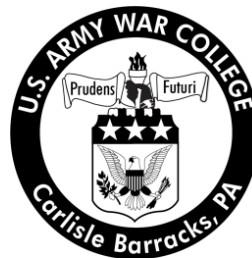


Strategy Research Project

Regional Response Structure in Support of Catastrophic Events

by

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United States Army War College
Class of 2013

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USAWC STRATEGY RESEARCH PROJECT

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Abstract

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The likelihood of catastrophic events is increasing due to a current weather trends, population growth concentrated in urban areas. The paper proposes a clear and actionable definition of catastrophe upon which to construct a relevant regional response structure to support catastrophic events. Using a historical context, it provides lessons learned that serve as a basis for recommendations to improve current processes. Disasters such as Hurricane Katrina have taught us that communication and response time must be improved. Analyzing current structures reveals that capabilities exist to respond but shortcomings exist in their design and scope to support catastrophic events. The paper provides five key recommendations to improve response, including: improving the clarity of the national response Framework-Catastrophic Incident Annex to respond to catastrophic events; developing an expanded mandate for the CBRNE enterprise to respond to “all-hazard” catastrophes; developing a regional Dual Status Command structure; improving utilization of the DART; and establishing a Domestic Response Force to enhance capabilities and increase speed of response. Rapid and effective federal response is needed.

Regional Response Structure in Support of Catastrophic Events

Disaster management is not a matter of reading a guide book and then showing up in the middle of a small town that has just been blown off the map by tornadoes or at an entire apartment building that has been swallowed by an earthquake.¹

—Michael D. Brown
Under Secretary for Emergency Preparedness & Response
And head of the Federal Emergency Management Agency
U.S. Department of Homeland Security

Since September 11th 2001, the United States Government has made many improvements to the response mechanisms available for terrorism. However, the effort to prepare the nation for domestic natural catastrophe response after Hurricane Katrina has not been as successful or complete. Many shortcomings that have yet to be remedied were identified in several studies, including those conducted by RAND Corporation,² the Government Accounting Office (GAO),³ and the US Congress.⁴ Meanwhile, the necessity for preparedness has continued to grow. According to the *2010 Quadrennial Homeland Security Review Report*, “Climate change will increase the severity and frequency of weather related hazards”⁵ in the future. Leon Panetta recently affirmed this, stating that “Rising sea levels, severe droughts, the melting of the polar caps, the more frequent and devastating natural disasters all raise demand for humanitarian assistance and disaster relief.”⁶ The *2010 Quadrennial Defense Review* states, “the United States must also be prepared to respond to the full range of potential natural disasters.”⁷

The United States must be better prepared to respond to catastrophes of all types. The purpose of this paper is to identify shortcomings in our current preparedness, as shown in recent significant domestic disasters. In response to these

shortcomings, the paper will propose the establishment of a regional organization for the military component of response to serious disasters or events of a catastrophic nature. This regional organization has the potential to provide a solution to many of the challenges faced by Department of Defense (DoD) in the future.

Studying the responses to large-scale disasters like Hurricane Katrina and Superstorm Sandy can provide lessons on which to base a regional military response organization. In addition, this paper will review findings from National Level Exercise 11 (NLE 11), which modeled a substantial earthquake along the New Madrid Fault. This exercise was developed to assess current structures and processes available to respond to an event of a catastrophic nature. The exercise demonstrated the extreme difficulty of a regional domestic catastrophe response, which requires fast and efficient actions to ensure safety of the population and protection of personal property and infrastructure, as well as providing for successful recovery operations. Lessons learned show that a flexible organization is required to effectively respond to major disasters. Such an organization should be able to respond and quickly adapt to meet unexpected challenges. To improve on the Department of Defense's capability to respond to catastrophes, this paper recommends capitalizing on current structures, modifying them when necessary, and augmenting their capabilities. The justification and deliberation of this proposal will be developed in two sections.

The first section of the paper establishes the need for a regional military organization capable of catastrophic response. This section will include a clear and actionable definition of catastrophe, provide a historical context for understanding lessons learned from the response and recovery efforts surrounding Hurricane Katrina,

and compare the catastrophic effects identified in NLE 11 with those found in Hurricane Katrina. These comparisons will reveal some significant differences between responding to disasters as opposed to the greater devastation anticipated in the wake of catastrophes.

