



**NAVAL  
POSTGRADUATE  
SCHOOL**

**MONTEREY, CALIFORNIA**

**THESIS**

**PRIVATE-PUBLIC DISASTER RELIEF:  
WHAT IS THE MILITARY'S ROLE?**

by

Cameron A. Carlson

March 2014

Thesis Advisor:  
Second Reader:

Tristan Mabry  
Erik Dahl

**Approved for public release; distribution is unlimited**

THIS PAGE INTENTIONALLY LEFT BLANK

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
<b>1. AGENCY USE ONLY (Leave blank)</b>	<b>2. REPORT DATE</b> March 2014	<b>3. REPORT TYPE AND DATES COVERED</b> Master's Thesis	
<b>4. TITLE AND SUBTITLE</b> PRIVATE-PUBLIC DISASTER RELIEF: WHAT IS THE MILITARY'S ROLE?		<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Cameron A. Carlson		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000		<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A		<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB protocol number ___N/A___.	
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited		<b>12b. DISTRIBUTION CODE</b> A	
<b>13. ABSTRACT (maximum 200 words)</b> Hurricane Katrina changed the way the United States conducts domestic disaster relief, most notably with the expanded role of the U.S. military. This thesis centers on the question: To what extent should the military be involved in domestic humanitarian assistance and disaster relief? Analysis of mistakes from Katrina point to the answer: The U.S. military should not hold a primary role in disaster relief due to the issues of establishing logistic, communication and medical networks for the victims of a disaster. Instead, a shift in policy should be made to use America's private sector resources to conduct disaster relief efforts. The autonomous nature of private sector leadership allows for quick decisions and front-line empowerment to establish centers of relief to distribute food, shelter, water and medical supplies as well as support communications and logistic efforts. Because of these attributes, the private sector is better equipped than the military to handle domestic disaster relief, and a change in policy should be made to reflect this.			
<b>14. SUBJECT TERMS</b> Hurricane, Disaster, Relief, Katrina, Government, Private Companies, Companies, FEMA, Military, Federal, Stafford Act, Collaboration, HADR, Humanitarian, Victims, Chain of Command			<b>15. NUMBER OF PAGES</b> 79
			<b>16. PRICE CODE</b>
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release; distribution is unlimited**

**PRIVATE-PUBLIC DISASTER RELIEF: WHAT IS THE MILITARY'S ROLE?**

Cameron A. Carlson  
Lieutenant, United States Navy  
B.S. Norwich University, 2008

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES  
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL  
March 2014**

Author: Cameron A. Carlson

Approved by: Tristan Mabry  
Thesis Advisor

Erik Dahl  
Second Reader

Mohammed Hafez  
Chair, Department of Homeland Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

## **ABSTRACT**

Hurricane Katrina changed the way the United States conducts domestic disaster relief, most notably with the expanded role of the U.S. military. This thesis centers on the question: To what extent should the military be involved in domestic humanitarian assistance and disaster relief? Analysis of mistakes from Katrina point to the answer: The U.S. military should not hold a primary role in disaster relief due to the issues of establishing logistic, communication and medical networks for the victims of a disaster. Instead, a shift in policy should be made to use America's private sector resources to conduct disaster relief efforts. The autonomous nature of private sector leadership allows for quick decisions and front-line empowerment to establish centers of relief to distribute food, shelter, water and medical supplies as well as support communications and logistic efforts. Because of these attributes, the private sector is better equipped than the military to handle domestic disaster relief, and a change in policy should be made to reflect this.

THIS PAGE INTENTIONALLY LEFT BLANK

# TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>II.</b>	<b>HURRICANE KATRINA AND THE FAILED RESPONSE OF THE FEDERAL GOVERNMENT.....</b>	<b>5</b>
	<b>A. PREPARATIONS AND EXECUTION .....</b>	<b>5</b>
	<b>B. FEMA’S ROLE IN THE DISASTER.....</b>	<b>7</b>
	<b>C. WHAT THE MILITARY DID AND DID NOT DO .....</b>	<b>9</b>
	<b>D. WHAT DID PRIVATE INDUSTRY OFFER? .....</b>	<b>12</b>
	<b>E. POLICY CHANGES FROM KATRINA .....</b>	<b>14</b>
<b>III.</b>	<b>THE MILITARY’S ROLE IN DISASTER RESPONSE AND ASSOCIATED ISSUES.....</b>	<b>17</b>
	<b>A. DOES TIMING HINDER THE FEDERAL GOVERNMENT TO FULLY COMMIT THE RESOURCES? .....</b>	<b>18</b>
	<b>B. HOW DOES DEFENSE OF THE HOMELAND HAVE AN EFFECT ON HADR?.....</b>	<b>20</b>
	<b>C. ISSUES ORIGINATING WITH THE PUBLIC-PRIVATE CHAIN OF COMMAND.....</b>	<b>21</b>
<b>IV.</b>	<b>CIVIL-MILITARY RELATIONSHIPS.....</b>	<b>29</b>
	<b>A. WHAT ARE THE PRIVATE ENTITIES ABLE TO ACCOMPLISH? ..</b>	<b>30</b>
	<b>B. WHAT DO THE PRIVATE COMPANIES HAVE TO GAIN FROM JOINING THE DISASTER RELIEF EFFORT?.....</b>	<b>33</b>
	<b>C. HOW CAN THE MILITARY/FEDERAL GOVERNMENT WORK TOGETHER AND CAN THEY CO-EXIST IN THE DPR REALM?.....</b>	<b>37</b>
<b>V.</b>	<b>LEGAL FRAMEWORK.....</b>	<b>39</b>
	<b>A. POSSE COMITATUS ACT.....</b>	<b>39</b>
	<b>1. Should We Really Amend the Posse Comitatus Act? .....</b>	<b>41</b>
	<b>B. THE STAFFORD ACT .....</b>	<b>42</b>
	<b>2. What Does the Stafford Act Allow? .....</b>	<b>43</b>
<b>VI.</b>	<b>WHAT TO DO ABOUT DISASTER RELIEF IN THE FUTURE?.....</b>	<b>45</b>
	<b>A. PRIVATE COMPANIES CONTRIBUTING TO THE FIGHT AGAINST DISASTER .....</b>	<b>45</b>
	<b>B. FUNDING PREPARATION TO PROVIDE MORE ECONOMICALLY SOUND RELIEF EFFORTS .....</b>	<b>47</b>
	<b>C. FEMA TAKING A LEAD IN THE PROCESS OF DISASTER RELIEF.....</b>	<b>48</b>
<b>VII.</b>	<b>CONCLUSION .....</b>	<b>51</b>
<b>APPENDIX A.</b>	<b>CAN THE POPULAR CULTURE OF ZOMBIES IMPROVE THE OVERALL RESPONSE OF DISASTER RELIEF?.....</b>	<b>55</b>
	<b>A. THE DIRECT CORRELATION BETWEEN ZOMBIES AND DISASTERS .....</b>	<b>55</b>

<b>B. MUCH DIFFERENT ROLE FOR THE MILITARY DURING AN OUTBREAK.....</b>	<b>58</b>
<b>LIST OF REFERENCES .....</b>	<b>61</b>
<b>INITIAL DISTRIBUTION LIST .....</b>	<b>65</b>

## LIST OF FIGURES

Figure 1.	Flow of Military Forces to Mississippi and Louisiana in 2005 .....	10
Figure 2.	Buildup of Army Active-Duty Units in Louisiana (2005).....	11
Figure 3.	Parallel Command and Control Diagram.....	23
Figure 4.	Dual-Status Command and Control Diagram .....	24
Figure 5.	Private Companies Checklist .....	26
Figure 6.	DR1 .....	31
Figure 7.	FDR2.....	32
Figure 8.	Emergency Mobile Operations Center.....	33
Figure 9.	Comparison of U.S. Corporate and U.S. Government Giving for Relief of International Disasters, Given in Millions of Dollars .....	36
Figure 10.	Corporate Giving by Focus Areas, 2009 and 2010 (Percent) Domestic and International, Given in Millions of Dollars.....	37
Figure 11.	Actions Taken in Event of Emergency .....	44
Figure 12.	CDC Zombie Preparedness Poster.....	56
Figure 13.	Population Map of United States .....	59

THIS PAGE INTENTIONALLY LEFT BLANK

## **LIST OF ACRONYMS AND ABBREVIATIONS**

DOD	Department of Defense
DHS	Department of Homeland Security
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HSA	Homeland Security Act
NRP	National Response Plan
PCA	Posse Comitatus Act
USNORTHCOM	U.S. Northern Command

THIS PAGE INTENTIONALLY LEFT BLANK

## I. INTRODUCTION

In past disasters, such as Hurricane Katrina, private companies' offers of disaster relief were dismissed as inferior to the resources of the U.S. government, which was perhaps self-serving, given that these companies are seen as solely profit driven. Institutional differences, such as the managerial hierarchy, organization, resources, and cost of mobilizing these resources seemed to make any meaningful cooperation between the U.S. military and private companies impossible—and probably even undesirable. The question is no longer whether private companies can assist in disaster relief, but rather how the U.S. government can work alongside these private companies to make disaster relief more efficient and reliable.

Many issues that arise from disaster preparedness and response come from the lack of clarity about which entity is providing what service and which has priority. The problems in communication and coordination are only exacerbated in the chaos of actual, on-the-ground disaster relief. In this fast-changing and often unclear situation, both the peril and the promise of the public-private approach arise. On the one hand, more operators to train and supervise sounds like more trouble at a time and place that can ill afford it. On the other hand, private companies that are, for example, well versed in shipping, building, food preparation, and first aid could provide the quickest response and allow the military to focus on search-and-rescue needs and possibly law enforcement tasks.

For the U.S. military to work with the private sector efficiently, strict roles need to be defined for both. For example, the military could provide the search-and-rescue teams as well as some of the law enforcement personnel (if resources in manpower are lacking), while the private companies on the ground could provide the logistics support to survivors of the disaster. Such cooperation would lead to increased efficiency throughout the operation and would allow the survivors to get the aid they needed in a timely fashion.

Since the military has been drawing down its operations overseas and scaling back forward presence, it has the opportunity to make the homeland more secure against both terrorist attacks and natural disasters. This drawing down of forces also marks an opportunity to expand the traditional model of “military driven” disaster response to include private companies that offer help in times of need.

However, in order to make these revisions to the relationship between the military and the private sector succeed, the legal framework must be reconsidered and, most likely, amended. Currently, the Posse Comitatus Act 1981 (PCA) forbids the president from using Title 10 troops as law enforcement officers in the civilian sector, a significant limitation on the range of roles that uniformed federal troops can play in disaster relief. The Stafford Act 1988, which establishes the ground rules by which the federal government takes the lead in coordinating disaster relief efforts, forms a partial (and temporary) exception in that it allows the governor of a stricken state to request from the president Title 10 troops to be placed under the command of the National Guard and used in certain defined law enforcement roles. The addition of private companies to this group of responders would add another aspect that neither the PCA nor the Stafford Act mentions. Could the governor of the state ask private companies to provide law enforcement officers? How would any private-sector aid be integrated into the Stafford Act system? What are the legal and practical implications of a military commander issuing orders to a private-sector relief worker? This confusion is why the PCA and certainly the Stafford Act would need to be amended to allow private companies to become involved in disaster relief alongside the military.

This shift to private-public disaster relief is inevitable due to overtasking and underfunding of the U.S. military, which creates a gap that private entities can fill. The transition needs some careful consideration, however, to ensure that Americans can count on the most effective disaster relief. Understanding how to train and teach not only government officials but also the average citizen how to proceed with first response during a crisis, and what public and private corporations can bring to the fight as far as logistics and supplies, is vital to making the private-public relationship work. The U.S.

military may not have a lead role in all disaster-relief operations going forward, but it can and should be central in the planning and implementation of the transition to the public-private approach.

THIS PAGE INTENTIONALLY LEFT BLANK

## **II. HURRICANE KATRINA AND THE FAILED RESPONSE OF THE FEDERAL GOVERNMENT**

In 2005, Hurricane Katrina struck New Orleans, and the military was called in to provide disaster relief: that relief showed up four days later? While the city of New Orleans was waiting for the government to provide aid, the private sector in Louisiana and surrounding states was already offering to help the government with the process in the form of food, shelter, water, and other necessities. For a variety of legal, practical, organizational and historical reasons, however, federal responders, particularly the military, were unable to make much use of these offers—to the glaring detriment of the people who needed assistance most. Ultimately, the lack of organization within the government response created issues within the chain of command, and these issues meant the resources of the private companies were turned away. Had the government allowed the military to work with the private companies and coordinate resources, more aid would have come more quickly to the Katrina victims, saving time, money, and most importantly, lives.

This chapter will outline the preparations that were made by the Federal Emergency Management Agency (FEMA) and Northern Command (USNORTHCOM), their execution and the flaws of them, what resources the private sector was able to provide, what the military did and did not do, and the policy changes that came as a result of the Katrina event. Throughout this chapter, the policy failures and successes of government agencies will be examined.

### **A. PREPARATIONS AND EXECUTION**

In 2005, Hurricane Katrina struck the Gulf Coast of the United States with more force than any hurricane recorded before it, causing more than \$108 billion worth of damage<sup>1</sup> in just two days.

---

<sup>1</sup> Richard D. Knabb, Jamie R. Rhome, and Daniel P. Brown, *Tropical Cyclone Report* (Miami, FL: National Hurricane Center, 2005).

Two weeks before the landfall of Hurricane Katrina, the commander of Northern Command (NORTHCOM), who is responsible for leading the military preparation and response to natural disasters, received word that a tropical depression was building off the coast of Cuba, and it was gaining strength.<sup>2</sup> With this assessment, NORTHCOM was ordered to make preparations for landfall. During the prior two weeks, the Army Corps of Engineers was ordered to New Orleans to assess the levee system and whether it could maintain structural integrity during a storm surge. Supplies of food and water were stockpiled and ready to be distributed, medical preparations were made, and evacuation routes were planned.

