Afterward: A Brief Note on Other Issues
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It is the purpose of this afterward to mention some issues worthy of consideration by future thinkers and writers. The National Response Plan[1] demonstrates the federal government's plan for handling future large-scale critical incidents. Decentralization does not seem to have been considered; bureaucracy and other failed hierarchical principles abound. The current top-down hierarchical models have not served well in the recent past, do not serve well today, and will serve poorly tomorrow. Time and again experience illustrates how hierarchy and bureaucracy fail to meet the needs of service consumers, from those affected by disaster, to those seeking clarification on an income tax concern, to those applying for federal medical benefits. The question is not whether bureaucracy and hierarchy are dying organizational strategies; the question is when society will recognize that alternative approaches are needed (and might actually be preferable).

Dominant organizational models used for modern disaster response were developed some 150 years ago to maximize efficiency during the Industrial Revolution. They were highly functional in coordinating predictable activities (industrial production) in fixed areas (factories) with the communications, data collection, and analysis technologies and capacities of that era. Can these industrial-age strategies translate well into the chaotic and geographically diffuse realm of modern disasters, given the opportunities afforded by contemporary technologies to enable communication, data acquisition and analysis, and resource management? To believe that hierarchies would

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[1] http://www.dhs.gov/xlibrary/assets/NRPbaseplan.pdf

serve well under these conditions foredooms society to failed responses in the future.

Incident command and the National Response Plan must be reformulated to take

advantage of modern technology and resources; they must be planned with an eye toward

more flexible, adaptable, and dynamic organizational structures. Net-centric approaches

are but one possible alternative and their utility in this arena remains largely untested;

nonetheless, they remain the only other potentially viable organizing principle in town.

Our society's fixation with outmoded organizing principles is not the only

problem it faces. Some areas of policing have received far too little attention for the risk

of mass casualty events they pose. Consider derailed trains, explosions at electrical

power transmission facilities, accidents affecting petroleum storage facilities and

pipelines, and natural disasters (e.g., floods, tornados, earthquakes, blizzards). All have

produced mass casualty events, often with police muddling through rather than acting out

timely, pre-planned responses. Terrorist organizations devote considerable time thinking

of new ways to wreak havoc; do emergency response organizations spend enough time

imagining the possible threats within our communities?[2] It has been noted that the

military often fights the last war, using outmoded strategies and tactics, as well as

responding to an enemy we are not longer fighting. Is there an analogy in disaster

planning? Do response plans tend to seek improved responses to the challenge of

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[2] One example is piracy, a thriving entrepreneurial activity. So far we have been very
lucky that the consequences of piracy have generally been limited to loss of cargo and a
few lives. A review of the *Weekly Piracy Report* (http://www.icc-
ccs.org/prc/piracyreport.php) and a bit of imagination likely will give one pause.
Alternatively, consider the collision of M/V Springbok and LPG Carrier M/T Gas Roman
on 27 February 2003 (http://www.cargolaw.com/2003nightmare_t-bone.html). What
likely would have happened if the positions of the two ships had been reversed (the gas
carrier t-boned by the freighter) and near a port? What might have happened if this
incident had been provoked by terrorists, rather than occurring as an unfortunate
accident?

yesterday, rather than seeking a better response to the threat of tomorrow? There is evidence of improved planning and strategies within this domain, yet much room exists for further improvements.

The above natural disasters and accidents could have been much worse. To date, domestic terrorists not taken capitalized on the opportunity to further the havoc created by these events. Domestic terrorists have been to this point committed to events that require significant planning-- and that very planning has created points of vulnerability against them. Consider how things could change if terrorists became more opportunistic, taking advantage of natural disasters, interstate crashes blocking roads, large-scale power outages, or derailed commuter trains.

If government, emergency service providers, and other involved parties are going to improve future disaster responses, there are myriad questions that must be answered. There are, however, deficiencies that must be addressed, including:

1. Encouraging large numbers of both residents and transients to become prepared and resilient. Officials seem to have belatedly recognized the necessity for developing such independence from government (e.g., Goodnough, 2006). It remains unclear how best to foster and cultivate such an independent spirit and capacity

2. Goodnough writes: "Convinced that tough tactics are needed, officials in hurricane-prone states are trumpeting dire warnings about the [upcoming] storm season, …preaching self-reliance and prodding the public to prepare early and well" (2006). To what extent should the police teach self-reliance for policing-related problems? How is it best to deliver that instruction? Can the likelihood that people will put their learning into action be increased? How? Partly this is a political question; partly it is a question of

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mission, but largely it is an empirical question – what works? The answer to this question remains largely unknown in both the realms of policing and disaster response.

