



**NAVAL
POSTGRADUATE
SCHOOL**

MONTEREY, CALIFORNIA

THESIS

**COORDINATION AND COOPERATION:
EVALUATING WHOLE-OF-GOVERNMENT RESPONSE**

by

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June 2023

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REPORT DOCUMENTATION PAGE			<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.			
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE June 2023	3. REPORT TYPE AND DATES COVERED Master's thesis	
4. TITLE AND SUBTITLE COORDINATION AND COOPERATION: EVALUATING WHOLE-OF-GOVERNMENT RESPONSE		5. FUNDING NUMBERS	
6. AUTHOR(S) Jason S. Strickland			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES 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.			
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.		12b. DISTRIBUTION CODE A	
13. ABSTRACT (maximum 200 words) During national crises, disasters, or international humanitarian incidents, DHS develops and implements response plans that coordinate the strengths of each component agency. Doing so requires agencies to develop and implement a command-and-control structure that maximizes combined strengths for a multi-agency response. This research investigates how DHS component agencies can combine capabilities to respond to situations requiring the whole of government (WoG). It identifies the challenges and benefits of response structures used for three WoG responses and finds that the existing structures in the WoG response cases presented structural barriers to collaboration and deployment of personnel, generating an inefficient response. This research recommends the creation of standardized processes that all responses share.			
14. SUBJECT TERMS federal response planning, whole of government, WoG, coordination, organizational structure, response structure		15. NUMBER OF PAGES 85	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

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**COORDINATION AND COOPERATION:
EVALUATING WHOLE-OF-GOVERNMENT RESPONSE**

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

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**NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

During national crises, disasters, or international humanitarian incidents, DHS develops and implements response plans that coordinate the strengths of each component agency. Doing so requires agencies to develop and implement a command-and-control structure that maximizes combined strengths for a multi-agency response. This research investigates how DHS component agencies can combine capabilities to respond to situations requiring the whole of government (WoG). It identifies the challenges and benefits of response structures used for three WoG responses and finds that the existing structures in the WoG response cases presented structural barriers to collaboration and deployment of personnel, generating an inefficient response. This research recommends the creation of standardized processes that all responses share.

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LIST OF ACRONYMS AND ABBREVIATIONS

DHS	Department of Homeland Security
ESF	Emergency Support Function
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
IAP	Incident Action Plan
IC	Incident Commander
JTTF	Joint Terrorism Task Force
NIMS	National Incident Management System
NJTTF	National Joint Terrorism Task Force
NRF	National Response Framework
OAW	Operation Allies Welcome
SCF	Surge Capacity Force
UCG	Unified Command Group
USFWS	US Fish and Wildlife Service
WoG	Whole-of-Government

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EXECUTIVE SUMMARY

Problem Statement:

Congress formed the Department of Homeland Security (DHS) in the wake of the 9/11 attacks to protect the nation's people, infrastructure, and borders. The DHS comprises over 240,000 employees in 22 separate agencies, making it one of the largest agencies in the executive branch.¹ During national or international crises and disasters the DHS develops and implements response plans that coordinate the strengths of each agency. Doing so requires the agencies to develop and implement a command-and-control structure that maximizes combined strengths for a multi-agency response.

As the nation manages many major incidents of increasing complexity, requiring assets and capabilities from multiple agencies, responding agencies' abilities to complete their core mission is diminished. Further compounding the challenge presented by the increasing demands is the lack of formalized structure that clearly defines the roles and responsibilities of each responding agency. Because of this lack of a formalized structure, each response is unique, which reduces the ability of leaders to determine best practices. These factors suggest that a group with members representing each component agency would be best suited to oversee future responses.

Cases Reviewed:

The thesis examines three cases that required a whole-of-government response across multiple agencies: Hurricane Harvey, Operation Allies Welcome (OAW), and the 2010 Chilean Mining Rescue. Using a comparative case analysis approach, this research compares DHS's Hurricane Harvey response to OAW and the 2010 Chilean Mining Rescue. The researcher selected these cases because of their response type (natural disaster, humanitarian crisis, and technical rescue operation) to identify commonalities in response structures that span multiple professional disciplines.

¹ "About DHS," Department of Homeland Security, accessed March 8, 2022, <https://www.dhs.gov/about-dhs>.

Hurricane Harvey was the first major hurricane to strike the United States since 2005, causing major damage in the greater Houston, Texas area and severe flooding and property damage in Louisiana, Mississippi, Tennessee, and Kentucky. FEMA used the National Response Framework developed after Hurricane Katrina, activating the Emergency Support Functions to mobilize personnel from across DHS. Despite the availability of many DHS resources, responding personnel were forced into roles that did not maximize their primary skill sets, causing confusion and inefficacy, especially during the response phase. Bureaucratic obstacles surrounding the integration of multiple agencies and jurisdictions into a cohesive effort and the lack of coordination between the responding Federal, State, and local agencies created inefficiencies which ultimately slowed the response.

Unlike a natural disaster, OAW was a humanitarian crisis where thousands of refugees needed immediate evacuation from Afghanistan and resettlement assistance in the United States. To accomplish this massive undertaking, DHS was named the Unified Command Group (UCG) lead agency to bring together personnel from across the federal government. At a national command level, the UCG streamlined decision-making at the Department level, but at the individual processing centers, organizations did not work in a unified or coordinated fashion and personnel had to perform secondary functions.

The researcher analyzed the 2010 Copiapó mining disaster to provide a comparative perspective because of this response's similarity in scope, the whole of government (WoG) nature of the response, and the 90 days of duration like Hurricane Harvey. This scenario used rapid teaming to respond quickly to events as they unfolded, empowering decision-makers at all levels of the response and taking ownership of public communication. Further, this example provides additional techniques adaptable to situations that the United States will likely face in the future, such as maximizing public-private partnerships rather than relying solely on the public sector.

Recommendations:

First, the researcher recommends DHS identify a team of senior leaders representing each component agency that will evaluate situations as they arise: this team

should be empowered to allocate personnel, designate authorities, and communicate their vision across the government and with the public during times of crisis. This team should report directly to the DHS Secretary rather than leadership within their home agencies and should serve as the experts on the capabilities of their agency's components and response readiness. The team's ability to operate independently, free of interference from individual agencies, is critical to the success of future responses.

Second, during a WoG response, DHS should formalize the practice of delegating authorities between agencies. Doing so will streamline operational and logistical challenges by using the unique statutory authorities possessed by the agencies in the department. Granting authority to act in a different role is a long-standing practice in times of crisis, but it is not used as often as needed.

Third, DHS should identify personnel within each agency to serve as a ready deployment force. This group would comprise personnel deployable on short notice anywhere in the United States or its Territories. This force should cross-train with other component agencies to foster critical understanding of everyone's role in responses, develop relationships, and build a common language for interagency collaboration.

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ACKNOWLEDGMENTS

I want to express my deepest gratitude to my family for their unwavering support throughout my academic journey. Their love, encouragement, and sacrifices have allowed me to pursue my dreams and achieve this significant milestone in my life.

I am also immensely grateful to my colleagues and classmates, who have been a source of inspiration and motivation for me. Their insightful discussions, constructive feedback, and shared experiences have enriched my learning and helped me grow personally and professionally.

I extend my heartfelt appreciation to the Naval Postgraduate School's Center for Homeland Defense and Security faculty, whose guidance, expertise, and mentorship have been invaluable to me. Their dedication to teaching and research has inspired me and helped me develop a deep appreciation for the discipline.

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I. INTRODUCTION

A. PROBLEM STATEMENT

Congress formed the Department of Homeland Security (DHS) in the wake of the 9/11 attacks to protect the nation's people, infrastructure, and borders. DHS comprises over 240,000 employees in 22 separate agencies, making it one of the largest agencies in the executive branch.² During national and international crises and disasters the DHS develops and implements response plans that coordinate the strengths of each agency. Implementing a multi-agency response requires agencies to develop and implement a command-and-control response structure that maximizes their combined strengths. This structure is vital to meet the logistical needs of responders and maximize the effectiveness of the personnel responding to incidents. This thesis examines three recent multi-agency responses (the US government's response to Hurricane Harvey and Operation Allies Welcome (OAW), and the Chilean government's response to the 2010 Copiapó mining accident) to explore the benefits and challenges associated with different interagency response structures during events that require coordination across the whole-of-government (WoG).

Deloitte defines a WoG response as “a comprehensive way to assemble resources and expertise from multiple agencies and groups to address problems with interrelated social, economic, and political causes.”³ Emergencies often require a WoG response when no single department or agency possesses the necessary resources or authorities to provide a resolution. The DHS has used a WoG response to recent crises such as OAW, Hurricane Harvey, and the migrant caravans at the southwest border.

Research reveals different response structures for WoG responses, and these differences influence outcomes. Willison and his colleagues examine how the government

² Department of Homeland Security.

³ Mary Worzala, Craig VanDevelde, and Jessica Kuntz, *Deploying the Whole of Government: How to Structure Successful Multi-Agency International Programs* (New York: Deloitte Center for Government Insights, 2017), 01, <https://www2.deloitte.com/us/en/pages/public-sector/articles/deploying-the-whole-of-government.html>.

allocated monies and personnel during the 2017 hurricane season.⁴ They find that each response to the hurricanes during the 2017 season varies greatly.⁵ Their research concludes that the responses widely diverged in structure, but not because of the severity of the storms.⁶ They do not identify a singular reason for the differences in responses. Still, they conclude that “what cannot be contested is that the responses were, in fact, different across critical time points, and these differences have serious consequences for acute and long-term health outcomes and recovery efforts.”⁷ A better understanding of these differences and associated outcomes can guide recommendations for a more effective and repeatable structure.

OAW provides another possible structure, the Unified Command Group (UCG), for a WoG response due to the size and complexity of the operation. By bringing together personnel from across the government working with the military and international partners, the UCG successfully employed the unique authorities of the responding agencies.⁸ The use of law enforcement functions at Ft. Pickett, VA, during OAW illustrates this capability. The UCG designated the state-owned National Guard base as a temporary federal facility and detailed six Federal Protective Service (FPS) personnel responsible for securing federal buildings at the base. It then delegated the FPS Authorities to 30 additional federal law enforcement officers from other DHS agencies to serve in the police force. This example depicts how a defined structure can allow leaders to evaluate the authorities of a given agency and delegate those authorities to other component agencies to act as a force multiplier.

Willison and his colleagues show that the government responds differently to each event, even with similar incidents. OAW demonstrates that a structured response can allow

⁴ Charley E. Willison et al., “Quantifying Inequities in US Federal Response to Hurricane Disaster in Texas and Florida Compared with Puerto Rico,” *BMJ Global Health* 4, no. 1 (2019): 1–6, <https://doi.org/10.1136/bmjgh-2018-001191>.

⁵ Willison et al.

⁶ Willison et al.

⁷ Willison et al., 5.

⁸ “DHS to Serve as Lead Federal Agency Coordinating Efforts to Resettle Vulnerable Afghans,” Department of Homeland Security Press Releases, August 29, 2021, <https://www.dhs.gov/news/2021/08/29/dhs-serve-lead-federal-agency-coordinating-efforts-resettle-vulnerable-afghans>.

leaders to rapidly identify the capabilities and authorities of the responding agencies and help them achieve a common goal. However, which formal structures and cross-designation rules would be appropriate across different circumstances remain unclear. This thesis examines how governments organized responding agencies in cases of WoG response and explores the commonalities between those responses to identify the benefits and challenges of the organizational structures used. It analyzed the benefits and challenges of the existing structures to make recommendations on how to structure future responses.

B. RESEARCH QUESTIONS

How can DHS component agencies be organized to combine authorities and capabilities to respond to situations requiring the WoG? What are the benefits and challenges of response structures used for WoG responses?

C. LITERATURE REVIEW

This literature review examines domestic and international response structures related to crises that involve multiple jurisdictions or agencies. Despite considerable literature on domestic multi-agency organizations and global transboundary responses, literature on the domestic response structure and the use of agencies' unique authorities is limited. Literature related to domestic multi-agency organizations, the Federal Bureau of Investigation (FBI)'s Joint Terrorism Task Force (JTTF), and the DHS-sponsored Fusion Centers provide insight into how they are structured and the effects of that structure on multi-organizational, or WoG, responses. Although existing research shows that standardizing the structure of a multi-agency task force promotes the success of large operations, such as the National JTTF and its 200 local task forces, it has not demonstrated how to maximize such effectiveness in WoG responses by leveraging the unique authorities of the component agencies.⁹

⁹ "Joint Terrorism Task Forces," What We Investigate, accessed March 26, 2022, <https://www.fbi.gov/investigate/terrorism/joint-terrorism-task-forces>.

