

DoD and the Problem of Mega-Catastrophes

DR. PAUL STOCKTON

Center for International Security, Stanford University

The organizers of this conference made a strange choice in selecting me to advance the argument that the Department of Defense (DoD) ought to take the lead role in responding to catastrophes. For the overwhelming majority of incidents that may confront the U.S. response system in the future, I believe that the current, civilian-led system is structurally sound (and in many respects, ideal). The same civilian-led system also provides the best framework for building the sort of response system necessary for what I will call “normal catastrophes”—that is, catastrophes on the scale of Hurricane Katrina. But the United States should plan for the unlikely possibility that a catastrophe of a vastly larger scale may strike. In such a “mega-catastrophe,” DoD will face unwanted but ineluctable pressures to temporarily assume the lead of U.S. response operations. That is not a particularly desirable thing. Still worse, however, is the prospect that DoD would take the lead without having planned for the challenges it will confront, including the imperative to return leadership responsibilities to civilian officials as rapidly and effectively as possible.

My argument is built around a typology of very bad events, ordered in terms of their destructiveness: 1) major disasters (as defined in the Robert T. Stafford Disaster Relief and Emergency Assistance Act); 2) normal catastrophes (as defined by the National Response Plan and its Catastrophic Incident Annex); and 3) mega-catastrophes, which differ qualitatively from normal catastrophes in ways that will require a different architecture for the response system, and a different role for DoD.

I will begin by examining why a subordinate role for the DoD is so appropriate in major disasters. Second, I will distinguish disasters from

normal, Katrina-scale catastrophes, and reassess the degree to which keeping DoD in support of civilian authorities makes sense for such events. The third section examines how mega-catastrophes differ from normal ones, and why those differences make it imperative that the DoD plan for the very low probability, very high consequence risk that the President will assign leadership responsibilities to DoD for response. That section will also explore the problems that are likely to ensue if the Department adopts an ostrich-like approach to the leadership challenges posed by mega-catastrophes, and is left instead to make politically sensitive policy and organizational decisions on the fly.

Incidents, Major Disasters and Presidentially Declared Emergencies: The Virtues of the Bottom-Up System

The Federal government plays little or no role in the vast majority of fires, floods and other incidents that occur in the United States each year. Instead, local and state governments are primarily responsible for dealing with such incidents. The “basic premise” of the U.S. National Response Plan, which lays out the structure of the U.S. response system, is that “incidents are generally handled at the lowest jurisdictional level possible.”¹ Only if local and state resources are overwhelmed will authorities turn to interstate mutual aid compacts for additional assistance, and then—if necessary—the federal government.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act specifies the circumstances under which most forms of Federal assistance flow to states and localities.² Even before a president declares that a disaster has occurred, a governor may request that the president direct DoD, the Department of Homeland Security (DHS), and other federal departments to commit resources to preserve life and property in an incident.³ The more typical trip-wire for federal assistance lies in the designation of an incident as a major disaster. The Stafford Act specifies

1. National Response Plan, 4 December 2004 (U.S. Department of Homeland Security): 10.
2. For a concise description of the Stafford Act and the flow of Federal resources for which it provides, see “Federal Stafford Act Disaster Assistance: Presidential Declarations, Eligible Activities, and Funding” (Congressional Research Service, 28 April 2006), especially pp. 2-6.
3. Federal Stafford Act: 2.

that in response to a request for aid from a governor, a president may declare that an incident is a major disaster when it stems from a hazard such as hurricanes, tornados, or other natural hazards or, “regardless of cause, [after a] fire, flood or explosion.”⁴ The Act also specifies the destructive impact that an incident must have before it can be eligible to be declared a major disaster.⁵ The Act also provides that the president can declare that an event is an “emergency” and provide assistance even if a governor has not yet requested aid (and gives the president enormous leeway in determining whether an emergency exists).