The second section of the paper will use the lens of catastrophic response to examine the capabilities of four existing mechanisms that were established to support domestic disaster response. This exploration focuses on the capabilities of these current structures through the lens of catastrophic response and provide recommendations for improvement. The first mechanism considered is the Chemical, Biological, Radiological, Nuclear, High Explosive (CBRNE) enterprise, in order to determine its potential contributions in responding to catastrophes both inside and out of CBRNE concerns. Next, the paper will review the National Response Framework (NRF) and its Catastrophic Incident Annex (CIA). The Dual Status Command concept will also be discussed, as this structure exists to support command and control of both Title 10 and Title 32 forces in the face of profoundly heightened requirements. Discussions of the National Guard Bureau's Domestic All Hazard Response Team concept will demonstrate how it could be optimized to support catastrophic response. Finally, based on the shortcomings revealed in this examination, the paper recommends a new concept, the Domestic Response Force (DRF), which could be developed to provide immediate responders to any catastrophic incident.

Catastrophic Response – The Problem

The aftermath of Hurricane Katrina and Sandy, as well as the findings of NLE 11, show that the nation remains ill prepared to respond efficiently and effectively to the “upper end” of major disasters or catastrophic events. The military's shortfall is

reflective of, not exclusive from, a shortcoming of the “whole of government” approach to catastrophic response.

Defining Catastrophe

“Catastrophe,” in the emergency management community, remains a nebulous term whose ambiguous nature is an obstacle to developing effective response. Confusion relating to the term revolves mainly around the differences between catastrophe and disaster, and what elevates a disaster to catastrophic proportions. The key to a definition of catastrophe, in fact, is how it differs from what we have come to term as a disaster. Though these two terms are often used synonymously, current definitions suggest they differ markedly in scope and severity and, therefore, the response required. The government defines a “major disaster” as:

...any natural catastrophe (including any hurricane, tornado, storm, high water, wind driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance...to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.⁸

The fact that the government's definition for “major disaster” contains the word “catastrophe” as a descriptor points to the dilemma faced in drawing the distinction. However, as one imagines a tier of destruction above disaster-- in terms of size, severity and/or predictability-- the requirement for response takes on a different demeanor. The Department of Defense, for instance, introduces this distinction in their definition of catastrophic event:⁹

Any natural or manmade incident, including terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely

affecting the population, infrastructure, environment, economy, national morale, and/or government functions.¹⁰

This definition, however, has not completely clarified the distinction. In a recent memorandum for the secretaries of the military departments, the Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs (HD&ASA) requested the establishment of a definition of catastrophe which would include three key elements. First, the definition would consider the likely civil support challenges posed by catastrophes. Next, it would reflect that the capabilities of civilian agencies will be exceeded, perhaps from the outset. Lastly, the definition would establish thresholds and triggers to determine when an event is to be classified as a catastrophe.¹¹ These requirements are somewhat reflective of the six criterion suggested in an observation on catastrophe offered by renowned social scientist E.L. Quarantelli. He states:

In catastrophes most or all of a community built structure is impacted, including facilities of emergency response organizations. Local response personnel are unable to assume normal roles due to losses of personnel and/or facilities & equipment. Help from nearby or regional communities are not available because all are affected by the same event. Most, if not all, of the everyday community functions are sharply and concurrently interrupted. News coverage is more likely to be provided by national organizations over a longer period of time. National government and very top officials become directly involved.¹²

Drawing elements from the above, this paper proposes the following definition of catastrophe. The definition serves to effectively frame the challenges catastrophes could generate, and hence, key requirements needed to address them.

A catastrophe is a massively destructive event that manifests itself in a series of cascading effects across multiple critical infrastructure sectors. Potentially natural or manmade in origin, the event may defy political boundaries-- such as state or territorial borders-- may occur with little or no warning, and may be characterized by massive casualties and property damage. Catastrophes will result in immediate incapacitation of routine government functions, whose loss is of particular concern to response, mitigation and recovery operations.

Historical Context - Hurricane Katrina

Though Katrina failed to reach catastrophic proportions by the definition proposed in this paper, the scope of destruction and ensuing requirements suggests a working analogy for providing lessons learned. The response to Hurricane Katrina revealed several key shortfalls in our national response. While some of these shortfalls have since been addressed, other recommendations have yet to be fully implemented.

Numerous studies have identified that Katrina “almost immediately overwhelmed state and local first responders, and the response required outside action and support from many outside actors.”¹³ The Hurricane struck the Gulf Coast states of Louisiana and Mississippi as a category three hurricane in August of 2005. There are several reasons why it created such extensive damage to communities in Louisiana and Mississippi. First, it was an extremely powerful storm with hurricane force winds extending 103 miles from its center and tropical force winds 230 miles from its center. These sustained wind conditions affected over 93,000 square miles of the US, causing devastation far further inland than in previous storms. The size of this disaster clearly impacted the availability and capacity of regional responders who were needed to support local relief efforts. Secondly, in some places the storm created a massive storm surge that exceeded 30 feet and overtopped existing protective levee systems by several feet. These overtopped levees caused massive flooding through the majority of New Orleans, wreaking havoc on the population, infrastructure and property within the community, and limiting the capabilities of local responders due to loss of equipment and facilities. At the end of the storm, there was over \$96 billion dollars in damage to property and infrastructure, including the destruction of 300,000 homes. Lastly, it caused a significant loss of human life, killing an estimated 1,330 US citizens.¹⁴

Public outcry over the loss of life and damages caused by Katrina, as well as the perceived slow response by the government, resulted in multiple investigations. These reports provide many lessons from the events surrounding the response and subsequent recovery efforts. Several publications exploring the aftermath and response to Katrina are discussed in this section. These studies combine to highlight two distinct areas of concern that are significant to the focus of this paper: command and control, and improving response time.