1. Existing Federal Structures

The JTTF and the Fusion Centers, comprised of personnel from multiple agencies, work towards the common goal of interagency information sharing and cooperation to draw on the expertise of individual agencies represented. Both types of organizations are permanent; they operate continuously and address multiple issues simultaneously. Their primary difference lies in the focus of their missions. Tromblay postulates that although primarily intelligence-driven organizations, the JTTF focuses on actionable negative intelligence related to terrorism. Fusion Centers focus less on a particular topic, such as terrorism, but rather on intelligence sharing among contributing agencies and partners.¹⁰ Fusion centers attempt to find and compile information, as their name suggests, and make it available for component agencies. Both types of organizations collect intelligence information, but each struggle to disseminate relevant information promptly. The 9/11 commission report documents long-standing issues regarding information sharing between agencies.¹¹

These struggles are often traced to issues of a security clearance; for example, a federal agent who possesses a security clearance cannot share classified information with a state or local partner agency that does not possess the same level of clearance, even if that partner agency would benefit from that information, and can only provide vague updates without specifics. Thus, an agency with Top Secret clearance, like the FBI, might be provided an operational update such as:

The US Battleship Missouri has been stolen by the fruit fly liberation army, is fully operational, and is in international waters. Battleship Missouri has operational nuclear weapons along with operational cruise missiles on board. The CIA has the pirates' identities verified. The individuals are fully trained by the Iranian navy, and the CIA has

¹⁰ Darren E. Tromblay, "Fixing a Failure to Identify Intelligence in the Domestic Setting: Aligning Collection and Analysis to Address an All-Hazards Mission," *Journal of Homeland Security and Emergency Management* 12, no. 2 (2015): 241–55, <https://doi.org/10.1515/jhsem-2014-0102>.

¹¹ National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States* (Washington, DC: National Commission on Terrorist Attacks upon the United States, 2004), <https://digital.library.unt.edu/ark:/67531/metadc123526/>.

deemed their ability to navigate and use weapon systems accurately as credible.

This information might be translated for an unclassified or Law Enforcement Sensitive audience, such as a fusion center to read, “A boat has been stolen from Hawaii.”

a. *Federal Bureau of Investigation Joint Terrorism Task Force*

The FBI has established a broad network of specialized task forces, approximately 200 of which operate across the country currently.¹² These operational units focus on investigating terrorism.¹³ The National Joint Terrorism Task Force (NJTTF) coordinates their operations at FBI headquarters in Washington, DC.¹⁴ Although each task force operates independently and component agencies may vary, their structure is the same as the FBI as the lead agency. This structure allows for adaptability at the local level but maintains a clear command-and-control structure.

b. *State and Regional Fusion Centers*

In contrast, each Fusion Center is unique; some operate as a section of the state police, such as the Missouri Information Analysis Center and the New Jersey Regional Operations & Intelligence Center, whereas others are more regional such as the El Paso Multi-Agency Tactical Response Information Exchange (MATRIX). The states or regions served determine the organizational structure. They are not operational units but collectors and disseminators of intelligence. Although they receive some federal funding, they are primarily state and local entities. This lack of a defined reporting structure has led to calls for a standardized model. Smith argues that standardization would lead to improved information sharing in his thesis.¹⁵ Tromblay echoes this sentiment when he suggests developing an all-hazards intelligence operation, thus standardizing the fusion centers.¹⁶

¹² Federal Bureau of Investigation, “Joint Terrorism Task Forces.”

¹³ Tromblay, “Fixing a Failure to Identify Intelligence.”

¹⁴ Federal Bureau of Investigation, “Joint Terrorism Task Forces.”

¹⁵ Walter E. Smith, “Developing a Model Fusion Center to Enhance Information Sharing” (master’s thesis, Naval Postgraduate School, 2011), <http://hdl.handle.net/10945/10697>.

¹⁶ Tromblay, “Fixing a Failure to Identify Intelligence.”

The lack of standardization of information sharing makes it difficult for the consumers of intelligence products to obtain the relevant information, which may cross multiple Fusion Center's areas of operation.

The JTTF structure's rigidity diverges from the fusion centers' unique characters. Despite a shared focus on intelligence, neither promotes collaborative efforts related to a multi-agency response. Yet Hocevar and her colleagues identify collaboration as a critical component in Homeland Security responses.¹⁷ They speak of its necessity at the earliest stages of a crisis and how it enables trust-building and information-sharing throughout the effort.¹⁸ The JTTF and Fusion Center structures provide a starting point for structuring a multi-agency response. Still, success depends on collaboration between constituent organizations and the ability to rapidly disseminate information to end-users in the field.

2. Collaborative Capacity

Existing research shows that the private sector successfully uses cross-organizational collaboration and that the public sphere could also greatly benefit from it. Lai argues that demand for more collaborative management has risen across the public and private sectors, yet the public sector continues failing to meet core relationship goals necessary for success.¹⁹ Mandell and Steelman identify five types of "inter-organizational arrangements."²⁰ The researcher used these arrangements—intermittent coordination, temporary task force, permanent or regular coordination, coalition, and network structure—to develop a framework to compare past multi-agency responses and determine the likelihood of a permanent solution that is implementable in the future.²¹ Identifying where

¹⁷ Susan Page Hocevar, Gail Fann Thomas, and Erik Jansen, "Building Collaborative Capacity: An Innovative Strategy for Homeland Security Preparedness," in *Innovation through Collaboration*, ed. Michael M. Beyerlein, Susan T. Beyerlein, and Frances A. Kennedy, vol. 12 (Bradford, UK: Emerald Publishing Limited, 2006), 255–74, <http://hdl.handle.net/10945/38475>.

¹⁸ Hocevar, Thomas, and Jansen. "Building Collaborative Capacity."

¹⁹ Allen Y. Lai, "Organizational Collaborative Capacity in Fighting Pandemic Crises: A Literature Review from the Public Management Perspective," *Asia Pacific Journal of Public Health* 24, no. 1 (2012): 7–20, <https://doi.org/10.1177/10110539511429592>.

²⁰ Myrna Mandell and Toddi Steelman, "Understanding What Can Be Accomplished through Interorganizational Innovations the Importance of Typologies, Context and Management Strategies," *Public Management Review* 5, no. 2 (2003): 203–4, <https://doi.org/10.1080/1461667032000066417>.

²¹ Mandell and Steelman, "Understanding What Can Be Accomplished."

cross-organizational collaboration occurred, which arrangements used, and the obstacles faced facilitated this success.

The researcher also considered the increased use of virtual teams when evaluating organization and response frameworks. D’Urso and her colleagues argue that virtual organizations provide cost savings and operational flexibilities not found in traditional structures.²² In conjunction with a more conventional team, these arrangements could provide a solution allowing for consistency in leadership across the response. Additionally, Hoch and Kozlowski unexpectedly found that a shared team leadership structure enhanced overall performance despite the location on the spectrum of virtuality.²³ This concept of shared leadership naturally increases collaboration due to mutual ownership in the team’s success. However, little literature addresses the implementation of virtual teams.

3. Organizational Structure

The literature implies that a formal structure benefits individual incident response. Defined groups, such as the JTTF and Fusion Centers, demonstrate how government assembles multi-agency capacities to achieve a specific mission. How the concepts translate to a temporary WoG response remains unknown. This thesis identifies commonalities between the structures of permanent multi-agency organizational structure (like the JTTF) and the temporary response structures that combine multiple agencies to respond effectively to complex events in multiple mission spaces (like the NRF).

D. RESEARCH DESIGN

This research uses comparative case analysis approach to answer the questions, “How can DHS component agencies be organized to combine authorities and capabilities to respond to situations requiring the WoG? What are the challenges and benefits of response structures used for WoG responses?”

²² Patricia D’Urso et al., “An Exploration of Organizational Structure and Strategy in Virtual Organizations: A Literature Review.,” *Journal of Perspectives in Organizational Behavior, Management, & Leadership* 1, no. 1 (2015): 25–40.

²³ Julia E. Hoch and Steve W. J. Kozlowski, “Leading Virtual Teams: Hierarchical Leadership, Structural Supports, and Shared Team Leadership,” *Journal of Applied Psychology* 99, no. 3 (May 2014): 390–403, <https://doi.org/10.1037/a0030264>.

The focal cases are Hurricane Harvey, Operation Allies Welcome (OAW), and the 2010 Chilean Mining Rescue.²⁴ These cases involve multiple participating agencies from across government and unique command-and-control structures. The research compares Hurricane Harvey with the DHS's OAW response and the 2010 Chilean Mining Rescue.²⁵ This approach allowed me to identify specific and targeted information in each study.²⁶ Comparing information across the cases highlighted benefits and challenges of the response structures and how the leaders combined the available resources.

I first compiled and organized archival data for each event. After compiling relevant documents, the researcher generated a narrative account of each case. Then, I documented the organizational command structure used and evaluated its effectiveness. I conducted a within-case analysis of the case histories, noting key events, the individual agency role or command structure, and critical inflection points. Finally, I compiled the findings into a detailed evaluation of each WoG response based on criteria developed from an analysis of the cases. Upon completing the analysis of each response, I used a between-case analysis to compare them. The study identified the structures DHS currently used to combine authorities and capabilities during WoG responses and the benefits and challenges of those existing structures, and makes recommendations on how to structure future responses to maximize the capabilities at DHS's disposal.

²⁴ The OAW case reflects the researcher's experience as a supervisory law enforcement officer for 1 month at a safe haven location in Fort Pickett, Virginia.

²⁵ Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA: MIT Press, 2005).

²⁶ George and Bennett, 331.

II. CASE 1: HURRICANE HARVEY

In this chapter, I examine the response structure implemented by the Federal Emergency Management Administration (FEMA) during Hurricane Harvey. First, I describe the initial organizational response structure, as outlined in the National Response Framework, and how it evolved over the course of the response. Then, I assess how this structure mobilized personnel from various government agencies by activating the Emergency Support Functions (ESFs) to initiate the response efforts. I conclude by discussing two key challenges, personnel utilization, and logistics, and examine the role of the response's organizational structure in addressing these challenges. This chapter finds that the NRF and ICS failed because each component agency had competing ICS frameworks that confused personnel and weakened the response.

A. THE NATIONAL RESPONSE FRAMEWORK

The NRF was designed by FEMA after Hurricane Katrina, with the first version published in 2008, as the base for an “all hazards” response structure.²⁷ Currently on its 4th version, the NRF is based on the National Incident Management System (NIMS) and has the authority to implement Emergency Support Functions (ESF). This section defines and discusses the processes of how each is implemented within the NRF.

1. National Incident Management System

The National Incident Management System (NIMS) is a comprehensive framework for incident management developed by FEMA, which provides a consistent and unified approach to incident management across all levels of government, the private sector, and non-governmental organizations.²⁸ It articulates a predefined set of roles and responsibilities that can be filled within standardized and scalable organizational charts, designed to be used by a wide variety of response organizations supporting each other via

²⁷ Federal Emergency Management Agency, *National Response Framework*, 4th ed. (Washington, DC: Dept. of Homeland Security, 2019).

²⁸ Federal Emergency Management Agency.

mutual aid. The primary purpose of NIMS is to facilitate interagency coordination during emergency response operations. Every firefighter and police officer in the United States is familiar with the organizational principles of NIMS, a hierarchical organizational framework designed to facilitate scalability. At its core, NIMS is a basic organizational chart for incident management. It assumes that an Incident Commander (IC) supervises section chiefs for Operations, Planning, Logistics, and Finance/Administration as needed, whose staff can expand and contract with the scale and complexity of the incident as it evolves.²⁹ This flexible structure allows local government to absorb new personnel and resources as they become required and available. It also allows for unified command and control and consistent leadership throughout an incident.

Figure 1 illustrates the basic NIMS-based organizational structure where a central Incident Commander (IC) oversees the entire operation. Originally conceptualized after Hurricane Katrina, the NRF is a framework for organizing emergency response that “provides foundational emergency management doctrine for how the Nation responds to all types of incidents.”³⁰ FEMA is following the fourth edition of the NRF, which emphasizes using the National Incident Management System (NIMS) and coordinating authorities through the Emergency Support Functions (ESFs).

²⁹ Federal Emergency Management Agency.

³⁰ Federal Emergency Management Agency, 2.

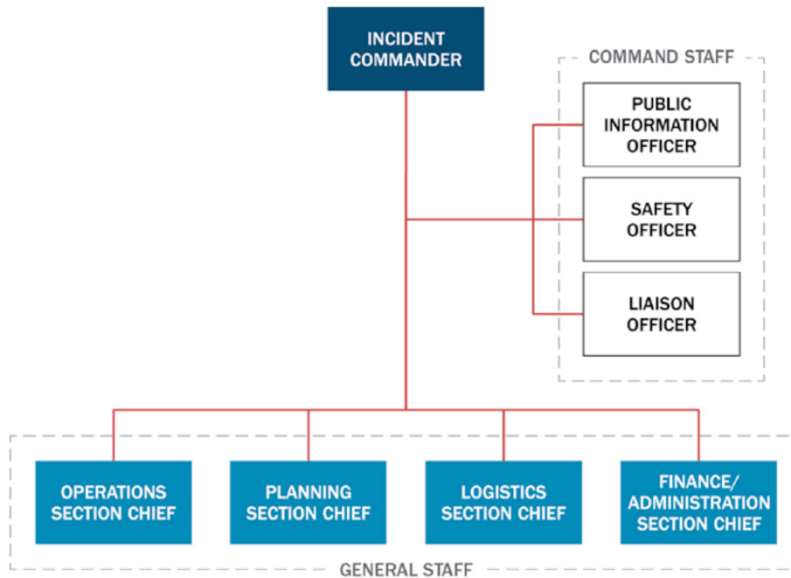


Figure 1. Basic ICS Command Structure³¹

In the case of Hurricane Harvey, many individual ICS organizational charts comprised the NIMS Structure. Each responding federal agency, impacted states, counties, and cities had its own ICS organizational chart, each with its own IC, which aligned with the others but did not completely integrate with co-agencies. Compounding the complexity, the local governments were not integrated with the federal and state organizational charts. This lack of integration led to missed opportunities to collaborate and coordinate response efforts for maximum effectiveness.