The Stafford Act does provide an exception to the specifies in that a president can exercise the authority over response operations he deems necessary when “primary responsibility for the response rests with the United States because the emergency involves a subject area for which, under the Constitution or laws of the United States, the United States exercises exclusive or preminent responsibility and authority.” But the president has never invoked such authority for a major disaster.

More typically, federal aid flows to state and local authorities in major disasters to supplement their own capabilities, and in accordance with the assistance priorities those authorities have laid out. The critical role that state and local authorities play in requesting federal assistance and specifying the nature of that aid leads some observers to characterize the resulting process as “demand pull”—that is, one driven by the demands of state and local officials. I prefer the term “bottom-up,” because that term reflects not only the process by which requests for assistance flow, but also the degree to which state and local agencies provide the foundation on which the remainder of the response system rests.

Four factors help make the resulting response system so effective in most disasters. First, because the system is structured to function in a “bottom-up” process, in which local and state officials drive the initial response process, the system can take advantage of the familiarity that local officials have with their particular circumstances and operational constraints. Second, under the National Incident Management System (NIMS), that is designed to guide U.S. response operations, those local

4. 42 U.S.C. 5122(2).

5. For the specific criteria used in determining wither an incident constitutes a major disaster, see 44 CFR 206.48.

and state officials who direct initial response operations continue to help determine assistance priorities if their local capabilities prove inadequate.⁶ That not only keeps the system tied to an on-the-ground assessment of assistance needs but also provides a scalable command and control architecture that provides for interoperability among disparate local, state and federal entities as a disaster grows. Third, the mechanisms for mutual aid that supplements the bottom-up system provides for efficient utilization of resources. Mutual aid obviates the need for each state to build and maintain the capabilities necessary to deal with unusually destructive disasters. Through the Emergency Management Assistance Compact (EMAC) system, states stand ready to supplement each other's capabilities in a fashion that for decades has proven increasingly effective and efficient for disaster response.

Mechanisms to provide for more federal-heavy, top-down disaster response efforts do exist, however. Incidents caused by acts of terrorism automatically elicit the involvement of the Department of Justice (and especially the Federal Bureau of Investigation) in criminal justice and terrorism prevention-related activities during response operations, such as the preservation of evidence at the incident scene. The Stafford Act also provides for larger-scale federal response operations. The Act specifies that the president can exercise those authorities over response operations he deems necessary when "primary responsibility for the response rests with the United States because the emergency involves a subject area for which, under the constitution or laws of the United States, the United States exercises exclusive or preeminent responsibility and authority."⁷

A prime example of preeminent federal authority – and one of special importance to this article—lies in the realm of homeland defense. The DoD's *Strategy for Homeland Defense and Civil Support* specifies that under most circumstances, disaster response activities will go forward within the category of homeland security—that is, under the purview of DHS. Through an amended Executive Order, President George W. Bush assigned responsibility of administering most of the provisions of

6. National Incident Management System (Department of Homeland Security, 1 March 2004).

7. Robert T. Stafford Disaster Relieve and Emergency Assistance Act. 42 U.S.C.5191(b).

the Stafford Act to the Secretary of DHS. DoD provides support to the Secretary of DHS and other civilian authorities as directed by the president (and as provided for in the Emergency Support Functions specified by the National Response Plan). But the Strategy also reserves for DoD the lead role in providing for Homeland Defense. Homeland Defense is the “protection of U.S. sovereignty, territory, domestic population and critical defense infrastructure against external threats and aggression, or other threats as directed by the President.”⁸ To reiterate, the DoD is responsible for homeland defense.

This definition of homeland defense creates an exception to the primacy of DHS (and state and local authorities) through which a president could drive an armored division. At the operational level, the ability of DoD to fit into the NIMS command system that is becoming so deeply ingrained in state and local agencies is at issue. The DoD has yet to adopt NIMS as its source of guidance for response operations (and may never do so, preferring to stick to its own military-oriented command and control arrangements). The distinction between homeland defense and homeland security creates some potential puzzles in terms of “who would be in charge of what” in disaster response – especially if (as in the case of bio-terrorism) it might not be immediately clear whether an event stemmed from natural causes or natural hazards. The short answer to questions over who is in charge will always be “whoever the president wants,” under the wide latitude for presidential decision-making that the Stafford Act provides. But as we move up the ladder of destruction from major disasters to catastrophes, that latitude (and the associated uncertainties for planning response operations) becomes increasingly problematic.

