the objectives of the strategic planning process by minimizing the impact of an EMP, and allowing the community to remain secure and calm while government at the federal level is restored.

The development of a plan will give the local law enforcement agency a distinct advantage in a crisis. Since it is exceedingly difficult to exactly forecast the future, it is doubtful any plan will completely prepare the agency to deal with the crisis. The creation of a plan will help to prepare the agency for dealing with crisis situations, and, if periodically tested through training scenarios of disaster situations, will build the confidence of the agency. Performance measures associated with the training will also help to impress upon staff the level of importance leadership places on preparation and will encourage them to maintain competence in the plan.

#### EMP THREAT AWARENESS

It is reasonable to assume that local leaders and the public are grossly unaware of the threat posed by EMP. With the help of the upcoming report by the National Commission on EMP Threat, it is the responsibility of police management to inform city management and councils of recommended courses of action to mitigate the threat. It is also the responsibility of law enforcement management to develop a plan of public education that not only explains the threat, but explains how local government is preparing,

and what personal measures the public can take to reduce the threat to families.

#### EMP SAFEGUARDS IN NEW FACILITIES

The very best time to install EMP safeguards in buildings is during construction. The cost for safeguards in new construction is only one to three percent of the construction cost, as compared with the cost of retrofitting a building at about ten percent of the value of the building. The safeguards consist primarily of wrapping the building in foil and using metal screens across the windows to transfer EMP energy to ground. All incoming utilities are also protected to prevent EMP energy from entering the building through utility connections. It is the responsibility of police management to secure city council approval for installing safeguards in the construction of any new police facilities, and the responsibility of the city manager to secure funding for the protection of any other municipal construction.

#### EMP SAFEGUARDS FOR EQUIPMENT

Safeguarding vast array of equipment that requires protection is very similar to safeguarding new facilities. In this case, it is the responsibility of the city manager to prioritize the protection of equipment, since equipment is spread through all city departments, and to obtain funding through the city council.

## CONCLUSION

The damage potential of an EMP event is chilling, especially for a society as dependant on electronics as the United States. Fortunately, the effects of EMP are understood, and the military has developed protective measures for the protection of critical infrastructure, which, if released, can be implemented throughout the country. One thing seems clear, the aftermath of an EMP would leave America quite vulnerable to breakdown and attack.

The role of law enforcement in the aftermath of a catastrophic terrorist attack on Washington, D.C. would be nearly impossible to fulfill without prior implementation of planning and prevention strategies. In reality, this project is about survival and change. The events of September 11, 2001, were a huge warning call for the United States and her emergency responders to make critical changes in levels of preparedness and contingency planning. As Kotter (1996) said:

The typical twentieth-century organization has not operated well in a rapidly changing environment. Structure, systems, practices, and culture have often been more of a drag on change than a facilitator. If environmental volatility continues to increase, as most people now predict, the standard organization of the twentieth century will likely become a dinosaur (p. 161).

Kotter further states:

The single biggest argument offered against the need for transformation is that organizations can succeed with incremental change. A 2 percent improvement here, a 5 percent cost reduction there, and you win. In the short run, in certain industries, this can be true (p. 173).

In policing, this is far from true. Incremental changes in preparation and planning will not maintain security across America within individual communities. This article is demanding action to safeguard our communities and prepare them for the realities of terrorism. Failure to act could significantly impact the ability of law enforcement agencies to provide service to their communities in the wake of a catastrophic terrorist attack on the nation's Capitol.

Through research, the author sought to determine how a terrorist attack of catastrophic proportions on the nation's Capitol would impact law enforcement across the country. Many variables must be considered in determining the impact of such an event. The key variable is the type of attack on the Capitol –the particular type of attack, be it biological, conventional bombing, nuclear bombing, or an EMP attack, would greatly influence the impact on police agencies in California.

The worst-case scenario would be an EMP attack on the Capitol that extended to the entire continent. This level of attack would significantly

impact all California police agencies. An EMP attack would decimate the electronic infrastructure of the region affected, possibly interrupting electrical service for years. The electronic infrastructure includes all electronic methods of communication, banking, and the electrical power grids that supply power to all communities. Transportation would grind to a halt because of the lack of electricity to process and pump gasoline. This would immediately impact the ability of people to obtain the basic necessities of life, including food and water. Even if shipping was available for the necessities of life, there would be serious cash shortages, since the banking industry is heavily dependant upon electricity. Without electricity to run computers, the banking industry would cease to function and the road to recover computer data damaged by an EMP event would be long and arduous. Cash, food, and water shortages could lead to civil unrest and potential panic in every community.

To emphasize the point about the effects of a sudden loss of electricity, consider the evening of August 14, 2003, when a large portion of the east coast of the United States and Canada was struck by a blackout. Television news accounts showed millions of people walking home on clogged streets. According to Botelho, (2003) in his article Power Returns to Most Areas Hit by Blackout, 21 power plants shut down within 3 minutes bringing commerce and transportation to a halt. Airports were closed, cellular phone service was lost, major cities ran out of safe drinking water,

and in New York City, calls for emergency services more than doubled the average, and the city estimated it lost a half billion dollars in revenue (p.1-3). This significant event only effected one small portion of the country—imagine if the entire continental United States lost power. The problems experienced in the east would be magnified a hundred fold, and if it were the result of an EMP, restoration of power could take years.

California police agencies are increasingly dependant on technology and electronic components to meet demands for service. An EMP attack would destroy most police agency radio and telephone systems and quickly bring most motorized forms of transportation to a halt. This would happen at a time when community demands for service would be at an all-time high, and the balance of maintaining order in society would fall completely on the shoulders of local police. Police agencies would be faced with rapidly changing conditions, with few of the resources they have grown dependant on available to accomplish the mission.

All of these risks underscore the need for preparation. Preparation requires planning for the worst-case scenario, which enables organizations to develop contingency plans in the event of system failure. Preparation also allows safeguards to be incorporated into systems to protect them from potential threats, such as an EMP event. With proper preparation, police agencies would be able to rebound much more quickly from a worst-case scenario and maintain order during the crisis. Preparation for a worst-case

scenario has the added benefit of enabling lesser events to be managed successfully. A sense of confidence in local government is instilled when crisis events are effectively managed. Confidence in local government leads to rational public behavior and rapid restoration of order.

## REFERENCES

Botelho, G. Power Returns to Most Areas Hit by Blackout. Retrieved August 21, 2003 from the World Wide Web:

<http://www.cnn.com/2003/US/08/15/power.outage>

Cajohn, Major M. USMC, (1988) Electromagnetic Pulse-From Chaos to a Manageable Solution. Retrieved October 31, 2002 from the World Wide Web:

<http://www.globalsecurity.org/wmd/library/report/1988/CM2.html>

Kotter, J. (1996). Leading change. Boston, Harvard Business School Press (pp.59-67)

Ullrich, Dr. G. (1997) 1997 Congressional Hearings Special Weapons Nuclear, Chemical, biological and Missile. Retrieved October 31, 2002 from the World Wide Web:

[http://www.fas.org/spp/starwars/congress/1997\\_h/h970716u.html](http://www.fas.org/spp/starwars/congress/1997_h/h970716u.html)