Command and Control Issues

The bi-partisan Congressional report following Hurricane Katrina stated:

Government failed because it did not learn from past experiences, or because lessons thought to be learned were somehow not implemented. If 9/11 was a failure of imagination, then Katrina was a failure of initiative. It was a failure of leadership.¹⁵

“Disjointed” is the best description of the overall efforts during the response.¹⁶ The Congressional report summarized the response as “a failure of leadership at all levels of government”¹⁷ which created significant challenges to the effectiveness of response. In a separate report, the GAO provided four key factors demonstrated during response operations to Katrina that can be loosely encapsulated under the umbrella of command and control. These key factors are the failure of situational awareness, communication difficulties, ineffective integration of military forces, and uncoordinated search and rescue efforts.

The first of these factors was “a failure to quickly assess the damage and gain situational awareness.”¹⁸ This failure caused the military to begin “organizing and deploying its response without fully understanding the extent of damage or the required assistance.”¹⁹ The next issue identified was communication difficulties. The

overwhelming impact of the hurricane caused massive damage to the communication infrastructure in Louisiana and Mississippi.²⁰ This exacerbated the challenges of achieving situational awareness because it was extremely difficult to communicate completed assessments. This lack of information contributed to breakdowns in decision making. However, this should not have served as an excuse. Leaders in domestic response, just as in other areas, need to be empowered and capable of making decisions dictated by necessity, regardless of the amount of information available. A good example of decision making, when lacking sufficient information, is the one that President Johnson made in determining whether to escalate the involvement of the United States in Vietnam, maintain the current situation, or to decrease US involvement. During deliberations, there were several unknowns, such as the intentions of the North Vietnamese, and the reactions of China and the Soviet Union to the escalation of US involvement. These critical unknowns did not hinder President Johnson from making a choice to escalate.²¹

Communication challenges also led to the delay in requests for assistance from outside agencies in response to Katrina. General H. Stephen Blum, then Chief of the National Guard Bureau, stated in Senate testimony that “he wished he had been quicker to move the command and control (C2) elements of the National Guard division headquarters.”²² He believed that an earlier deployment of the division headquarters could have greatly improved the C2 capability during the response efforts.

The third issue was that DoD had difficulties integrating military forces responding to the event. This was attributed to the overall lack of planning and exercising this level of response by military forces. In fact, “a Louisiana plan to integrate

military responders from outside the state called for the reception of not more than 300 troops per day.”²³ Failure to provide for the massive flow of support, which exceeded fifty thousand National Guardsmen, led to ineffective reception, staging, onward movement, and integration (RSOI) of forces into the operation.²⁴

The fourth issue identified was that search and rescue efforts were uncoordinated. “No one had the total picture of the missions that had been resourced and the missions that still needed to be performed.”²⁵ This was primarily because the integration of all entities providing these services was not coordinated effectively. This led to duplication of effort and ineffective response to the needs of the populace.

Speed of Response

When disaster strikes, the presence of responders and the speed of their response is arguably the most significant factor for residents in the affected areas. The RAND study found that there was a significant delay in military responses to the region that could be attributed to several issues.²⁶ The first contributing factor was that the types of units that were provided were not based on an analysis of need, but solely on getting available Soldiers in place. This led to a substantial degree of inefficiency once units arrived on the scene. In many cases, this limited the number of Soldiers that were trained and equipped to conduct operations needed to meet mission requirements. A second factor in the delayed response time was that “not all of each state’s National Guard units were available.”²⁷ This lack of availability can be attributed to several issues, the first of which was overseas deployments. For example, both Louisiana and Mississippi had Brigade Combat Teams (BCTs) redeploying from Iraq during Katrina. These deployed forces accounted for a significant portion of both states National Guard forces. Additionally, states that had been requested to support response to Katrina had

other in-state requirements to support, which limited the available forces. The number of available Soldiers varied by state, but averaged about 75%.²⁸ The final factor identified which reduced the speed of response for National Guard units were the limitations contained at the time in 10 USC §12304 which limited “DoD's Reserve and National Guard units and members from being involuntarily ordered to federal active duty for disaster response.”²⁹ The fact that all reservists responding to Katrina had to be volunteers led to delays in the arrival of critical personnel.