Normal Catastrophes: No Need for DoD Leadership

The National Response Plan (NRP) defines a catastrophe as:

Any natural or manmade incident, including terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. A catastrophic event could result in sustained national impact

8. The Strategy for Homeland Defense and Civil Support (U.S. Department of Defense, June 2005): 5.

*over a prolonged period of time; almost immediately exceeds the resources normally available to State, local, tribal and private-sector authorities in the impacted area; and significantly interrupts governmental operations and emergency services to such an extent that national security could be threatened.*⁹

This definition has two components. It is based in part on the scale of an event's destructiveness (though the term "mass casualties" is not further defined in terms of numbers of deaths or injuries), and on the kind of effects the event has on government operations and other functional categories. The definition also rests on the degree to which the usual bottom-up system will be disrupted. A catastrophe "almost immediately exceeds the resources normally available" to the state and local agencies on which the disaster response system rests.

Hurricane Katrina exemplifies what the NRP would term a catastrophe. Hurricane Katrina wreaked destruction across such a wide area, and with such terrific impact, that it differed from major disasters in most of the ways that the NRP envisioned would distinguish such a catastrophic event. Perhaps most important, Katrina washed away the local foundations on which the bottom-up system rests across wide swaths of the Gulf Coast. The United States Senate heard compelling testimony (especially from Bill Carwile) on the ripple effect that this destruction had on the broader response system.¹⁰

Reacting to the failures of the response system in Katrina, the administration began to consider proposing a more federal-heavy, top-down approach to catastrophes. On September 15, 2005 in New Orleans, President Bush first suggested the possibility of the DoD taking the lead in response to stress on the bottom-up system: "It is now clear that a challenge on this scale requires greater federal authority and a broader role of the armed forces, the institution of our government most capable of massive logistical operations on a moment's notice."¹¹ He also raised the possibility that here might be

9. National Response Plan: 63.

10. U.S. Senate Committee on Homeland Security and Governmental Affairs, Hearing, Hurricane Katrina: Perspectives of FEMA's Operations Professionals (Federal News Service Transcript), 9 December 2005: 16.

11. Herman, Ken. "Let GIs Run Storm Relief?" *Atlanta Journal-Constitution*, September 26, 2005.

“a circumstance in which the DoD becomes the lead agency. Clearly, in the case of a terrorist attack, that would be the case, but is there a natural disaster...of a certain size that would then enable the Defense Department to become the lead agency in coordinating and leading the response effort?”¹²

President Bush’s suggestions raised a firestorm of opposition. Some of the loudest objections came from Florida governor Jeb Bush, who emphasized “The most effective response is one that starts at the local level and grows with the support of surrounding communities, the state and then the federal government. The bottom-up approach yields the best and quickest results—saving lives, protecting property and getting life back to normal as soon as possible.”¹³

But the question of whether to move towards a top-down system for normal catastrophes is far from settled. With Congress’s recent change to the U.S. Code in the Defense Authorization Act for fiscal Year 2007—something that has gotten little attention—it seems that there may already be a movement in that direction. Section 1076 of this act clarifies the President’s authority to use armed forces in response to a disaster when public order has broken down, even if a governor has not requested the President to do so. Now, I do not think we need to panic. There is no reason to believe that storm troopers are coming in the door. However, I do have some questions about the president’s being able to deploy forces *without* a governor’s request. First of all, what are the standards to identify when public order has broken down? When are local authorities considered “incapacitated”? This is not really spelled out in the legislation, or in what the members said in their statement accompanying the law. For example, is Hurricane Katrina a case in which public order broke down sufficiently that the President should have been able to send federal troops in without the request of Governor Blanco? Secondly, I wonder who in the course of things makes that assessment. Does the governor have a say in deciding whether public order within his or her own jurisdiction has broken down? Clearly, that assessment is going to be political, and it is going to be problematic. In the aftermath of Katrina, CNN displayed