2. Emergency Support Functions

At the federal level, ESFs are clusters of organizations that collaborate to provide essential capabilities to stabilize community lifelines to support an effective response.³² To avoid operational silos, the ESF structure allows multiple agencies to coordinate the resources and personnel needed to address a specific lifeline or set of problems. Table 1

³¹ Source: Federal Emergency Management Agency, 23.

³² “1.2. Unified Coordination Group (UCG),” Federal Emergency Management Agency, June 2022, <https://www.fema.gov/cbrn-tools/key-planning-factors-chemical-incident/fpr/1/1-2>.

defines each of the federal ESFs, as described in the NRF, and gives an example of the type of mission they might be tasked with.

Table 1. Emergency Support Functions (ESFs)³³

ESF	Example Supporting Actions or Capabilities
ESF #1 Transportation	Coordinate the opening of roads and manage aviation airspace for access to health and medical facilities or services.
ESF #2 Communications	Provide and enable contingency communications required at health and medical facilities.
ESF #3 Public Works & Engineering	Install generators and provide other temporary emergency power sources for health and medical facilities.
ESF #4 Firefighting	Coordinates federal firefighting activities and supports resource requests for public health and medical facilities and teams.
ESF #5 Information & Planning	Develop coordinated interagency crisis action plans addressing health and medical issues
ESF #6 Mass Care, Emergency Assistance, Temporary Housing, & Human Assistance	Integrate voluntary agency and other partner support, including other federal agencies and the private sector, to resource health and medical services and supplies.
ESF #7 Logistics	Provide logistics support for moving meals, water, or other commodities
ESF #8 Public Health & Medical Services	Provide health and medical support to communities, and coordinate across capabilities of partner agencies.
ESF #9 Search & Rescue	Conduct initial health and medical needs assessments.

³³ Adapted from Federal Emergency Management Agency, *National Response Framework*, 21–22.

ESF	Example Supporting Actions or Capabilities
ESF #10 Oil & Hazardous Materials Response	Monitor air quality near health and medical facilities in close proximity to the incident area.
ESF #11 Agriculture & Natural Resources	Coordinate with health and medical entities to address incidents of zoonotic disease.
ESF #12 Energy	Coordinate power restoration efforts for health and medical facilities or power-dependent medical populations
ESF #13 Public Safety & Security	Provide public safety needed security at health and medical facilities or mobile teams delivering services.
ESF #14 Cross-Sector Business and Infrastructure	Be informed of and assess cascading impacts of health or medical infrastructure or service disruptions, and deconflict or prioritize cross-sector requirements.
ESF #15 External Affairs	Conduct public messaging on the status of available health and medical services or public health risks.

Any ESF may aid in providing a response core capability, as the needs of an incident may vary. Additionally, given the multifaceted nature of an incident, each ESF may contribute to stabilizing any community lifeline as the circumstances dictate. The ESFs are not limited to any specific organization and do not serve as a means of implementing an agency’s legal authorities. Instead, they combine the resources and capabilities of various federal departments, agencies, and other national assets to support response efforts. These functions support multiple response core capabilities and aim to stabilize critical infrastructure and community lifelines.³⁴ Events may require any core capability to stabilize any community lifeline; any ESF can contribute to this effort in coordination with the lead ESF.

³⁴ Federal Emergency Management Agency, *National Response Framework*.

In summary, ESFs are groups of organizations that work together to deliver core capabilities and stabilize community lifelines to support an effective response.³⁵ They also have responsibilities and actions that extend beyond the core capabilities to support other response activities and departmental and agency responsibilities.³⁶ Although primarily a federal coordinating mechanism, the ESF framework may also be adopted by states and different levels of government.

B. HURRICANE HARVEY

The 2017 Atlantic Hurricane season was particularly active and devastating, with 17 named storms, 10 of which became hurricanes, and 6 of which reached major hurricane status (Category 3 or higher).³⁷ The season was notable for the occurrence of three major hurricanes, Harvey, Irma, and Maria, which made landfall in the continental United States and its territories in the Caribbean. Hurricane Harvey, which made landfall in Texas on August 25, 2017, was the first major hurricane to make landfall in the United States since 2005 and caused unprecedented flooding in the Houston metropolitan area.³⁸ The storm caused an estimated \$125 billion in damage and killed at least 68 people.³⁹

On August 17, 2017, a weak low-pressure system formed east of the Lesser Antilles in the Atlantic Ocean. Ten days later, after landfalls in the Windward Islands of the Caribbean and Mexico, it made landfall in Texas for the third time as a major hurricane.⁴⁰ Unlike most storms, Harvey stalled overland, pummeling Texas with as much as 10.5 feet

³⁵ Federal Emergency Management Agency, “1.2. Unified Coordination Group (UCG).”

³⁶ Federal Emergency Management Agency, *National Response Framework*.

³⁷ “Annual 2017 Tropical Cyclones Report,” National Centers for Environmental Information, accessed March 12, 2023, <https://www.ncei.noaa.gov/access/monitoring/monthly-report/tropical-cyclones/201713>.

³⁸ “Harvey Barrels into Texas as Category 4 Hurricane,” Reuters, August 26, 2017, <https://www.reuters.com/article/storm-harvey-idUSL2N1LC074>.

³⁹ Eric S. Blake and David A. Zelinsky, *Hurricane Harvey (AL092017): 17 August 1–September 2017*, National Hurricane Center Tropical Cyclone Report (Silver Spring, MD: National Weather Service, 2018), 8–9, <https://www.hssl.org/c/abstract/?docid=807581>.

⁴⁰ Allison Ehrlich, “Harvey Timeline: See How the Storm Developed and Marched across Texas and Louisiana,” *Caller-Times*, September 7, 2017, <https://www.caller.com/story/weather/hurricanes/2017/09/02/harvey-timeline-see-how-storm-developed-and-marched-across-texas-and-louisiana/625563001/>.

of rain, according to the National Hurricane Center.⁴¹ After stalling over the greater Houston area, Harvey shifted course again and returned to the Gulf of Mexico, where it regained strength and made a second landfall in the United States, as a tropical storm, in southwest Louisiana. Harvey continued its destructive path through Louisiana, Mississippi, Tennessee, and Kentucky. The National Hurricane Center stopped tracking the remnants of Harvey as an extratropical storm on September 2 over Louisville, Kentucky. Figure 2 shows the storm’s track and intensity as it traveled from the Atlantic Ocean and finally dissolved over Kentucky.

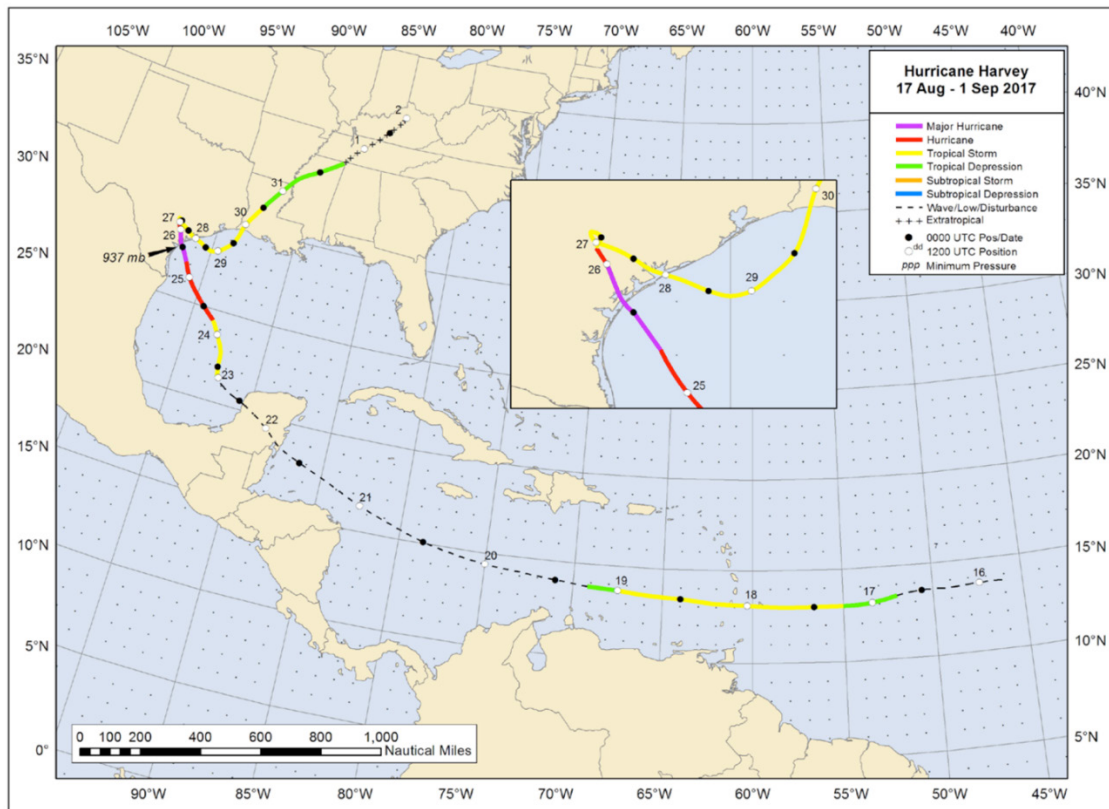


Figure 2. Hurricane Harvey Daily Track⁴²

⁴¹ Blake and Zelinsky, *Hurricane Harvey (AL092017)*.

⁴² Source: Blake and Zelinsky, 56.

In response to seven days of wind and rain, extensive flooding in five states, thousands of people left homeless, and severe damage to infrastructure, the Federal Government began its response. The Federal Emergency Management Agency (FEMA) was pivotal in leading the federal response to Hurricane Harvey under the National Response Framework (NRF).

C. DISCUSSION

The response to Hurricane Harvey involved resources from multiple federal departments and agencies, seven states, and hundreds of local governments. I discuss the structure utilized during the response, the benefits of that structure, and the challenges resulting from the structure.

1. Response Structure: NRF

At the federal level, a disaster declaration by the President of the United States formally recognizes that a given situation or event has reached a level of severity and magnitude that requires a coordinated federal response in addition to state and local efforts.⁴³ A request from the state governor to the President—reviewed by the Federal Emergency Management Agency (FEMA) to determine whether it meets the criteria for federal assistance—initiates a disaster declaration.⁴⁴ If it meets criteria, FEMA recommends the President declare a federal disaster. Subsequently, the President issues a formal disaster declaration that outlines the type of assistance that will be provided and activates the disaster response and recovery effort.⁴⁵ This process began at approximately 11:00 am on Friday, August 25, when Texas Governor Abbott officially requested a federal declaration.⁴⁶ Before this declaration, federal assets could not support Texas or any of the communities in the path of the storm.

⁴³ The Declaration Process, 44 C.F.R. 206 Subpart B (2023), <https://www.ecfr.gov/current/title-44/chapter-I/subchapter-D/part-206/subpart-B>.

⁴⁴ The Declaration Process.

⁴⁵ The Declaration Process.

⁴⁶ Ehrlich, “Harvey Timeline.”

This formal declaration allowed FEMA to activate a number of the ESFs to begin response operations. In addition, FEMA also used personnel from across the federal government by activating the Surge Capacity Force (SCF).⁴⁷ In total, over 31,000 military and 6,000 civilian personnel supported the response.⁴⁸ This number of personnel began to strain the NIMS framework by introducing a multitude of issues, including a lack of training and coordination, hampering response efforts.⁴⁹ Even in this early stage it became visible that coordination between the responding groups would be key to the success of the recovery.

The complex and widescale response to Hurricane Harvey required the federal government to repurpose available personnel and equipment to meet evolving and expanding needs to support ESFs. In some cases, response operations outside their areas of expertise and training used federal assets. For example, in support of ESF 9, United States Fish and Wildlife Service (USFWS) personnel were deployed to carry out urban search and rescue operations.⁵⁰ This contributed to the lack of coordination between responding agencies.

The lack of coordination between local governments and federal and state agencies led to inefficiencies. Mann and Williams found examples of Search and Rescue personnel evacuating survivors via helicopter to the first area of dry land but not communicating with the local agencies to confirm that that dry land was accessible by ground responders.⁵¹ This example highlights a key issue with NIMS. Multiple responding agencies completed their individually assigned tasks but did not always coordinate adequately across the command structure to ensure mission success.

⁴⁷ Federal Emergency Management Agency, *2017 Hurricane Season FEMA After-Action Report* (Washington, DC: Department of Homeland Security, 2018).