On August 23, 2005, Hurricane Katrina, a category four hurricane with sustained wind speeds of 150 miles per hour, made direct impact in the middle of New Orleans. The levee system subsequently failed, allowing millions of gallons of water to flow into downtown New Orleans. Wind tore roofs from houses and sent debris flying into the air, and people were trapped in their houses with no place to go and no sign of rescue. When Katrina finally dissipated on August 30, NORTHCOM gave the order to execute the plans regarding stockpiled supplies, medical prep, evacuation and shelter.<sup>3</sup>

As Hurricane Katrina dissipated, the National Response Plan (NRP), which was created by the Federal Emergency Management Agency (FEMA), was invoked for the devastated areas. By law, this plan allows the direction of disaster management to fall under one person; in this case, it was the director of FEMA, Michael Brown. In order for the NRP to work, there must be communication between first responders and their dispatch center in order for actions to take place. The NRP states, “Emergency Support Function (ESF) #2: Communications ensures the provision of Federal communications support to Federal, State, local, tribal, and private-sector response efforts during an Incident of National Significance.”<sup>4</sup> This is a common-sense approach to the dispatch of first responders to assist victims; however, if all communication pipelines are destroyed,

---

<sup>2</sup> Committee on Homeland Security and Governmental Affairs, *Hurricane Katrina: A Nation Still Unprepared*, H.R. Rep. No. 107-322, (2006).

<sup>3</sup> Ibid.

<sup>4</sup> The Air University, “Emergency Support Function #2-Communications Annex,” December 2004, <http://www.au.af.mil/au/awc/awcgate/nrp/esf02.pdf>, ESF #2-1.

it is difficult for emergency responders to locate the affected areas that need assistance. This was the case in New Orleans. In addition to this problem, lines of communications were severed, leaving people without ways to call for help or get in contact with dispatch centers.

During the first 20 hours of the aftermath, National Guard troops were activated in the state of Louisiana. However, 80 percent of the Louisiana National Guard had been activated under Title 10 as federal troops in the U.S. Army serving in Iraq, leaving Louisiana to depend on their neighbors in Mississippi and Alabama to provide needed troops.<sup>5</sup>

## **B. FEMA'S ROLE IN THE DISASTER**

Since 1978, FEMA has been a tool for U.S. presidents to call on when small issues turn into larger disasters. In the mid-1990s, FEMA was considered by most Americans to be the premier disaster management agency in the world due to its ability to conduct operations in an efficient and professional manner.<sup>6</sup> During the Clinton administration, James Lee Witt, who had served on Clinton's gubernatorial staff in Arkansas, led FEMA. Arguably, Clinton named Witt the leader of FEMA not only because he was a personal friend, but also because Witt had been an emergency manager and elected official in Arkansas. FEMA, under Witt, became a largely proactive organization that worked with local agencies to ensure that the local governments were prepared for disasters.<sup>7</sup> However, during the Bush administration, FEMA was folded into the Department of Homeland Security (DHS) and was no longer autonomous. Moreover, the agency was led by Michael Brown, a man who had no experience in disaster management and allowed the once-thriving agency to become reactive rather proactive.

---

<sup>5</sup> Keith Bea and Richard Sylves, *Emergency Management: The American Experience 1900–2010*, ed. Claire B. Rubin, 1st ed., vol. 2 (Boca Raton, FL: CRC Press, 2012), 289.

<sup>6</sup> *Ibid.*, 167.

<sup>7</sup> *Ibid.*

This added to the many problems it already had with communication among other agencies.<sup>8</sup>

As New Orleans and the surrounding areas emerged from the disaster of Hurricane Katrina, the main question that surfaced was, “Why was the response from FEMA so confusing and slow during the crisis?” This question plagued former FEMA director Brown during the special congressional hearing after the disaster.

Prior to the September 11 attacks, FEMA had been its own separate entity with direct access to the executive branch. This access allowed FEMA to get the answers it needed immediately, and, in turn, gave it the autonomy to make decisions in disasters that could save lives. After the attacks, FEMA was absorbed into DHS and acquired a new set of chain-of-command issues. This refocusing diverted FEMA’s efforts away from disaster management and more toward prevention and response to homeland attacks. It also involved the replacement of FEMA employees who had the experience needed to deal with disasters, and FEMA was no longer a proactive agency that led prevention and preparedness programs to maintain the United States’ readiness for disaster. These changes in the way FEMA conducted its business played a direct part in the failing response that occurred in New Orleans.

Politics have affected FEMA ever since the founding of the agency in the 1950s.<sup>9</sup> As mentioned before, during the Clinton administration, President Clinton appointed James Witt to the office of director of FEMA due to his expertise in the field of emergency management. Due to Witt’s experience, he was able to mold the agency into a well-functioning machine that worked well with other organizations to ensure the highest readiness possible for the local governments of individual states.<sup>10</sup> During the President George W. Bush’s administration, it was the exact opposite. However, the people in charge of the agency were not completely to blame. The state and local government did not make needed preparations to deal with a storm of this magnitude in the proper

---

<sup>8</sup> Brett Arends, “Brown Pushed from Last Job: Horse Group: FEMA Chief Had to Be ‘Asked to Resign,’” *Boston Herald*, September 3, 2005, <http://www.informationclearinghouse.info/article10115.htm>.

<sup>9</sup> Bea and Sylves, *Emergency Management: The American Experience 1900–2010*, 289.

<sup>10</sup> *Ibid.*

amount of time. These issues will be dealt with in a later chapter. All of these issues led to Hurricane Katrina becoming the most deadly and devastating disaster to strike the United States since Hurricane Andrew in 1992.

### **C. WHAT THE MILITARY DID AND DID NOT DO**

Most Americans view the military as a vast organization that can perform the tasks that no other agency can handle. These tasks include waging war, homeland security, and even disaster relief. However, what happens when these resources and assets are not available or late to deploy to an area? What happens during a disaster of such magnitude, such as Hurricane Katrina, to the people of the affected area? This question of why the military responded so slowly to the disaster and what the organization did and did not do is what government officials have been asking since Hurricane Katrina ravaged the coast.

In 1985, during the Reagan Administration the military had the greatest amount of resources to allocate for disaster relief.<sup>11</sup> That was nearly 30 years ago. Now with advances in technology and logistic capabilities using some of the major players of the business world, the military can almost be surpassed in resources and abilities to deploy the supplies needed to assist in disaster relief. A report generated by the Pentagon in 1996 acknowledged that the DOD (Department of Defense) would commit “Hurricane Andrew-level” resources to all catastrophic events.<sup>12</sup> However, in 2005, after Hurricane Katrina, this commitment went unrealized.

Once Katrina dissipated, President Bush and FEMA declared a state of emergency and ordered the military mobilized (mainly the 82nd Airborne). Nothing happened for three days. This lack of action was not completely the military’s fault due to the chain of command preventing them to do anything without the order of the president. It has been said that FEMA and the executive branch have all the authority, but it lacked leadership, and the leadership failed to pull the trigger due to the possibility of blame being placed on

---

<sup>11</sup> Drew Brown, Seth Borenstein, and Alison Young, “Key Military Help for Victims of Hurricane Katrina was Delayed,” September 17, 2005, <http://www.commondreams.org/headlines05/0917-05.htm>.

<sup>12</sup> Ibid.

one agency or entity. Once the military was in the disaster zone, the communication and the logistics were hindered for days after the initial response due to bickering among internal parts of the local government of Louisiana, organizations at the federal level not communicating with one another and FEMA wanting to coordinate all the relief efforts.<sup>13</sup> However, once the military was deployed, they were able to send swift water teams to provide search and rescue capabilities, helicopters to do the same, the Army Corps of Engineers were sent to repair the levee system, and the public works division under the National Response Plan (NRP) to begin contracting with other agencies for water, ice and other perishables for the survivors.<sup>14</sup> Figures 1 and 2 show the assets that were given to New Orleans from the surrounding areas and the build-up of military forces once deployed into the disaster zone.

**Flow of Military Forces to Mississippi and Louisiana**

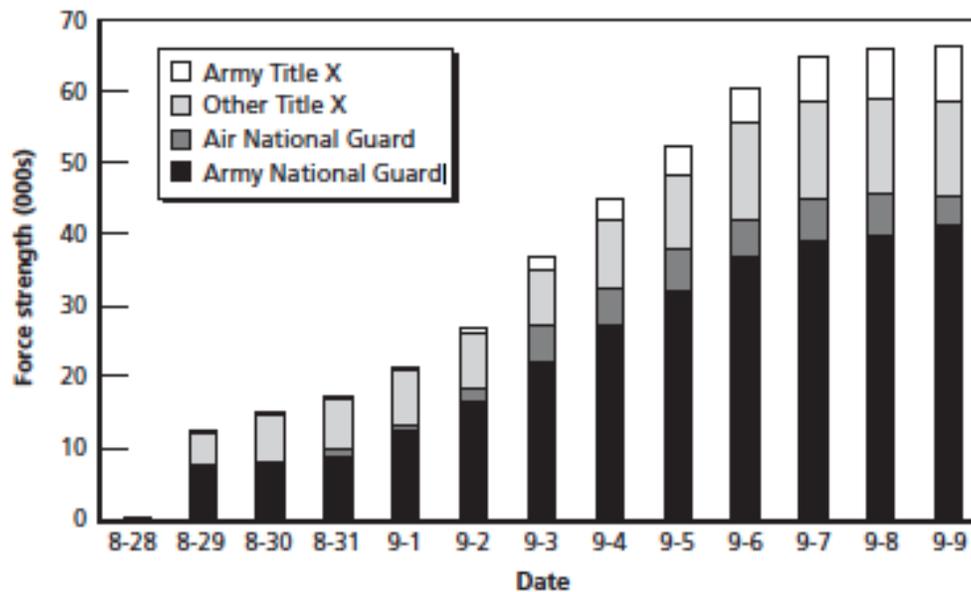


Figure 1. Flow of Military Forces to Mississippi and Louisiana in 2005<sup>15</sup>

<sup>13</sup> Lynn Davis, *Hurricane Katrina: Lessons for Army Planning and Operations*, vol. 1 (Santa Monica, CA: RAND, 2007), 3.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

### B buildup of Army Active-Duty Units

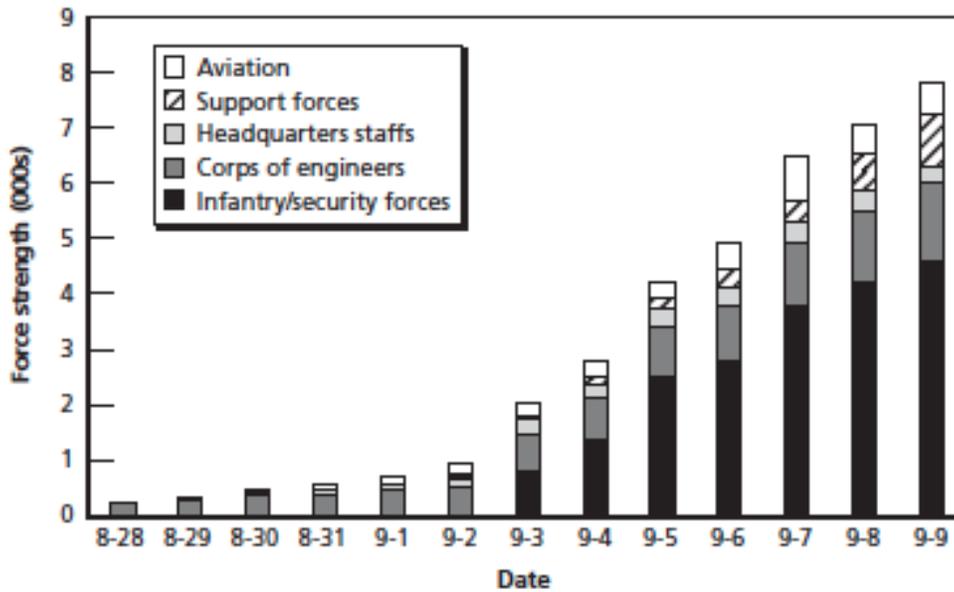


Figure 2. Buildup of Army Active-Duty Units in Louisiana (2005)<sup>16</sup>

What caused the delay in deployment? The governor of Louisiana, Kathleen Blanco, wrote a letter to the president regarding the severity of the storm and the need for supplemental civilian resources but never mentioned the need for DOD assets.<sup>17</sup> According to a U.S. Senate report on Hurricane Katrina, Blanco stated, “preparations for Hurricane Katrina did not include efforts on the part of either FEMA or DHS leadership to engage DOD to learn what specific capabilities it might be able to provide in advance of hurricane landfall, or to seek to call upon DOD support capabilities.”<sup>18</sup> The governor added that 40,000 federal troops with vehicles would be needed to support the disaster relief effort and reiterated that point on September 3 in a meeting with President Bush.<sup>19</sup>

<sup>16</sup> Davis, *Hurricane Katrina: Lessons for Army Planning and Operations*, 3.

<sup>17</sup> Ibid.

<sup>18</sup> *The Military’s Role in Disaster Relief since Hurricane Katrina*, 100th Cong., 1st sess., 5 (July 19, 2007).

<sup>19</sup> Ibid.

#### **D. WHAT DID PRIVATE INDUSTRY OFFER?**

After Hurricane Katrina subsided, Congress asked the question, “How were the private companies able to get the aid that was needed into the disaster zone so quickly when the government was not?”<sup>20</sup> The answer appeared simple: Private companies were able to respond quickly because instead of focusing on a central command structure they were able to operate on a fractured chain of command and focus on a common goal. Another aspect that allowed the response to be so quick was that companies, such as Wal-Mart and Home Depot had studied the disasters of the past and prepared to respond to another eventual catastrophe. One of the most important aspects of this effort was the preplanning of resources. These companies knew that there were going to be complications with the response process, such as communication failures and getting the supplies to victims. Most importantly, these companies gave the power to the leaders of those businesses to make the decisions about when to send the supplies in and where to put them.<sup>21</sup>

The private sector focused on four main areas during the disaster: retail, hospitality, power, and technology.<sup>22</sup> During the aftermath of Katrina, companies, such as Home Depot and Wal-Mart used their resources to set up distribution points for food, water, and clothing. Starwood Hotels, which operates three hotels in New Orleans, opened its doors and gave shelter to those in need as soon as the storm passed, which, in turn, allowed the hotel company to regain its foothold in the area much quicker. The Mississippi Power Company was able to restore most of the electricity to customers, decisions the company was able to make because of the leadership’s autonomy.<sup>23</sup> Finally, IBM (International Business Machines) saw that re-establishing communications was going to be essential for the disaster relief operation to continue and was able to

---

<sup>20</sup> *Hurricane Katrina: What Can the Government Learn from the Private Sector’s Response?* 109th Cong., 1st sess. (November 16, 2005).

