

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, 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 the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.
PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 05-04-2017		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) SEP 2016 - MAY 2017	
4. TITLE AND SUBTITLE Future catastrophic natural disasters on the home front: Are U.S. Army Title 10 forces fully prepared for defense support of civil authorities missions?				5a. CONTRACT NUMBER N/A	
				5b. GRANT NUMBER N/A	
				5c. PROGRAM ELEMENT NUMBER N/A	
6. AUTHOR(S) Somnuk, Angela, P., Major, USA				5d. PROJECT NUMBER N/A	
				5e. TASK NUMBER N/A	
				5f. WORK UNIT NUMBER N/A	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USMC Command and Staff College Marine Corps University 2076 South Street, Quantico, VA 22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S) N/A	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S) N/A	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited.					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The U.S. Army has made significant improvements in the federal response to catastrophic natural disasters. However, Title 10 forces still lack education and experience in large scale disaster response. Competing priorities and training requirements have directly contributed to the overall lack of knowledge in DSCA operations amongst Title 10 forces. In order to ensure that Title 10 forces are prepared to support the nation during disaster response, DSCA-related education should be incorporated throughout the Professional Military Education (PME) System for Army officers.					
15. SUBJECT TERMS DSCA; Cascadia Subduction Zone; disaster response; Army					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 31	19a. NAME OF RESPONSIBLE PERSON USMC Command and Staff College
a. REPORT Unclass	b. ABSTRACT Unclass	c. THIS PAGE Unclass			19b. TELEPHONE NUMBER (Include area code) (707) 784-3330 (Admin Office)

*United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068*

MASTER OF MILITARY STUDIES

**FUTURE CATASTROPHIC NATURAL DISASTERS ON THE HOMEFRONT: ARE U.S. ARMY
TITLE 10 FORCES FULLY PREPARED FOR DEFENSE SUPPORT OF CIVIL AUTHORITIES
MISSIONS?**

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

MAJOR ANGELA P. SOMNUK

AY 16-17

Mentor and Oral Defense Committee Member: Dr. Bradford Wineman

Approved: 

Date: 4 May 17

Oral Defense Committee Member: Dr. Jonathan Phillips

Approved: 

Date: 4 May 17

Executive Summary

Title: Future catastrophic natural disasters on the home front: Are U.S. Army Title 10 forces fully prepared for defense support of civil authorities missions?

Author: Major Angela Somnuk, United States Army

Thesis: Although the U.S. Army has made significant improvements in the federal response to catastrophic natural disasters, Title 10 forces still lack education and experience in large scale disaster response. Competing priorities and training requirements have directly contributed to the overall lack of knowledge in DSCA operations amongst Title 10 forces. In order to ensure that Title 10 forces are prepared to support the nation during disaster response, DSCA-related education should be incorporated throughout the Professional Military Education (PME) System for Army officers.

Discussion: The 2015 National Security Strategy (NSS) reveals an increased number of missions expected of the Armed Forces due to an increasingly complex and uncertain future. The U.S. Army balances its missions with allocated resources, and each primary mission receives its own prioritization. National Guard forces predominantly execute Defense Support of Civil Authorities. However, as several government documents point out, climate change and threats to the homeland are a real concern that will require a whole-of-government approach. A looming major threat to the homeland today is the Cascadia Subduction Zone (CSZ) fault line, which will undeniably test the entire nation's ability to respond. A full rupture of this fault line would cause a massive earthquake and tsunami that will affect three states as well as British Columbia and will require federal forces to respond immediately. Hurricane Katrina and Superstorm Sandy both tested USNORTHCOM and USARNORTH's ability to deploy and employ Title 10 Forces to respond to the disasters. *OPN Cascadia Rising* was executed in June 2016 and involved hundreds of different organizations including USNORTHCOM and USARNORTH. Title 10 forces that are pre-identified to perform DSCA operations on an annual basis should integrate with other agencies and receive disaster response education.