⁴⁸ John Collier, Srijith Balakrishnan, and Zhanmin Zhang, “Comparing Actions and Lessons Learned in Transportation and Logistics Efforts for Emergency Response to Hurricane Katrina and Hurricane Harvey,” *Journal of Homeland Security and Emergency Management* 17, no. 3 (2020): 1–43, <https://doi.org/10.1515/jhsem-2019-0022>.

⁴⁹ Federal Emergency Management Agency, *2017 Hurricane Season FEMA After-Action Report*.

⁵⁰ Federal Emergency Management Agency.

⁵¹ Jim P. Mann and Brian D. Williams, “Policing in the Eye of the Storm,” *Journal of Police and Criminal Psychology* 36, no. 2 (2021): 183–92, <https://doi.org/10.1007/s11896-020-09394-y>.

Maximizing the effectiveness of the responding personnel and ensuring that they had the tools necessary for success was vital. Considering the general acceptance of the ICS framework utilized in local responses, the use of the NRF and its ESFs is logical at the national level. However, looking at the examples (which illustrate that silos can occur within the NRF and NIMS when too many organizations come together), shows us communication and collaboration breakdowns can and did occur.

2. Benefits

The primary benefit of the NRF is its similarity to the ICS framework used by responders across the country. NIMS and the NRF attempt to take that local structure and expand it to the national level. This gives responders a general sense of how they would integrate into a given response.

NIMS-based responses typically address routine incidents—structural fires, localized flooding, and small natural disasters, rather than large multi-state disasters. When a single responding agency, like a fire department, or even multiple agencies within a single jurisdiction respond to an event, clearly defined roles and responsibilities guide that response. However, the NRF struggles during a multi-jurisdictional response with various agencies with similar skill sets, leading to role confusion. A possible explanation for this confusion is a core component of the NRF: the ESFs. The ESFs are the primary coordinating structure at the federal level for incident response, assigning agencies to specific functions which align with their capabilities. Although this structure provides manpower to respond, it does not integrate training functions within the ESFs. Local communities, states, regions, and other tribal, territorial, insular areas, and federal departments and agencies may also use their own ESF framework or implement other appropriate coordinating structures that align with their specific location, threats, or authorities.⁵² Regardless of the structures employed, all responding agencies or jurisdictions must collaborate closely with the federal ESFs at the incident, regional, or

⁵² Federal Emergency Management Agency, “1.2. Unified Coordination Group (UCG).”

headquarters levels when activated.⁵³ Without training and coordination at all levels, confusion will ensue leading to an inefficient response.

However, for catastrophic, large-scale incidents for which response is not straightforward and which involve new challenges that require the resources of multiple local, state, and federal agencies to manage, the NRF can struggle to meet the challenge. This lean organizational structure of a single incident commander can struggle to remain useful when every responding organization brings a unique set of bureaucratic and administrative requirements and limitations to success. This limitation became evident in Hurricane Harvey, an event that required coordinating at least 20 federal agencies and hundreds of their state and local counterparts for an extended period. Each federal agency and impacted states, counties, cities, and private sector groups had their own incident command structure, independent of the federal level NIMS. These competing structures left the responders not fully understanding their role in the response or fully understanding the chain of command.

3. Challenges

As previously stated, a significant number of federal assets supported the response and recovery efforts in the aftermath of Hurricane Harvey, with over 20 agencies and over 6,000 federal responders alone participating in the operation. Using the Incident Command System (ICS) framework exacerbated the complexity of this undertaking, which despite being an effective organizational tool, also resulted in bureaucratic obstacles because of its inflexibility. Implementing Emergency Support Functions (ESFs) further added to the complexity of the roles and responsibilities of responding agencies by adding personnel who lacked training related to the roles they were asked to perform. Two principal areas, namely personnel utilization and logistical challenges, appear to be at the forefront of the issues encountered during the response and recovery efforts.

The issue with personnel utilization was not a lack of personnel available to the response but rather their organization and use. As with personnel use, the logistical

⁵³ Federal Emergency Management Agency, *National Response Framework*.

challenges were not related to funding, but the bureaucratic processes to access and use that funding. During the response phase of Hurricane Harvey, these challenges were directly related to the NRF and NIMS.

a. Personnel Utilization

The overwhelming number of responders flooding the impacted area required an ICS to provide organizational structure during the response. However, the overwhelming number of personnel and many agencies represented quickly bogged down the effectiveness of coordination by a single incident commander. With each agency operating under their own ICS, rather than fully integrating into the central command structure, failures in coordination became apparent.

A lack of coordination coupled with a lack of training in processes posed real dangers and threats to the responders and the citizens being served. The notes from Mann and Williams' focus group of 12 local law enforcement officers who participated in the Hurricane Harvey response demonstrated this confusion and inefficiency.⁵⁴ For example, one respondent stated, "I mean the pilots were dropping at the first dry land ... We were getting phone calls saying, Hey, I just got dropped off and I really do not know where I am at."⁵⁵ Another responder stated similar concerns over federal agencies not coordinating with local responders, saying, "There were probably five or six three letter agencies that we have no control over what they do ... we had to position vehicles so where they could not land their aircraft in dangerous spots because they just would not listen."⁵⁶ Further linking the lack of coordination to the structure, a third responder stated: "It was a complete breakdown of how the process was working. Things were not being pushed up for requests because, like I said, I think it was a lack of knowledge of how to work."⁵⁷ These sentiments demonstrate that while each of the responders performed their assigned tasks, the silos

⁵⁴ Mann and Williams, "Policing in the Eye of the Storm."

⁵⁵ Mann and Williams, 188.

⁵⁶ Mann and Williams, 188.

⁵⁷ Mann and Williams, 188.

created by the responding agencies' failure to integrate into the NRF and NIMS structures sowed chaos and hampered success.

b. Logistics

In addition to the personnel allocation issues, logistical challenges associated with a response of this scale were also problematic. Hurricane Harvey was one of the most expensive disasters in history, second only to Hurricane Katrina, with approximately \$125 billion in damage.⁵⁸ Nearly 6,000 federal employees were deployed to assist with the immediate response and recovery efforts.⁵⁹ Palin and his colleagues argue that the response to Harvey was only possible due to timing, claiming that if this storm had occurred after Hurricanes Irma and Maria, the necessary resources might not have been available to deploy rapidly.⁶⁰ Their opinion, corroborated by Willison and her colleagues, established that each of these three hurricane responses during the 2017 hurricane season differed dramatically from each other in the logistical challenges they brought, the state or territorial governments that had to manage them, and the resources available to support initial response at landfall.⁶¹ By not standardizing the logistical and procurement processes, FEMA left the people in Harvey's path unprepared and the tax payers exposed to additional financial costs.

Some argue that the federal procurement practices set up FEMA for wasteful spending in emergency response. FEMA is responsible for procuring equipment, supplies, and rations for federal partners to support response and recovery efforts, which are vital to success, according to the GAO.⁶² According to Mann and Williams, FEMA must follow existing contracting practices fraught with waste, fraud, and abuse when procuring these

⁵⁸ Federal Emergency Management Agency, *2017 Hurricane Season FEMA After-Action Report*.

⁵⁹ Federal Emergency Management Agency.

⁶⁰ Philip J. Palin et al., *Supply Chain Resilience and the 2017 Hurricane Season: A Collection of Case Studies About Hurricanes Harvey, Irma, and Maria and Their Impact on Supply Chain Resilience*, IRM-2018-U-018098 (Arlington, VA: CNA Corporation, 2018), <https://www.hsdl.org/?abstract&did=817419>.

⁶¹ Willison et al., "Quantifying Inequities in US Federal Response."

⁶² Teshale C. Smith, "The Case for FEMA Adopting a Localized Advance Contracting Strategy: Addressing Major Challenges and Issues That Hindered FEMA's 2017 Hurricane Response and Recovery Efforts," *Public Contract Law Journal* 49, no. 1 (Fall 2019): 193–215, <https://www.jstor.org/stable/27010351>.

critical supplies.⁶³ Smith argues that these national-level purchasing requirements led to an inappropriate process that was inefficient in providing the right items to those who needed them, as well as harming the local businesses that would be more in tune with the needs of the local population.⁶⁴ Further, Smith shows that the procurement process at the federal level is flawed and requires congressional action to modernize.⁶⁵ The lack of adequate planning contributed to the struggles encountered during the Hurricane Harvey response by not having necessary supplies on hand.

The case showed that FEMA failed to employ its pre-disaster preparations because of the lack of guidance and direction on advance contracting procedures. The failure to adequately prepare before the hurricane disadvantaged procurement officers involved with the response. A report from Senator Claire McCaskill’s office highlights FEMA’s ineffective use of advance contracts. It reveals that advance contracts secured only a tiny portion (3.5%) of the \$206.9 million plastic sheeting and tarps contracts for the 2017 hurricanes.⁶⁶ Despite being a crucial commodity for disaster survivors, FEMA only had three contracts for tarps and none for plastic sheeting. The report suggests that the urgency caused by the severity of the 2017 hurricanes probably caused the government to pay more for the same items in the 11 new contracts used after the disasters.⁶⁷ This situation might have been avoided with better cooperation between FEMA, state, and local authorities, ensuring that adequate supplies were available or readily accessible, when needed.

The lack of vital supplies at the emergency shelters demonstrates some of the logistical challenges responders faced. Only 4,000 tarps were pre-positioned by FEMA in the Houston area shelters compared to 15,000 in New Orleans during Hurricane Katrina.⁶⁸

⁶³ Smith.

⁶⁴ Smith.

⁶⁵ Smith.

⁶⁶ Committee on Homeland Security & Governmental Affairs, *Government Oversight: Failures in FEMA Contracting for Emergency Tarps and Sheeting during the 2017 Hurricane Season*, Minority Report (Washington, DC: US Senate, 2018), 3, <https://www.hsgac.senate.gov/wp-content/uploads/imo/media/doc/Government%20Oversight%20-%20Failures%20in%20FEMA%20Contracting%20for%20Emergency%20Tarps%20and%20Sheeting%20During%20the%202017%20Hurricane%20Season.pdf>.

⁶⁷ Smith, “The Case for FEMA Adopting a Localized Advance Contracting Strategy.”

⁶⁸ Collier, Balakrishnan, and Zhang, “Comparing Actions and Lessons Learned,” 21.

Due to the poor preplanning at the local and state level, and the bureaucratic processes surrounding federal procurement, the unavailability of necessary supplies hampered response efforts.

D. SUMMARY

The personnel and logistical issues encountered in the Hurricane Harvey Response shared limitations posed by the structure of the bureaucracy. Regarding personnel, the NRF and ESFs don't account for the variances in skill sets and internal processes or the additional bureaucracy in each subsequent layer of the organizational chart. The limitations imposed by Congress related to federal procurement severely increased costs and slowed the recovery.

The overwhelming number of responders and agencies involved created coordination issues, leading to confusion and inefficiency. The lack of integration into the NRF and NIMS structures and a lack of coordination training led to personnel allocation problems and logistical challenges. The response to Harvey was one of the most expensive disasters in history, and standardizing the logistical and procurement processes could have reduced financial costs. However, FEMA's pre-disaster preparations and inadequate guidance disadvantaged procurement officers involved in the response, and the lack of vital supplies at emergency shelters hampered response efforts. Overall, the case of Hurricane Harvey highlights the importance of effective communication and coordination in disaster response, as well as the need for standardized processes and adequate pre-disaster preparations.

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III. CASE 2: OPERATION ALLIES WELCOME

In this chapter, I examine the response structure implemented by DHS during Operation Allies Welcome (OAW).⁶⁹ This response required a coordinated effort across multiple agencies from all levels of government, which necessitated the activation of a Unified Coordination Group (UCG). This chapter describes the structural details of the UCG that oversaw and implemented the OAW program. Then discusses the benefits and challenges presented by the UCG structure. The UCG served as the central point of coordination and decision-making for all OAW related activities, bringing together representatives from various agencies and organizations to ensure a coordinated and efficient response. Although the unified coordination of UCG combined with an on-scene incident commander would seem to be ideal, the lack of coordination with state and local agencies and competing ICS command structures crippled the response.

A. THE UNIFIED COORDINATION GROUP

In large or complex incidents where the conflicting priorities of multiple federal agencies may prevent the assignment of a single individual or agency to lead the response, the federal government may implement a Unified Coordination Group (UCG) structure. According to FEMA, “unified command/coordination brings together designated officials from the principal jurisdictions affected by the incident to coordinate an effective response, while those officials also carry out their jurisdictional responsibilities.”⁷⁰

As described in FEMA training materials:

When a disaster is declared, the leadership of agencies with relevant functional authorities may join together in a team effort to respond, forming a Unified Coordination Group (UCG). Unlike other federal coordination efforts, the UCG includes federal and state emergency management officials as well as senior officials from other agencies and organizations (including non-governmental organizations) that have

⁶⁹ Much of the treatment here comes from the researcher’s experience at a safe haven location in Fort Pickett, Virginia as a supervisory law enforcement officers for one month.