3. "Among the most needed types of research are studies that compare systematically the unique circumstances of catastrophic events such as major earthquakes, hurricanes, and acts of terrorism. Such comparative studies will allow researchers to examine societal response in relation to variables such as the amount of advanced warning, the magnitude, scope and duration of impacts, and the special requirements for dealing with chemical, biological, and radiological agents. Among the report's other recommendations is the need for systematic studies of how societies complement expected and sometimes planned responses with improvised activities." (Committee on Disaster Research in the Social Sciences: Future Challenges and Opportunities, 2006, p. 3). Existing structures and models have repeatedly proven inadequate, yet we continue to embrace these venerable but rigid, inflexible, and ill-suited plans. Researchers need to be forward thinking, considering how alternative responses and organizational strategies might better enhance responses to large-scale incidents. Net centric approaches offer some promise (Levin and Jensen, 2005; Myers, 2006), but they remain unproven within this arena.

4. How does economy of scale affect agency performance? For example, with many actors and much damage, the response to Katrina was generally recognized as unsatisfactory. On the other hand, the FEMA response to a recent (October 2006) 6.7 magnitude earthquake near Hawaii[3] was without flaw.[4] The FEMA staff in Hawaii numbered only three. Was the reported performance rating accurate? If so, was it a

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[3] http://earthquake.usgs.gov/eqcenter/eqinthenews/2006/ustwbh/
[4] http://www.kesq.com/Global/story.asp?S=5662206

function of simplicity and small size?   Would similar variables affect the quality of police response?

5. Even though the behavior of people under fire-related conditions has been studied by Gershon, Groner, and others during the past quarter of a century,[5] there is little scientific research regarding how people behave during police-related emergencies. What is the best way to clear an area or building? What is the best way to keep citizens out of the way of on-going risk? What is the best way to gather information from people on the scene? What is the best way to minimize disorder and crime during mass movements of people and vehicles? What is the best way to . . . ? Once again the answers are, regrettably, unclear.

6. Related, a recent RAND study (Meade & Molander, 2006) pointed out that little is known about the policy and economic consequences of terrorist attacks. It is encouraging that society has begun to understand "targeted acts of terrorism, focused on critical economic infrastructure, could produce cascading social and economic effects over very wide scales" (Meade & Molander, 2006, p.1). Most police training that is related to mass casualty events focuses on problems immediately prior to and immediately following mass casualty events. Consider is rarely given to events that could last more than a week (epidemics, radiological contamination, loss of utilities infrastructure, electromagnetic pulse, etc.) or that might generate effects remote from the original reporting site (e.g., Buerger's chapter in this volume). Since policing still serves a community caretaker function, continued ignorance of these matters could prove costly.

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[5] http://www.apa.org/monitor/sep04/fighting.html

Whole domains remain unexamined. What will be the effect of changes in population demographics on responses to and prevention of mass casualty events? It is evident that the population of the U.S. is aging rapidly, despite the relative youth of recent immigrants. These immigrants will provide needed labor, but at the same time will affect American culture and bring additional challenges (perceived or real) both to homeland security and to existing social structures (Jensen and Levin, 2006). What will be the effects of globalizing economics and declining relevance of geopolitical boundaries as they pertain to mass casualty events? It is increasingly evident that massive social, political, and economic changes that are affecting law enforcement missions and functions worldwide. Our current police staffing levels and organizational models as well suited to preventing and managing mass casualty events in America's emerging social, economic, legal, and political future (Levin, 2004)? What will be the effects of looming changes in technologies (e.g., nanotechnology, widespread adoption of bioidentification) and communications patterns?

We should consider what Fukuda-Parr says: "Every technological advance brings potential benefits and risks, some of which are not easy to predict" (2001, p.65). In particular, predicting how technological change might affect mass casualty events has not been seriously considered. As a final example, what is the relationship between terrorism and safety of the individual officer (Buerger and Levin, 2005)? Is it time for serious work studying officer safety in the context of terroristic mass casualty events? As amply evidenced by 9/11 and Katrina, until quite recently the possibility had not been considered at all. Further exploring all of these areas is needed to better understand, predict, and respond to the mass casualty events of tomorrow.