Conclusion: DSCA is one of DoD's primary missions; the Army should ensure that Title 10 officers operating in units that have the capabilities most often requested during catastrophic natural disasters are familiar with the National Response Framework (NRF) and Dual Status Commander (DSC) construct. After all, protecting the homeland not only involves natural disaster response, but a wide array of catastrophes that could occur simultaneously throughout the U.S. and would inevitably require Title 10 forces to operate in a whole-of-government approach as laid out by the NRF.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Table of Contents

	Page
PREFACE.....	5
INTRODUCTION.....	6
SEQUENCE.....	8
OTHER STUDIES.....	8
COMMON CHALLENGES.....	9
THE PROBLEM: LACK OF EDUCATION/EXPERTISE.....	12
CASCADIA SUBDUCTION ZONE.....	14
OPERATION CASCADIA RISING.....	15
CURRENT POLICY.....	16
USNORTHCOM.....	16
DEPARTMENT OF DEFENSE.....	19
CURRENT SITUATION.....	20
RECOMMENDATIONS.....	22
CONCLUSION.....	26
APPENDIX A: DOD NRF FOR DOMESTIC EMERGENCIES.....	28
ACRONYMS.....	29
BIBLIOGRAPHY.....	30

Preface

This research paper addresses the overall lack of education and expertise in DSCA operations amongst Army Title 10 forces. The U.S. made extensive changes to doctrine, policy, and procedures after Hurricane Katrina, in order to prevent the lack of preparedness that occurred during the response. Years later, Superstorm Sandy hit and Title 10 forces still demonstrated a lack of knowledge in DSCA policies. As an active duty Army Officer who worked with the American Red Cross for a year under the Training with Industry program, this topic is important to me. I will attempt to address the reasons that Title 10 forces lack education and expertise in DSCA operations and how that causes confusion during disaster response in the U.S. I also focus on the Cascadia Subduction Zone (CSZ) scenario because it is a scientific fact that a rupture in this fault line will cause a massive earthquake and tsunami on the west coast, and can occur any day. This disaster is emphasized because it will likely be the most catastrophic disaster the U.S. will have experienced in the past several hundred years. Although there are pre-identified Army Title 10 forces on DSCA events annually, those forces may not be available or prepared to go. However, it is certain that units that have logistics, security, search & rescue, and/or CBRNE capabilities are the most likely to deploy. This research is valuable to military professionals, interagency, intergovernmental, nongovernmental, and private sector individuals that respond to natural disasters. The key to preparing Title 10 forces for disaster response is thorough planning, coordination, communication, and mutual understanding of who is in charge, what is going on, and how to best solve the myriad of issues that will occur. I would like to thank my mentor, Dr. Bradford Wineman, for helping me tackle this research and provide a valuable product to all those who will read it.

INTRODUCTION

Prompted by the September 11, 2001 terrorist attacks, the Department of Defense (DoD) established United States Northern Command (USNORTHCOM) on October 1, 2002, to provide command and control (C2) of DoD homeland defense efforts and coordinate defense support of civil authorities (DSCA).¹ Joint Publication (JP) 3-28 defines DSCA as:

support provided by federal military forces, DoD civilians, DoD contract personnel, DoD component assets, and National Guard forces (when the SecDef, in coordination with the governors of the affected states, elects and requests to use those forces in Title 32, United States Code, status or when federalized) in response to a request for assistance (RFA) from civil authorities for domestic emergencies, law enforcement support, and other domestic activities, or from qualifying entities for special events.²

DSCA involves various missions, one of which is responding to presidential declared major disasters under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act).³ JP 3-28 distinguishes support provided by federal forces (Title 10) and National Guard forces (usually operating in Title 32 status). Title 32 forces frequently train with other disaster response agencies and are often called upon to perform DSCA missions in the U.S. However, Title 10 forces are only called to respond to catastrophic disasters when local and State resources are exhausted and the President declares an emergency under the Stafford Act. Therefore, Title 10 forces are not as rehearsed or prepared to coordinate and collaborate with other governmental agencies on the ground because they do not train on DSCA missions as often as their Title 32 counterparts.

The Department of Homeland Security (DHS) and Federal Emergency Management Agency (FEMA) published the National Response Framework (NRF) to identify the

¹ US Northern Command Homepage, accessed January 10, 2017, <http://www.northcom.mil/About-USNORTHCOM/>.

² US Department of Defense, *Defense Support of Civil Authorities (DSCA)*, JP 3-28 (Washington, DC: U.S. Government Printing Office, July 31, 2013), I-2.