⁷⁰ “Unified Command/Coordination,” Emergency Management Institute, accessed January 17, 2023, https://emilms.fema.gov/is_0822/groups/76.html.

primary statutory jurisdictional responsibility, and/or significant operational responsibility for one or more functions of an incident response. For instance, in the event of an intentional chemical attack, the UCG may include environmental protection, public health, and law enforcement agencies at both the federal and state levels during both the response and recovery phases.⁷¹

The composition of the UCG members and their responsibilities will vary with each response. The UCG includes representation from the leadership of all major federal agencies involved in the response that collectively establish a unified set of incident objectives and strategies and develop a cohesive Incident Action Plan (IAP).⁷² This mechanism allows agencies with jurisdictional authority or functional responsibility for the incident to make joint decisions in the response efforts.⁷³ In the case of OAW, this UCG created centralized oversight and strategic planning at the national level while allowing a more traditional ICS approach at the individual sites. However, UCG had no input from state authorities, and therefore, no knowledge of jurisdictional limits at state facilities.

In any ICS incident, the command group creates an Incident Action Plan for each operational period (generally one day, in the active phase of a response), articulating the priorities for the next period and providing detail on the resources and personnel currently involved in the response. Figure 3 shows the process of creating an IAP during the standardized incident planning cycle. The incident planning cycle is integral to the response efforts, as it helps ensure effective incident management. The IAP is a critical component of this cycle, continually evolving as the situation on the ground changes. In the case of OAW this was done at the national level by the UCG and disseminated to the safe haven locations. Safe haven locations would then create their own IAP which aligned with the UCG, but also accounted for their unique needs.

⁷¹ Federal Emergency Management Agency, “1.2. Unified Coordination Group (UCG).”

⁷² Federal Emergency Management Agency, “Unified Command/Coordination.”

⁷³ Federal Emergency Management Agency.

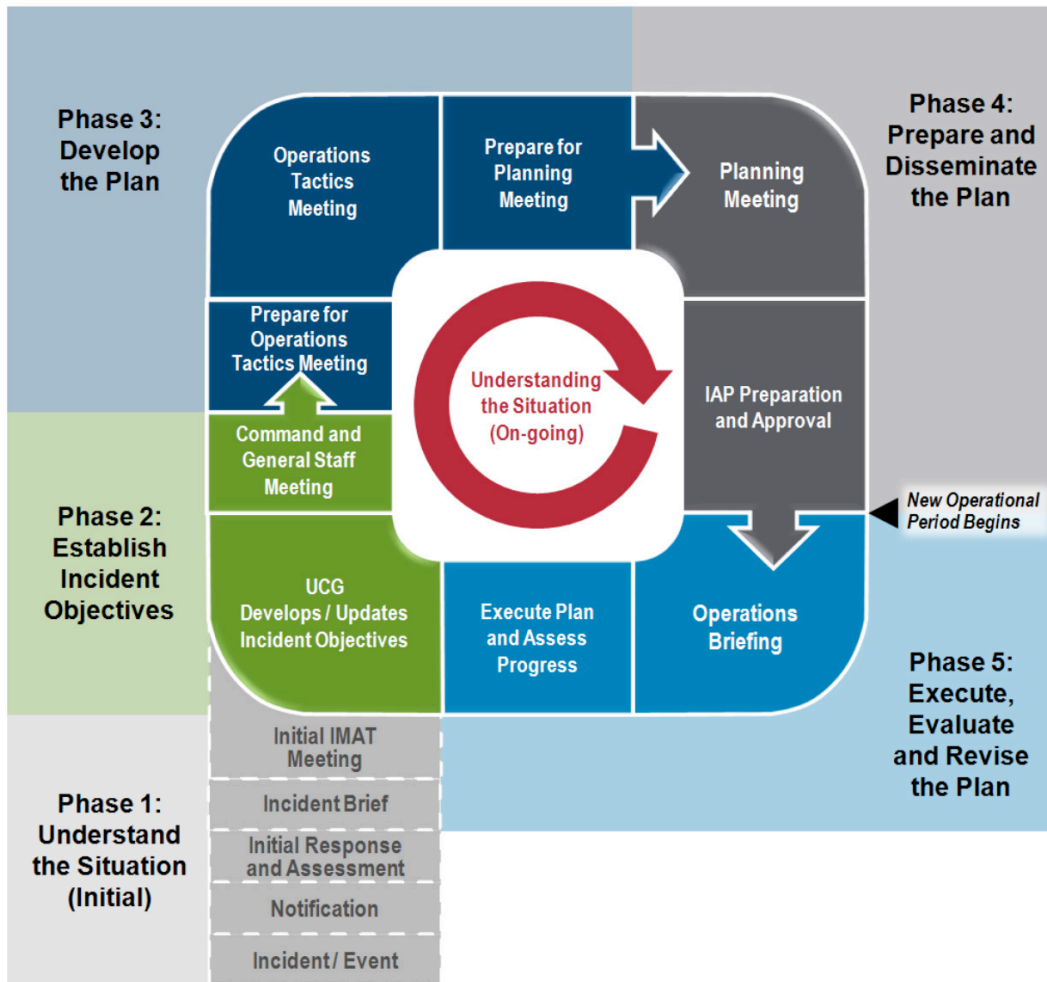


Figure 3. Incident Planning Process⁷⁴

The UCG is central to this evolutionary process, providing continuous strategic-level guidance across the operation. This process ensures consistency in the response efforts, which is critical to managing the incident effectively. The UCG’s role in the incident planning cycle is essential, ensuring response officials have all the necessary resources for a coordinated response. However, that consistency comes with a cost: bureaucracy.

⁷⁴ Source: Andrew Allen, *FEMA Incident Action Planning Guide* (Washington, DC: Department of Homeland Security, 2012), 6.

B. OPERATION ALLIES WELCOME

The United States' decision to withdraw troops from Afghanistan after 20 years of war and return control of the country to the Taliban has had significant ramifications for those who aided the Americans throughout the conflict. Facing potential persecution and a desire to protect their families, many began searching for ways to leave the country. Recognizing the gravity of the situation, on August 29, 2021, the President directed the Department of Homeland Security to coordinate the resettlement of these refugees in the United States.⁷⁵ This effort became known as "Operation Allies Welcome" (OAW), a program designed to identify resettlement solutions for these individuals.

Building on the Presidential mandate, additional roles and responsibilities required definition. This was accomplished when Congress defined OAW as a "Whole-of-Government effort led by DHS in coordination with DOD, State Department, Health and Human Services, and other Federal partners to provide resources, immigration processing, medical services, transportation, temporary housing, and a variety of other essential services to the evacuated Afghan population in the United States."⁷⁶ That population was estimated to be more than 65,000 refugees who lost everything and sought asylum in the United States.

The evacuation of individuals who had assisted the United States during the war in Afghanistan was a treacherous undertaking, beginning with a perilous evacuation from the Kabul Airport. This airport served as the last base of operations for US military personnel and was constantly under attack from the Taliban. On August 26, 2021, the situation came to a head when a suicide bomber targeted the Abbey Gate, resulting in a tragic loss of life. The attack resulted in 13 service members' deaths, along with the deaths of an estimated

⁷⁵ "Operation Allies Welcome," U.S. Northern Command, accessed February 11, 2023, <https://www.northcom.mil/OAW/>.

⁷⁶ *Operation Allies Welcome: Examining DHS's Efforts to Resettle Vulnerable Afghans: Joint Hearing before the Subcommittee on Oversight, Management, and Accountability and the Subcommittee on Border Security, Facilitation, and Operations of the Committee on Homeland Security, House of Representatives*, 117th Cong. 1 (2021), <https://www.govinfo.gov/content/pkg/CHRG-117hhr46713/pdf/CHRG-117hhr46713.pdf>.

170 Afghans, and hundreds of injuries.⁷⁷ For the evacuees, this was just the beginning of the dangers they would face on their journey out of the country.

The traumatic events of that day underscored the urgency of the evacuation efforts and the need to support and assist those who had risked their lives to support the United States. The evacuation was required to protect American allies and partners. Figure 4 illustrates the truly global nature of the evacuation.

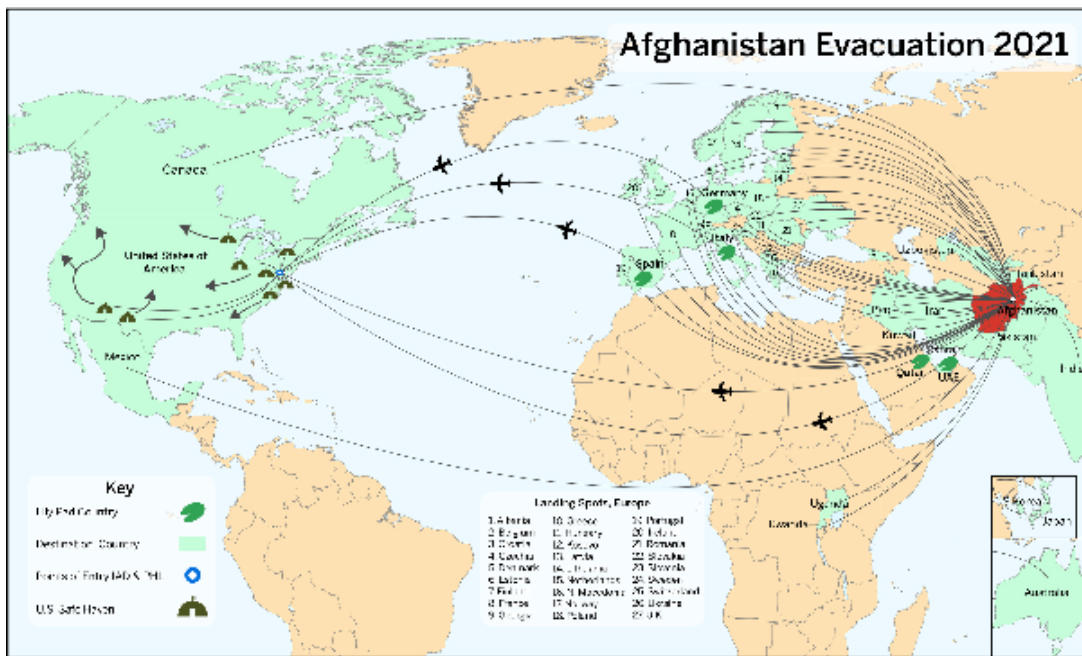


Figure 4. Afghanistan Evacuation⁷⁸

The journey of the evacuees from Afghanistan was not over once they had left the country. Initial immigration processing occurred at designated “lily pads” such as

⁷⁷ Sayed Ziarmal Hashemi et al., “Kabul Airport Attack Kills 60 Afghans, 13 US Troops,” AP News, August 26, 2021, <https://apnews.com/article/europe-france-evacuations-kabul-9e457201e5bbe75a4eb1901fedee7a1>.

⁷⁸ Source: American Foreign Service Association, “Operation Allies Refuge: The FS View from the Front Lines,” *Foreign Service Journal*, March 2022, <https://afsa.org/operation-allies-refuge-fs-view-front-lines>.

Rammstein Air Force Base in Germany.⁷⁹ From there, they traveled to one of seven military bases across the United States, where they would await asylum processing and the determination of their official status in the country.⁸⁰ Besides the ongoing asylum and immigration processes, the evacuees required various services to support their well-being, including food, housing, medical services, religious facilities, security, and investigative services. The military bases transformed into functional cities, capable of providing for the basic needs of the refugees while they underwent the necessary legal procedures.

The resettlement of refugees on military bases presented a unique set of challenges, as no two facilities were the same. Some, such as federal facilities, had a clear jurisdictional chain in place, which made operations smoother and with fewer obstacles. However, other facilities, such as Ft. Pickett, VA, were state-owned and had a secure Department of State training facility and Virginia National Guard training command. This situation led to a temporary federalization of the facility, where Federal law enforcement officers, acting as Federal Protective Service (FPS) officers, with authority to protect federal facilities and enforce federal laws. However, these Federal officers could not enforce local criminal statutes for certain crimes, such as sexual assault or domestic violence, which were prevalent among the refugee population. To ensure the protection of the community, Federal Law Enforcement officers coordinated with local law enforcement agencies, such as the Virginia State Police and the local county sheriff. Thus, this situation demonstrates the issues in resettling refugees on military bases and the need to navigate state vs. federal jurisdictional differences. It also underlines the importance of coordination between different levels of government and law enforcement agencies to effectively address the needs of the refugee population.

Coordinating the evacuation and resettlement of refugees who had assisted the United States during the war in Afghanistan was an enormous undertaking that required the involvement of multiple government agencies and departments. With a presidential

⁷⁹ Ridge Miller, “Ramstein Completes Role in Historic Humanitarian Airlift,” U.S. European Command, November 1, 2021, <https://www.eucom.mil/article/41739/ramstein-completes-role-in-historic-humanitarian-airlift>.

⁸⁰ U.S. Northern Command, “Operation Allies Welcome.”

mandate, four separate cabinet-level departments and numerous sub-agencies and administrations coordinated this response across multiple continents. DHS, Department of Defense, Department of State, and Department of Health and Human Services all activated personnel to respond to the new safe haven locations domestically and lily pads internationally. This necessitated a structure to oversee and martial the resources for this monumental task.

