



**Statement before the State of California  
Little Hoover Commission**

***“Improving State Response to Catastrophic  
Emergencies”***

A Statement by

**David Heyman  
Senior Fellow and Director  
Homeland Security Program  
The Center for Strategic and International Studies (CSIS)**

**January 26, 2006  
California State Capitol**

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Mr. Chairman and other distinguished Members of the Commission,

Thank you for the opportunity to testify before the Commission today to discuss how to improve state preparedness for and response to catastrophic emergencies, and specifically to address some of the lessons learned from the national response to Hurricanes Katrina and Rita.

The U.S. Constitution created an elegant and delicate balance between state sovereignty and federal responsibility. That federalism is the genius of our constitution, but it is also the challenge we face today in an increasingly—and necessarily—interconnected post 9-11 world.

Terrorists exploit the seams of society: they do not care that drivers' licenses are the domain of one state or another; they travel from overseas to the US without regard to the wall between domestic surveillance and foreign intelligence collection; they are oblivious to whether particular energy infrastructure is owned by the state or a private firm; and they remain indifferent to nuances between secret classifications of information and information that is sensitive but unclassified.

The challenge of federalism today is to build partnerships across state and federal lines—and with the private sector—that have not been there before, and to do so while preserving the values and true essence of America.

It is widely recognized that we failed in this regard in the months and years before September 11<sup>th</sup>. The bureaucracies and stovepipes of government contributed to the outcome of that day. And, as President Bush said regarding our nation's ability to respond to the Katrina catastrophe four years later, simply, it was “inadequate.”

We must do better.

In prevention, in preparedness, in response and recovery, we must do better. All Americans share a responsibility in homeland security. It should be one of the principal goals of government today to help bind those civic networks—federal, state and local governments, private enterprise, non-governmental organizations, and citizens—that will protect us tomorrow.

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<sup>1</sup> The Center for Strategic and International Studies provides strategic insights and practical policy solutions to decision makers committed to advancing global security and prosperity. Founded in 1962 by David M. Abshire and Admiral Arleigh Burke, CSIS is a bipartisan, non-profit organization headquartered in Washington, D.C with more than 220 employees. Former U.S. Senator Sam Nunn became chairman of the CSIS Board of Trustees in 1999, and John J. Hamre has led CSIS as its president and chief executive officer since April 2000. More information is available at [www.csis.org](http://www.csis.org).

In my testimony, I would like to first discuss the new context that shapes catastrophic emergencies today. Second, I will identify some of the issues that are not just specific to Katrina and Rita and Louisiana, but that we can all learn from. One of those issues is the lack of an integrated system to address multi-jurisdictional crises. So third, I will describe what we should be working towards—a national homeland security system. And finally, I will recommend specific actions states might consider to improve their own levels of preparedness for catastrophic emergencies.

### **A New Context – Terrorism and Catastrophic Emergencies**

It goes without saying that the events of 9-11 changed our world, or at least our understanding of it. As we consider how to prepare for and protect ourselves in this new security context, we must fully appreciate some of the dramatic changes that have resulted so as to better guide us in the changes we, in turn, must effect on ourselves.

Specifically, I have said for some time now that there are three new fundamental truths that must guide how we shape homeland security:

1. **International conflict, previously viewed as remote, foreign and the domain solely of armies, has come home to the cities and streets of America.** Our adversaries today are not primarily large armies, but rather can include suicidal individuals who may hide in plain sight. The combatants on the front lines of conflict are not just the military, but now also local law enforcement, fire fighters, doctors, and private citizens.
2. **National security, historically the central responsibility of the federal government, now requires full participation of state and local governments, as well as the private sector.** Protective measures will be employed and interdiction against possible attacks will be enforced largely at the local level.
3. **'Intelligence' is no longer the sole purview of the federal government, but shared among many new actors.** The Federal government owns and retains primary knowledge of *threats*. The private sector owns and operates 80% of critical infrastructure, and thus retains primary knowledge of *vulnerabilities* and the *consequences* of an attack. To fully assess risk and determine risks and priorities requires linking threat and vulnerability analyses together, linking federal, state, and private sector information. As threats emerge, new actors in security, such as public health officers, as well as the medical and scientific community in the case of the threat of bioterrorism, must play a role in determining and managing risks and priorities.

The melting of borders and merging of domestic and foreign interests mean we must forge new partnerships at home and abroad. We need greater horizontal and vertical integration among cities, states, the federal government and the private sector, and between domestic and foreign policy. Immigration and visa policies are no longer only about social, economic and foreign policy, but also of security. Information discovered in Pakistan may have implications for police operations and private firms in New York; traffic stops in San Diego may inform our understanding of the threat in Washington.