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.*

coordinate with the companies and agencies on the ground much more efficiently than the government did.<sup>24</sup>

The Senate Hearing Committee wanted to know how these companies did all of this in such a short amount of time. All four of the companies that testified in front of Congress said preplanning, lessons learned from previous storms, and front-line empowerment allowed them to respond as they did.<sup>25</sup> These significant changes on the part of the companies in the private sector allowed them to make decisions in the field without having to channel those decisions through another agency in order to have them approved. Another example of forward thinking on the part of the Mississippi Power Company was that it embedded an ambassador of sorts in FEMA. This allowed the company to personally interact with FEMA and granted the company the autonomy to get done what needed to get done without having the supplies they had on site be confiscated by FEMA.

Finally, one trait every company shared that allowed them to be successful was communication resources; not just the ability to make and receive calls, but the ability to understand what to do if the communication was cut off. These communication strategies were placed into training plans, and those plans were executed during the hurricane. At the issue of a hurricane warning, the Starwood Hotels set up a command center that communicated daily with each other to ensure everyone knew what was going on with the other, hotlines were set up for the guests of those hotels, the emergency generators were checked and rechecked, and the hotels made sure that they had enough food and water on hand for five days with 1,000 guests.<sup>26</sup> These autonomous or semi-autonomous chains of command and remarkable communication allowed private companies to take the upper hand in the disaster relief process and save thousands of lives because of their preplanning.

---

<sup>24</sup> *Hurricane Katrina: What Can the Government Learn from the Private Sector's Response?*

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

## E. POLICY CHANGES FROM KATRINA

Hurricane Katrina prompted policy makers to examine the guidelines in place that pertained to how FEMA was organized and run. A major problem was the communication and leadership within the agency. Congress found that the leadership before, during, and after the crisis was not merely lacking but virtually non-existent due to the reactive nature of FEMA. Because of these and other problems within the agency, Congress made major changes. Among these changes, which went into effect in 2007, Congress established that the administrator of FEMA must meet certain prerequisites to hold the office: “The Administrator is to be appointed by the President from among individuals who have ... a demonstrated ability in and knowledge of emergency management and homeland security; and ... not less than five years of executive leadership and management experience in the public or private sector.”<sup>27</sup>

Now, FEMA is a semi-separate entity that remains under DHS but does not answer directly to the secretary of Homeland Security. FEMA now has more autonomy, allowing the agency to make recommendation on crisis management directly to Congress once the Secretary of DHS has been informed.<sup>28</sup> The Post-Katrina Act (2006) added 13 responsibilities to those originally set out for FEMA in the Homeland Security Act (HSA). These responsibilities included, “ensuring first responder effectiveness, supervising grants, administering and implementing the National Response Plan, preparing and implementing federal continuity of government and operations plans and maintaining and operating the response coordination center, among others. While implementation of these activities and responsibilities is to build ‘common capabilities’ that will enable the agency to address all hazards through a risk-based management system, the statute also calls for the development of ‘unique capabilities’ that would be needed for events that pose the greatest risk to the nation.”<sup>29</sup>

---

<sup>27</sup> *Hurricane Katrina: What Can the Government Learn from the Private Sector’s Response?*

<sup>28</sup> Keith Bea, *Federal Emergency Management Policy Changes After Hurricane Katrina: A Summary of Statutory Provision*, CRS Report RL33729 (Washington, DC, Library of Congress, Congressional Research Service, March 6, 2007), <http://www.fas.org/sgp/crs/homsec/RL33729.pdf>.

<sup>29</sup> *Ibid.*

FEMA now has many units with various missions. These units are charged with creating regional centers that are responsible for training the regions in disaster preparedness, fostering mutual aid within the region, and implementing of the National Response Plan (NRP).<sup>30</sup> This has been a major change in the previous policy now focusing on bottom-up proactive preparation.

A policy change that occurred post-Katrina was the creation of a “Surge Capable Force”<sup>31</sup> This force would be comprised of FEMA and DHS employees who have the ability and the training to manage, lead, train, and deploy to an area of disaster and begin relief efforts. These individuals are required to continually receive training in order to keep themselves current and ready to respond to any disaster. The personnel who serve on this force are not counted against the agency’s personnel ceiling and will continue to serve in their normal jobs outside of the force.

After Hurricane Katrina, the government has been making changes to the policy of emergency management and disaster preparedness in order to make it more efficient and safe. There have been major breakthroughs, such as the addition of a surge force, the separation of FEMA from directly reporting to the secretary of DHS, the implementation of the National Response Plan (NRP), and the shift from being a reactive agency to a proactive one.

Not enough is being done in order to ensure that when a major catastrophe, such as Katrina, occurs again, that the American people will be ready due to the massive chain of command FEMA and the first responders have to go through in order to get anything done. Training is a good thing and so is being educated on the possible dangers. However, if something goes wrong in the field that is not in the manual of how to deal with that particular issue, what do they do then? When people train they focus too much on the manual. This is not to say that looking and reading the manual is not a good thing, quite the contrary. But when people become so integrated in the playbook and things do not go exactly as planned, that is when people panic and forget the training and then they

---

<sup>30</sup> Bea, *Federal Emergency Management Policy Changes After Hurricane Katrina: A Summary of Statutory Provision*.

<sup>31</sup> *Ibid.*

cannot adapt to the situation. More has to be done to ensure that these leaders and managers can make calls on their own and then deal with the repercussions after the decision has been made, thus saving precious time and lives in the field.

### III. THE MILITARY'S ROLE IN DISASTER RESPONSE AND ASSOCIATED ISSUES

Understanding whether the use of federal troops in disaster relief is beneficial policy makers must examine why government entities want them involved in the process. Supporters of the use of military assets give numerous reasons why they are effective and needed. One common reason is the realization that assisting in disaster relief can improve the military's public image and provide real-time training experience for the troops.<sup>32</sup> In the aftermath of Hurricane Katrina, President Bush asked that the military have a more direct involvement in the relief process.<sup>33</sup> Another reason is many humanitarian aid agencies are stretched thin, and the military can provide the bridge in the gap for manpower.<sup>34</sup> Additionally, military in disaster zones bring a unique set of skills to the front that most local government agencies do not have.<sup>35</sup> An unnamed emergency manager from FEMA stated, "From Andrew on, I've believed there is a civilian mission for the military; we needed what they uniquely could provide in Andrew, and it was needed again in Katrina."<sup>36</sup> The Pentagon believes that use of federal troops is critical to disaster relief efforts and created a 20,000 troop National Natural Disaster Response Team, spending \$556 million dollars in a five-year training program.<sup>37</sup>

After President Bush suggested that the military should have command of operations in a disaster,<sup>38</sup> the nation's governors were quick to note that although the federal government does have impressive resources, they do not want the government taking over. Indeed, the governor of Michigan, when asked if the military should take

---

<sup>32</sup> Laura Hudson and Charles A. Hofman, "Military Responds to Natural Disasters: Last Resort or Inevitable Trend?" *Humanitarian Exchange Magazine*, no. 44 (September 2008).

<sup>33</sup> Kevin L. Buddelmeyer, *Military First Response: Lessons Learned from Hurricane Katrina* (Maxwell Air Force Base, AL: Air Command and Staff College Air University), 1.

<sup>34</sup> Hudson and Hofman, *Military Responds to Natural Disasters: Last Resort or Inevitable Trend?*, 2008).

<sup>35</sup> Buddelmeyer, *Military First Response: Lessons Learned from Hurricane Katrina*, 1.

<sup>36</sup> Siobhan Morrisey, "Should the Military Be Called in for Natural Disasters?" *Time Magazine*, December 31, 2008.

<sup>37</sup> *Ibid.*

<sup>38</sup> Donald F. Kettl, *System Under Stress*, ed. C.Q. Press, 2nd ed. (Washington, DC: C.Q. Press, 2007).

over, responded, “Hell no.”<sup>39</sup> Jurisdiction, federalism, and gubernatorial prestige all figure into such responses. Moreover, there is a view that the military lacks the response capability. As National Guard Colonel Kenneth E. Ring stated at the Pennsylvania War College, “The army lacks a clear, effective, and coordinated response capability.”<sup>40</sup> Ring made this statement in reference to the chain of command issues that are created during a natural disaster.

Supporters and opponents of greater military involvement agree that the military does have the advantage of its size and its equipment with the vast amount of training and the ability to adapt to different situations. This ever-evolving role of the military and its need in some way for disaster relief can be seen in statements, such as the one given by Laura Hudson in 2008:

Given the growing involvement of military actors in relief activities, humanitarian organizations have an opportunity and, some argue, a responsibility to engage more strategically with the military in order to limit the risks inherent in their involvement and maximize the potential benefits to the disaster response system and affected populations. The question for humanitarian organizations is no longer whether to engage with the military, but rather how and when to do so.<sup>41</sup>

**A. DOES TIMING HINDER THE FEDERAL GOVERNMENT TO FULLY COMMIT THE RESOURCES?**

Timing plays a significant role in determining whether the U.S. government can commit the resources needed in a Humanitarian Assistance Disaster Relief (HADR) situation. The placement of supplies before a disaster strikes is where timing is crucial and the slightest misstep or delay in these supplies can create costly situations and unnecessary casualties. A document from the White House under President George W. Bush commented on the joint use of military and National Guard troops in relation to the ability to commit to the problem and work together in order to solve the issues. It stated,

---

<sup>39</sup> Kettl, *System Under Stress*, 77.

<sup>40</sup> Elizabeth Fischer, “Disaster Response: The Role of a Humanitarian Military,” *Army-Technology.Com* (July 26, 2011).

<sup>41</sup> Hudson and Hofman, *Military Responds to Natural Disasters: Last Resort or Inevitable Trend?*

In the overall response to Hurricane Katrina, separate command structures for active duty military and the National Guard hindered their unity of effort. U.S. Northern Command (USNORTHCOM) commanded active duty forces, while each State government commanded its National Guard forces. For the first two days of Katrina response operations, USNORTHCOM did not have situational awareness of what forces the National Guard had on the ground...Neither the Louisiana National Guard nor JTF-Katrina had a good sense for where each other's forces were located or what they were doing.<sup>42</sup>

This statement shows that even though the military has an abundance of resources, if there is no central command in the field and the idea of “let the DOD take care of it” prevails; disaster relief will begin to do more harm than good in the long run.

When the government put federal assets in the form of Title 10 troops on the ground with the mentality they were going to lead the HADR, this truly hindered the forces from the start. Lack of communication between the two agencies (National Guard and Title 10), and lack of communication with private companies put the military in a state of confusion. During Hurricane Katrina, the United States had engaged many of its resources in Operation Enduring Freedom, and the United States had logistic issues and lack of manpower due to the wars in Afghanistan and Iraq. Without the numbers, the government needed and the equipment that was needed due to it being overseas, the military showed up and attempted to do more with less and failed.<sup>43</sup> This is where the private companies came in and began establishing ways to communicate with people in the disaster area. Trying to accomplish more than the task force can handle—search and rescue, logistics problems, medical center development, shelter building, and communication issues hindered what could have been a successful operation in the short term.

---

<sup>42</sup> White House, “Hurricane Katrina: Lessons Learned,” last accessed November 2, 1013, <http://georgewbush-whitehouse.archives.gov/reports/katrina-lessons-learned/chapter5.html>.

<sup>43</sup> Ibid.

**B. HOW DOES DEFENSE OF THE HOMELAND HAVE AN EFFECT ON HADR?**

Since 2001 and the September 11 attacks, the attention of DHS has shifted from an overall defense strategy to a focus on countering terrorism and how terrorism has an effect on the infrastructure of the United States. This radical shift and precise focus on terrorism has left a massive gap in the preparedness of the United States for natural disasters. This is not to say that the U.S. has completely discarded the need to be prepared for disasters, but the policies that are being shaped today focus more on the combat and recovery from a terrorist attack on the homeland.

A document released in 2013, *Strategy for Homeland Defense and Defense Support for Civil Authorities*, noted four key statements for the defense of the homeland.<sup>44</sup>

There is only one instance in the standing guidance that deals directly with preparedness for a natural disaster and that are covered in Presidential Policy Directive-8 National Preparedness (PPD-8). The rest of the guidelines focus on how to deal with terror attacks on the homeland.

The shift in policy from a preparedness stand point for ALL disasters, not just man-made catastrophes, has placed a strain on the emergency community in the form of money restraints, equipment shortages, and manpower issues. The focus on terrorism within the United States has created a policy where at any time the government believes that the primary mission of the armed forces (defense of the homeland) is jeopardized; any resources in the area conducting HADR (Humanitarian Assistance Disaster Relief) can be pulled from the disaster zone and redeployed. This statement makes it extremely difficult for a local government to depend on the commitment of the federal government if they can pull assets at any time to deal with another issue, leaving the private companies and the National Guard with very little resources to get the job done.

---

<sup>44</sup> Leon E. Panetta, *Strategy for Homeland Defense and Defense Support for Civil Authorities* (Washington, DC: Department of Defense, 2013).

### C. ISSUES ORIGINATING WITH THE PUBLIC-PRIVATE CHAIN OF COMMAND

When the military puts soldiers on the ground, it provides a unified force under one leader rather than having multiple units trying to accomplish the same thing with different methods. The National Guard presents a similar issue. If it is in a disaster area, guard members serve their own commanders. This creates a schism in the ability for one commander to control the entire area without having orders countermanded due to the presence of another commander that does not fall under Title 10. In the private sector, however, this is not usually the case. There is an established chain of command within a business, but there does not seem to be an “operational” chain of command except in the case of local stores. The private sector has a single goal and that goal is what they strive to accomplish. This lack of overarching command could place the private sector in a better position to deal with HADR in certain areas than the military.

According to Bill Jenkins, director of the Homeland Security and Justice Issues Group, in all emergencies, first responders from the state are responsible. After that, it becomes a federal problem.<sup>45</sup> Many employees at government agencies say that the most important things in the disaster relief realm are the solid relationships among the people who are called to work together during times of high stress. Former spokesman for the New York Office of Emergency Management, Jarrod Bernstein, stated, “You don’t want to meet someone for the first time while you’re standing around in the rubble. You want to meet them during drills and exercises.”<sup>46</sup> These examples illustrate the importance of having a solid chain of command with people who communicate with one another during times of crisis. It is also a good example of how this lack of communication and lack of clear chain of command with FEMA caused massive failure during Hurricane Katrina.

After Hurricane Katrina, the government turned its attention to the issues with the chain of command once Title 10 federal troops were called in addition to National Guard troops. Congress began to look for ways to solve this problem of unification between two services. This solution took shape in 2004 when Congress amended the National Defense

---

<sup>45</sup> Donald F. Kettl and Jonathan Walters, “The Katrina Breakdown,” *The Governing* (December 2005).