³ *Ibid*, II-2.

procedures the Federal government and entire Nation must take to organize and respond to natural disasters, terrorist attacks, and other catastrophic events.⁴ The latest NRF was updated in June 2016 and is in conjunction with the concepts identified in the National Incident Management System (NIMS) to align key roles and responsibilities across the Nation. Essentially, NIMS provides the template for incident management while the NRF provides the structure and mechanisms for incident management.⁵ Army Title 10 forces currently on the *U.S. Forces Command (USFORSCOM) Execution Order (EXORD) In Support of DSCA FY17* are forces pre-identified to support DSCA operations on an annual cycle that is based off of guidance from the Combined Joint Chiefs of Staff (CJCS) DSCA EXORD published in 2013.⁶ However, there are no guarantees that when a disaster hits, those units will be available or best suited to deploy to the affected area. There are no active duty units within DoD that remain on standby solely for catastrophic natural disasters.

THESIS

Although the U.S. Army has made significant improvements in the federal response to catastrophic natural disasters, Title 10 forces still lack education and experience in large scale disaster response. Competing priorities and training requirements have directly contributed to the overall lack of knowledge in DSCA operations amongst Title 10 forces. In order to ensure that Title 10 forces are prepared to support the nation during disaster

⁴ US Department of Homeland Security, Federal Emergency Management Agency, *The National Response Framework* (Washington, DC: Government Printing Office, 2016), https://www.fema.gov/media-library-data/1466014682982-9bcb8245ba4c60c120aa915abe74e15d/National_Response_Framework3rd.pdf.

⁵ US DoD: *DSCA*, JP 3-28, I-5.

⁶ US Forces Command, *FORSCOM Execution Order In Support Of DSCA FY17*, November 18, 2016.

response, DSCA-related education should be incorporated throughout the Professional Military Education (PME) System for Army officers.

SEQUENCE

This paper will give background information on how Title 10 forces execute DSCA and explain the common challenges that were experienced in previous disasters like Hurricane Katrina and Superstorm Sandy and explain why these challenges directly relate to an overall lack of education and expertise among Title 10 forces. It will then introduce the Cascadia Subduction Zone (CSZ) scenario and explain why it is vital that Title 10 forces understand how to conduct DSCA before the next catastrophic natural disaster hits. The paper then details some of the procedures that USNORTHCOM follows when performing DSCA and how it is nested in strategic documents like the National Security Strategy. Finally, the paper lists recommendations to address the education gap that exists among Army officers.

OTHER STUDIES

Multiple departments, agencies, professionals, and students have conducted extensive research on the challenges of integrating federal forces during DSCA operations. The *Federal Response to Hurricane Katrina Lessons Learned*⁷ report submitted to President George Bush in 2006 provides a great historical record of the lessons learned over ten years ago and how DoD has updated policy and procedures. The thesis, “Improving the Efficacy of Department of the Army Title 10 Forces Performing Defense Support of Civil

⁷ The White House, *The Federal Response to Hurricane Katrina: Lessons Learned* (Washington, DC: The White House, February 2006), <https://www.uscg.mil/history/katrina/docs/KatrinaLessonsLearnedWHreport.pdf>.

Authorities,”⁸ by Major Robert Elliott greatly added to this research as well as the report written by Ryan Burke and Sue McNeil titled “Toward a Unified Military Response: Hurricane Sandy and the Dual Status Commander.”⁹ Both authors argued the lack of expertise in DSCA efforts that challenged Title 10 forces during each response. Additionally, many organizations already have existing plans, training exercises, and procedures in place to prepare for the CSZ fault line rupture. The Washington State *2016 Cascadia Rising Exercise After Action Review* (AAR) is the most recently published report and explicitly identifies the gaps that exist in the nation’s ability to respond specifically to the earthquake and tsunami that will occur as a result of a rupture in the CSZ fault line.¹⁰

COMMON CHALLENGES

There are 15 core capabilities identified in the NRF that are required for all U.S.-based incidents. The capabilities that Army Title 10 forces often provide during DSCA operations are logistics, security, and mass search and rescue (SAR).¹¹ Title 10 forces can also provide Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) capabilities when required. In the *Federal Response to Hurricane Katrina* report, despite the many successes of the operation, 17 critical challenges were highlighted, the first and most significant being national preparedness. A clear challenge was the federal government’s processes for unified management of the national response, C2 structures

⁸ Robert L. Elliott, “Improving the Efficacy of Department of the Army Title 10 Forces Performing Defense Support of Civil Authorities” (master’s thesis, U.S. Army Command and General Staff College, 2013).