C. DISCUSSION

OAW required a more nuanced response than the other cases reviewed in this research. The unique nature of bringing 65,000 refugees and settling them across the country presented challenges that are not traditionally associated with emergency response. This section centers the discussion around the structure used to coordinate the response to OAW, the benefits of that structure, and the challenges due to the structure.

1. Response Structure: UCG

Given the scale of the task, and multiple agencies involved, decision-makers felt that flexibility at individual installations would be necessary in addition to a unified coordination. To that end, a Unified Command Group (UCG) was established, with the Department of Homeland Security serving as the lead agency.⁸¹ This group oversaw the monumental task of coordinating the evacuation and resettlement of the refugees.

With the UCG providing central oversight and centralized decision-making for each of the safe haven locations, the individual safe havens each operated under their own ICS frameworks. This structure is an ICS style response at a larger scale, understandably, the benefits and challenges are similar.

⁸¹ “Operation Allies Welcome,” Department of Homeland Security, accessed January 17, 2023, <https://www.dhs.gov/allieswelcome>.

2. Benefits

As with the NRF, the clearly defined roles and structure that are provided by the UCG are a key benefit. This allowed the UCG to focus on national level decision making while allowing local leadership to adapt the national direction to address local concerns.

The establishment of the UCG created a unified and centralized command structure that could effectively coordinate the efforts of all the agencies and departments involved in the response. The UCG focused on meeting the needs of the refugees in a coordinated and efficient manner by ensuring the necessary resources were available for the task. The UCG played a critical role in ensuring that the refugees were evacuated safely and supported to rebuild their lives in the United States.

3. Challenges

Effectively responding to an incident of the size and scope of OAW requires innovative solutions or, at a minimum, common-sense decision-making. However, policy and regulation stifled success in several instances, rather than allowing it. For example, during the summer of 2022, the State Department restricted the distribution of bottles of water at the Leesburg, VA, facility to only the migrant guests, specifically excluding the law enforcement and support personnel assigned to that location. Because the funding for the water came from refugee support funding, rather than operations funding, the local incident commander could not overrule this decision. This decision resulted in hundreds of combined hours of lost productivity from the administrative teams of the responding agencies searching for caveats in existing procurement policy to ensure that responders were adequately hydrated.⁸² Two missing elements emerged at the core of these challenges: empowering personnel to support operations and ensuring the logistics to deliver necessary provision to the refugees and those supporting them. The lack of these core competencies harmed the operation.

⁸² As a law enforcement officer involved at the Fort Pickett, VA military base, I experienced this incident.

a. Personnel Utilization

The use of a state facility created challenges in applying the law in some instances but not in others. Peace officer status varies from state to state, but according to Title 19.2-12 of the Code of Virginia,

any special agent or law-enforcement officer of the United States Department of Justice, National Marine Fisheries Service of the United States Department of Commerce, Department of Treasury, Department of Agriculture, Department of Defense, Department of State, Office of the Inspector General of the Department of Transportation, Department of Homeland Security, and Department of Interior; any inspector, law-enforcement official or police personnel of the United States Postal Service; any United States Marshal or deputy United States Marshal whose duties involve the enforcement of the criminal laws of the United States

are considered conservators of the peace.⁸³ This status allows federal law enforcement officers to make arrests for crimes of violence that happen in their presence but does not grant the authority to enforce state laws, such as domestic violence, that are reported to them by a third party. At bases like Fort Pickett, a Virginia National Guard training facility, DHS used its law enforcement personnel to protect the refugees. However, such personnel could not enforce the local statutes forcing the Virginia State Police and the Nottoway County Sheriff's department to respond to calls for assistance. The inability to enforce statutes hampered the officer's ability to protect the refugee. This limitation might have been avoidable if the base were designated as a federal facility, granting the Military Police the authority to enforce local statutes on base property and enabling them to delegate that authority to the DHS law enforcement personnel.

Ultimately, as related to law enforcement at Fort Pickett, personnel performed roles outside of their core competencies, primarily due to limitations of authority outlined by the Virginia Code. The statutory limitations created additional hurdles, limiting law enforcement officers' ability to protect the refugees. The UCG's failure to recognize these limitations demonstrates that the UCG was either ill-equipped for an operation of this size

⁸³ Who Are Conservators of the Peace, VA Code, § 19.2-12, (2017), <https://law.lis.virginia.gov/vacode/title19.2/chapter2/section19.2-12/>

or outside factors carried additional weight in the decision-making process. This failure could stem from the make-up of the UCG, by only consisting of representatives from federal agencies, local challenges were not considered.

b. Logistics

In addition to the personnel utilization issues, the UCG did not recognize the potential logistical issues caused by the selection of Fort Pickett. The base's primary function is a Virginia National Guard Maneuver Training Center.⁸⁴ Although the base has lodging facilities for up to 1000 enlisted personnel, it was inadequate for the 10600 refugees who processed through the base.⁸⁵ Housing, medical, dining, religious, and recreation facilities had to be established to support the refugees. This situation was not unique to Fort Pickett, refugees at Joint Base McGuire-Dix-Lakehurst were forced to live in tents housing up to 1000 people each.⁸⁶ By not anticipating this logistical challenge, the UCG set the stage for enormous financial costs to the bases and, ultimately, the taxpayers.

The overcrowding and limited access to facilities is a likely cause of frustration for the refugees, however this is no excuse for the damage done to the facilities housing them. The Department of Defense Inspector General found in January of 2023 that the refugees did more than 535 million dollars of damage to US military installations.⁸⁷ In addition to the physical damage at the bases, refugees depleted critical supplies, bringing into question the readiness capabilities of the bases.⁸⁸ Representative Tony Gonzalez of the 23rd Congressional district raised readiness concerns and his concern that the costs of the repairs

⁸⁴ "History of Army National Guard Maneuver Training Center Fort Pickett," Virginia National Guard, accessed March 15, 2023, <https://va.ng.mil/Installations/MTC-Fort-Pickett/MTC-History/>.

⁸⁵ Virginia National Guard; Department of Homeland Security, "Operation Allies Welcome Announces Departure of Last Afghan Nationals from Fort Pickett, Virginia," Department of Homeland Security, February 2, 2022, <https://www.dhs.gov/news/2022/02/02/operation-allies-welcome-announces-departure-last-afghan-nationals-fort-pickett-virginia>.

⁸⁶ Tracey Tully, "Music and Cookouts in a Tent City for Afghans Starting Life in the U.S.," *New York Times*, September 25, 2021, <https://www.proquest.com/docview/2576353578/citation/A07DAD92F2E944FCPQ/1>.

⁸⁷ Bethany Blankley, "Afghan Refugees Cost U.S. Military Bases over \$535 Million," The Center Square, January 13, 2023, https://www.thecentersquare.com/national/article_13988414-9389-11ed-86bc-0b3a519d99f0.html.

⁸⁸ Blankley.

and resupply were being borne by the DOD bases rather than OAW funding due to “occurring before official directives for reimbursement standards were established” in his letter to senior DOD officials.⁸⁹ While the motivation of the refugees to cause such extensive damage remains unknown, possible explanations include a resettlement process which could take up to 90 days, frustrations caused by limited access to translators, or a lack of understanding of modern amenities.

D. SUMMARY

The UCG played a crucial role in coordinating the evacuation and resettlement of refugees during OAW. The establishment of the UCG provided a centralized command structure that could effectively coordinate the efforts of all the agencies and departments involved in the response. However, several policy and regulatory issues stifled success, including the lack of personnel empowerment and logistical challenges. These issues caused personnel to perform roles outside of their core competencies, and the UCG’s failure to recognize limitations in authority and anticipate logistical challenges resulted in enormous financial costs and led to physical damage at safe haven locations.

The overcrowding and limited access to facilities also raised concerns about the readiness capabilities of the bases chosen as safe havens. Despite these challenges, the UCG was able to ensure that refugees were evacuated safely and supported in rebuilding their lives in the United States. Going forward, lessons learned from OAW should inform future responses to large-scale incidents, including the importance of personnel empowerment and anticipating logistical challenges. Additionally, a more comprehensive approach that involves both federal agencies and local authorities may be necessary to address challenges that arise at the local level. Ultimately, the success of any response to a large-scale incident will depend on effective coordination, resource allocation, and flexibility at both the federal and local levels.

⁸⁹ Tony Gonzales, “Letter to Members of the Department of Defense,” January 10, 2023, <https://gonzales.house.gov/sites/evo-subsites/gonzales.house.gov/files/evo-media-document/1.10.23-rep-gonzales-letter-re-oaw.pdf>.

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IV. CASE 3: 2010 COPIAPÓ MINING ACCIDENT

Although previous chapters considered responses to national-level incidents within the United States, this chapter contemplates an international incident, the response ethos of a different national government, and the management of crises in an increasingly globalized world. The mining accident in Chile in 2010 became an internationally publicized incident, which placed pressure on the government to respond effectively.

The number of miners affected and their depth underground captured the world's attention. The Chilean mining accident on August 5, 2010, trapped 33 miners underground for 69 days.⁹⁰ Widely covered by the international media, the incident generated global concern for the safety and well-being of the trapped miners. The global spotlight shown on the Chilean government, led by President Sebastián Piñera, as it coordinated the rescue efforts and provided updates on the situation to the public.

The Chilean government's response to the mining accident can be considered a WoG response as it involved collaborating and coordinating multiple government agencies, international organizations, and private companies. The government established a crisis center and formed a commission to oversee the rescue operations. In addition, the government brought in international experts and equipment to aid in the rescue efforts. Furthermore, the government also had to manage the intense media coverage and public pressure to ensure the safe and efficient rescue of the trapped miners. The techniques used by the Chilean government demonstrated an effective structure that could be a model for future domestic responses.

A. AGILE TEAMING

From the perspective of organizational behavior and crisis management, the Copiapó mining accident offers valuable insights into the importance of communication, leadership, and decision-making in crises. No formal response structure for an accident and

⁹⁰ Amiso M. George and Cornelius B. Pratt, *Case Studies in Crisis Communication: International Perspectives on Hits and Misses* (New York: Routledge, 2012).

recovery of this scale existed, and this lack of bureaucratic structure helped in the successful rescue of the miners.

The accident caused the Chilean government to step up to rescue the miners. Chilean President Piñera and the Minister of Mining, Laurence Golborne, were outside the country but realized that national action would be required.⁹¹ The Chilean Carabineros Special Operations Group (GOPE) were the first governmental resources dispatched to the mine; their attempts to locate the trapped within the first 24 hours were unsuccessful. As media attention built, President Piñera recalled his reaction: “There was no possibility for them [the San Esteban company] to respond. The option was thus very simple. The government would assume responsibility for the rescue or nobody would.”⁹² Without this decisive action to accept responsibility, the fate of the miners might be dramatically different.

President Piñera dispatched Golborne to oversee the rescue efforts, arriving at San José early on August 7. He discovered the mine owners overwhelmed by the situation’s complexity and cautious mistrust from the family members and other employees.⁹³ Golborne, a political newcomer, called upon his experience as the CEO of Cencosud, realizing that his previous team-building and personnel management skills would guide him through the recovery efforts.⁹⁴ Because Golborne was able to recognize that the situation could easily get out of hand if left to the mine owners, he was able to draw upon his own experiences and build a team tailored for this event.

Unencumbered by bureaucratic hurdles set forth by a predefined response structure, Golborne quickly assembled a team of experts from various backgrounds, including academia, the mining sector, and governments from around the world. He gave them the power and resources to innovate and find a solution to the crisis. This approach produced

⁹¹ Amy C. Edmondson and Faaiza Rashid, *The 2010 Chilean Mining Rescue (A)*, Case study 9-612-046 (Cambridge, MA: Harvard Business School, 2014).

⁹² Jonathan Franklin, *33 Men: Inside the Miraculous Survival and Dramatic Rescue of the Chilean Miners* (New York: G.P. Putnam’s Sons, 2011), 36–37.

⁹³ Edmondson and Rashid, *The 2010 Chilean Mining Rescue (A)*.

⁹⁴ Edmondson and Rashid.

three competing plans to retrieve the miners, each developed by different groups working independently within the team.⁹⁵ This diversity of ideas and the freedom to act allowed the team to devise the most effective plan possible, ultimately leading to the rescue of the 33 miners. The situation at the San José mine was unique and required an immediate and innovative approach, made possible by Golborne’s leadership and his team’s ability to work together.

B. COPIAPÓ MINING ACCIDENT

The 2010 Copiapó mining accident, also known as the “Chilean mining accident,” was a disaster that occurred in a copper mine located in the Atacama Desert of northern Chile. On August 5, 2010, a cave-in trapped 33 miners approximately 700 meters (2,300 feet) below ground. They remained trapped for 69 days before their rescue in a successful operation led by the Chilean government.⁹⁶ Figure 5 shows the location of Copiapó in the Atacama province north of Santiago.

⁹⁵ Amy C. Edmondson and Faaiza Rashid, *The 2010 Chilean Mining Rescue (B)*, Case Study 9-612-047 (Cambridge, MA: Harvard Business School, 2014).