<sup>46</sup> *Ibid.*

Authorization Act, permitting National Guard commanders to retain their state commissions after being ordered to active duty.<sup>47</sup> This allowed a National Guard officer to command both Title 10 and Title 32 troops, by utilizing the parallel command of the dual-status command. Parallel command does not allow for one commander to have control of both the National Guard and the federal military simultaneously but uses two commanders with different roles in the field. The federal troops are placed under the direct control of USNORTHCOM and they have operational control. This assumes that the federal troops are ready to deploy and on standby with all needed equipment. This parallel command assumes as well that the National Guard is already in the theatre of operations performing their role. The downside to this type of command is the complexity it adds to an already difficult situation.<sup>48</sup> Figure 3 shows the chain of command is structured in this type of environment:

---

<sup>47</sup> Jeffery Burkett, "Command and Control: Command and Control of Military Forces in the Homeland," *United States Army Combined Arms Center*, no. 10 (December 2009), December 2013, [http://usacac.army.mil/cac2/call/docs/10-16/ch\\_3.asp](http://usacac.army.mil/cac2/call/docs/10-16/ch_3.asp).

<sup>48</sup>.Ibid.

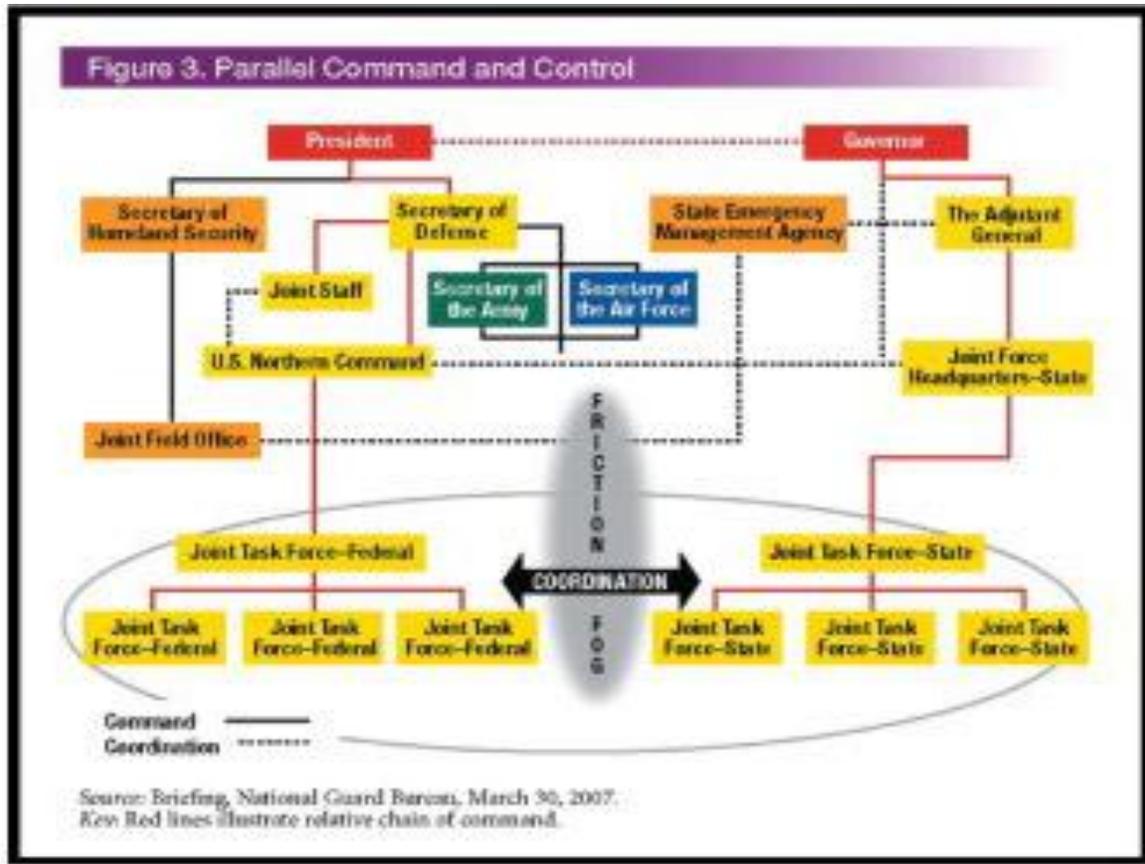


Figure 3. Parallel Command and Control Diagram<sup>49</sup>

In addition to the complexity this type of command adds to the AOR (Area of Operations), JP 3-16, Joint Doctrine for Multinational Operations, emphasizes that the use of a parallel command structure should be avoided if possible because of the absence of a single commander.<sup>50</sup>

The most preferred type of command in the joint operational realm of HADR is the dual-status command.<sup>51</sup> The dual-status command structure combines the advantages of the state command option and the parallel command option. The dual-status command structure addresses the unity of command dilemma directly. Under this, National Guard commanders on Title 32 status are ordered to federal active duty (Title 10 status),

<sup>49</sup> Burkett, "Command and Control: Command and Control of Military Forces in the Homeland."

<sup>50</sup> Ibid.

<sup>51</sup> Ibid

retaining their state commission when activated. This dual-status provides the statutory authority for one person to command both state and federal military forces simultaneously. This permits the dual-hatted commander to control a unified military response at the operational level in support of the state. In Figure 4, a notional dual-status command illustrates the chain of command beginning with the president and governor:

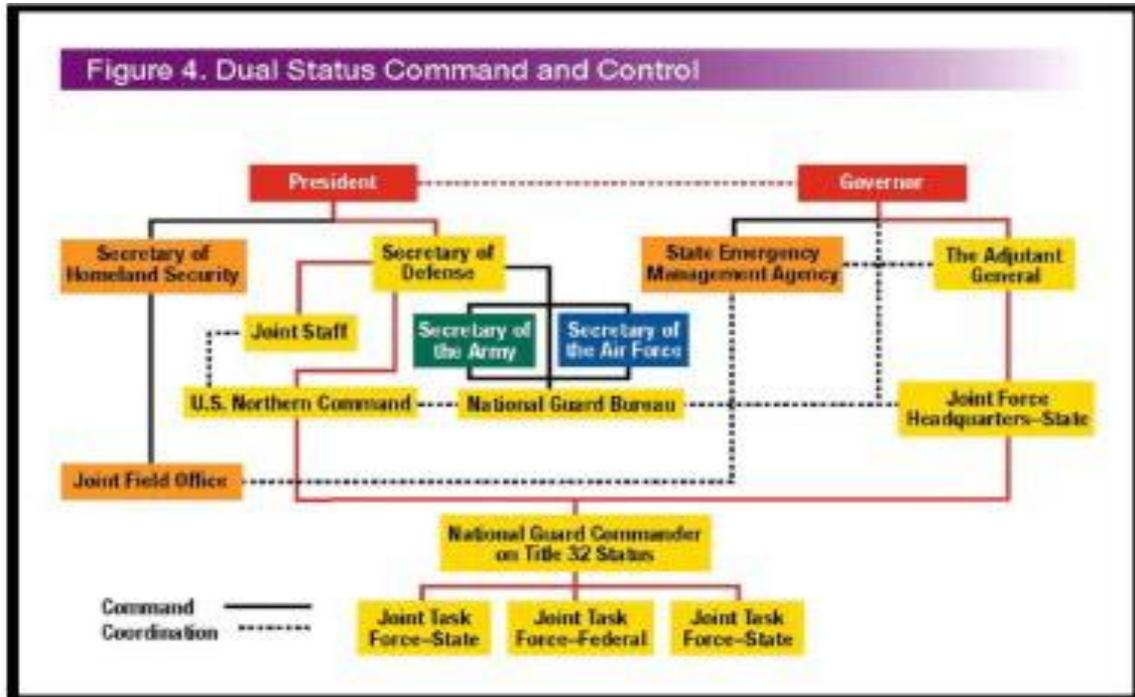


Figure 4. Dual-Status Command and Control Diagram<sup>52</sup>

National Guard forces in state Active-duty or Title 32 status perform state missions under the authority of the governor, and assigned Title 10 Federal forces perform defense support of civil authority for USNORTHCOM.<sup>53</sup> The advantages of the dual-status command include the governor retaining authority over the response, clear lines of command, and the ability to integrate Federal military forces operationally to achieve unity of effort. Conversely, presidential command and control is preserved. Additionally, it promotes the control of information, timely decision-making,

<sup>52</sup> Burkett, "Command and Control: Command and Control of Military Forces in the Homeland."

<sup>53</sup> Ibid.

synchronization, interoperability, and situational awareness for both state and federal forces.

Another advantage of the dual-status command is that it has the ability to execute interstate operations with assigned Title 10 forces. This is possible because a dual-status commander with Title 10 authority can operationally direct Title 10 assigned forces regionally. Disasters, such as an earthquake along the New Madrid fault line, which would affect multiple Midwestern states, could be effectively managed with dual-status commands located in each state with assigned federal military forces. The operational ability to direct federal forces to wherever they are most needed regionally would reduce current interstate gaps and improve the application of military capability. The disadvantages include the complexity of the present request process for dual-status approval, the potential for conflicting strategic level guidance, and separation of the legal lines of operation. For a dual-status command to be established, a commander must be authorized by the president and consented to by the governor.

Finally, a dual-status command risks utilizing state and federal forces in operations prohibited by law. An example of this would be federal forces performing law enforcement activities. However, this was not without issues. According to the Executive Office of the President, at the strategic and operational level, “lack of integrated command structure for both active duty and National Guard forces exacerbated communications and coordination issues during initial responses.”<sup>54</sup>

It is what private companies have, and in some cases, don't have that makes them better prepared for disasters. The two companies that this section will focus on are Wal-Mart and Home Depot. According to Karen Spens and Karn Budhiraj, there are nine categories that these two companies used in order to be ready and excel during times of disaster. These are also seen in Figure 5.<sup>55</sup>

---

<sup>54</sup> Burkett, “Command and Control: Command and Control of Military Forces in the Homeland.”

<sup>55</sup> Karn Budhiraj, “Suggested Strategies and Best Practices in Private Supply Chain Disaster Response,” *Massachusetts Institute of Technology* (2010).

Companies	Wal-Mart	Home Depot
Pre-existing disaster preparedness plans	X	X
Command structure	X	X
Emergency stockpiling	X	X
War room	X	X
Central communications portal	X	
Standing partnerships	X	X
Use local employees' knowledge	X	
Volunteer mobilization		X
Donations	X	X

Figure 5. Private Companies Checklist<sup>56</sup>

These categories allowed Wal-Mart and Home Depot to be ready for any disaster that may occur. Companies that are effective at disaster response have pre-existing plans that are immediately executed without any confusion or delay. Even though that most of these companies do not have an existing operational chain of command, the plans that have been devised for disasters address the chain of command that will develop without ambiguity. These plans also incorporate protocols that need to be followed when interacting with their partner companies. This ensures that the communication will be perfect and that there will be no doubling up of efforts without the other company knowing about it.<sup>57</sup>

Another advantage of the private sector is the effective stockpiling of goods and perishables in case of a disaster. These companies analyzed the product and service mix and predicted what items would be in high demand and proactively worked to stockpile these items.<sup>58</sup> The largest advantages these companies had over the federal government was the ability to maintain standing partnerships with other companies and effectively communicate with these companies to ensure they were ready to go at a moment's notice. The Home Depot worked with the U.S. Chamber of Commerce, Red Cross, and the

<sup>56</sup> Budhiraj, "Suggested Strategies and Best Practices in Private Supply Chain Disaster Response."

<sup>57</sup> Ibid.

<sup>58</sup> Ibid.

Salvation Army in order to effectively distribute the goods and services needed during the disasters.<sup>59</sup> This allowed relief that to be applied and distributed to the people who needed it. Finally, the private sector knows how to liaison with local employees and local residents to find out what the best way to accomplish a task it. These tasks could range from search and rescue to finding out what the best way to get aid into area is. The ability to take the advice from local people is what makes these companies so successful at disaster relief.

Private companies that make the arrangements to involve themselves into the HADR realm range all over from telecommunication firms to food and beverage companies. The American public might be skeptical that a chain of command could form across all of these types of companies and effectively fight a disaster. However, this is where the Humanitarian Relief Initiative (HRI) from the World Economic Forum molds the roles of each of these companies.<sup>60</sup> Once a company states they wish to be a part of the HADR model, the forum takes the information and the services that can be rendered and places them into a category of business. When a disaster happens, they are activated and their job is to begin working to restore the service they provide. The ability to activate private companies to restore specific services during a disaster can often be the difference between a failed and successful outcome. It is this ability to form a chain of command, adaptability, and knowing precisely what the company's role is in HADR that makes the private sector a very clear choice for all aspects of disaster relief.

---

<sup>59</sup> Budhiraj, "Suggested Strategies and Best Practices in Private Supply Chain Disaster Response."

<sup>60</sup> Ibid.

THIS PAGE INTENTIONALLY LEFT BLANK

## IV. CIVIL-MILITARY RELATIONSHIPS

The use of the military during a disaster zone is primarily to maintain order within the affected area. The authorities of the military during this time are outlined in the Posse Comitatus act and the Insurrection Act. The Posse Comitatus Act prohibits federal troops from engaging in law enforcement with the civilian authorities. However, the act does allow federal troops to engage in:

- ***Protect the People from Violence.*** “The direct violence of the attacks and disasters is likely to be compounded by violence provoked by them. Law enforcement agencies have the duty to protect the people from the effects of this violence. The role of the federal troops in situations requiring their use to enforce the laws is to assist police and National Guard forces to quell riots, prevent looting, and provide security. To protect the people, federal troops will have to stop, search, apprehend, and detain looters and rioters, sometimes in direct support of police officers but sometimes not.”<sup>61</sup>
- ***Protect Key Facilities.*** “Federal troops, civilian and contractor police officers are responsible for protecting DOD facilities and civil facilities deemed essential for the accomplishment of DOD’s expeditionary missions, or to the well-being of the nation.”<sup>62</sup>
- ***Control Mass Movement of People.*** “Emergencies often involve planned or spontaneous movement of people as they seek to avoid danger. In catastrophic emergencies, these movements will be very large and will be beyond the capability of law enforcement agencies to control. In these events, federal military forces will assist in the planning, preparation, conduct, and enforcement of evacuations, quarantines, and stay in place policies. In doing this, federal troops will be enforcing the laws.”<sup>63</sup>
- ***Provide Essential Supplies and Services to the People.*** “Victims of emergencies need food and water, medical care, and other essential supplies and services to mitigate the consequences of the emergency. When an emergency is of such a large size, scope, or duration as to exceed the capabilities of the normal providers, federal troops can provide emergency supplies, services, transportation, and logistical management capabilities to meet the urgent needs of the people. Delivery of emergency

---

<sup>61</sup> John Brinkerhoff, “The Role of Federal Military Forces in Domestic Law Enforcement Title,” *Joint Center for Operational Analysis*, accessed March 17, 2014, [http://usacac.army.mil/cac2/call/docs/10-16/ch\\_11.asp](http://usacac.army.mil/cac2/call/docs/10-16/ch_11.asp).