⁹ Ryan Burke and Sue McNeil, “Toward a Unified Military Response: Hurricane Sandy and the Dual Status Commander” (master’s thesis, Strategic Studies Institute and U.S. Army War College Press, 2015), <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1263.pdf>.

¹⁰ Washington State Military Department, *2016 Cascadia Rising Exercise After Action Report: Catastrophic Earthquake and Tsunami Scenario*, (Washington State Military Department, December 16, 2016), PowerPoint presentation.

¹¹ US DHS, FEMA, The NRF.

within the Federal government, knowledge of the preparedness plans, and regional planning and coordination.¹² The C2 issues that occurred on the ground caused confusion amongst DHS and other federal agencies because of unclear and sometimes overlapping roles and responsibilities. The report also highlights the issues of coordination between active duty and Army National Guard (ARNG) Soldiers because each organization had its own higher authority, the former being the President and the latter being the state governor. USNORTHCOM commanded active duty forces while each State government commanded its ARNG forces. Joint Task Force (JTF) Katrina lacked visibility of the thousands of forces in the disaster area.

During the hearing before the Homeland Security and Governmental Affairs U.S. Senate, C2 was mentioned as part of 11 tasks identified between Lieutenant General (Lt. Gen.) Russel Honoré, Vice Admiral Thad Allen, and Major General Bennett Landreneau, as a quick fix. Lt. Gen. Honoré suggested a prearranged unified C2 organization and mentioned that it was in the works and would likely happen before the next hurricane season. Honorable Susan Collins, the Chairman of the Committee, opened the hearing with questions regarding C2 issues and wanted to know whether USNORTHCOM was truly prepared to assist in natural disasters, and what DoD would do to bridge the gaps in coordination between active duty and ARNG forces.¹³ Several debates occurred on whether C2 was truly a challenge and what should be done about a unified command structure within DoD. Following the C2 discussions evident during Hurricane Katrina, State and Federal Government policymakers adopted laws and passed the National Defense Authorization Act (NDAA), authorizing a single military commander, the dual status

¹² The White House: *The Federal Response to Hurricane Katrina*

¹³ *Hurricane Katrina: The DoD's Role in the Response.*

commander (DSC). A DSC is unique in that it allows the designated National Guard Officer to simultaneously hold a state and federal commission, and assume tactical control (TACON) over both Title 32 and Title 10 forces during disasters.¹⁴ This new C2 structure would be tested during the Superstorm Sandy response and reveal that several Title 10 forces were still unaware of the arrangement and unfamiliar with operating under it.

Superstorm Sandy was the largest Atlantic hurricane on record and was the second most costly hurricane, after Katrina. JTF-Sandy stood up and included thousands of National Guard, Active, and Reserve forces from across the services. By the time the storm hit in 2013, USNORTHCOM was already fully operational and policies specified that the Commander of USNORTHCOM would exercise operational control (OPCON) of all DoD elements, including Active, Reserve, and National Guard forces assigned to him.

Superstorm Sandy demonstrated, for the first time, the power of the DSC. The DSC that took command of all Armed Forces during the Superstorm Sandy response had to balance state and federal responsibilities while ensuring leaders at the junior levels worked effectively and in unity.¹⁵ The AARs and overall feedback varied with both positive and negative views of the DSC C2 arrangement. Because the DSC C2 structure was executed for the first time during Sandy, many Title 10 forces were still very unfamiliar with the structure.

The DSC arrangement is still not fully understood by all military forces. After surveying 27 Army officers (23 Active Duty, 4 National Guard) in the rank of major and above, only three of the Title 10 officers had heard of the DSC. However, all four of the National Guard officers were able to accurately define the role of the DSC. This survey

¹⁴ *National Defense Authorization Act for Fiscal Year 2004*, Public Law 108-136, November 24, 2003.

