

**Emergency Management in the 21st Century:  
Dealing with Al Qaeda, Tom Ridge,  
and Julie Gerberding**

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## Background

The first version of this article was the paper *Emergency Management in the 21<sup>st</sup> Century: Coping with Bill Gates, Osama bin-Laden, and Hurricane Mitch*, by Claire B. Rubin, July 2000. It was issued as Natural Hazards Working Paper #104,<sup>1</sup> by the Hazards Center at the University of Colorado at Boulder. Three main themes of the new century were identified and developed in the original paper: (1) the emergence and use of telecommunications in all domains of life, (2) the threat of terrorism throughout the globe, and (3) megadisasters resulting from natural hazards.

Although the first paper was written fewer than four years ago, the world now seems to be a very different place. While we were dealing with the three topics listed above, many more items were suddenly added to our collective agendas. For the emergency management community, the incredible events of September 11, 2001, and their many outcomes have led to changes so extensive they are hard to document.

## Events and Outcomes Since 2000

In 2001, we experienced not only three major terrorist attacks on September 11, but also the beginning of a protracted set of anthrax attacks. Some details about the major impacts and outcomes of September 11, documented soon after the events, are provided in *The Terrorist Attacks on September 11, 2001: Immediate Impacts and Their Ramifications for Federal Emergency Management*, by Claire B. Rubin and Irmak Renda-Tanali, issued as Quick Response Report #140.<sup>2</sup> Additionally, the events of 2001 are shown graphically in the *Terrorism Time Line: Major Focusing Events and Their U.S. Outcomes (1993-2002)* and described in Working Paper #107: *Major Terrorism Events and Their U.S. Outcomes (1988-2000)*.<sup>3</sup> More recently, the Hazards Center at the University of Colorado at Boulder collected the work of more than 20 researchers who were engaged in quick response research in the aftermath of September 11. This work was published the book *Beyond 9/11: An Account of Post-Disaster Research* (Special Publication #39, 2003).

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<sup>1</sup> URL: <http://www.colorado.edu/hazards/wp/wp104/wp104.html>

<sup>2</sup> URL: <http://www.colorado.edu/hazards/qr/qr140/qr140.html>

<sup>3</sup> Details about how to obtain these documents can be found at <http://www.colorado.edu/hazards/wp/> or <http://www.disaster-timeline.com>.

A gross indication of the impacts of these changes is evidenced simply by counting the important legislative and bureaucratic changes that have occurred since September 11, 2001. Using the information shown in the *Terrorism Time Line* chart, in the 18 months after September 11, at the federal level:

- 20 major pieces of national legislation were enacted;
- 12 Executive Directives were issued;
- 12 major organizational changes occurred, including the formation of the Department of Homeland Security; and
- 6 major mandates for state and local government resulted from these federal actions.

The amount of legislative and policy changes in those 18 months was greater than the previous 18 years, a fact that gives enormous raw material to political scientists and public policy analysts.

Along with new threats have come new resources, and those resources have new requirements connected to them. Additionally, new intergovernmental and inter-organizational relationships are necessary to achieve greater safety and security for U.S. citizens.

Today, the year 2000 looks like the good old days, when life was relatively simple.

### **New Themes for 2004 and Beyond**

In fewer than four years, we have acquired many new concerns, five of which are:

- Major new concepts, such as that of homeland security;
- Dozens of pieces of national legislation, such as the Public Health Security and Bioterrorism Preparedness Act of 2002;
- A new, huge federal department devoted to homeland security;
- New relationships, such as that between the emergency management and public health communities; and
- Major new federal-level national response strategies, notably the new National Response Plan and the related National Incident Management System.

### **The Subtitle of this Article**

For the sake of following the style of the original article, this article has been subtitled: Dealing with Al Qaeda, Tom Ridge, and Julie Gerberding. The intent is to focus on just three of the major broad bands of change that have occurred in the past few years.

**Al Qaeda** is shorthand for the major menacing threat of terrorism that faces not only the U.S. but other Western countries. It is international in scope, not tied to any one country or place of origin, and is amorphous and constantly changing. Dealing with it differs from previous war and disaster efforts. Unfortunately, their brand of terrorism is likely to plague the world for generations.