<sup>62</sup> Ibid.

<sup>63</sup> Ibid.

support and services may involve enforcing the law to assure equitable distribution of goods and services.”<sup>64</sup>

- ***Augment the Capabilities of Civil Organizations.*** “Because of its readiness to wage war overseas, DOD has greater capabilities in some technical aspects of homeland security than most civil organizations, particularly local and state agencies. These capabilities are in chemical weapons, biological warfare agents, and (along with the Department of Energy (DOE)) nuclear weapons and radiation. DOD also has highly developed abilities with respect to command and control, intelligence, and communications. DOD can enhance management of terrorist attacks by making its technical capabilities available to local agencies.”<sup>65</sup>

Due to the restrictions placed on Federal troops during a disaster relief scenario, the above allowable missions alleviate pressure on the local law enforcement allowing them to do their jobs more effectively.

#### **A. WHAT ARE THE PRIVATE ENTITIES ABLE TO ACCOMPLISH?**

Recent storms, such as Hurricane Sandy that devastated the East Coast, allowed the involvement of private companies possible due to the immediate response. Beyond the ability to respond quickly, the reserves of supplies that are stockpiled is critical to the survivability of the people that are trapped in the disaster zone. When a disaster strikes it affects a town, city, or states as a whole, however, much of the damage that occurs is on an individual level. This is where private companies are able to make a lot of difference. People who have been stranded in an area often need water, food, shelter and medical care before the federal government can get it to them. After Hurricane Katrina’s aftermath had cleared up to an acceptable level, Phillip Capitano, mayor of the New Orleans suburb of Kenner stated, “The only lifeline in Kenner was the Wal-Mart stores. We didn’t have looting on a mass scale because Wal-Mart showed up with food and water so our people could survive.”<sup>66</sup> Many private companies are ready to assist in a disaster relief situation, but in certain cases, such as Katrina, the federal government interrupts the communications and the logistics that these companies can provide.

---

<sup>64</sup> Brinkerhoff, “The Role of Federal Military Forces in Domestic Law Enforcement Title.”

<sup>65</sup> Ibid.

<sup>66</sup> Iain Murray, “Hurricane Sandy and the Invisible Hand of Disaster Recovery,” *Forbes Magazine*, November 1, 2012.

Again, time is the largest factor in the difference between life and death in most of these catastrophic situations. Private companies, such as DRADT (Disaster Relief and Disaster Training), are able to provide vehicles that arrive on the scene of a disaster within hours after it happens, including the DR1, DR2, and the EMOC.



Figure 6. DR1

DR1 is an 83 foot part Truck and Trailer that houses sleeping quarters, office space and a full functioning maintenance bay and storage unit for our equipment and the supplies that we bring to bear during our response to a disaster. It also houses DR1.5, an all-wheel drive side-by-side Polaris that allows us to get personnel and equipment in and out of areas where debris restricts access to larger vehicles.<sup>67</sup>

---

<sup>67</sup> DRAT, “The Equipment We Use,” last accessed January 2, 2014, <http://disasterrelief.cc/disaster-relief-equipment>.



Figure 7. FDR2

Provided by the Scott McRae Group and Duval Ford, DR2 is a fully equipped Ford F250 designed and equipped for the immediate response to a disaster. It serves as both a scout and support vehicle in disaster areas, going ahead of DR1 because of its much smaller size. It also has the personnel and equipment that allows us to make an immediate impact within the first 72 hours after a disaster strikes.<sup>68</sup>

---

<sup>68</sup> DRAT, “The Equipment We Use.”



Figure 8. Emergency Mobile Operations Center

Emergency Mobile Operations Center (EMOC) was a Military Field Hospital in Afghanistan in its former life. It consists of two 25ft x 26ft tents, a 18ft x 25ft tent and a 14ft x 25ft tent. This allows us to set up a physical base of operations in a disaster anywhere and at any time. Its modular design allows us the flexibility to use them as a mobile command center, a volunteer processing and staging area, a field hospital or a temporary housing shelter. It includes a 45kw generator capable of providing power for our operations and an entire neighborhood or our local partnering organization.<sup>69</sup>

This company is just one of many companies in the private world to help people in need during a disaster situation. With the help of these companies and what they bring to the fight, the federal government has the resources that they need in order to be successful in the disaster relief realm.

**B. WHAT DO THE PRIVATE COMPANIES HAVE TO GAIN FROM JOINING THE DISASTER RELIEF EFFORT?**

The involvement of private companies in HADR can provide considerable support to the public sector. However, what does the private sector receive in return? What incentives do private companies have to enter a disaster zone?

Private companies enter a disaster zone principally because of profits. Profits play a major role in why private companies are eager to enter the disaster relief realm. What

---

<sup>69</sup> DRAT, "The Equipment We Use."

makes this a powerful force is when a for-profit company leaves an area during a disaster, they may lose future profits and/or market opportunities.<sup>70</sup> This profit driven assistance creates a very effective response mechanism and allows the private companies to research an area and derive what the people in the affected area are most likely to need. This response and focused driven aid builds consumer loyalty in an affected market that brings more profits to the companies.

However, other reasons they enter a disaster zone is: private companies receive public recognition and project related “branding.”<sup>71</sup> To this end, companies in the HADR realm often give one-time cash contributions to engage NGOs. These one-time cash contributions are the simplest way for corporations to engage in the HADR realm due to the flexibility and speed it can be used with.<sup>72</sup> This puts the contributing companies names in the face of the American and international public. Another major driving force, is that the cash contributions and the assistance places pressure on humanitarian organizations to improve accountability standards.<sup>73</sup> The “feel good” mentality also plays a part in the engagement of corporate entities in the disaster area. Companies are pressured by their employees because it is “the right thing to do.”<sup>74</sup> According to CSIS,

Immediate corporate giving is often emotion laden, with staff pressuring their employers to do something in the immediate wake of a disaster. For this reason, companies highly value the “feel good” factor associated with participation in life-saving relief activities as opposed to longer-term recovery. That said, companies are increasingly being advised to hold back funding for recovery needs, and a growing number of businesses recognize the value of later contributions for sustainable recovery.<sup>75</sup>

Another benefit these private companies have in helping to organize relief efforts are the partnerships that are developed between the local and federal companies in the

---

<sup>70</sup> Russell Sobel, “The Use of Knowledge in Natural-Disaster Relief Management,” last accessed February 26, 2014, [http://www.peterleeson.com/Use\\_of\\_Knowledge.pdf](http://www.peterleeson.com/Use_of_Knowledge.pdf).

<sup>71</sup> *Ibid.*, 19.

<sup>72</sup> Stacey White, “Corporate Engagement in Natural Disaster Response,” *Center for Strategic & International Studies* 3 (January 2012).

<sup>73</sup> *Ibid.*, 14.

<sup>74</sup> *Ibid.*

<sup>75</sup> *Ibid.*

area. This creates an incentive for the private companies to contribute not only cash, but also resources.<sup>76</sup>

Even though the public may benefit from contributions made by private companies, the question remains, are there unintended consequences? Some journalists believe that there could be possible unfair distribution of resources, falsifying information to maintain public relations, and price gouging so only the super wealthy could afford it. According to the Center for Strategic & International Studies, the contributions of the private sector are sometimes wildly exaggerated in order to manage the public expectations in the companies for the next disaster.<sup>77</sup> Journalists, such as Chan Lowe, believe that the use of private companies in HADR would serve only the wealthy. He states:

There would be a consortium of companies. Who would run it? Would precious resources be directed to wealthier communities that could pay cash on the barrelhead, leaving those more devastated, but poorer, to fend for themselves? Would market forces take over, where prices charged would reflect the desperation of customers?<sup>78</sup>

However, the USAID Global Development Alliances and other partnerships that are involved in the disaster relief realm, through individualized memorandums of understanding and statutory mandates control these fears.<sup>79</sup> The companies that are involved in HADR look to share this information to the public so they have the knowledge of what to expect from them and where this money and relief aid is going. Figure 9 and 10 indicate what the private companies gave to various causes and what categories they contributed to.

---

<sup>76</sup> Sobel, "The Use of Knowledge in Natural-Disaster Relief Management, 18.

<sup>77</sup> Ibid.

<sup>78</sup> Chan Lowe, "Private Sector Disaster Relief," *Sun Sentinel*, October 31, 2012.

<sup>79</sup> White, *Corporate Engagement in Natural Disaster Response*.

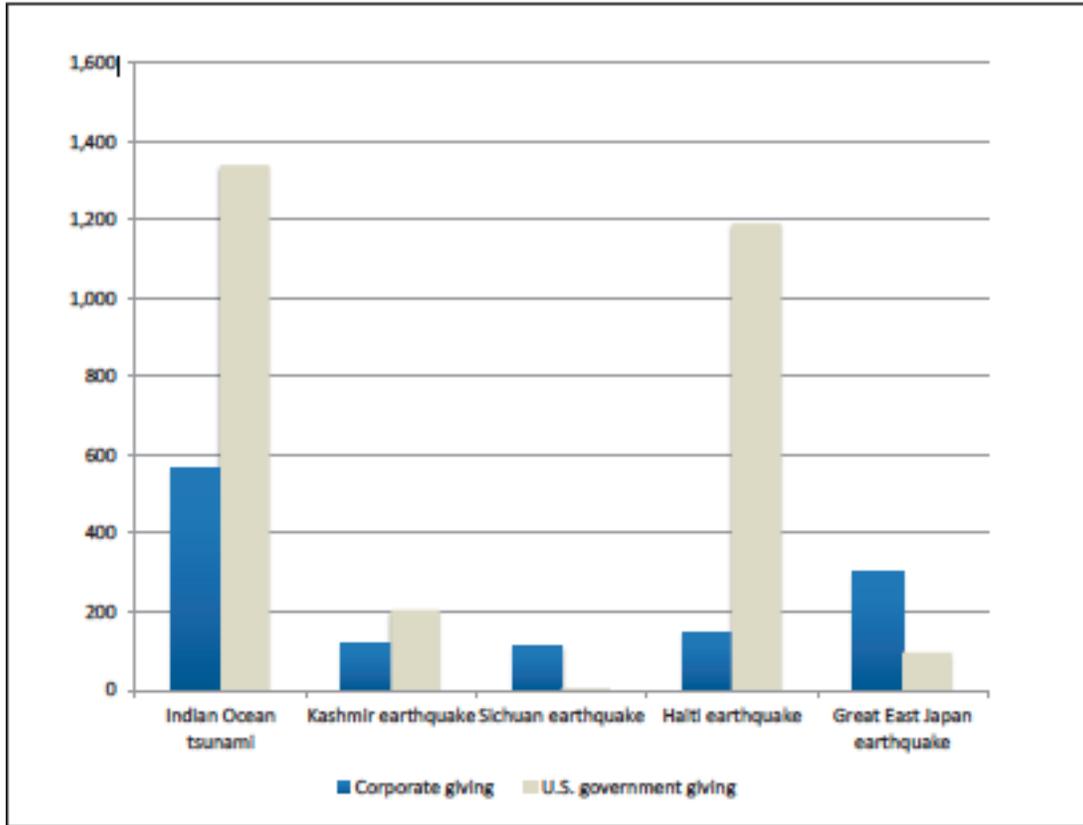


Figure 9. Comparison of U.S. Corporate and U.S. Government Giving for Relief of International Disasters, Given in Millions of Dollars<sup>80</sup>

<sup>80</sup> White, *Corporate Engagement in Natural Disaster Response*.

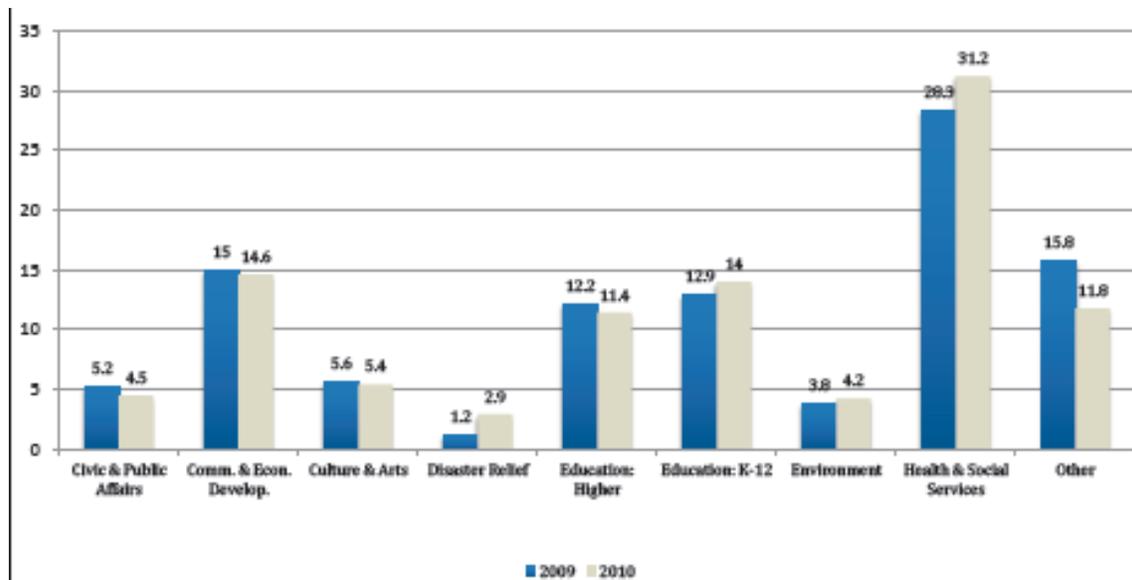


Figure 10. Corporate Giving by Focus Areas, 2009 and 2010 (Percent) Domestic and International, Given in Millions of Dollars<sup>81</sup>

Private companies that are involved in HADR give millions of dollars in aid to disaster struck areas and spend millions more to help prepare and mitigate situations in these disasters. Because of the incentives that draw companies into the realm of HADR, they are able to focus on the individual communities societies that may be in the path of a disaster and study what resources those people may need most.