For the remainder of DoD, the delay in response was primarily due to the decision to wait until five days after landfall of the hurricane to deploy significant ground forces. It is likely that this was due to the fact that “civilian and military decision makers throughout the government apparently judged that the projected flow of National Guard [Soldiers and units] would be sufficient.”³⁰ These delays contributed to the overall perception that DoD forces were slow to respond to this event. The observation, attributed to Lee Atwater, that “perception is reality”³¹ generates a need to ensure proactive efforts to manage perceptions of the response early in the event by effectively engaging the media. In future catastrophes, this will assist in meeting the challenge to increase public safety and security and provide an added sense of security.

National Level Exercise 2011

The NLE 11 was a Tier 1 exercise conducted by the Federal Emergency Management Agency (FEMA) as a part of their National Exercise Plan. The exercise was designed around an interagency and intergovernmental response to a magnitude 7.7 earthquake along the New Madrid Fault, near the intersection of the Missouri, Kentucky, Arkansas and Tennessee borders. This event demonstrated to the organizations involved that there are several key differences between a disaster and a

catastrophe that point to a need to develop greater response mechanisms. “Complex catastrophes differ both quantitatively and qualitatively from ‘normal disasters’ (i.e. Katrina-scale and below).”³² These differentiations lead one to believe that DoD and others are beginning to understand the implications for catastrophic response. A presentation from the Office of the Assistant Secretary of Defense for Homeland Defense and Americas’ Security Affairs, identified several key implications for support from DoD, to include: larger requests for defense support, including scarce assets such as medical support; an intense political environment; and challenges for joint RSOI.³³ In order to be prepared to respond to this level of incident, changes to the current process must be made.

Current Structures

There are a multitude of structures, agencies and organizations that will be called upon to play a role in catastrophic response. This paper will examine four key entities that will unquestionably play such a role: the National Response Framework; the Dual Status Command concept; the Domestic All Hazard Response Team (DART); and the Chemical, Biological, Radiological, Nuclear, High Explosive (CBRNE) enterprise.

Although an in-depth analysis of these entities is beyond the scope of this paper, an examination of what they could provide to a catastrophic event response establishes the background in support of the paper’s recommendations.

National Response Framework- Catastrophic Incident Annex

The NRF has been called a product of trial and error to establish a national strategy for homeland security response.³⁴ The NRF was developed partially in response to shortfalls identified in the National Response Plan during Hurricane Katrina in the areas of integrating preparedness and response authorities.

One can argue that response to Hurricane Sandy in 2012, another higher end disaster, demonstrated the efficacy of the NRF. Still, additional challenges are envisioned if an event is elevated to catastrophic proportions. There are several key issues with the current National Response Framework-Catastrophic Incident Annex (NRF-CIA) that must be addressed.

One key issue that remains a stumbling block for the NRF, as identified by the Congressional Research Service (CRS), is the overemphasis of planning for terrorist attacks (manmade events) as opposed to natural catastrophes. CRS reports “it is possible that planning for terrorism underemphasizes preparedness for natural disasters.”³⁵ One can argue that current DoD force structure demonstrates this overemphasis in the development of response mechanisms to support manmade disasters, but not natural disasters. The justification for this assertion lies in the fact that DoD does not have standing response forces for natural catastrophes, but does possess standing organizations for response to manmade events. These include: the Homeland Response Forces (HRF); Weapons of Mass Destruction - Civil Support Teams (WMD-CST); CBRNE Enhanced Response Force Packages (CERFPs); Defense CBRNE Response Force (DCRF); and the Command and Control Chemical, Biological, Radiological, Nuclear Response Elements (C2CRE). Though the National Guard does have forces available and trained to respond beyond these for “all-hazards events,” they are not standing forces with the focused mission of providing for natural catastrophes.

Additional challenges with the NRF- CIA have been identified. The first of these is the framework's tiered approach, which escalates from local, state, to federal

response efforts when each preceding level reaches its culmination point. While this sequenced response has served us well in responding to disasters within a state, it fails to provide for the next ‘tier of destruction’ that comes with a catastrophe that immediately overwhelms the lower levels of government. Similarly, the NRF-CIA frames federal support in the context of individual states, not a broader area. Lastly, the NRF-CIA is dependent upon the foundational capabilities of local first responders. Using the definition of catastrophe provided earlier in this paper, all three of these challenges would lead to slower than required response. In fact, “[T]he federal government usually needs 72 hours to marshal national resources to respond to an incident that has surpassed a state’s response capacity.”³⁶ In a catastrophe, by definition, the state and local authorities will be immediately overstressed, limiting the quick response normally provided by those agencies. Because of this, there must be planned structures to provide support during the critical 72-hour gap immediately following a major disaster or catastrophe.³⁷ This vital gap is not sufficiently addressed in the NRF-CIA.