This new reality tugs at the threads of federalism and raises questions around the very pillars of society, to include: questions about the adequacy of legal authorities, the proper course for preservation of civil rights, the necessary balance for protecting privacy, and the appropriate role of the military.

### **Katrina and Its Effects**

All of these questions came to play during the response to hurricane Katrina in August 2005. Who's in charge? Under what circumstances can the military be employed in a response—for

search and rescue, for securing sites, for preventing looting and rioting? Do the proper authorities exist to ensure an efficient and effective response?

Katrina was by all accounts catastrophic, and its consequences enormous.

Katrina affected an area over 90,000 square miles. It began with a hurricane, that lead to flooding, disrupting millions of lives across multiple jurisdictions, and damaging or destroying much of the local critical infrastructure—21 refineries, miles of electricity transmission lines, and telecommunications equipment—within these regions. Over 100,000 patients required and received medical treatment; housing assistance or direct housing was provided to over 390,000 displaced individuals and families; and over 1.7 million victims registered for disaster assistance.<sup>2</sup>

During the response, there were failures at all levels and across almost all aspects of the response. There were failures of leadership, shortcomings in plans, disrupted communications, a lack of resources, and resources that could not be used. In the aftermath, we witnessed health affects beyond the initial incident, caused by standing water and high temperatures that created a breeding ground for disease. We also found widespread environmental contamination from toxic materials that had been released in the destruction. And in hindsight, there were early warnings that went unheeded, public alerts that were ignored, and recommended protective measures that were never implemented. In particular, it is clear now that the problems were numerous and widespread. They included:

#### Crisis Response

Failure to establish clear authority of who's in charge across multiple jurisdictions (e.g., federal, state, local)<sup>3</sup>

Failure of government officials to adequately share information and coordinate public messages<sup>4</sup>

Failure to invoke National Response Plan in a timely manner<sup>5</sup>

Failure to staff the FEMA response with qualified responders<sup>6</sup>

Failure to order timely evacuations<sup>7</sup>

Failure to provide effective evacuation plan for vulnerable populations

Failure to immediately respond to, and perhaps even to be aware of the levee break<sup>8</sup>

Failure to provide appropriate assistance to families of emergencies responders (police, fire, transit, health care, etc) so that responders could concentrate on the crisis

Failure to provide security to rescue teams<sup>9</sup>

Failure to deploy the National Guard in a timely manner<sup>10</sup>

Failure to provide adequate food, water, and emergency shelter<sup>11</sup>

Failure to provide adequate backup generators to critical facilities

Failure of communications systems<sup>12</sup>

<sup>2</sup> Testimony of Robert David Paulison, Acting Director, FEMA, before the Senate Committee on Homeland Security and Governmental Affairs (October 6, 2005).

<sup>3</sup> see Statement of William L. Carwile, III, Federal Coordinating Officer, Hurricane Katrina Response and Initial Recovery Operations, Before the Senate Committee on Homeland Security and Governmental Affairs (December 8, 2005); see also Statement of Paul McHale, Assistant Secretary of Defense for Homeland Defense (DOD) before Subcommittees of the Committees on Armed Services and Homeland Security (November 9, 2005); see also "U.S. Plans Response to Next Katrina; Homeland Security Revamps Protocols" (AP, January 1, 2006)

<sup>4</sup> see U.S. Plans Response to Next Katrina (AP, 2006)

<sup>5</sup> from Brookings Timeline

<sup>6</sup> see Carwile Statement (December 2005)

<sup>7</sup> see Brookings Timeline at [www.brookings.edu/fp/projects/homeland/katrinatimeline.pdf](http://www.brookings.edu/fp/projects/homeland/katrinatimeline.pdf)

<sup>8</sup> from Brookings Timeline

<sup>9</sup> see U.S. Plans Response to Next Katrina (AP, 2006)

<sup>10</sup> see Bowman et al, "Hurricane Katrina: DOD Disaster Response", (CRS Report, September 19, 2005); see also Brookings Timeline

<sup>11</sup> see Carwile Statement (December 2005); see also U.S. Plans Response to Next Katrina (AP, 2006)

<sup>12</sup> see Carwile Statement (December 2005); see also Shaun Waterman, "White House Inquiry Slams Katrina Response" (UPI, December 21, 2005); see also U.S. Plans Response to Next Katrina (AP, 2006); see also statement of Paul McHale (November 2005)