**Tom Ridge** has become the personification of homeland security in the U.S., currently as the highly visible secretary of the Department of Homeland Security (DHS), and previously as the director of the Office of Homeland Security, which was formed shortly after September 11, 2001. Issues about the concept of homeland security, concerns about the formation and configuration of DHS, and problems with implementation of the programs and activities of DHS will probably provide topics for research and discussion for decades.

**Julie Gerberding** is the current director of the Centers for Disease Control (CDC), which is part of the Department of Health and Human Services. Although not well-known, her name represents the growing importance of the health and medical aspects of threats and disasters along with the essential need for the emergency management community to create or improve working relationships with their health and medical counterparts. Health and medicine are just two of many newly emphasized areas of concern that make up the art and science of emergency management; law enforcement and environment are two other important components of many threats/disasters.

#### **(A) Al Qaeda and the Unpredictable New Threat of International Terrorism**

There are many persons far more expert about this type of threat and terrorism in general than the author, but it is essential to note the importance of the addition, front and center, of terrorism to the array of threats and disasters with which emergency management and homeland security personnel must deal.

For the purposes of this working paper, suffice it to note that the threat of terrorism went from the bottom to the very top of the priority list for many public officials, as well as managers in the non-profit and business communities.

#### **(B) Tom Ridge: The Advent of Homeland Security**

One of the most important changes for the emergency management community in the past two years is the creation of the *concept of homeland security* and the formation of various homeland security organizations at each level of government. Initiated at the federal level, the Office of Homeland Security was created in a matter of weeks following September 11, and the Department of Homeland Security was legislatively authorized in 2003. Among the outcomes was the formation of homeland security offices at state and local levels.

The first time the term homeland security was defined was in the *National Strategy for Homeland Security*, issued in July 2002. "Homeland Security is a concerted national effort to prevent terrorist attacks within the United States, reduce America's

vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.” (p. 2) <sup>4</sup>

### **Just What Is Homeland Security?**

A recent report by the Century Foundation raises the question of whether emergency management is a part of homeland security or whether homeland security is a part of emergency management. In the March 2004 report entitled *The Department of Homeland Security's First Year: A Report Card*, the fundamental question is raised:

At this point, it is not clear what the best approach is. Should terrorism prevention and response capabilities be integrated within an all-hazards framework – a baseline system of readiness for any type of disaster with the capacity to respond to the extraordinary? Or should the focus be on homeland security as the broad umbrella, ramp-up law enforcement for counterterrorism capabilities and investigation, deliver specialized equipment and training to first responders for terrorist attacks involving weapons of mass destruction, and treat existing emergency management systems as the response component of a broader homeland security framework? (p. 140)

While this can be an interesting debate, I would suggest that most people tend to think of emergency management as part of homeland security. For one example of a conceptual scheme see the diagram in Appendix A.

The relationship between homeland security and emergency management remains to be worked out at each level of government. At the federal level, FEMA is part of DHS; at the state level, virtually all states have both an office of homeland security and an office of emergency management. At the local level, many of the major cities have homeland security offices. At the state and local levels, the relationships between the two offices remain to be examined.

### **Ramifications and Implications Are Extensive**

It would seem the bifurcation of responsibilities and organizations will result in many questions of authority and jurisdiction at the time of a disaster operation. Also, this bifurcation raises questions about which office is responsible for strategic thinking for various kinds of threats/hazards.

### **Research and Education Needs**

The need for research and education, always a major ongoing issue in the field of emergency management, has risen even higher on the scale of needs since the advent of homeland security. Among the topics needing attention from the research community are increased understanding of: (a) the basics of principles and practices, (b) the fuller array of components of homeland security as compared to emergency management, and (c) the wider context for emergency management, including the politics and public policy dimensions of homeland security generally, and DHS in particular.

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<sup>4</sup> URL: [http://www.whitehouse.gov/homeland/book/nat\\_strat\\_hls.pdf](http://www.whitehouse.gov/homeland/book/nat_strat_hls.pdf)

The author has been involved in a variety of mechanisms and processes regarding research and education, including preparing this paper to document some of these needs. Earlier efforts include: (1) completing a Quick Response Report for the Natural Hazards Center, (2) preparing both a *Terrorism Time Line* chart and a narrative report of the key events and outcomes on that chart, (3) conducting a workshop on the topic of “Emergency Management in the Homeland Security Environments,” and (4) by serving as a founder and managing editor of a new journal, ***Homeland Security and Emergency Management***, dealing with both homeland security and emergency management. These personal examples are used to make some key points.