The NRF-CIA should be revised to include key additional guidance and clarity to provide for successful catastrophic response. The first recommended revision is that the new definition of catastrophe in this paper should be adopted to drive the additional detail and organizational structure needed. As alluded to above, the NRF-CIA currently fails to recognize immediate overwhelming impact to local and state capabilities within its definition of catastrophe, instead choosing the terms “almost immediately.”³⁸ The framework should include guidance, as clear as possible, for federal response when local, state, tribal and territorial capacity is immediately overstressed, and the traditional “tiered approach” (i.e., Local-State-Federal) is not an option. In addition, federal

support must be optimized to support requirements across established political boundaries. Though the NRF recognizes that “significant incidents require a coordinated response across agencies and jurisdictions, political boundaries, sectors of society, organizations, etc”³⁹ it does not provide the accompanying insights as to how coordination across these boundaries might best be achieved. In its current construct, the NRF is effective in response to single state requirements, but falls short of providing for regional crises with regional support. These shortcomings must be corrected in terms of an “all - hazard” approach – focused equally on natural or manmade catastrophes, whether accidental or deliberate.

CBRNE Enterprise

In approaching these challenges to the NRF, one of the key issues that compromises effective catastrophic response is the NRF’s overemphasis on the development of response mechanisms in support of civil authorities for CBRNE type events. The Department of Defense has established a credible and valuable asset to respond to manmade disasters and catastrophes in the CBRNE enterprise.

As previously alluded, this enterprise includes five units that provide a significant capability in responding to manmade catastrophes. Three of these reside in the National Guard force structure: WMD-CSTs, HRFs and CERFPs. Two other elements of the CBRNE enterprise reside in the active component, namely the DCRF and the C2CRE. The current construct of the enterprise is displayed in figure 1.

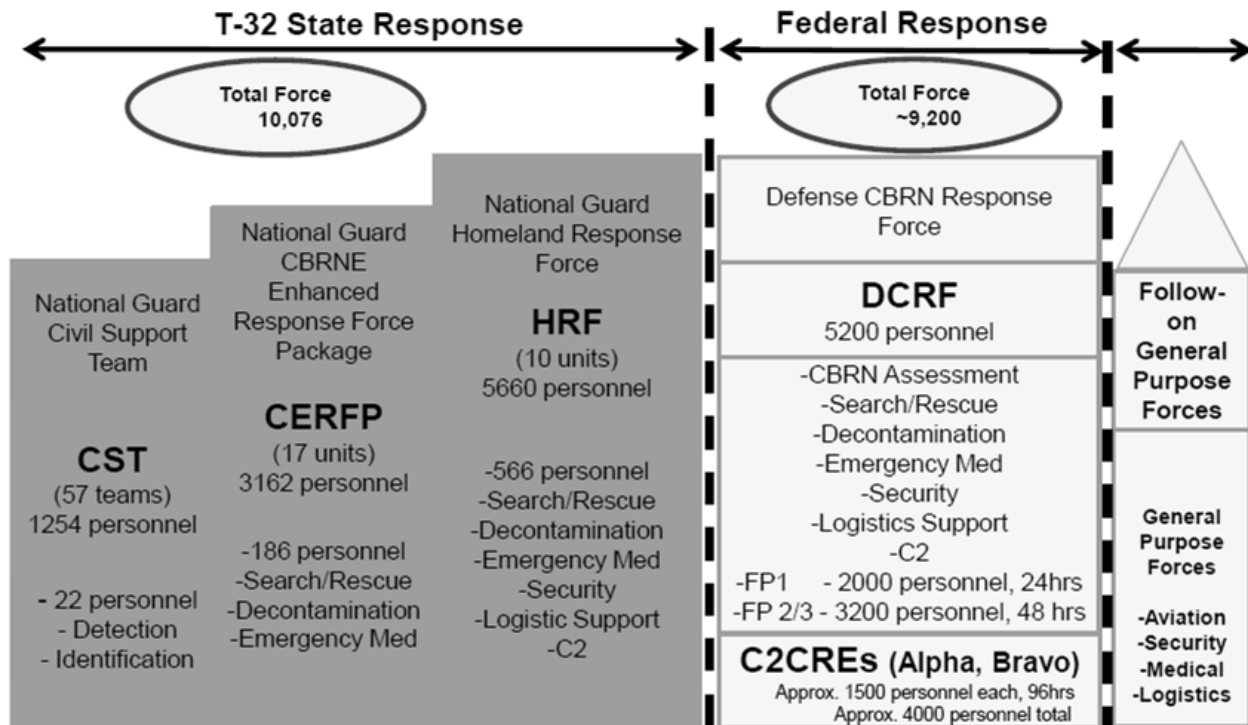


Figure 1.⁴⁰

These elements are uniquely designed and trained to respond quickly and effectively to CBRNE incidents, but could also provide significant value in an immense conventional endeavor. The enterprise was designed to possess many of the key capabilities that could prove useful to natural, in addition to manmade, catastrophic incident response. Those capabilities include conducting assessments, search and extraction, emergency medical capabilities, command and control, and security.