Preparedness

- Failure to maintain protective barrier islands and wetlands
- Failure to fund and sustain levee maintenance
- Failure to incorporate lessons and warnings of past exercises<sup>13</sup>, past hurricanes<sup>14</sup>, or past studies<sup>15</sup>
- Failure to maintain core disaster response competencies at FEMA when building new terrorism response competencies<sup>16</sup>

To be fair, thousands of lives were saved, and rescuers from the Coast Guard to emergency responders and the National Guard were heroic in their own efforts. But the real question is what implications are there from the lessons of Katrina and Rita to California or other states:

- Does the addition of homeland security authorities add confusion or enhance the state's ability to command and control?
- Do state officials know, understand and have exercised under the National Response Plan (NRP)?
- What are the institutions in place to ensure new officials are also familiar with and can work under the NRP?
- What are the triggers and methods for notifying the public to evacuate?
- Are there plans in place to ensure help for those emergency responders who help us?
- Has funding and preparedness for terrorism at the state level come at the expense of funding and preparedness for all hazards?

There has been much written on these topics, and I am happy to discuss any of the specific problems and lessons having to do with pre-event planning and the actual operational response. What I think would be most useful, however, and frankly most important, is to focus on the strategic lessons of Katrina and their implications for states in terms of emergency preparedness for natural disasters and possible terrorist attacks.

In the end, the lessons of Katrina had more to do with the failures of coordination *among* federal agencies and between state, local, and federal officials, and the private sector, than with shortfalls in any one element of the response. In short what we had with Katrina was system failure—individual decisions or lack of decisions and subsequent actions prior to and during the initial stages of the crisis triggered failure after failure down the line. And that is largely because the homeland security system that we need to respond effectively to such catastrophes does not exist today.

**A National Homeland Security System**

What our country needs and what we have been lacking, is a national homeland security system—*an interconnected network of federal, state, local and private homeland security systems that seamlessly support and reinforce each other to protect against and respond to catastrophic events.* Such a system should be built on three key building-blocks: **risk-based security**; **real-time situational awareness**; and an **ability to surge resources** from other jurisdictions.

<sup>13</sup> see FEMA tabletop exercise entitled "Hurricane Pam", <http://www.globalsecurity.org/security/ops/hurricane-pam.htm>

<sup>14</sup> see Mary Foster, "Some Can't Evacuate New Orleans for Ivan" (Associated Press, 2004)

<sup>15</sup> see Statement of Norman J. Rabkin, Managing Director, Homeland Security and Justice Issues, U.S. Government Accountability Office in GAO-0501953T Hurricane Katrina (September 28, 2005); Mark Fischetti, "Drowning New Orleans" (Scientific America, October 2001)

<sup>16</sup> from Waterman (2005). See also Remarks by Secretary Michael Chertoff (DHS) at the International Association of Fire Chiefs Leadership Summit (November 4, 2004)

*Risk-based Security*

While cities and states must prepare for threats across the all-hazards spectrum, our national focus must discriminate between 'regular' hazards and catastrophic threats. The President's *National Strategy for Homeland Security* "attaches special emphasis to threats with the greatest risk of....mass casualties, massive property loss, and immense social disruption."<sup>17</sup> We use risk assessments to make those distinctions.

Risk is a product of three variables – threat, vulnerability and consequence. These variables answer three questions: What are the dangers we could worry about? How likely are they to happen? And how bad would it be if they did happen?

People tend to focus just on 'threat' when considering risk, which may account for some of the Hollywood scenarios out there. But when considering risk, vulnerability and consequence must also be factored; risk can be mitigated by protective measures that reduce vulnerability or that improve our ability to deal with the consequences. Even if we take terrorism, for example, and only to look at the nature of the threat, we must remember that threats are not just what adversaries may wish to do, but also what resources and capabilities they may retain to accomplish their goals.

In homeland security, our goal is to prioritize our investments and put in place security measures to prevent and protect us against that which poses the greatest risk. It is a balancing act: risk can never be eliminated and resources are limited. So we must make choices.