### **GWU Workshop on Emergency Management in the Homeland Security Environment**

In November 2003 the Institute for Crisis, Disaster, and Risk Management (ICDRM) at George Washington University (GWU) organized an invitational workshop titled “Emergency Management in the Homeland Security Environment.” About 70 people – practitioners, academics, and consultants – were invited to explore this topic. The focus was on providing the National Science Foundation and other research sponsors with a “List of Research and Educational Issues and Needs.” The full list can be downloaded from the workshop website at <http://www.gwu.edu/~workshop>. A short summary of the final report of the workshop is included in Appendix B.

This workshop focused on research and educational issues and needs. These topics are important, and the need to integrate research findings into educational materials cannot be stressed enough. Currently, the need for research and study of emergency management, in its new context of homeland security, is very high.

### **Terrorism Time Line Products**

The author has been documenting some of the changes in emergency management via her work with the *Terrorism Time Line* chart and its narrative report. These efforts at documenting recent history are aimed both at assisting practitioners and providing needed background and context to educators and trainers.

### **The Journal of Homeland Security and Emergency Management (JHSEM)**

There are a few journals of emergency management and one on homeland security exclusively. The new electronic JHSEM is trying to weave together both topics and provide educators, students, and practitioners with new information and insights about these topics. The process of producing this periodical highlights the problem of finding a supply of new, useful, and validated information about new developments.

### **National Response Plans and Incident Management Systems**

Another very important new set of changes at the federal level involves the creation of new incident management systems and new national response plans. These changes are likely to result in major changes in the understanding of, approach to, and practice of emergency management emergency management. Two major documents are the National Response Plan (NRP) and the related National Incident Management System (NIMS).

Since the issuance of Homeland Security Presidential Directive #5 (HSPD5) in March 2003, major efforts have been underway to create the new NRP and the related NIMS. As of the time of writing, the NIMS document is in final form and the NRP document has been released in final draft form for public comment. Copies of both documents can be obtained from <http://www.all-hands.net/pn/>. Since these new plans and systems are just being revealed, the full extent of changes and need for new implementation mechanisms is not yet fully appreciated.

In the opinion of this author, the efforts underway to consolidate, streamline, and integrate the many federal response strategies into a National Response Plan are a significant undertaking. The resulting directives, guidance etc., will have profound effects not only on federal departments and agencies but also on state and local emergency management and homeland security agencies and operations. In addition to affecting practitioners, these revised plans and systems will have implications for consultants and educators in the next few years. Consequently, the process by which practitioners understand, train for, and ultimately implement these new plans and systems will be very important areas for educators in the near future.

### **(C) Julie Geberding: New Working Partnerships with the Health and Medical Community**

The emergency management community needs help from the health and medical communities, not only for threats/outbreaks of bioterrorism, but also for familiar, naturally occurring communicable diseases, such as SARS, Avian Flu, and AIDS.

#### **Help from Other Communities May Be Needed Also**

An example of another community from which help is often needed is the environmental community. One has only to review the unfortunately messy situation in Washington, DC regarding high levels of lead in the drinking water – known to environmental officials since 2002, but never acted upon – to appreciate the complexity of a threat that involves a slow onset emergency, the health and medical communities, and environmental agencies.

#### **Implications for the Higher Education Community**

In the world we now inhabit, we are dealing with multiple cells of terrorists who constantly change their targets and continuously probe for areas of vulnerability. The threats/disasters that we now face are very different from the fixed sites and known

threats that we have dealt with in the past. As a result, more agile and aggressive threat assessments and intelligence-gathering elements are needed. To groom the next generation of professionals in the fields of emergency management and homeland security, we need to enhance the type and amount of education and training provided to such people. Further, current practitioners should be offered continuing education programs at the earliest opportunity. We do not want to rely on on-the-job-training.