For example, assessment capabilities could be extended through additional training, to include supporting state emergency management personnel responsible for conducting an initial ground assessment in a catastrophe. This is a tremendously beneficial aspect to response as it is critical in getting the right capabilities to the right place at the right time.

Another benefit of the enterprise, particularly as it pertains to the HRFs, is its positioning across the nation, facilitating support to every FEMA region. This would provide tremendous value to the coordination and exercise participation of the initial response force if the HRF were to be engaged in this capacity. Because of their capability to conduct C2 operations, these forces could provide a key element in the initial regional response to all catastrophic events.

As pointed out by the National Guard Bureau, having 10 Homeland Response Forces and 17 CERF-P's positioned across the United States means that 98% of the country's population is within 5 hours of receiving support as crises require.⁴¹ Their regional proximity reinforces the benefit of including them to serve as a nucleus around which to build the regional response framework. The current intent of HRFs is clearly stated:

To provide a CBRNE response capability in each FEMA region that is able to provide timely life-saving capabilities within the first 48 hours of a CBRNE event, and to establish when necessary a regional C2 structure in order to synchronize all SAD/Title 32⁴² CBRNE response forces including Civil Support Teams (CST), CBRNE Enhanced Response Force Packages (CERFP) and prepare for follow-on forces.⁴³

A recommendation to revise this intent could include an extension to natural catastrophic incident response.

Another key capability that these elements could offer is the medical personnel that reside within their structure, in order to conduct triage and other supplementary medical support. Lessons learned from NLE 11 indicated that it is exceedingly likely that DoD will be requested to provide significant levels of medical support in the event of genuine catastrophe. Having this capability within the initial response could reduce loss of life and human suffering.

The last and perhaps most significant capability provided by the CBRNE enterprise are the communication systems that exist within their Modified Table of Organization and Equipment (MTOE). The WMD-CST's Unified Command Suite, for instance, contains radio, phone, data, and video capabilities. Similar C2 capabilities can be found throughout the CBRNE enterprise.

Given the capabilities of these units and their established relationships within the ten FEMA regions, it makes sense to employ the CBRNE enterprise in response to “all-hazard” catastrophes.

Dual Status Command Concept

The dual status command concept is a relatively new one that with some revision could address problems that grew out of disjointed military response during Katrina, and expanded during NLE 11. The dual status commander was designed to ensure a single chain of command for Title 10 and Title 32 National Guard forces, normally placing both under the indirect purview of the state governor. This construct was recently tested in Hurricane Sandy and received extremely positive reviews. US Northern Command commander Army Gen. Charles H. Jacoby Jr., when asked about the effectiveness of the DSC concept, commented that “[T]he response to Superstorm Sandy reaffirmed the value of a new command structure.”⁴⁴ In fact, he called it “one of the most important initiatives to improve defense support of civilian authorities in more than a decade.”⁴⁵ The DSC construct has substantial utility where state level structures exist in the aftermath of a disaster. However, one could predict that a broader structure with expanded capabilities would be required due to the regional nature that is most likely given the size and scope in a catastrophic event.

“A multiple state response gives rise to several challenges, including ensuring limited resources are appropriately shared among states during a regional event, in accordance with priorities established by states and a Lead Federal Agency.”⁴⁶ This statement captures the essence of the problem created when the catastrophe crosses state borders. In order to ensure preparedness, DSC should be expanded to provide the capability to support effective command and control to regional level responses.

A proposal to provide the DSC structure for a regional catastrophe would engage two key elements. The first of these elements, as previously mentioned, is the CBRNE enterprise. In this proposal, the nearest unaffected HRF could serve as the core of the initial response organization under a specially designated Regional Dual Status Commander (RDSC). This designation would, of course, require advance memorandums of understanding (MOUs) or an Emergency Management Assistance Compact (EMAC) between regional governors, but would be a logical extension of the current structure. Training and certification would require little more than is currently conducted by the U.S. Northern Command and the National Guard Bureau. Likewise the formal “dual-certification” between the governors and the President would follow in reasoned progression, designed with the end goal of improving effectiveness and speed of response to catastrophic events. Under this model, the dual-command would fulfill immediate response requirements, and would be relieved when the individually affected states’ National Guard had regained capacity to resume these responsibilities.