12. Ibid.

13. Bush, Jeb. “Think Locally on Relief.” *Washington Post*, September 30, 2005.

allegations that public order was breaking down left and right, and ultimately, those claims turned out to be greatly exaggerated. Does this issue—once we clarify the President’s authority to act in absence of a governor’s request—put us on a slippery slope towards federalizing the catastrophic response system?

The need to focus on the core missions of DoD is an equally important rationale against assigning lead responsibility to the Department. DoD has big jobs—most of which involve expeditionary warfare—and we should husband the Department’s resources for its principal tasks, which cannot be outsourced to anybody else. Even more important, I think the current system, actually, can work very well in dealing with the stress posed by normal catastrophes on that system. That is, if we strengthen the EMAC system, and if the administration, rather than spending money on the federal government, invests heavily in building robust state and local capabilities, we are going to have most of what we need in order to respond to normal disasters. The types of additional capabilities I am envisioning include command and control mechanisms, and interoperable communications, and other measures designed to improve locality-to-locality, state-to-state reinforcement. In addition, DoD must empower its local partners by way of planning and help build within the existing infrastructure that greater strength that lies within DoD.

Although the EMAC system is sufficient for normal catastrophes, the third category of disasters along the escalatory ladder, “mega-catastrophes,” poses a different kind of threat that is likely beyond EMAC’s scope. These catastrophes differ from normal catastrophes not so much in the scale of destruction, but in *kind*. They differ qualitatively in a couple of respects. I am talking about very low probability, ultra-high consequence events where multiple, geographically dispersed and near-simultaneous incidents produce mass casualties on a scale, way beyond the scale of what we saw in Katrina or 9/11. Included in this category would be terrorist attacks—that is, man-made catastrophes—devastating earthquakes that decimate entire cities, and the newer threats of pandemic flu or biological terrorism, for which we still remain largely unprepared.

The key difference is that, unlike in Katrina, where the EMAC system worked very well—especially with regard to bringing in National Guard forces—the *qualitatively different* severity of these scenarios may cause the system to break down. Mutual aid may break down because governors are so concerned about hustling in resources to deal with the reach of the catastrophe into their own states, that they will tend to be less willing to commit resources to those who are suffering elsewhere. During Katrina, for example, you pretty much knew your state was not going to get hit by the hurricane if you were in Massachusetts, and therefore states like Massachusetts were able to send a lot of assistance down to the Gulf Coast. In a mega-catastrophe, however, when the status of every state's stability is uncertain, that willingness to share breaks down. In cases like these, the resources and competencies of the DoD will be in great need.

Even in the case of Hurricane Katrina, where the EMAC system was able to anticipate the needs of disaster response, the complex nature of the disaster led to many unforeseen problems. According to Admiral Thad Allen, then the federal official in charge of recovery efforts in New Orleans and now Commandant of the United States Coast Guard, 30-40 percent of the NRP failed because it did not take into account the possibility of two *simultaneous* catastrophes—in this case, the hurricane and the subsequent flooding: “The issues of the levees breaking and the catastrophic events that happened in New Orleans are the equivalent, in my view, of a terrorist attack by Mother Nature overlaid on a natural disaster.”¹⁴ If a “normal” disaster like Katrina is able to chip away at the EMAC system, we can only imagine the type of damage and disorder that an abnormal catastrophe would cause; EMAC, in this case, would become paralyzed.