### C. HOW CAN THE MILITARY/FEDERAL GOVERNMENT WORK TOGETHER AND CAN THEY CO-EXIST IN THE DPR REALM?

A significant number of private companies during Hurricane Katrina were on hand to provide the basic essentials to the stranded citizens after the storm but were either turned away or were sent someplace else due to FEMA taking over the relief efforts. The current director of FEMA, Craig Fugate praised the private sector for “this incredible restorative function of businesses.”<sup>82</sup> In fact, he frequently cites a story about how FEMA was spending a lot of money to ship ice to a community, only to learn that the local grocery store already had ice on hand. As he reasoned, the more business could take care

<sup>81</sup> White, *Corporate Engagement in Natural Disaster Response*.

<sup>82</sup> U.S. Chamber of Commerce, *The Role of Business in Disaster Relief*, May 2012.

of everyday needs, the more FEMA could devote its resources to more critical situations. In short, ordinary functioning of business was an extraordinary help to the disaster response process.<sup>83</sup>

Officials in both local and federal government recognize “collaboration with local agencies can increase the effectiveness of collaboration, not only because of increased interaction with the emergency management community, but because of the relationships of local organizations with members of the community.”<sup>84</sup>

Conversely, some believe that having the private companies attempt to assist in disaster relief would be nothing but a waste of time and a lesson in chaos. Other critics, such as the *Partnerships for Emergency Preparedness: Developing Partnerships*, allude to the fact that the public-safety and private sectors have conducted exercises independent of one another and that few of them understand the others’ roles in emergency prevention, preparedness, response and recovery creating a major and sometimes impossible divide to overcome between the two entities.<sup>85</sup>

A joint partnership between the military and private companies would be a benefit to the United States. The literature shows that even though there is some skepticism that this kind of partnership would work due to the challenges in command, prices of contributions, and possible PCA violations, there is very little literature that argues why the private sector and the military cannot work together. The PCA and the Stafford Act already accommodates some role for the private sector in HADR. Both the law and the practice of disaster relief could change to allow a bigger, more proactive, and more coordinate role for private companies. If the private companies work alongside the military during disaster relief then the United States would see a more efficient and able disaster response force.

---

<sup>83</sup> U.S. Chamber of Commerce, *The Role of Business in Disaster Relief*.

<sup>84</sup> National Research Council of the National Academies, *Building Community Disaster Resilience through Private-Public Collaboration*, ed. The National Academies Press, vol. 1 (Washington, DC: The National Academies Press, 2011), 126.

<sup>85</sup> *Ibid.*

## V. LEGAL FRAMEWORK

This chapter will only focus on the legal issues surrounding the PCA and the Stafford Act. Many government officials view the PCA as necessary within the government since it prohibits the president from employing federal troops for a law enforcement role. This prohibition was sought to stop the president from using federal troops for personal gain, such as rigging elections or forcing decisions based on coercion from troops. This act however does not prohibit the president from using federal troops for the disaster relief process. Under the Stafford Act, the governor of a state may ask the president to send federal troops to a disaster area to perform “emergency work.” But this does not include the ability to perform law enforcement duties. This chapter will examine the PCA and argue that it should be amended to allow federal troops to participate in law enforcement activities. It will also argue that the Stafford Act should be expanded to include emergency work, including law enforcement in a potentially fragile area.

### A. POSSE COMITATUS ACT

A number of legal issues surround the Posse Comitatus Act (PCA)<sup>86</sup> in a disaster zone. The PCA does not allow the involvement of military investigators to assist civilian police forces and does not allow the military to “pervade the activities” of civilian officials.<sup>87</sup>

The Insurrection Act (2006) allows the President to order military troops into an area to restore law and order in the case of revolution or civil unrest.<sup>88</sup> The Insurrection Act notes, “President, authorizing him to determine that... insurrection, domestic violence, unlawful combination, or conspiracy.”<sup>89</sup>

---

<sup>86</sup> United States Northern Command, “The Posse Comitatus Act,” last accessed June 18, 2013, [http://www.northcom.mil/About/history\\_education/posse.html](http://www.northcom.mil/About/history_education/posse.html).

<sup>87</sup> Jennifer K. Elsea and Mason R. Chuck, *The Use of Federal Troops for Disaster Relief: Legal Issues*, CRS Report RS22266 (Washington, DC, Library of Congress, Congressional Research Service, November 28, 2008), <http://www.fas.org/sgp/crs/natsec/RS22266.pdf>.

<sup>88</sup> Ibid.

<sup>89</sup> Ibid.

The governor of a state can activate National Guard troops to perform law enforcement roles but in the case of civil unrest, however, once those troops are federalized under title 10, they no longer have the authority to perform law enforcement activities.<sup>90</sup> In 2006, the *William and Mary Bill of Rights Journal* pointed out that a single commander in the field needs to have the authority to control both federal and National Guard troops to make emergency decisions quickly.<sup>91</sup> The idea of a dual-hatted commander who can control both local and federal troops is supported from many government officials, including the National Guard or in Congress.<sup>92</sup> Schumacher states, “This centralized command and control construct provides both the federal and state chains of command with a common operating picture through the eyes of the DSC (Dual-Status Commander). It also enables the DSC to maximize his or her federal and state capabilities, as well as facilitate unity of effort from all assigned forces.”<sup>93</sup>

There are, however, disadvantages by not including the military in law enforcement duties within the civilian population. In some cases, such as a pandemic of flu or an outbreak of hemorrhagic fever within the United States, one option would be to have the military to perform the duties of the civilian law enforcement due to the vast resources available and the possibility of widespread panic and rioting occurring.<sup>94</sup> Many in Congress as well as the current Commander-in-Chief, President Barack Obama, state that in the case of an overwhelming incident, where the civilian authorities could not handle the situation, the military should be sent in full force to combat the disaster.<sup>95</sup> Many governors argue that having the military engage in law enforcement activities as a

---

<sup>90</sup> Juliana M. Walker, “The Military and Domestic Disaster Response: Lead Role Revealed through the Eye of Katrina” (master’s thesis, Naval Postgraduate School, 2006).

<sup>91</sup> Scott R. Tkaze, “In Katrina’s Wake: Rethinking the Military’s Role in Domestic Emergencies,” *William and Mary Bill of Rights Journal* 15, no. 1 (2006): 3.

<sup>92</sup> Ludwig J. Schumacher, “Dual Command Status for no-Notice Events: Integrated the Military Response to Domestic Disasters,” *Homeland Security Affairs* 7 (2011).

<sup>93</sup> Ibid.

<sup>94</sup> Elin A. Gursky, *Death in Large Numbers: The Science, Policy and Management of Mass Fatality Events*, ed. Marcella F. Fierro, 1st ed., vol. 1 (Chicago, IL: American Medical Association, 2012), 459.

<sup>95</sup> Joseph Liebermann, *The Military’s Role in Disaster Relief since Hurricane Katrina*, ed. Homeland Security and Governmental Affairs, 2007, 5.

major part of the disaster relief process violates the U.S. Constitution and that the role should remain with the National Guard.<sup>96</sup>

### **1. Should We Really Amend the Posse Comitatus Act?**

It is argued here that the United States should amend the PCA to allow the use of federal troops to assist in law enforcement activities. In the last 20 years, the United States saw multiple storms that caused millions of dollars in damage and took thousands of lives. In the case of Hurricane Katrina in 2005, when the local police force was called on to provide stability to the region, it was found that most of the police force had chosen to evacuate the area with their families ahead of time. However, if the PCA was amended to reflect a change allowing Title 10 troops to assist in the law enforcement process, the restoration process would be streamlined.

However, the use of federal troops to enforce federal laws is not prohibited by the PCA. There are three instances of using federal troops for law enforcement: “ (1) an act of Congress expressly authorizes use of part of the Army or Air Force as a Posse Comitatus or otherwise to execute the law; (2) the activity in question does not involve use of part of the Armed Forces covered by the proscription; or (3) the activity in question does not constitute “execution of the law.”<sup>97</sup> Posse Comitatus relies on case history to provide examples of violations when citizens believe it has been violated. These examples rely on the incident at Wounded Knee on the Pine Ridge Indian Reservation. The three criteria that must be met to show the Posse Comitatus Act was violated are:

1. Whether civilian law enforcement officials made a “direct active use” of Military investigators to “execute the law.”
2. Whether the use of the military “pervaded the activities” of the civilian Officials.

---

<sup>96</sup> The Associated Press, “Governors Balk at Bigger Role for Military,” *The New York Times*, November 6, 2005, [http://www.nytimes.com/2005/11/06/national/nationalspecial/06govs.html?\\_r=0](http://www.nytimes.com/2005/11/06/national/nationalspecial/06govs.html?_r=0).

<sup>97</sup> Charles Doyle and Jennifer Elsea, *The Posse Comitatus Act and Related Matters: The Use of Military to Enforce Civilian Laws*, CRS Report R42659 (Washington, DC: Library of Congress, Congressional Research Service, August 16, 2012), <http://www.fas.org/sgp/crs/natsec/R42659.pdf>.

3. Whether the military was used so as to subject “citizens to the exercise of Military power which was regulatory, prescriptive, or compulsory in nature.”<sup>98</sup>

This use of military power only applies when it is engaged in completing the duties normally assigned to civilian agencies. This does not apply when the military is asked to support fighting forest fires or other natural containment issues.<sup>99</sup>

If the above examples are taken into consideration about why the act should be amended, it can be shown that if the general public is in a situation where anarchy has taken over, such as in the Hurricane Katrina example, the military would be the last line of defense against such action. If victims had to wait until there was a declaration from Congress, this would sacrifice much needed time in the process of restoring order. The PCA should be amended to allow the use of Title 10 troops in extenuating circumstances during a disaster relief situation where the local law enforcement is either gone or so undermanned that they cannot perform their duties without endangering themselves and the people they swore to protect. This type of amendment to the act would alleviate the issues of lawlessness and instability by using Title 10 troops in the beginning of a disaster relief effort.

## **B. THE STAFFORD ACT**

The Stafford Act, created in 1988, amended the Disaster Relief Act of 1974. This act allows the governor of a state to declare a state of emergency and to ask the President of the United States for assistance in the form of title 10 troops.<sup>100</sup> The president may then provide troops to the requesting state for a maximum of ten days in order to perform the emergency work needed.<sup>101</sup> This emergency work is defined as “clearance and removal of debris and wreckage and temporary restoration of essential public facilities

---

<sup>98</sup> Doyle and Elsea, *The Posse Comitatus Act and Related Matters: The Use of Military to Enforce Civilian Laws*.

<sup>99</sup> *Ibid.*

<sup>100</sup> *The Stafford Act*, 93-288, *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (April 2013).

<sup>101</sup> *Ibid.*

and services.”<sup>102</sup> Therefore, even though the military may be called in to perform this emergency work, the military still cannot perform law enforcement duties under this act.

When dealing with private companies during a disaster, the Stafford Act states that any contract given to a private company shall be with a local company. The Act states: “In the expenditure of Federal funds for debris clearance, distribution of supplies, reconstruction, and other major disaster or emergency assistance activities that may be carried out by contract or agreement with private organizations, firms, or individuals, preference shall be given, to the extent feasible and practicable, to those organizations, firms, and individuals residing or doing business primarily in the area affected by such major disaster or emergency.”<sup>103</sup> This passage shows that even though private businesses may enter into the disaster relief realm to provide assistance, no clause allows private companies to assist before the disaster strikes or immediately after. The Act shows that the federal government may pay private companies to perform work, but not actually provide relief alongside the military making the integration of the private sector difficult.

## **2. What Does the Stafford Act Allow?**

The Stafford Act allows certain actions to be taken by the government prior, during and after an event. DHS is allowed to preposition assets on the ground and to request other federal agencies establish an Emergency Operations Center (EOC), assess any major incidents, seek additional resources from the city, state or tribe, mobilize state resources to combat the disaster and mobilize a Preliminary Damage Assessment team (PDA) to assess the initial damage. Based upon the assessment of the team, the governor can request the president to declare an emergency in the affected areas. Below is an illustration that summarizes the actions that are taken in the event of an emergency:<sup>104</sup>

---

<sup>102</sup> *The Stafford Act*, 93-288, *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (April 2013).

<sup>103</sup> *Ibid.*

<sup>104</sup> *The Stafford Act*, 93-288.

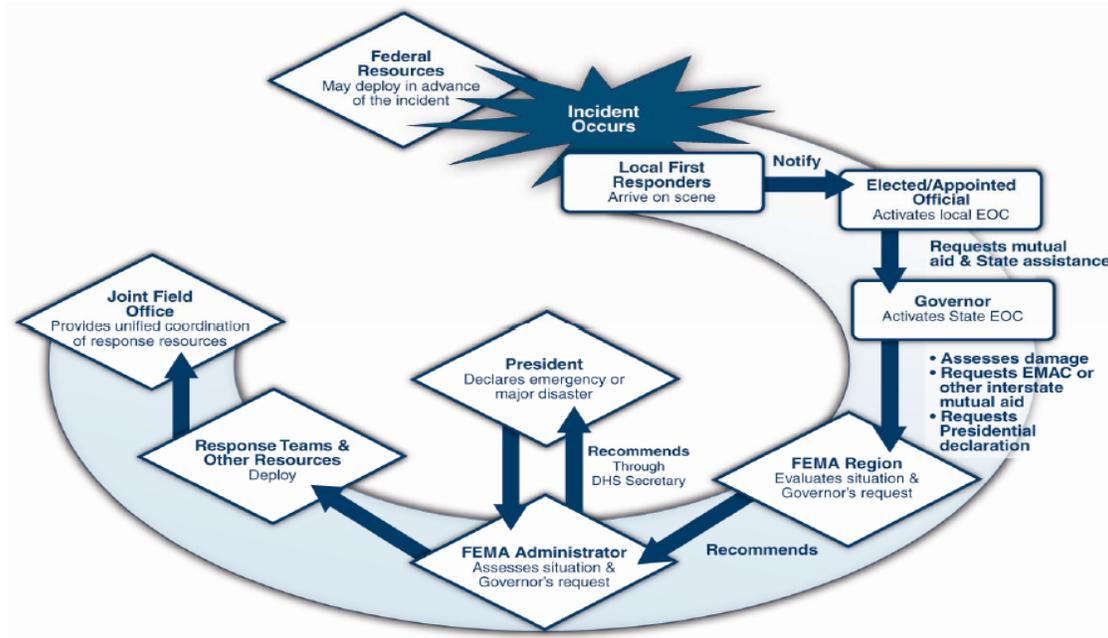


Figure 11. Actions Taken in Event of Emergency<sup>105</sup>

The Stafford Act allows local governments to call on the U.S. Government to provide Title 10 troops in order to provide emergency preparedness and assist in the aftermath by utilizing resources to maintain the infrastructure of a city or a town. Nothing in the act allows the federal military to engage in law enforcement activities among the civilian population.