⁹⁶ Michael Useem, Rodrigo Jordan, and Matko Koljatic, “How to Lead during a Crisis: Lessons from the Rescue of the Chilean Miners,” *MIT Sloan Management Review* 53, no. 1 (Fall 2011): 49–55, ProQuest.



Figure 5. Location of Copiapó⁹⁷

Mining, specifically copper mining is vital to Chile's national economy. Chile comprises more than half of the Pacific Coast of the South American continent, boasts diverse natural resources, and has earned a reputation as the world's mining capital.⁹⁸ Copper mining alone accounted for over 14% of the country's GDP in 2010.⁹⁹ The nationalization process of Chile's copper mines, which began in the 1950s under President Carlos Ibáñez del Campo and continued under subsequent governments, resulted in the gradual transfer of ownership from international investors to the state. This process involved negotiations with foreign investors and ultimately led to the government acquiring control of the country's primary copper mines.¹⁰⁰ The nationalized copper mines remain under state ownership despite the military government's implementation of free market policies led by General Augusto Pinochet in 1973.¹⁰¹

⁹⁷ Source: *Chile Administrative Divisions*, Central Intelligence Agency, 2009, https://maps.lib.utexas.edu/maps/americas/txu-oclc-310606106-chile_adm09.jpg.

⁹⁸ Edmondson and Rashid, *The 2010 Chilean Mining Rescue (A)*.

⁹⁹ Edmondson and Rashid, 1.

¹⁰⁰ Edmondson and Rashid, *The 2010 Chilean Mining Rescue (A)*.

¹⁰¹ Edmondson and Rashid.

Miners understand the risks associated with their chosen profession. The nature of work in the mines, which includes the transportation of mining explosives across seismically active regions, makes it a tremendously risky industry.¹⁰² On average, 34 people have died working in mining annually since 2000, and injuries are a daily occurrence.¹⁰³ However, implementing safety standards in the workplace remains inconsistent across mining companies operating in Chile. Some mines prioritize production over safety, as evidenced by the San José mine’s history of inadequate safety measures.¹⁰⁴ Thus, the mining accident was not an anomaly but as a common occurrence, reflecting the lack of attention to safety standards.

The San José mine in Chile, owned by Compañía Minera San Esteban Primera, is in the mineral-rich Atacama Region. At the time of the incident in 2010, the mine had been operational since 1889 and included long, sloping tunnels that spiraled over 16 kilometers deep, reaching over 700 meters. The mine produced roughly 2,700 kilograms of copper daily and had almost a billion-dollar gold reserves.¹⁰⁵ However, the mine had a history of accidents and safety concerns, such as outdated maps, missing escape ladders, and the absence of backup exits, which made it a hazardous work site.¹⁰⁶ To account for these dangers, miners at San José earned a higher wage than at competing, safer workplaces.¹⁰⁷ Thus, the company traded higher wages for lower safety standards and workers agreed to this trade.

Given the history and potential for a large disaster, the lack of preparedness on the part of the Chilean government is surprising. This accident would have been a tragedy if not for the ingenuity of leadership and the agility of the response.

¹⁰² Edmondson and Rashid.

¹⁰³ Departamento de Investigacion de Accidentes y Sancions, “Accidentabilidad Minera,” Servicio Nacional de Geología y Minería, accessed January 19, 2023, <https://www.sernageomin.cl/accidentabilidad-minera/>.

¹⁰⁴ Edmondson and Rashid, *The 2010 Chilean Mining Rescue (A)*.

¹⁰⁵ Edmondson and Rashid, 2.

¹⁰⁶ Edmondson and Rashid, 2.

¹⁰⁷ Edmondson and Rashid, 2.

C. DISCUSSION

The researcher selected Chile's response to the 2010 Copiapó mining disaster because of similarities in scope, Whole of Government (WoG) response, and event duration. The disaster response used rapid teaming to respond quickly to events as they unfolded, empowering decision-makers at all levels of the response and allowing them to communicate to the public and those directly affected by the disaster. Further, this example provides additional models adaptable to situations that the United States will face in the future, such as using public-private partnerships. According to Useem and his colleagues, three core principles led to successful responses to this disaster: accepting responsibility for identifying a solution, developing a response team, and taking decisive action to resolve the situation.¹⁰⁸

1. Response Structure: Agile Teaming

Chile's government acted as an entrepreneur to create a novel solution to a difficult problem. The first of these principles, accepting responsibility for a solution, could be considered the most difficult for governments and political leaders, because failure leads to blame.¹⁰⁹ The willingness not to assign blame but focus on the desired end state may appear on its face to display political weakness.¹¹⁰ However, when causal factors and solutions are unknown, the commitment to resolution, in whatever form it takes, can be unifying for the public. By regularly providing status updates to the miners' families before the media, Golborne built a rapport with the public, allowing him the time necessary to build the team to solve the problem at hand.¹¹¹ Without the support of the public, the future setbacks would not have been tolerated.

The second principle, developing the response team, Golborne demonstrated another unusual trait for a political leader. He recognized that he did not have the technical

¹⁰⁸ Useem, Jordan, and Koljatic, "How to Lead During a Crisis."

¹⁰⁹ Useem, Jordan, and Koljatic.

¹¹⁰ Useem, Jordan, and Koljatic.

¹¹¹ Useem, Jordan, and Koljatic.

expertise to solve the problem.¹¹² This realization prevented the bureaucratic hurdles which typically surround governmental operations. By surrounding himself with government and private experts, he solicited innovative solutions. He also empowered his team to develop and implement potential solutions while targeting the singular goal of rescuing the men.¹¹³ These novel solutions would not be possible without Golborne's willingness to admit he wasn't the expert, and that resolving the crisis was his only goal.

Finally, the third principle, the decisiveness of the action taken to implement potential solutions, encouraged success. By recognizing that no "off-the-shelf" solution existed and by consulting with the engineering and drilling experts, Golborne boldly chose to implement multiple potential solutions as no clear answer took precedence over others.

2. Benefits

Unlike the other cases, the lack of a formalized structure led to benefits in personnel utilization and logistical matters. This runs contrary to the conventional wisdom that a structured approach to a response increases efficiency. The following examples expand on how the lack of structure bypassed many of the bureaucratic hurdles that were present in the other cases studied.

a. Personnel Utilization

The response to the Copiapó Mining Accident runs counter to the other cases. The lack of a definition related to the response structure allowed for flexibilities in personnel utilization, which are not possible in the other structures. Those flexibilities facilitated novel solutions, which resulted in the successful rescue of the trapped miners.

Golborne's history of building diverse teams and his willingness to empower them to innovate and find a solution to the crisis was pivotal in the operation's success. For example, he recognized his own lack of knowledge related to mining, and actively sought an expert to advise from industry. Additionally, he empowered that expert to develop alternatives solutions, and rather than implement a single option, authorized all three plans.

¹¹² Useem, Jordan, and Koljatic.

¹¹³ Useem, Jordan, and Koljatic.

This approach is like Agile Project Management, which values flexibility and adaptability, and allows for a faster and more effective response to the crisis.

The lack of a formal structure allowed Golborne to identify the best personnel or groups for the task at hand rather than having assets with tangential knowledge on a topic assigned. The choice to involve NASA and the Chilean Navy's Submariners for their expertise surrounding coping with confinement demonstrates that decision to find appropriate expertise for the problem.¹¹⁴ This philosophy ensured that the best minds in the world were collaborating with a common goal in mind.

Conversely, both of the structures used in the other cases added huge numbers of personnel rather than subject matter experts. When the NRF activated the ESFs, the personnel tapped were not experts, but intended to be force multipliers. But, as evidenced in the other cases, the lack of expertise led to inefficiencies and ineffectiveness and sometimes danger as in the pilot not communicating with local responders to ensure recovery locations were safe and accessible after an air rescue.

b. Logistics

Unlike other disaster responses, such as Hurricane Harvey or Operation Allies Welcome, Golborne and his team identified and resourced the items necessary for success directly rather than traditional procurement processes. Doing so led to a more efficient and effective response, by ensuring the resources necessary for success were available when needed.

Golborne utilized all available options to ensure necessary equipment was available by empowering others in the government to act. Recognizing the urgency, the Chilean embassy worked directly with the United Parcel Service (UPS) to ensure delivery of the necessary equipment.¹¹⁵ This direct communication led to the UPS Foundation absorbing the costs associated with transporting over 13 tons of equipment from the US to Chile in

¹¹⁴ Edmondson and Rashid, *The 2010 Chilean Mining Rescue (B)*.

¹¹⁵ Edmondson and Rashid.

48 hours.¹¹⁶ Not only did this ensure that the equipment was available, but ensured that financial resources remained available. By not focusing on process, but rather outcomes, the processes became more efficient.

Additionally, when faced with setbacks, the Chileans used ingenuity to solve logistical issues. In response to a broken drill bit which halted one of the three rescue plans, they explored multiple solutions simultaneously.¹¹⁷ This process required designing and building three tools and many failed attempts to recover the broken bit, but this method was the most expeditious option available.

3. Challenges

While the benefits of agile teaming proved to encourage success in this case, the lack of structure did pose its own challenges. By its nature, having to create a team each time a response is required is inefficient and leads to questions of repeatability. Additionally, success in this case was dependent on external communication with the families of the trapped miners and the international media. A delicate balance existed between providing updates to the families prior to the information being shared with the public. By maintaining this balance, Golborne and his team were able to keep the public opinion in their favor.

D. SUMMARY

The Chilean response to the 2010 Copiapó mining disaster is an example of a successful disaster response that could be adapted to future situations in the United States. The response used rapid teaming, empowering decision-makers at all levels, and communicating with the public and those directly affected by the disaster. Unlike the formal structures used in traditional federal responses in the US, the lack of a formal structure allowed for flexibilities in personnel utilization and facilitated novel solutions, which resulted in the successful rescue of the trapped miners. Golborne's history of

¹¹⁶ Edmondson and Rashid.

¹¹⁷ Edmondson and Rashid.

building diverse teams and his willingness to empower them to innovate and find a solution to the crisis was pivotal in the operation's success. Unlike other disaster responses, Golborne and his team identified and resourced the items necessary for success directly rather than traditional procurement processes, which led to a more efficient and effective response.

Overall, the Chilean response to the 2010 Copiapó mining disaster provides a model for successful disaster response that values flexibility, adaptability, and outcome-driven processes. The principles of accepting responsibility, developing a response team, and taking decisive action could be adapted and applied in future disaster responses in the United States.

V. FINDINGS, RECOMMENDATIONS, AND CONCLUSION

This chapter reviews the findings, discusses the relevance of those findings to the original research questions, and makes recommendations for responding to future events. These three cases vary considerably in scope and scale. However, in each, leaders struggled with placing the right people and resources in the right places. In each response, leaders created new processes for identifying personnel and resources for the specific incident. The analysis suggests a need to standardize the repeatable administrative processes required for all responses while granting autonomy to those who lead responses to allow them to focus on the uniqueness of each situation.

A. FINDINGS

The analysis of the three cases suggests that the organizational structure of a response affects the ability of those responding to effectively utilize personnel and solve logistical challenges, which further limits the acquisition of needed resources. Specifically, the cases demonstrate that established structures, such as the NRF and ICS, are best suited for a single-agency response. Multi-agency and multi-jurisdictional responses relying on this structure will likely fail because each agency and jurisdiction structures their responses on their own organizational structures and thus, the agencies do not adequately integrate with each other at the national level. This lack of integration poses barriers to coordination which doom the effectiveness of responders who are burdened with multiple layers of bureaucracy at the agency and the Incident Commander levels that takes their focus off of the task of responding to the crisis. Hurricane Harvey and the individual safe haven locations during OAW showed how the multiple layers of bureaucracy created when multiple agencies responded in a single organization prevented, or at least delayed, effective response capabilities, and how the structure of the NRF and ESFs allocated personnel based on previously established groups rather than identifying experts in the necessary fields.

This problem is a long-standing one; the competing priorities of governance often become calcified, rigid processes. In 1812, the Duke of Wellington recognized this in his letter to the British Foreign Office:

Gentlemen,

Whilst marching from Portugal to a position which commands the approach to Madrid and the French forces, my officers have been diligently complying with your requests which have been sent by His Majesty's ship from London to Lisbon and thence by dispatch to our headquarters. We have enumerated our saddles, bridles, tents and tent poles, and all manner of sundry items for which His Majesty's Government holds me accountable. I have dispatched reports on the character, wit and spleen of every officer. Each item and every farthing has been accounted for with two regrettable exceptions for which I beg your indulgence. Unfortunately the sum of one shilling and ninepence remains unaccounted for in one infantry battalion's petty cash and there has been a hideous confusion as to the number of jars of raspberry jam issued to one cavalry regiment during a sandstorm in western Spain. This reprehensible carelessness may be related to the pressure of circumstance, since we are at war with France, a fact which may come as a bit of a surprise to you gentlemen in Whitehall.

This brings me to my present purpose, which is to request elucidation of my instructions from His Majesty's Government so that I may better understand why I am dragging an army over these barren plains. I construe that perforce it must be one of two alternative duties, as given below. I shall pursue either with the best of my ability, but I cannot do both:

To train an army of uniformed British clerks in Spain for the benefit of the accountants and copy-boys in London or, perchance...