All of the above are, in the words of Donald Rumsfeld, "known unknowns."[6] There are critical questions that at present cannot be answered in even the most basic terms. Perhaps even more troubling are the "unknown unknowns," i.e., scenarios and threats that have not even been considered and about which nothing is known. The present volume does not attempt to illuminate these "unknown unknowns;" rather, the authors attempted to offer visions of the work that still needs to be done in order to enhance community safety and security in response to future large-scale, long-term, and mass casualty events, whether natural, accidental, or man-made.

The authors included in this volume have not hesitated to criticize policing agencies for their flaws. However, these gaping lacunae in knowledge of disasters are real and salient. Given the current level of ignorance, police cannot reasonably be expected to work on an ad hoc basis to serve their communities well. Police do not and cannot know what to do until researchers have investigated the problems described above and until policy developers have applied that research to the problems discussed throughout this volume. Until researchers and others meet the need, police agencies and leaders will be forced to "muddle through" rather than function as skilled professionals. The police should be "at the table" when discussing, researching, and developing policy on the questions spelled out above, but in most cases there are others better suited for conducting (and funding) needed research.

When all else fails, readers are reminded that mass casualty events will usually yield limited positive outcomes over time. These events can serve to jerk loose solidly entrenched corruption, inefficiency, and general sleaze (U. S. Government Accountability

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[6] http://www.slate.com/id/2081042/

Office, 2006; Hanson, 2006). The challenge is maximizing positive changes. Mass

casualty events are tragic in their own right. Failing to maximize the learning potential

they present does a disservice to the lives lost and places future lives at unnecessary risk.

U.S. history has pointed our society into important directions; our leaders need vision,

courage, and foresight to pursue new avenues of inquiry and alternative models for

improved responses. That our nation hold fast to outdated and dysfunctional methods

augurs ill. Our work is cut out for us. Whether we in policing and in related research

communities will prove competent and productive remains to be seen.

References

Buerger, M. E. & Levin, B. H. (2005). The Future of officer safety in an age of terrorism. FBI Law Enforcement Bulletin, 74(9), 2-8.

Committee on Disaster Research in the Social Sciences: Future Challenges and Opportunities. (2006). *Facing hazards and disasters: Understanding human dimensions*. Washington DC: The National Academies Press. (http://www.nap.edu/catalog/11671.html)

Fukuda-Parr, S. (2001) Human development report 2001: Making new technologies work for human development. New York: Oxford University Press, United Nations Development Programme. http://hdr.undp.org/reports/global/2001/en/pdf/completenew.pdf

Goodnough, A. (2006). As hurricane season looms, states aim to scare. *Amherst Times*, May 31. Retrieved from http://www.amhersttimes.com/index.php?option=com_content&task=view&id=1 720&Itemid=27

Hanson, W. (2006, June 4). Louisiana moves to consolidate New Orleans government offices. *Government Technology*, http://www.govtech.net/magazine/channel_story.php/99738

Jensen, C.J., & Levin, B.H. (2006). The world of 2020: Demographic shifts, cultural change, and social challenge. In J. Schafer (Ed.), *Policing 2020: The future of*

crime, communities, and policing. Washington, DC: Federal Bureau of Investigation.

Levin, B. H. (2004). A blurring of boundaries – Law enforcement for the future. The National Academy Associate – The magazine of the FBI National Academy Associates, 6(6), 14-15, 23-25, 29, 31.

Levin, B. H. and Jensen, C. J. III (2005). The electronic donut shop: Networking in the information age. The National Academy Associate – The magazine of the FBI National Academy Associates, 7(2), 14-15, 20-21, 23.

Meade, C. & Molander, R. C. (2006). *Considering the effects of a catastrophic terrorist attack*. Santa Monica CA: RAND Center for Terrorism Risk Management Policy.

Myers, R.W. (2006). From pyramids to networks: Police structure and leadership in 2020. In J. Schafer (Ed.), *Policing 2020: The future of crime, communities, and policing*. Washington, DC: Federal Bureau of Investigation.

U. S. Government Accountability Office (2006). *Catastrophic disasters: Enhanced leadership, capabilities, and accountability controls will improve the effectiveness of the nation's preparedness, response, and recovery system.* Washington, DC: Government Accountability Office. Retrieved from http://www.gao.gov/cgi-bin/getrpt?GAO-06-618