<sup>105</sup> *The Stafford Act*, 93-288.

## **VI. WHAT TO DO ABOUT DISASTER RELIEF IN THE FUTURE?**

After Hurricane Katrina struck the US, the aftermath showed the federal government that there were major problems with the plans they had made to combat disasters of such magnitude. Once these problems were identified, both private companies and the government moved to fix these issues and make the response plans more effective.

There still is room for improvement within the system when it comes to local responders and the readiness at local and state level. A major issue that is still debated is whether or not the federal military should be used for enforcing the local laws in order to protect the local population and alleviate the pressure on local police force.

This chapter will focus on the future of disaster relief and how it can be improved in many ways from the local, state, and federal level.

### **A. PRIVATE COMPANIES CONTRIBUTING TO THE FIGHT AGAINST DISASTER**

The major issues that private companies face in the fight to prepare for the next natural disaster are how to create and maintain a plan that will allow companies not only respond quickly to a natural disaster but also how to maintain that posture to provide a sustainable structure that can last for a long period of time while the military conducts their operations in the disaster zone. According to the World Economic Forum, they have started the process to the Engineering and Construction Disaster Resource Partnership (DPR). This is a new model for a coordinated private sector partnership to respond to natural disasters.<sup>106</sup>

The vision of the DRP according to the forum is to, “form an ongoing collaboration with the humanitarian community at the global level, and government and other key humanitarian actors at the national level, to optimize the core strengths and capacities of the E&C (Engineering and Construction) community before, during and

---

<sup>106</sup> World Economic Forum, “Disaster Resource Partnership,” last accessed January 4, 2014, <http://www.weforum.org/issues/disaster-management>.

after natural rapid-onset disasters”<sup>107</sup> and “Construction companies located in disaster-affected areas have assets that can be invaluable to humanitarian and government relief organizations. These can be tangible assets, including stockpiled food, water and shelter materials (such as tarpaulins, timber, scaffolding, galvanized sheeting and sand bags)...construction sites.”<sup>108</sup> By creating relationships among government and other Non-Government Organizations (NGO) along with Non-Profit Organizations (NPO), a new type of private sector disaster response is being created.

David Miller, the associate administrator for the Federal Insurance and Mitigation Administration of the FEMA states that, the federal government can focus more on disaster preparedness rather on response. He states, “Too often mitigation is viewed as a recovery function. Part of the challenge is to go back and look at it as an investment against future disasters. Ultimately, it gets down to a mentality of “You can pay me now or you can pay me later.” And if you pay me later, it will cost you a lot more than if you invest prudently now.”<sup>109</sup> This type of “why spend money now on infrastructure and take a loss of profit when the government whether it be local or federal government, can cut corners and save money” attitude seems to make sense, but when a major disaster happens where MAJOR repairs to the infrastructure happens, the government then has to pay out more money than it would have to before.

Finally, Peter J Denning of Naval Postgraduate School found that a partnership that is formed in times of emergency called a “near-instant collaboration” is still a private-public venture that can last even after an emergency is over.<sup>110</sup> This attitude about fixing things when they break and not before needs to change. This reaction can cost billions of dollars rather than millions. Also, the relationships that are formed whether they are overnight or over time with a lot of cooperation are crucial to the future of private companies having a major role and impact in the disaster relief realm.

---

<sup>107</sup> World Economic Forum, “Disaster Resource Partnership.”

<sup>108</sup> Ibid.

<sup>109</sup> David Miller, “Invest Now to Better Manage Disaster Risk in the Future,” *PwC Rebuilding for Resilience*, September 2013, 1, [http://www.pwc.com/en\\_GX/gx/capital-projects-infrastructure/disaster-resilience/assets/pdf/interview-david-miller.pdf](http://www.pwc.com/en_GX/gx/capital-projects-infrastructure/disaster-resilience/assets/pdf/interview-david-miller.pdf).

<sup>110</sup> Nathan Busch, “Achieving Resilience in Disaster Management: The Role of Public-Private Partnerships,” *Journal of Strategic Studies* 2 (Summer 2013).

## **B. FUNDING PREPARATION TO PROVIDE MORE ECONOMICALLY SOUND RELIEF EFFORTS**

As of now funding for disaster relief comes from many different funds, such as the President's Disaster Relief Fund and FEMA. The difficulty comes when funding such programs need to find the money due to other programs in the chain takes precedence over disaster relief and support. Funding for disaster relief needs to come from private companies that already make preparations and stockpile supplies as well as new government funds that money would be set aside for. This would make sure that during the aftermath of a disaster funding would not have to be pulled to pay for repairs to the infrastructure that could have been avoided in the first place if the preparations and the funding is made available.

In 2013, Congress passed the Disaster Relief Appropriations Act that authorized 50.7 billion dollars in disaster assistance. This fund was placed into effect to mitigate the damages from future disasters in the impacted region.<sup>111</sup> According to the FY2013 supplemental funding for disaster relief stated, "The disaster relief allowable adjustment for FY2013 is \$11.8 billion. Under the current continuing resolution, the amount of disaster relief that would be provided under the Budget Control Act (BCA) if the Continuing Resolution (CR) extended for the year was \$6.4 billion. The Administration proposed using the remainder of the allowable adjustment for disaster relief in its supplemental request, and using an emergency funding designation to ensure the remaining resources provided through the request do not count against the FY2013 budget caps." This budget for disaster relief is very good in practice, but as stated above, it is all based on a continuing resolution that means once the government encounters issues with the budget the funding from the disaster relief fund will be cut and reassigned. There has to be a permanent fund in order for disaster relief to maintain a reliable level of readiness.

---

<sup>111</sup> William Painter and Jared Brown, *FY2013 Supplemental Funding for Disaster Relief*, CRS Report R42869 (Washington, DC: Library of Congress, Congressional Research Service, February 19, 2013), <https://www.fas.org/sgp/crs/misc/R42869.pdf>.

Even though funding for disaster relief exists, there are many other private funds that contribute much more to the readiness of disaster relief. The governments needs to liaison with private companies that are engaged in disaster relief but also set up a permanent funding program that cannot be pulled from in the case of a continuing resolution or to fund other operations whether overseas or domestically. This new way of thinking would allow disaster relief organization the resources they need to conduct the operations that is requested of them.

### **C. FEMA TAKING A LEAD IN THE PROCESS OF DISASTER RELIEF**

Many agencies within the government believe that the local and state governments need to depend on themselves in order to prepare disaster relief. This is true to a point. Local and state government need to understand what types of natural disasters could affect them and make the proper preparations to combat the event before, during and after it occurs. However, many municipalities within the state do not have the resources or training to prepare for disasters. This is where the federal government, mainly FEMA, comes into the picture and provides the training needed in order to make the local and state levels ready for disaster. Appendix C shows what the federal governments responsibilities are during a federal disaster.<sup>112</sup>

Unfortunately, this image shows the lack of a “prepare, train and deploy” category. This is the kind of involvement FEMA needs to show in order to regain the momentum it lost during Hurricane Katrina as the premier disaster response agency in the United States.

Many times, local and state governments do not have the resources or experience to conduct the type of operations and training that is needed in order to maintain the readiness of the local government. The federal government at the level of FEMA has the resources to conduct and train the local population of a state ready to combat a natural disaster. FEMA is supposedly the foremost authority on disaster relief. The agency should be coming up with new and innovative ideas and ways to train people around the

---

<sup>112</sup> FEMA, “State Disaster Management Course,” last accessed January 4, 2014, <http://training.fema.gov/EMIWeb/downloads/is208SDMUnit3.pdf>.

nation in disaster relief in order to combat the natural disasters that devastate the US every year. FEMA can no longer afford to waste the tax dollars that are given to them by designing vehicles that have no use in the urban environment, such as the vehicles that are similar to the MRAPs the Marine Corps uses. These vehicles cannot properly maneuver in close urban environments.

The training plans need to have real world applicability, such as what first responders need to accomplish within the first 24-48 hours so that FEMA can gather resources to deploy to the disaster zone. Finally, FEMA MUST stop looking at disaster relief as a bottom-up problem. Disaster relief needs to be looked at as a bottom-up top-bottom process where while the local governments and first responders are organizing and executing their missions, the federal government and FEMA are ALSO deploying, supplying, and conducting joint relief missions alongside the local government. This type of response will allow the government to respond more efficiently due to the local knowledge that will come with the local government involved, save money by not wasting resources by deploying useless items to an area that they cannot operate in, and it will save precious time and lives. This is the role FEMA needs to take in the future when it comes to disaster relief and preparing and executing a mission.

THIS PAGE INTENTIONALLY LEFT BLANK

## VII. CONCLUSION

Throughout this thesis, it has shown multiple points about disaster relief and the private-public relationship of disaster relief. It has also shown how when the government fails to provide the aid and relief that is needed, the local government and the private entities are able to supply those basic needs before the federal government.

During and after Hurricane Katrina, the federal government had created a plan called the NRP that at the time seemed to address the issues that the government believed to cause the largest concerns. However, it is seen throughout the thesis that the proper preparations were not made and the federal government did not plan for the type and magnitude of disaster that occurred. As the storm's aftermath began to show how intense the devastation was, the federal government was called on by the state of Louisiana to provide the aid that was needed. However, because of chain of command issues from the state level to the federal level, that aid that had been made ready weeks before was almost three days late.

In most Americans' minds, the National Guard is made up of individuals who are ready to answer the call to ANY disaster in the United States. What happens when those individuals are not there to answer the call because they were sent someplace else and not able to assist? This was the issue in Katrina. When Governor Blanco called on the National Guard of Louisiana, most of them had been activated from Title 32 to Title 10 active duty federal troops to fight the war in Iraq and Afghanistan leaving New Orleans without the compliment of guardsmen to help combat the disaster.

Throughout this paper, it has shown that FEMA during this disaster was not prepared for this type of disaster, and when it occurred, FEMA wanted to be the main agency to lead the relief effort but to have all decisions have to go through them. In hindsight this behavior should have been noticed before since the director of FEMA at the time Michael Brown, had zero experience in the disaster relief realm and had no idea what it was going to take to make FEMA disaster ready. Because of this lack of response

from the federal government and from FEMA, it brought private companies and what they bring to the fight and what role should the military have to the table.

As seen in the aftermath of Hurricane Katrina, the local law enforcement who were charged with maintaining order in New Orleans either left, were killed, or abandoned their posts and joined in on the massive looting during the aftermath. In an attempt to take back control of the city, the remaining police force tried to implement marshal law of sorts in order to control what they could. Unfortunately, this effort led to major civil rights abuses, constitutional rights violations, and in the end vigilantism since the citizens who were still in their homes could not count on the police to defend them. This placed the idea of using the federal military for law enforcement activities in the spotlight.

Many people were arguing for the use of the military but then there were others on the other side arguing that once the military is used for law enforcement, then the government would be tempted to use the military for everyday problems. However, the Posse Comitatus Act prohibits the use of federal (Title 10) troops for law enforcement with very limited exceptions under the Insurrection Act. The research has led to the conclusion that the amendment of Posse Comitatus Act in certain and limited situations is needed in order to use Title 10 troops for law enforcement in order to maintain order within an area and to preserve human life.

The military possesses many good qualities and can be used effectively in many situations; the disaster relief realm is not one of them. As National Guard Colonel Kenneth E. Ring stated, “the Army lacks a clear, effective, and coordinated response capability.”<sup>113</sup> This statement shows that when it comes to disaster relief, they are no good as first responders because they do not have the ability to communicate effectively within their own organization. It is not a question of whether the military should be engaged in humanitarian relief, but how. In one of the chapters, it is shown that the military should no longer be in charge of logistics due to the slow response time and the

---

<sup>113</sup> Kenneth Ring, *Military Disaster Response: Strategy, Leadership, and Actions—Closing the Gap*. (Carlisle, PA: U.S. Army War College, 2008).

confusion and complexity because of the chain of command, but to leave this to the private companies that deal with customer service everyday all day everyday. Communications in a disaster area should be left to the companies that are required by their customers to provide a reliable network to establish contact.

This is not to say the military should not be involved, but they should only be involved when it comes to search and rescue, delivery of goods, and medical support. The military has many other issues that prohibit them from delivering a viable and sustainable disaster relief product. The biggest issue is the ever-extensive chain of command. Because of the length the chain of command and the complexity, the military is not able to make decisions on the ground and then report back to the higher superiors. If the military wants to make a decision about an issue, they have to report to higher who then must ask their superiors and then deliver a decision back down, which takes too much time and by the time it reaches the commander in the field, it is already too late to make any good progress.

The private companies do not have to accomplish this. They operate with no chain of command at the operational level and they have a plan of EXACTLY who is in charge on the ground during a disaster, not to mention these companies are under an agency in the private sector who establishes exactly what certain companies are going to provide that enables quick and rapid response with no confusion or overlap of resources. It is the disassociated chain of command of the private companies and the extreme complexity and slow response of decisions from the federal chain of commands that make the military a bad choice to lead a relief operation and makes the private companies the best choice to become the first responders and leaders in these types of situations.

While some apocalypse scenarios may seem improbable or even unreal, at least one of these fictional situations is being applied to real-life disaster preparedness.<sup>114</sup> As seen in Appendix A, the Center for Disease Control and Prevention tapped the ongoing pop-culture interest in zombies for a health crisis promotion. While the zombie apocalypse is a fictional creation, its attendant make-believe scenarios bring an

---

<sup>114</sup> Center for Disease Control, "Emergency Preparedness and Response," accessed March 17, 2014, <http://emergency.cdc.gov/preparedness/kit/disasters/>.

undeniable parallel to disaster relief in the United States. As depicted in popular culture, zombies consume everything and everyone in their path, infecting water supplies, destroying crops and food sources, and infesting buildings. Presenting a view of disaster relief through the eyes of a lone survivor in an imagined zombie apocalypse gives organizations like the Center for Disease Control and Human Health and Services a creative way to interest people in disaster preparedness and survival.