The means to support the RDSC, of course, will be drawn from both active and reserve components; but one particular organization that can be deliberately directed to the regional response will be the DART.

Domestic All Hazard Response Team (DART)

“The Domestic All-Hazards Response Team (DART) establishes scalable capability based force packages that when coordinated by Chief of National Guard Bureau and with consent of the Adjutants General, mobilize and deploy to an affected area in order to meet identified capability gaps.”⁴⁷ The DART:

Utilizes the unique capabilities of a division headquarters for planning and coordinating the employment of units. Each DART identifies force packages based on the National Guard Bureau’s ten essential capabilities. These capabilities include command and control (JFHQs for Joint integration with air assets), logistics (property, finance, and maintenance), aviation, military police, engineer, transportation, medical, chemical (with access to one or more CSTs), maintenance capabilities, and signal assets. The DART is divided along FEMA regional boundaries and is well positioned for interagency response.⁴⁸

As an expanded headquarters element for the envisioned Regional Dual Status Commander, the DART could provide a set of capabilities and capacities that could be used to support regional level C2 in a catastrophic event. “The DART mission designates two Guard divisions, every two years, for planning and command and control in the event of an emergency in the United States.”⁴⁹ One is charged with primary response requirements for the western portion of the US; and the other for the eastern portion. The DART is currently designed to serve as a force multiplier during events that exceed the capabilities of individual states and can be augmented by units to provide needed capabilities. “The DART construct is a ‘Pull’ rather than ‘Push’ concept.”⁵⁰ Rather than suffering the delays associated with requests through the traditional NRF process, the DART could orchestrate pre-designated forces, trained, equipped, and enabled for domestic response.

The DART could greatly enhance initial C2 capability in an incident of the proportions and intensity envisioned in this paper. This, too, would require advance

EMAC agreements or MOUs from states located within the area of response for the responsible DART. This envisioned response mechanism would provide an essential means of command, control, cooperation and coordination (C4) between USNORTHCOM and the independent state level DSCs. Developing this design would provide proper and equitable asset allocation and reduce the span of control for USNORTHCOM.

Domestic Response Force

Thus far, this paper has focused primarily on developing C2 assets to integrate, coordinate and control the military component of response to a catastrophic event. As defined in this paper, such an event will in all likelihood place local, tribal, territorial, and state level responders in predicaments beyond their capabilities and/or capacities. Therefore, DoD needs to be prepared to provide assets to respond quickly to save lives and mitigate further destruction. To achieve these ends, an active component response force modeled after the Global Response Force (GRF) is recommended. The GRF, which is responsible for deploying a brigade anywhere in the world in 18 hours, must “be ready to deploy anytime, anywhere around the globe... to accomplish our nation's objectives.”⁵¹ This paper proposes a similar construct be developed for “upper end” requirements in the homeland.

Using the GRF construct, DoD could create a Domestic Response Force that would be responsible for responding to the needs of the nation following major disasters and/or catastrophic events, and focused especially on bridging the gap between local and federal response. This Domestic Response Force could be created using the current modular design of DoD forces to suit requirements. These requirements could be based off the current 10 essential capabilities for National Guard domestic

operations. This force could be sourced for the DRF just as units are currently identified for the GRF. Doing so would give the unit the necessary time to conduct training for its personnel, establish key relationships within the emergency management community, and participate in exercises. The DRF would be responsible for responding anywhere in the United States within the same 18 hour window as the GRF's global commitment, and serve until sufficient responders were available from other sources. Though this may have been more difficult or impossible when the nation was engaged in Iraq and Afghanistan, the ongoing drawdown from those theaters may provide resources and personnel for consideration. Two DRFs to accompany the identified C4 mechanisms contained in the RDSC's DART would significantly enhance the military's capability to serve the needs of the citizenry in the face of catastrophes.

Conclusion

Assistant Secretary of Defense Stockton's memorandum may have understated the case when he declared that "the demand for Department of Defense Support of Civil Authorities would be unprecedented"⁵² following a genuinely catastrophic event. This paper attempts to facilitate DoD's support by providing a clear and decisive definition of catastrophe upon which to act. Against a historical context, it recounted lessons learned that provide a basis for recommendations to improve current processes. Current structures were also analyzed to provide clarity on some of their key capabilities and weaknesses, and to provide five key recommendations to improve response. These recommendations included improving the clarity of the National Response Framework-Catastrophic Incident Annex to respond to catastrophic events; provided an expanded mandate for the CBRNE enterprise to respond to "all-hazard" catastrophes; called for developing a Regional Dual Status Command structure; laid out provisions for

improving utilization of the DART as a part of that command structure; and further called for the establishment of a Domestic Response Force to enhance capabilities and increase speed of response. The future is uncertain, catastrophic events are inevitable. Rapid and effective federal response is needed.