A national homeland security system would provide a basis for decision-making and investments. It would include continuous assessments of what it is we need to protect, what threats we might face, what means are available to protect ourselves from those threats, and what protection is already in place. Elements of such a system include the following:

1. National Vital Assets List (Criticality Assessment) – We must first know what it is that we need to protect. What are the key resources within the nation that are so vital that their incapacitation, exploitation, or destruction, could have a debilitating effect on security and economic wellbeing or could profoundly affect our national prestige and morale? This could include events where large-gatherings could provide an attractive and efficient opportunity for large numbers of people to be harmed.
2. National Planning Scenarios (Threat Assessment) – Second, we must know how the nation's vital assets might be incapacitated, exploited or destroyed. Given known hostile threats (e.g., terrorist goals and capabilities) and possible natural disasters, what are the plausible scenarios<sup>18</sup> that should guide federal, state and local prevention, protection, response and recovery plans?
3. National Capabilities Inventory (Capabilities Assessment) – Third, cities, states, tribal entities, and the federal government will all need to develop and maintain specific capabilities<sup>19</sup> to protect against and respond to all hazards. They include, for example, the capacity to perform CBRNE (chemical, biological, radiological, nuclear, and high explosive) detection, mass prophylaxis, and search and rescue operations. The inventory of capabilities will be maintained in each jurisdiction, with aggregate capabilities maintained at State and Federal levels.

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<sup>17</sup> The National Strategy for Homeland Security (2002), page 2.

<sup>18</sup> The Homeland Security Council in partnership with the Department of Homeland Security, state and local homeland security agencies have developed fifteen plausible all-hazard planning scenarios for use in preparedness planning. These are considered sensitive and have not been officially released to the public. Nevertheless, they have been leaked and are publicly available.

<sup>19</sup> The Department of Homeland Security has defined capabilities needed to meet the national preparedness goal. See The National Preparedness Goal, (Department of Homeland Security, December 2005), pages 8-12.

4. National Gap Analysis (Vulnerability Assessment) – Fourth, by comparing capabilities that are needed for protection against the inventory of existing capabilities, we can assess where in our national homeland security system gaps exist. The analysis is built from the bottom up on a city-by-city, state-by-state basis. The federal government has additional unique assets and capabilities to protect against and respond to all-hazards that would also be assessed.
5. Risk-based Resource Allocation – Fifth, areas where little to no capabilities exist or where capabilities are lacking relative to risk, would require additional investments and/ or further research to mitigate risk. Investment requirements can be prioritized: gaps that pose the greatest risk of harm would be prioritized ahead of those lesser concerns.
6. Preparedness, Training, and Exercise – Sixth, continuous improvement and preparedness assuredness would be accomplished through regular training and exercise programs. Local training and exercises would be integrated into state programs, state programs into regional and federal training and exercise programs.

#### *Situational Awareness and Timely Information*

The speed at which a threat can be detected and characterized, and emergency services, protective measures and/ or countermeasures deployed is critically important. The faster and more effectively this is accomplished, the quicker response and containment efforts can be employed, resulting in less damage, and perhaps fewer casualties.

Situational awareness, both of emerging threats and of emergency response readiness, requires timely, complete actionable information—both of our national and the international threat reporting, and of the state of emergency preparedness (e.g., new target information, countermeasure inventories, protective gear, medical and isolation services available, personnel availability, plans, etc). Greater situational awareness will allow for better operational decision-making that is critical for providing early-warning, deploying assets and protecting the public. Such awareness will require greater information sharing between the federal government, which owns most of the threat information, and state, tribal and local authorities and private sector officials who maintain data on readiness and responsibility for implementing protective measures.

#### *Surge Capacity and Scalability*

Surge capacity refers to the ability of an emergency response system to rapidly expand to meet the increased demand for crisis response and recovery requirements (e.g., search and rescue, medical care, security, housing, and provision of basic services) in the event of a catastrophic or other large-scale event.

In most cases, a crisis will be managed at the local level. When resources are depleted or the situation cannot be managed at that level, local leaders will in theory turn to the state for additional support. If state resources are overwhelmed, the state can turn to the federal government for the full resources of the nation, and a national emergency can be declared. In each case, the local jurisdiction must have a capacity to integrate and absorb additional resources—wherever they may come from—into the response effort.

One of the primary goals of a national homeland security system is to have a surge capacity—i.e., for localities in any part of the country to be able to absorb and integrate resources from any other part of the country, seamlessly and efficiently, into an emergency response operation.

## Improving State Response

### 1. *Build a Risk-Based Statewide Homeland Security System*

I described what our national homeland security system should look like because the national system is an aggregate of federal, state, local and tribal territory homeland security systems, each built on the same national model.