¹⁵ Ryan Burke and Sue McNeil, 38.

further proved that there is a lack of familiarity amongst Title 10 field grade officers that could likely be in charge of coordinating and responding to a DSCA event. This lack of understanding could cause unnecessary confusion among the active, reserve, and ARNG forces that must work together following a catastrophic disaster.

Unity of effort is arguably the greatest challenge in DSCA operations because so many clashing personalities, agendas, roles, and responsibilities exist across local, state, and Federal organizations. Particularly for the Army, Title 10 officers in charge of various efforts understand the complexities of unifying efforts but rarely get the opportunity to experience real world catastrophic disasters. Multiple technologies, frameworks, reporting techniques, and doctrine across different organizations contribute to the unity of effort problems seen in past disasters. The lessons learned are almost never about shortages in capabilities or resources, but rather that those capabilities and resources are available and not utilized effectively. The Army cannot control or change other organization's processes, but Army leaders can ensure Title 10 forces remain flexible during anticipated challenges and understand their role in disaster response. Soldiers performing DSCA must realize the complexities that arise during these operations and know the laws that prohibit them from conducting certain tasks.

THE PROBLEM: LACK OF EDUCATION/EXPERTISE

The U.S. Army has several missions, certainly more than it did decades ago. The 21st century homeland defense concerns expressed throughout national strategic documents request a great deal from the Armed Forces. The Army is the largest service with roughly 460,000 active duty Soldiers, 335,000 National Guardsmen, and 195,000 Reservists,

totaling about 990,000 personnel.¹⁶ It is not surprising that much is expected of the Army with almost one million Soldiers in strength. Recent force reductions and restructures have further complicated the tasks of Army leaders managing and shaping the force to meet the increased strategic requirements asked of them. These challenges intermixed with emerging contingency operations have contributed to the shortfall in DSCA knowledge and expertise within the active duty. The Army has been committed to the war on terrorism for the past 15 years, which means most of the force has been involved in high intensity combat operations. The wars in Iraq and Afghanistan, the high operations tempo, and constant deployment, have all influenced the current Army posture today.

A stability operation, such as DSCA, is extremely challenging for Army leaders; the inherent complexities involved demands that they have extensive knowledge of the different civilian agencies that are often the lead agencies in charge. The DoD has thousands of regulations, acronyms, instructions, manuals, policies, and laws as do each of the local, state, and non-governmental agencies. With so many competing requirements and higher mission priorities, Army leaders are challenged with incorporating DSCA into unit training schedules. Active duty units who could be called to respond to a catastrophic disaster are usually dispersed throughout the nation so they do not always receive cross training nor do they participate in many DSCA exercises. As previously mentioned, large-scale DSCA operations that involve federal forces usually require logistics, security, SAR and CBRNE capabilities. These capabilities are typically found in Army combat sustainment support, combat arms, combat SAR, and Defense CBRNE Response Force

¹⁶ US Department of Defense, *Defense Manpower Requirements Report* (Washington, DC: Office of the Assistant Secretary of Defense for Manpower & Reserve Affairs, April 2016), 2.

(DCRF) units; these units must be familiar with federal laws and the NRF as it relates to homeland defense.

CASCADIA SUBDUCTION ZONE

Earthquakes can be catastrophic natural disasters that often occur without forewarning. Scientists, seismologists, and other experts have long studied the fault lines that exist around the U.S., and many of them are confident that these fault lines can erupt any day. The CSZ fault line is 800 miles long and runs from British Columbia to Cape Mendocino, California. Scientific study has concluded that this fault line has triggered a massive earthquake every 300 to 500 years, with the last one occurring on January 26, 1700, triggering a tsunami that reached Japan.¹⁷ Scientists predict that the fault line is overdue for eruption and are no longer questioning if it will happen, but when it will.¹⁸ Several agencies have taken heed of this warning and developed scenarios based off of the scientific information already published.