In a zombie apocalypse, or any natural disaster that has caused major damage to the infrastructure of any local government, the military is hindered by to the lack of communications, proper equipment, the restrictions of the Posse Comitatus Act, and the massive complexity of the chains of command of Title 10 and Title 32 troops in the field. When it comes to first response in the disaster relief realm, private companies with their chain of command at the operation level and ability to make decisions in the field without having to seek approval, are better equipped to deal with major logistic, communication, and supply availability problems in the immediate aftermath of a major disaster.

## **APPENDIX A. CAN THE POPULAR CULTURE OF ZOMBIES IMPROVE THE OVERALL RESPONSE OF DISASTER RELIEF?**

Ever since popular science fiction director George Romero made and released the film “Night of the Living Dead,”<sup>115</sup> people have become fascinated with zombies. Zombies are thought to be the “worst-case” scenario. This fascination has led to the development of multiple groups, such as the Zombie Research Society and Zombie Response Team, which help people prepare for the zombie apocalypse. Not all of these entities are private organizations; the federal government, too, has been capitalizing on the zombie craze. These organizations include FEMA, HHS (Human Health and Services), and the CDC (Center for Disease Control). The federal government and private companies are using the zombie apocalypse theme to motivate people in disaster preparedness.

So, can the pop culture of zombies improve the overall response of disaster relief?

### **A. THE DIRECT CORRELATION BETWEEN ZOMBIES AND DISASTERS**

FEMA and the CDC use zombies as a way to get people interested in preparing for a natural disaster. The zombie preparedness lists that the government provides are the same lists used for all other natural or man-made disasters.

---

<sup>115</sup> *Night of the Living Dead*, directed by George Romero (1968, Image Ten Productions).



Figure 12. CDC Zombie Preparedness Poster<sup>116</sup>

Currently, the CDC has a portion of its website for teachers to engage their students on how to prepare for a natural disaster using the fictional tool of a zombie apocalypse. When a natural disaster strikes the United States, the effects can include massive structural damage, looting, and in certain cases, such as Hurricane Katrina, extreme violence.. Below is a list of some of the items that the CDC recommends for a zombie kit in order to survive:

**Assemble the following items to create kits** for use at home, the office, at school and/or in a vehicle:

- Water—one gallon per person, per day (3-day supply for evacuation, 2-week supply for home)
- Food—non-perishable, easy-to-prepare items (3-day supply for evacuation, 2-week supply for home)
- Flashlight
- Battery-powered or hand-crank radio (NOAA Weather Radio, if possible)

---

<sup>116</sup> Center for Disease Control, “Emergency Preparedness.”

- Extra batteries
- First aid kit
- Medications (7-day supply) and medical items
- Multi-purpose tool
- Sanitation and personal hygiene items
- Cell phone with chargers
- Emergency blanket
- Map(s) of the area
- Medical supplies
- Two-way radios
- Extra set of car keys and house keys
- Manual can opener
- Whistle
- N95 or surgical masks
- Matches
- Rain gear
- Towels
- Work gloves
- Tools/supplies for securing your home
- Extra clothing, hat and sturdy shoes
- Plastic sheeting”<sup>117</sup>

What is interesting about the list is it is the EXACT same list as the list they recommend for tornados, earthquakes, hurricanes and other disasters. The reason the CDC put out the Zombie list is people are more interested and willing to listen about zombies due to the Hollywood portrayal the events. Founder of the Zombie Research Society stated,

Zombies go hand in hand with disasters since they are the WORST case scenario. People running in the streets scared, food being cut off and then running out, water running out or becoming contaminated, and shelter

---

<sup>117</sup> Center for Disease Control, “Emergency Preparedness and Response.”

being a gamble on whether it is safe or not. People can learn a lot about survival in a disaster situation from zombies and how they would act and where they would go.

These situations emphasize how to survive as an individual, and how the federal and private responders should prepare for a disaster situation.

## **B. MUCH DIFFERENT ROLE FOR THE MILITARY DURING AN OUTBREAK**

If there were an outbreak that caused the dead to come back to life within the United States, the U.S. military would have a much different role than they would in a natural disaster. They would have to engage in law enforcement in order to keep the people safe, but then they would have to shift their focus to putting down the Zombie threat by any means needed. This realization plays a very important role in the development of plans to amend the Posse Comitatus Act to allow the military to participate in law enforcement with civilian entities.

The military would be expected to assist with the evacuation of people from the affected area and then the sanitation of the area due to the local forces would be overrun and rendered ineffective. Obviously, the military in natural disasters would not conduct sanitation of citizens within the affected area, however they would possibly be called on in an extreme circumstance under the Insurrection Act to quell riots, engage in law enforcement and enact marshal law. These are in the most extreme cases however. The image below shows the United States from space at night.<sup>118</sup>

---

<sup>118</sup> Zombie Research Society, "Zombie North America," last accessed January 3, 2014, <http://zombieresearchsociety.com/wp-content/uploads/2012/12/Zombie-North-America.jpg>.



Figure 13. Population Map of United States<sup>119</sup>

The most densely populated areas would become the most difficult for the military to control during both an outbreak and a natural disaster. James F. Miskel, a former National Security Council member and professor of National Security Affairs at the Naval War College, wrote in *Disaster Response and Homeland Security*:

the government typically deals with past failures by adopting a narrow focus on specific problems, and generating targeted solutions. However, because no two catastrophes are ever the same, a new and unforeseen failure is always just waiting right around the corner. In fact, this ‘fine tuning’ approach, coupled with a highly interdependent agency structure, practically guarantees that we won’t be ready for the next surprise.<sup>120</sup>

If the government and federal military is not prepared to deal with the next big hurricane, or earthquake, or terrorist attack, how then can we expect anything but confusion, communication gaps, and systemic breakdown when facing something as

---

<sup>119</sup> Zombie Research Society, “Zombie North America.”

<sup>120</sup> James F. Miskel, *Disaster Response and Homeland Security: What Works and What Doesn’t*, 1st ed. (Stanford, CA: Stanford University Press, 2008).

horrific as a zombie outbreak? Simply put, the military does not have the material resources and personnel to deal with an outbreak or a massive natural disaster that creates an environment that breeds violence and evolves into an every-man-for-himself situation.

## LIST OF REFERENCES

- Air University, The. "Emergency Support Function #2-Communications Annex." December 2004. <http://www.au.af.mil/au/awc/awcgate/nrp/esf02.pdf>.
- Arends, Brett. "Brown Pushed from Last Job: Horse Group: FEMA Chief Had to Be 'Asked to Resign.'" *Boston Herald*. September 3, 2005. <http://www.informationclearinghouse.info/article10115.htm>.
- Associated Press, The. "Governors Balk at Bigger Role for Military." *New York Times*, November 6, 2005. [http://www.nytimes.com/2005/11/06/national/nationalspecial/06govs.html?\\_r=0](http://www.nytimes.com/2005/11/06/national/nationalspecial/06govs.html?_r=0).
- Bea, Keith, and Richard Sylves. *Emergency Management: The American Experience 1900–2010*. Edited by Claire B. Rubin. 1st ed., vol. 2. Boca Raton, FL: CRC Press, 2012.
- Bea, Keith. *Federal Emergency Management Policy Changes After Hurricane Katrina: A Summary of Statutory Provision*. CRS Report RL33729. Washington, DC, Library of Congress, Congressional Research Service, March 6, 2007. <http://www.fas.org/sgp/crs/homesecc/RL33729.pdf>.
- Brinkerhoff, John. "The Role of Federal Military Forces in Domestic Law Enforcement Title." *Joint Center for Operational Analysis*. Accessed March 17, 2014. [http://usacac.army.mil/cac2/call/docs/10-16/ch\\_11.asp](http://usacac.army.mil/cac2/call/docs/10-16/ch_11.asp).
- Brown, Drew, Seth Borenstein, and Alison Young. "Key Military Help for Victims of Hurricane Katrina Was Delayed." September 17, 2005. <http://www.commondreams.org/headlines05/0917-05.htm>.
- Buddelmeyer, Kevin L. *Military First Response: Lessons Learned from Hurricane Katrina*. Maxwell Air Force Base, AL: Air Command and Staff College Air University.
- Budhiraj, Karn. *Suggested Strategies and Best Practices in Private Supply Chain Disaster Response*. Cambridge: Massachusetts Institute of Technology, 2010.
- Burkett, Jeffery. "Command and Control: Command and Control of Military Forces in the Homeland." *United States Army Combined Arms Center*, no. 10 (December 2009). [http://usacac.army.mil/cac2/call/docs/10-16/ch\\_3.asp](http://usacac.army.mil/cac2/call/docs/10-16/ch_3.asp).
- Busch, Nathan. "Achieving Resilience in Disaster Management: The Role of Public-Private Partnerships." *Journal of Strategic Studies* 2 (Summer 2013).

- Center for Disease Control and Prevention. "Emergency Preparedness and Response." Accessed March 17, 2014. <http://emergency.cdc.gov/preparedness/kit/disasters/>.
- Davis, Lynn. *Hurricane Katrina: Lessons for Army Planning and Operations*. Vol. 1. Santa Monica, CA: RAND Corporation, 2007.
- Doyle, Charles, and Jennifer Elsea. *The Posse Comitatus Act and Related Matters: The Use of Military to Enforce Civilian Laws*. CRS Report R42659. Washington, DC: Library of Congress, Congressional Research Service, August 16, 2012. <http://www.fas.org/sgp/crs/natsec/R42659.pdf>.
- DRAT. "The Equipment We Use." Last accessed January 2, 2014. <http://disasterrelief.cc/disaster-relief-equipment>.
- Elsea, Jennifer K., and Mason R. Chuck. *The Use of Federal Troops for Disaster Relief: Legal Issues*. CRS Report RS22266. Washington, DC, Library of Congress, Congressional Research Service, 2008. <http://www.fas.org/sgp/crs/natsec/RS22266.pdf>.
- FEMA. "State Disaster Management Course." Last accessed January 4, 2014. <http://training.fema.gov/EMIWeb/downloads/is208SDMUnit3.pdf>.
- Fischer, Elizabeth. "Disaster Response: The Role of a Humanitarian Military." *Army-Technology.Com*, July 26, 2011.
- Gursky, Elin A., *Death in Large Numbers: The Science, Policy and Management of Mass Fatality Events*, edited by Marcella F. Fierro. 1st ed., vol. 1. Chicago, IL: American Medical Association, 2012.
- Hudson, Laura, and Charles A. Hofman. "Military Responds to Natural Disasters: Last Resort or Inevitable Trend?" *Humanitarian Exchange Magazine*, no. 44 (September 2008).
- Kettl, Donald F., and Jonathan Walters. "The Katrina Breakdown." *The Governing* (December 2005).
- Kettl, Donald F. *System Under Stress*. Edited by C.Q. Press. 2nd ed. Washington, DC: C.Q. Press, 2007.
- Knabb, Richard D., Jamie R. Rhome, and Daniel P. Brown. *Tropical Cyclone Report*. Miami, FL: National Hurricane Center, 2005.
- Liebermann, Joseph. *The Military's Role in Disaster Relief since Hurricane Katrina*. Edited by Homeland Security and Governmental Affairs, 2007.
- Lowe, Chan. "Private Sector Disaster Relief." *Sun Sentinel*, October 31, 2012.

- Miller, David. "Invest Now to Better Manage Disaster Risk in the Future." *PwC Rebuilding for Resilience*. September 2013. [http://www.pwc.com/en\\_GX/gx/capital-projects-infrastructure/disaster-resilience/assets/pdf/interview-david-miller.pdf](http://www.pwc.com/en_GX/gx/capital-projects-infrastructure/disaster-resilience/assets/pdf/interview-david-miller.pdf).
- Miskel, James F. *Disaster Response and Homeland Security: What Works and What Doesn't*. 1st ed. Stanford, CA: Stanford University Press, 2008.
- Morrisey, Siobhan. "Should the Military Be Called in for Natural Disasters?" *Time Magazine*, December 31, 2008.
- Murray, Iain. "Hurricane Sandy and the Invisible Hand of Disaster Recovery." *Forbes Magazine*, November 1, 2012.
- National Research Council of the National Academies, *Building Community Disaster Resilience through Private-Public Collaboration* Edited by The National Academies Press. Vol. 1. Washington, DC: The National Academies Press, 2011.
- Night of the Living Dead*, directed by George Romero (1968, Image Ten Productions).
- Painter, William, and Jared Brown. *FY2013 Supplemental Funding for Disaster Relief*. CRS Report R42869. Washington, DC: Library of Congress, Congressional Research Service, February 19, 2013. <https://www.fas.org/sgp/crs/misc/R42869.pdf>.
- Panetta, Leon E. *Strategy for Homeland Defense and Defense Support for Civil Authorities*. Washington, DC: Department of Defense, 2013.
- Ring, Kenneth E., *Military Disaster Response: Strategy, Leadership, and Actions—Closing the Gap*. Carlisle, PA: U.S. Army War College, 2008.
- Schumacher, Ludwig J. "Dual Command Status for no-Notice Events: Integrated the Military Response to Domestic Disasters." *Homeland Security Affairs* 7 (2011).
- Sobel, Russell. "The Use of Knowledge in Natural-Disaster Relief Management." Last accessed February 26, 2014. [http://www.peterleeson.com/Use\\_of\\_Knowledge.pdf](http://www.peterleeson.com/Use_of_Knowledge.pdf).
- Tkaze, Scott R. "In Katrina's Wake: Rethinking the Military's Role in Domestic Emergencies." *William and Mary Bill of Rights Journal* 15, no. 1 (2006): 3.
- U.S. Chamber of Commerce. *The Role of Business in Disaster Relief*, May 2012.
- United States Northern Command. "The Posse Comitatus Act." Last accessed June 18, 2013. [http://www.northcom.mil/About/history\\_education/posse.html](http://www.northcom.mil/About/history_education/posse.html).

- Walker, Juliana M. "The Military and Domestic Disaster Response: Lead Role Revealed through the Eye of Katrina." Master's thesis, Naval Postgraduate School, 2006.
- White House. "Hurricane Katrina: Lessons Learned." Last accessed November 2, 2013. <http://georgewbush-whitehouse.archives.gov/reports/katrina-lessons-learned/chapter5.html>.
- White, Stacey. "Corporate Engagement in Natural Disaster Response." *Center for Strategic & International Studies* 3 (January 2012).
- World Economic Forum. "Disaster Resource Partnership." Last accessed January 4, 2014. <http://www.weforum.org/issues/disaster-management>.
- Zombie Research Society. "Zombie North America." Last accessed January 3, 2014. <http://zombieresearchsociety.com/wp-content/uploads/2012/12/Zombie-North-America.jpg>.

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California