Every state and every city—every jurisdiction—must know what we need to protect, against what threats, and with what means for protection? This requires that each state (and local jurisdiction):

- (a) *build a database of vital assets*
- (b) *identify/ agree on plausible all-hazard threat scenarios (e.g., the state of Florida, but not necessarily Illinois, would include hurricanes in scenarios)*
- (c) *establish a statewide inventory of capabilities and resources to protect against those threats*
- (d) *employ risk/ gap assessments as part of annual budgeting process*
- (e) *perform regular training and exercise programs to assess preparedness capabilities*

### 2. *Establish Statewide and Regional Surge Capacity*

As a principal goal for preparedness, each jurisdiction must be able to receive from and supply assistance to other jurisdictions. This is the glue that binds homeland security systems together. It will drive interoperability across response technologies; it will forge better communications; and it will expand and encourage greater information sharing. This must be a capacity that exists on an intra-state level (e.g., San Francisco and Los Angeles must be able to assist each other), on a state-to-state level (e.g., California, Oregon, Nevada, and Arizona must be able to assist each other), and between states and the federal government.

### 3. *Develop “Stay and Go” Tools*

There are two critical tools at the disposal of government officials that are essential to protecting the public in a crisis that communities have largely failed to develop: how to stay put and how to leave (e.g., quarantines and evacuations).

#### How to Stay

The SARS outbreak, the prospect of pandemic flu, and the risk of bioterrorism remind us of the risks we face due to contagious outbreaks. Today, novel pathogens, both deliberate and newly emerging, may not be amenable to existing modern medical countermeasures, and may require strategies that limit contacts between potential carriers of contagious disease and other healthy individuals in order to limit their epidemic affects. In cases where medical interventions do not exist, are unavailable, or are merely insufficient to halt a fast-spreading disease, the only recourse may be to employ restrictive measures, including quarantines, that limit contact between exposed and unexposed individuals, and as a result, control the spread of disease by disrupting person-to-person transmission.

In the midst of a crisis where social interactions must be limited, political and other public leaders will be expected to decide—and explain—how to best implement restrictive measures, to include possibly a large-scale quarantine. Some kinds of chemical accidents, a disease outbreak, or attacks, for example, may make going outdoors dangerous. Evacuations may take too long or may put people directly in harm’s way. In such a case it may be safer for people to stay indoors and shelter-in-place than to go outside.

Quarantine, in particular, is one of the more politically sensitive tools that can be employed for disease exposure control. The decision to separate and restrict movement of persons who,

for all intents and purposes, are well (by definition they are not ill, but may have been exposed to someone or something that could infect them) raises a number of legal, ethical and ultimately political questions that must be weighed carefully. Officials must also ensure that the special needs of vulnerable populations (i.e., elderly, infants and children, homeless, disabled, or chronically ill individuals), to include the provision of food, medical, and sanitation supplies, are also addressed.

The problem today, however, is that in the United States, no large-scale quarantine has been employed in the last eight decades, and few if any strategies currently exist to guide such a response. Steps to operationalize large-scale quarantine procedures have not yet been taken. Most communities—small and large—currently lack the resources to develop the necessary operational plans.

These plans must be developed today<sup>20</sup>.

#### How to Go

In hurricanes Katrina and Rita, we saw shortcomings in the evacuation—how people leave a catastrophic event. While people with cars were able to escape New Orleans, the evacuation plan failed to take into consideration the needs of vulnerable populations and those who depended on public transportation to leave. Even if officials had provided transportation for those in need, the city had an insufficient number of buses—and in some cases too few drivers—to carry transit-dependent individuals to safety.

In Texas, an estimated three million people evacuated the coast during hurricane Rita. Because of the lessons from Katrina, many more residents heeded the call of public officials to evacuate, leading to an extraordinary 100-mile traffic jam. Poor estimates on the volume of traffic, on management of highway lanes, and of fuel-availability, lead to greater congestion, stranded vehicles and an increase in vulnerability of evacuees to the risk of exposure to the hurricane.

If a catastrophic event occurs—hurricane, fire, radiological, nuclear or other—governments must have in place transportation systems and plans to facilitate evacuation.

#### Warning and Notification

No tools to stay or to go can be implemented effectively without adequate and timely communication to the public. The public must be made aware in advance of a crisis what steps they may need to take, how to be prepared, and how to stay informed. Public officials must ensure that every citizen has a means whereby he or she can receive public alerts and notifications; these means must be tested, exercised, and understood well in advance of a crisis.

### **Conclusion**

These measures are vital steps in a long journey toward building a national homeland security system. I urge the State of California, working with its neighboring state and federal partners to make them a priority. I look forward to discussing these other recommendations during the course of the hearing.

Once again, thank you, Mr. Chairman and the rest of the Commission for holding this hearing and for inviting me to participate. I look forward to answering any questions you might have.

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<sup>20</sup> For additional information and a detailed discussion on tools for staying put during a contagious outbreak such as a pandemic flu, see D. Heyman, *Draft Model Operational Guidelines for Disease Exposure Control* (CSIS, 2005).