According to the DHS Homeland Infrastructure Threat and Risk Analysis Center (HITRAC), a full rupture of the CSZ could cause a magnitude 9.2 earthquake with an epicenter 60 miles off of the Oregon coast. The earthquake would shake the ground for as long as five minutes straight and generate a tsunami wave between 12 and 40 feet high that would impact the west coast within ten to thirty minutes of the earthquake. Estimates predict that something of this size would likely impact 700+ miles of coastline and an

¹⁷ US Department of the Interior, "Historic Earthquakes: Cascadia Subduction Zone," *U.S. Geological Survey (USGS)*, last modified October 31, 2012, https://earthquake.usgs.gov/earthquakes/states/events/1700_01_26.php

¹⁸ Allison Echeverria and Dylan Palmer, "OSU researchers urge preparedness as the Cascadia Subduction Zone threatens," *The Oregonian*, June 25, 2016, http://www.oregonlive.com/teens/index.ssf/2016/06/osu_researchers_urge_preparedn.html.

estimated 8.3 million people. Of this population, estimates include 2.5 million people requiring food and water, 970,000 people requiring shelter, 29,000 injured personnel requiring medical attention, 14,000 fatalities, and the evacuation of 25,000 patients from hospitals and 96,000 people from nursing homes.¹⁹ Although these are merely estimates, the impact of the CSZ rupture would undoubtedly have national-level impacts and require the entire nation to respond.

OPERATION CASCADIA RISING

Operation (OPN) Cascadia Rising is a recent real world exercise focusing on a major earthquake and tsunami scenario. Over 50 counties, major cities, tribal nations, private sector businesses, state and federal agencies, and non-governmental organizations across Washington, Oregon, and Idaho worked with FEMA, the Washington Military Department, U.S. Transportation Command (USTRANSCOM), USNORTHCOM, and U.S. Army North (USARNORTH) in *OPN Cascadia Rising*. This nine-day exercise concluded on June 16, 2016.²⁰ During *OPN Cascadia Rising*, problems in effective civil-military coordination in “assigning resources, gathering and sharing assessments, controlling the movement of teams and units, and managing air operations,” was contributed to inexperienced staff lacking knowledge of ARNG and DoD capabilities from all services.²¹ *OPN Cascadia Rising* is one such exercise that involves a joint, interagency, and intergovernmental collaboration that should be discussed and used as an example when officers are learning about DSCA.

¹⁹ NORAD and USNORTHCOM, *USNORTHCOM Playbook CSZ Catastrophic Earthquake & Tsunami Response* (Headquarters, USNORTHCOM, Peterson AFB, CO, April 29, 2016), PowerPoint presentation.

²⁰ FEMA Homepage, CSZ Pacific Northwest Catastrophic Earthquake and Tsunami Functional Exercise Flyer. <https://www.fema.gov/media-library-data/1462203815175-6b989e683e8c2d34864f007fbde2c3fd/CR2016Flyer.pdf>

²¹ Washington State Military Department, *2016 Cascadia Rising Exercise AAR*, 10.

CURRENT POLICY

The 2015 National Security Strategy (NSS) addresses climate change several times and defines it as “an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources like food and water.”²² The 2014 *Quadrennial Defense Review* (QDR), a legislatively mandated review of DoD strategy and priorities, sets the course for DoD as it assesses future threats and challenges the nation will face. The U.S. Army follows guidance from the priorities listed in the QDR and balances its strategies, capabilities, and forces to achieve its missions. Unfortunately, the Armed Forces have experienced major budget cuts, and future budgets are uncertain. The Army contends with an increased number of primary missions with allocated resources, and each primary mission receives its own prioritization. National Guard forces predominantly execute DSCA missions that occur in the U.S. However, as the NSS and several other government documents indicate, climate change will likely cause an increase in natural disasters on the homeland and require a whole of government approach during DSCA operations, including Title 10 forces.

USNORTHCOM

USNORTHCOM’s area of responsibility (AOR) includes air, land, and sea approaches to the continental United States, Alaska, Canada, Mexico and the surrounding water out to 500 nautical miles. USNORTHCOM plans, organizes and executes homeland defense and DSCA but with few permanently assigned forces. When ordered by the President or Secretary of Defense (SecDef) to execute a specific mission, USNORTHCOM receives

²² The White House, *The National Security Strategy of the United States of America* (Washington, DC, 2015), https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf.