Situations involving viral pandemic and biological attacks—because of their potential to cause a massive loss of life—represent a key area of catastrophic response where DoD should take a lead. Assistant Secretary of Defense for Homeland Defense Paul McHale said, “It is conceivable that a... biological event would be so large, so catastrophic, that every agency of the federal government, most especially to include [the Defense Department], would be involved in a comprehensive federal

14. Strohm, Chris. “Officials consider quicker federalization, use of military in disaster.” *GOVEXEC.com*, September 20, 2005.

response.”¹⁵ These situations are especially challenging to manage since they call for quarantines, which require numerous strategies for identifying and limiting the movement of the infected population, including screening of travelers, prohibition of large gatherings, and enforcement of incubation periods. President Bush has emphasized, “If we had an outbreak somewhere in the United States, do we not then quarantine that part of the country? And how do you, then, enforce a quarantine? And who best to be able to effect a quarantine? One option is the use of military that’s able to plan and move.”¹⁶ To many, this choice is sensible. After all, U.S. military culture possesses many of the “intangibles” necessary for comprehensive consequence management, such as leadership, professionalism, value of service and discipline. “When one looks around at institutions that have the size and the equipment and the capacity and the ability to deploy people,” asserted former Secretary of Defense Donald Rumsfeld, “the military is unmatched.”¹⁷

Now this is where the second qualitative factor differentiating mega from abnormal catastrophes becomes clear: as the EMAC system breaks down and fear and disorder become widespread, there will be an enormous demand from the American people and their Congress for the DoD to take the lead. Alexander Hamilton recognized this tendency early in American history, citing it in *The Federalist Papers*:

*Safety from external danger is the most powerful director of national conduct. Even the ardent love of liberty will, after a time, give way to its dictates. The violent destruction of life and property incident to war, the continual effort and alarm attendant on a state of continual danger, will compel nations the most attached to liberty to resort for repose and security to institutions which have a tendency to destroy their civil and political rights. To be more safe, they at length become willing to run the risk of being less free.*¹⁸

15. Mazzetti, Mark. “Military Sees Limits to Role in U.S. Disasters.” *Los Angeles Times*, October 13, 2005.

16. Brown, David. “Military’s Role In A Flu Pandemic.” *Washington Post*, October 5, 2005.

17. Herman, Ken. “Let GIs Run Storm Relief?” *Atlanta Journal-Constitution*, September 26, 2005.

18. Hamilton, Alexander. Federalist Papers No. 8, in Hamilton, James Madison, and John Jay, *The Federalist Papers* (New York: Penguin Books, 1961): 67.

Interestingly enough, many local leaders have indicated support for a stronger military leadership role. A recent meeting of the U.S. Conference of Mayors declared that the military should be playing a greater role in disaster response efforts: “The current legal paradigm is that the military is viewed as the ‘resource of last resort’ deployed to restore order. Because of the sheer magnitude of the hurricane events recently experienced, and because acts of terrorism may spring up during or in the wake of such natural disasters, it is advantageous to consider an increased role for the military in disasters response.”¹⁹ I believe that this is *precisely* the dynamic that we define in a mega-catastrophe, and it is the factor that will make it *politically irresistible* for the president to stand up against calls in Congress by the American people for that institution which appears to be most capable, the DoD, to assume the lead.

So, we have a choice. We can either plan for that eventuality, or we can be like ostriches and stick our heads in the sand. The danger here is that absent advanced preparation the military is going to hunker down into force protection mode and simple planning. It will lack the action plans to implement what it needs in order to most efficiently handle a particular situation and, once the military has gotten in, it will not have the plans that it needs to hand off authority *back* to civilians and exit the mission. The reality is that the military is constantly planning for low probability, high consequence events. The military may not want this mission, the DoD may not want to be in the lead—but that is all the more reason to plan for it. The costs of not doing so, as we have seen over the last few years, can be devastating. If there is anything that might be learned from events like 9/11 and Katrina, it is that shrewd planning—be it for prevention or response—is key to preserving our national security. We can run, but we can’t hide, so let’s go on with the planning process.

19. Wodele, Greta. “Mayors’ group urges bigger military role in emergency response.” *GOVEXEC.com*, October 24, 2005.