Endnotes

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⁶ Larry Bell, "Defense Secretary Panetta on Defensive Over Global Climate Warm-Mongering," May 13, 2012, <http://www.forbes.com/sites/larrybell/2012/05/13/defense-secretary-leon-panetta-on-defensive-over-global-climate-warm-mongering/> (accessed November 7, 2012)

⁷ Robert M. Gates, *Quadrennial Defense Review* (Washington, DC: U.S. Department of Defense, February 2010), 18.

⁸ Federal Emergency Management Agency, *Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, and Related Authorities*, (Washington, DC: Federal Emergency Management Agency, June 2007), http://www.fema.gov/pdf/about/stafford_act.pdf, Pg 2 (accessed January 23, 2013).

⁹ United States Deputy Secretary of Defense Ashton B. Carter, "Definition of the Term Complex Catastrophe," Memorandum for the Secretaries of the Military Departments, Washington, DC, February 19, 2013. In this document the Deputy provides a definition of complex catastrophes that supports the definition that has been presented in this paper. The definition used is "Any natural or man-made incident, including cyberspace attack, power grid failure, and terrorism, which results in cascading failures of multiple, interdependent, critical, life-sustaining infrastructure sectors and causes extraordinary levels of mass casualties, damage,

or disruption severely affecting the population, environment, economy, public health, national morale, response efforts, and/or government functions.

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¹³ U.S. Government Accountability Office, *Catastrophic Disasters: Enhanced Leadership, Capabilities, and Accountability Controls Will Improve the Effectiveness of the Nation's Preparedness, Response, and Recovery System*, (Washington, D.C: U.S. Government Accountability Office, September 6, 2006), Executive Summary.

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¹⁵ U.S. Congress, House of Representatives, Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina*, 109th Congress., 2nd sess., February 15, 2006, xi.

¹⁶ Ibid., 195.

¹⁷ "Still unprepared: Senators' report finds FEMA a failure at all levels," April 30, 2006, <http://www.courierpress.com/news/2006/apr/30/still-unprepared-senators-report-finds-fema-a-at/> (accessed January 24, 2013)

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²⁰ Ibid.

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²³ Ibid., 6.

²⁴ Davis, *Hurricane Katrina*.

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²⁶ Davis, *Hurricane Katrina*, 26.

²⁷ Ibid.

²⁸ Ibid., 27.

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³⁰ Davis, *Hurricane Katrina*, 36.

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³² Office of the Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs, "Defense Support in Complex Catastrophes," briefing slides provided by Professor Bert Tussing, February 1, 2013, 3.

³³ Ibid.

³⁴ Bruce R. Lindsay, *The National Response Framework: Overview and Possible Issues for Congress* (Washington, DC: U.S. Library of Congress, Congressional Research Service, November 20, 2008), CRS-4.

³⁵ Ibid., CRS-13.

³⁶ Jill D. Rhodes and James Jay Carafano, "State and Regional Responses to Disasters: Solving the 72-Hour Problem," *Backgrounders*, August 21, 2006, 1.

³⁷ Ibid.

³⁸ Janet Napolitano, *National Response Framework, Catastrophic Incident Annex*, (Washington, DC: U.S. Department of Homeland Security, November 2008), CAT-1.

³⁹ Janet Napolitano, *National Response Framework*, (Washington, DC: U.S. Department of Homeland Security, January 2008), 15.

⁴⁰ COL Heinrich Reyes, "CBRNE Response Enterprise" March 14, 2012, <http://www.dtic.mil/ndia/2012CBRN/Reyes.pdf> (accessed February 28, 2013).

⁴¹ RAND Corporation, "National Guard Homeland Response Force (HRF)," March 17, 2010, <http://www.rand.org/content/dam/rand/www/external/nsrd/DoD-CBRNE-Panel/panel/meetings/20100317/D-2-National-Guard-Homeland-Response-Force-Overview.pdf> (accessed December 19, 2012)

⁴² A brief explanation of the different statuses that are available to support Defense Support to Civil Authorities (DSCA) is provided for clarity. State statutes and policies provide governors the ability to activate (in the case of emergency) and pay for Soldiers using State Active Duty

(SAD). Under SAD Soldiers are not subject to Posse Comitatus and are under the command and control of the governor. In this status funding is provided by the state. Title 32 status differs in that in this status Soldiers are paid for by the US government and can only be called up by the President or Secretary of Defense and only with the consent of the state governor. These forces remain under the command and control of the governor.

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⁴⁴ Donna Miles, "Sandy Response Reaffirms Value of Dual-status Commanders," *January 11, 2013*. <http://www.defense.gov/News/NewsArticle.aspx?ID=118975> (Accessed January 29, 2013)

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