### **Some Gaps in the Process of Educating Practitioners:**

- The many unknowns about the relationship between emergency management and homeland security
- The need for more sophisticated graduate-level planning and management talents and skills for highly complex hazards, threats, and disasters
- The need for more strategic thinking about a wider array of threats/hazards that have even been addressed before
- The ability to do quantitative risk and vulnerability assessments and to do them in a manner that permits reiteration and replication
- The need to foster (educate, train, and promote) people with the ability to make decisions and manage complex systems, and do so under immense pressure and public scrutiny
- The need for more expert systems, links to live experts, and other unforeseen technological advances, which will require sophisticated telecommunications skills
- The need for multi-disciplinary team management to deal with human-made threats, including multiple, simultaneous terrorist assaults

### **What to Expect in the Year 2005 and Beyond:**

- The future will be more than an extension of current trends continuing unabated into the future. Terrorist threats are constantly changing since malevolent people are behind them. **You can plan on unexpected or surprise events.**
- Greater **use and application of advanced tools**, such as computers, expert systems, and artificial intelligence in the emergency management field.
- We will need to substantially change our thinking about the required skills and competencies that top managers of emergency management and homeland security will need. This will mean a **major analysis, and likely a major upgrade, of educational requirements.**
- Expect **more attention to regional planning**, using existing and new regional organizations. Since there are tens of thousands of local governments in the U.S. it will not be possible to deal with them individually.

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(2) Avagene Moore, Pres. EIIP, and Amy Sebring, EIIP, March 15, 2004.  
URL: <http://www.emforum.org>

(3) Dr. Joseph Barbera, Co-Director, Institute for Crisis, Disaster, and Risk Management, George Washington University. April 2004.

**Appendix A: Diagram of Homeland Security Components**

*[see diagram on next page]*

# A CONCEPT OF HOMELAND SECURITY FUNCTIONS

William R. Cumming, J.D., Claire B. Rubin, M.A. & Irmak Renda-Tanali, D.Sc\*.



**DEFINITIONS:**

- Civil Security:** .....Protection of physical and cyber assets and systems to prevent sabotage or disruption
- Emergency Management:** .....Organization of the civil governmental and non-governmental response to unexpected events
- Health and Environment:** .....Protection of public health and safety by the detection and monitoring of environmental hazards, and if exposure occurs the decontamination of contaminated people and property. This includes the issuance of Protective Action Recommendations (PARs) to the public including the establishment of quarantine and no access zones, and authorizing re-entry to those zones once established. It also includes remediation of contaminated zones.
- Homeland Defense:** .....Organization and operation of the military defense of the Homeland
- Homeland Security:** .....Non-military defense of the United States and its territories
- Intelligence:** .....Gathering and dissemination to appropriate individuals and organizations of information to facilitate prevention and response of attacks against the homeland originating inside or outside the United States, its territories, and allies
- Law Enforcement:** .....Enforcement of federal and state criminal codes
- Resources:** .....Verification of readiness and capability of personnel and equipment, including logistical support, training, and financial arrangements. This also includes rapid expansion of the resource base in the event of a catastrophic event.

\*This conceptual scheme was created by the authors to stimulate thinking about various possible functional relationships. This and related products can be downloaded from [www.disaster-timeline.com](http://www.disaster-timeline.com)

## **Appendix B: Research and Educational Issues and Needs**

*This is an abbreviated version of the full list from the Workshop on Emergency Management in the Homeland Security Environment, sponsored by the George Washington University, Institute for Crisis, Disaster, and Risk Management, and held in Washington, D.C., in November 2003. Full details about the workshop are available at: <http://www.gwu.edu/~workshop>.*

- (1) Intergovernmental relations/federalism/governance issues** – the arrival of the U.S. Department of Homeland Security (DHS) has changed intergovernmental relationships in the U.S. Research is needed to define and describe the changes to federalism, determine whether the effects are positive or negative, and identify any “unintended consequences.”
- (2) Reconsider “all hazards” vs. specific hazard approach** - the fundamental question relates to “are we actually moving towards or emphasizing one type of hazard (terrorism) at the expense of others (natural hazards)?”
- (3) The role and importance of public health**
- (4) Health and medical issues**
- (5) Communications and collaboration**
- (6) Role of the media**
- (7) Cultural differences between the “old” and emerging organizations responsible for emergency management in the homeland security environment**
- (8) Role of technology and information sharing**
- (9) Evaluation and assessment**
- (10) Risk and risk assessment**
- (11) Metrics**
- (12) Legal issues**
- (13) The conduct and process of research: How to get into practice and relationships between research producers and users**
- (14) Decision-making**
- (15) Information issues**