2.) To see to it the forces of Napoleon are driven out of Spain.

Your most obedient servant,

Wellington¹¹⁸

The Duke of Wellington warns that he will not be able to succeed in his task, defeating Napoleon, with the additional administrative burdens placed on him which are not directly

¹¹⁸ Duncan Green, "The Duke of Wellington on the Aid Bureaucracy," From Poverty to Power, July 26, 2011, <https://frompoverty.oxfam.org.uk/the-duke-of-wellington-on-the-aid-bureaucracy/>.

related to the task at hand. His quote illustrates that although bureaucratic functions are necessary, they should not take precedence over the activities required to resolve the situation at hand. Unfortunately, this same dynamic repeats itself in today's WoG responses.

With the concept of limiting the bureaucratic obstacles faced during WoG responses in mind, I next revisit the questions that guided this.

- (1) How can DHS component agencies be organized to combine authorities and capabilities to respond to situations requiring the WoG?

This research presents two existing frameworks currently used in WoG responses to organize responding agencies and combine their authorities. Each one represents a possible structure; however, neither fits all situations, requiring leaders to implement a novel solution for each response.

The NRF, which employs NIMS and ICS as a framework, aims to provide a consistent and unified approach to incident management across all levels of government, the private sector, and non-governmental organizations. It intends to facilitate interagency coordination during emergency response operations, and it assumes a hierarchical organizational structure with an Incident Commander overseeing section chiefs. Designed to be flexible and scalable, NIMS allows local governments to absorb new personnel and resources as required, and it emphasizes using the NRF to coordinate authorities through the ESFs.

However, in the case of Hurricane Harvey, the lack of integration among the various ICS organizational charts used by different responding Federal agencies, affected states, counties, and cities, resulting in missed opportunities to collaborate and coordinate response efforts. The ICS model beautifully handles routine incidents such as localized flooding and small natural disasters. However, it struggles when multiple agencies with a broad spectrum of responsibilities respond to catastrophic, large-scale incidents requiring the management of the resources of multiple local, state, and federal agencies. Hurricane Harvey was one such incident, necessitating the coordination of at least 20 federal agencies

and hundreds of their state and local counterparts for an extended period.¹¹⁹ Despite using the ICS framework and ESFs, bureaucratic obstacles and logistical challenges hindered the response and recovery efforts, particularly in personnel utilization and logistics.

To effectively respond to the magnitude and scope of OAW, a command structure was established through a UCG with the Department of Homeland Security leading the effort.¹²⁰ This centralized command structure is intended to allow for coordination among multiple agencies and departments involved in the response to provide efficient support for refugees. At the national level, the UCG allocated the personnel necessary from across the government to respond to this humanitarian crisis while allowing the individual Lily Pad locations overseas and the Safe Haven locations domestically the flexibility to operate independently. While the UCG provided a command-and-control structure for these alternate locations, it failed to recognize the bureaucratic hurdles that come with the multiple responding agencies and multiple legal jurisdictions due to lack of representation from state and local personnel. The Safe Haven locations used an ICS structure, and like the NRF, the bureaucratic processes caused a lack of coordination, hindering success due to the lack of integration between responding agencies. The lack of coordination impacted access to personnel with specialized skill sets, like translators, leading to delays for responders. This is evidenced by the law enforcement struggles at Ft. Pickett, where inefficiencies were identified directly related to the law enforcement powers of the personnel sent to protect the refugees and the requirement to utilize local resources due to those limitations on their powers. So what is the answer to the research question?

The Copiapó mining accident provides valuable insights into crisis management and organizational behavior, particularly in communication, leadership, and decision-making. The absence of a formal response structure for an accident of this scale was crucial to the success of the rescue operation because it allowed the President to create a response tailored to the specific crisis. Chilean President Piñera and Minister of Mining Golborne recognized the need for national action. Golborne's experience as a CEO helped him

¹¹⁹ Federal Emergency Management Agency, *2017 Hurricane Season FEMA After-Action Report*.

¹²⁰ Department of Homeland Security, "Operation Allies Welcome."

assemble a diverse team of experts from academia, mining, and governments worldwide. Unencumbered by bureaucratic hurdles, the team innovated and developed three competing plans to rescue the miners, ultimately leading to their successful rescue. This situation highlights the importance of effective leadership and teamwork in crisis management and the value of diversity in problem-solving.

To effectively organize component agencies in a WoG response going forward, activities related to all types of response, such as logistical support, must be standardized. To accomplish this standardization NIMS is a solid foundation to build upon, however for operational decisions leaders must have the autonomy to build their leadership and response teams independently.

Within each of these structures, benefits and challenges exist. Analyzing and weighing each provides additional insight into how responses should be structured going forward. This was accomplished by comparing existing standing multi-agency organizations, like the JTTFs and Fusion Centers to the response structures studied.

- (2) What are the benefits and challenges of response structures used for WoG responses?

Analysis shows that coordination and integration are common challenges related to the structure of each response studied. Existing government working groups such as the NJTTF and regional and state fusion centers mirror similar problems. Both examples suggest a need for additional training between the federal, state and local partners. This will foster confidence in the others abilities and build foundational relationships necessary for rapid teaming when called to respond.

The NRF is rigid in clearly defining roles and responsibilities for each part of the response and allowing for very little deviation. This resembles the FBI's NJTTF and regional JTTFs, which are singularly focused on counter terrorism operations with the FBI in the lead and all other agencies in support roles. The NRF designates FEMA as the lead agency, with other federal agencies reporting under the ESFs and uses NIMS and the ICS framework, which is the standard for emergency management. Additionally, the NRF is scalable, allowing the response to adapt to the specific requirements of that situation, much

like a fire department that adds additional resources when a fire grows beyond a certain point. However, this becomes problematic when multiple agencies and jurisdictions respond to a complex situation like Hurricane Harvey. In those instances, it fails to adequately integrate all levels of government. As discussed in the case study, there were situations where federal responders would execute an air rescue, but they failed to coordinate with local responders leaving the rescued party in an area that was inaccessible. Although the Federal and local responders performed their assigned roles, the lack of a fully integrated bureaucracy led to people working at cross purposes with multiple pilots trying to do their jobs, and people tripping over one another.

A UCG is similar to the fusion center concept used across the country, where a centralized group provides general guidance, and the individual subgroups operate independently towards a common goal. In the fusion center analogy, DHS provides centralized guidance with the common goal of information sharing between law enforcement agencies. This structure allows for extreme flexibility and adaptability in how the fusion centers operate. During OAW, this flexibility allowed each of the safe haven locations to run independently. Still, when establishing the locations for the safe havens, the local demands of the chosen locations were not adequately considered. As discussed, the choice of Ft. Pickett as a safe haven location put a significant strain on the local government of Nottoway County, VA, and the Virginia State Police.

The concept of agile teaming, while not a formal structure, demonstrates how collaborative capacity can maximize the effectiveness of a response. As demonstrated by Golborne during the Copiapó Mining Accident, a humble leader willing to recognize his lack of knowledge on a particular subject and actively seek out and empower experts to solve a wicked problem can be successful. Removing the bureaucratic hurdles and procedures surrounding traditional response allows for adaptability as the facts on the ground change.

B. DISCUSSION

As the United States continues to face a seemingly ever-growing number of crises, multi-agency responses will continue. Identifying a solution that prioritizes outcomes over reliance on a pre-existing structure is paramount to success in the future.

Hurricane Harvey taught us that the NRF and the ESFs are structurally valid, meaning that multi-agency cooperation is possible and agencies can operate outside their typical roles. However, the lack of coordination between federal, state, and local officials directly relates to the multiple ICS frameworks established by each responding agency and jurisdiction. This duplication leads to inefficiency in the response phase and unnecessary costs to the taxpayer.

OAW demonstrated how a national coordinating structure, the UCG, can work efficiently at the national level but further illustrates that cumbersome ICS structures at the local level continue to cause inefficiency. However, The UCG failed to coordinate with knowledgeable local experts, leading to the local issues that would arise at some safe haven locations, like Fort Pickett, VA. Personnel and resources outside of the federal system supported the operation, but the UCG, as an all-federal entity, did not account for the burden on local resources when identifying and selecting the safe haven locations.

Interestingly, the Chilean response to the 2010 mining disaster was unique. Rather than force a framework on a problem, Golborne recognized that innovation and collaboration was the key to success. By identifying experts and empowering them to be innovative, not only was the rescue a success, but the response generated new knowledge that continues to be used.

Although conventional wisdom and research suggest that standardization leads to organizational rigidity, my findings suggest otherwise. My research suggests that some level of standardization of common tasks enables leaders to creatively address novel situations in individual responses more effectively. Thus, enabling a more efficient and effective response.

By standardizing personnel and logistical tasks at the national level, leaders would possess the freedom to draw from those available resources and target them at the

individual challenges they are facing rather than having predetermined resources trust at the situation. As evidenced in the Hurricane Harvey case, the number of responders was not at issue, rather it was their utilization as determined by their role in the ESFs. This basic change in approach will allow for a more focused response aimed at the root causes of the situation at hand rather than maintaining a constant state of triage.

Additionally, the increased focus of the response will encourage better collaboration and coordination between responding agencies. This is achieved by the clear definition of the roles and expectations coming from the response leader. Golborne demonstrated that by remaining laser focused on the desired end state, the frivolous squabbling between responding groups was negated by the focus on achieving the common goal. This collaborative approach led to the successful rescue of the trapped miners, avoiding tragedy while validating the concept of rapid teaming.

C. RECOMMENDATIONS

Ultimately, a change is necessary to the way we address federal response. No single structure will solve the issues we face from natural disasters, humanitarian crises, or environmental hazards. Yet, the NRF and ICS frameworks provide one size fits all solutions. Any situation which requires multiple agencies to respond is unique, and to be successful, each response must be tailored to that event.

Although the 2010 Copiapó mining disaster was a singular event, it provides a road map for crises facing the DHS in the future. The lessons learned by clearly defining the command-and-control structure and empowering leaders to make decisions at all levels are transferable to most response situations. However, this model will require commitment from the department's senior leadership to ensure success and repeatability.

First, DHS should identify a team of senior leaders from across the department who will evaluate situations as they arise, make recommendations, and implement solutions for the response. This responsibility should not be a collateral duty but a permanent assignment. Participants should have the authority to make decisions on personnel allocation, designation of authorities, communication, and response execution. The ability

of this team to operate independently, free of interference from individual agencies or the department hierarchy, is critical to the success of the response.

Second, during a WoG response, using the unique statutory authorities possessed by the agencies in the department will offset potential operational and logistical challenges facing the response. Granting authority to act in a different role is a long-standing practice in times of crisis. The leadership panel should review the unique authorities possessed by each agency and identify the procedural and logistical requirements for transferring those authorities. Formalizing and streamlining this practice for all responding agencies will allow more effective personnel utilization.

The third recommendation is to identify personnel within each agency to serve as the deployment force. This group would comprise personnel deployable on short notice anywhere in the United States or its Territories. Unlike the leadership panel, this unit would be a temporary cadre of personnel who continue to function in their primary mission set and augment needs during emergencies. To ensure rapid team assimilation, cross-training activities with other component agencies are critical as they increase the ability to form quick teams and learn the other's capabilities and authorities.

D. CONCLUSION

This thesis began by asking how DHS component agencies could be organized to combine authorities and capabilities to respond to situations requiring the WoG and what are the benefits and challenges of response structures used for WoG responses?

The answer to the first question is exceedingly complex; the question fails to address the role that state and local governments and the private sector have in any given response. The NRF and UCG are designed to address all hazards, however neither truly integrates the resources and capabilities of groups outside the federal system. Without this integration DHS will continue to struggle to create effective structures. Additional research is necessary to identify ways to integrate additional outside parties into a federal response and empower them to act in their best interest. Additionally, federal responders may have unique expertise that runs contrary to the wishes of the state and local governments but is

necessary for the overall success of a geographically dispersed response, such as a hurricane.

The second question is a little simpler on its face, but leads to a larger question. The benefits of the defined structure create certainty in each organization's role by clearly defining who is responsible for what actions. However, the current structures fail to account for the multiple layers of bureaucracy which exist both with the structure itself and the bureaucracies within each of the responding federal agencies, state and local governments, and the private sector. Future research should investigate how the structure of bureaucracy for a specific response contributes to the success of a particular response and whether the bureaucracy that forms as multiple organizations organically integrates impacts success.

1. Limitations and Future Research

This thesis evaluated three cases. However, those cases were each unique and reflected different structures. The research suggests a link between the structure of the response and its effectiveness. This finding highlights the need for additional research to fully understand how that connection can be leveraged to provide additional efficiencies in future responses.

2. Contributions

This thesis examined three distinct cases, each involving the collaboration of various government and private sector entities in response to a significant event or crisis. The analysis suggests a link between the response structures utilized in each response and the response's effectiveness. In each case, the structures utilized necessitated that each response be novel rather than using a standardized practice for identifying personnel and resource allocation. The findings contribute to a better understanding of this connection and help leaders standardize required processes across all response types. This standardization of common tasks will better allow leaders to remain focused on the uniqueness of each individual response.

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