temporarily assigned or allocated forces from other combatant commanders. Hurricane Katrina led to the deployment of over 72,000 military forces, including 22,000 active duty personnel.²³ In May 2008, USNORTHCOM published Concept Plan (CONPLAN) 3501-08, DSCA, a plan to support the employment of Title 10 forces providing DSCA in accordance with the NRF, laws, and policies. The Joint Staff published the SecDef approved CJCS DSCA EXORD that delineates DSCA response forces and the commander of USNORTHCOM's authorities to deploy and employ them within the USNORTHCOM AOR.²⁴

Recent focus has been placed on DSCA operations within the Army, especially after USNORTHCOM stood up. DoD Directive 4715.21, *Climate Change Adaptation and Resilience*, was published in 2016 and directs combatant commanders (CCDRs) to “review and refine capacity and capability requirements for humanitarian assistance/disaster relief and DSCA for the respective assigned areas of responsibility.”²⁵ CCDRs must also ensure that the Title 10 forces operating under their command have a general awareness of DoD policies, the NRF, the DSC C2 structure, and DSCA operations when conducted in the U.S. USARNORTH, the Army component combatant command that operates under USNORTHCOM, developed education programs focusing on DSCA tasks. For example, Phase I-III DSCA courses are offered either as distance learning online courses or a three and a half day resident course

²³ *Hurricane Katrina: The Defense Department's Role in The Response: Hearing before the Committee on Homeland Security and Governmental Affairs United States Senate*, 109th Cong., (2006) (statement of Secretary Paul McHale, Assistant Secretary of Defense for Homeland Defense, U.S. Department of Defense).

²⁴ Headquarters, US Northern Command, *Defense Support of Civil Authorities (DSCA)*, CONPLAN 3501-08 (Peterson AFB, CO: US Northern Command, May 16, 2008), http://www.governmentattic.org/6docs/CONPLAN_3501-08_2008.pdf.

²⁵ Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, *Climate Change Adaptation and Resilience*, DoD Directive 4715.21, (Washington, DC: Office of the Under Secretary of Defense (AT&L), January 14, 2016), 9.

to its assigned personnel.²⁶ USARNORTH has facilitated the Army response to several natural disasters over the past eight years in its role as the joint force land component command. They are currently revising the 2013 CJCS DSCA EXORD, which will be sent to USNORTHCOM for adjudication and is likely to be published in May 2017. During a recent telephone interview, a DSCA planner at USARNORTH revealed that the revised EXORD may have significant changes to the RFA and request for forces (RFF) process which could impact the USFORSCOM EXORD that delineates pre-identified Title 10 forces for DSCA operations within the U.S. The current CJCS DSCA EXORD instructs supporting combatant commands like USFORSCOM to identify forces and capabilities to meet specific force packages, such as an aerial SAR package and theater opening force package. However, the revised CJCS DSCA EXORD could eliminate these force packages and all requests for Title 10 forces would have to be requested for each capability.²⁷ This new process would complicate the sourcing of Title 10 units and degrade USARNORTH's ability to establish pre-identified force packages.

When the President declares a major disaster under the Stafford Act, the Army executes guidance presented in the CJCS DSCA EXORD. According to the EXORD, the supported CCDR will submit a RFF that requires SecDef approval. If approved, force providers have 24 hours to source the request and report that the designated forces are on a prepared to deploy order (PTDO) status. Once on a PTDO status, those Soldiers will report to the supported CCDR for planning and coordination and be prepared to deploy within 96 hours of notification by the Joint Staff. Additionally, these forces can remain on a

²⁶ US Army North Homepage, "Defense Support of Civil Authorities," accessed January 5, 2016, <http://www.arnorth.army.mil/dsca>.

²⁷ Interview with Senior US Army North Plans Chief,

PTDO status for up to seven consecutive days unless extended by the SecDef.²⁸ Once Soldiers deploy into the AOR, they must be prepared to take direction from both civilian authorities and their military leaders. The NRF provides context for how Title 10 forces and other agencies work together and explains how response efforts relate to other parts of national preparedness. The issue is the lack of familiarity with the NRF throughout the Army, particularly Title 10 active duty officers.

DEPARTMENT OF DEFENSE

DoD Instruction 3000.05, *Stability Operations*, states: “stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct with proficiency equivalent to combat operations,” and “DoD components shall explicitly address and integrate stability operations-related concepts and capabilities across doctrine, organization, training, materiel, leadership and education, personnel, facilities, and applicable exercises, strategies, and plans.”²⁹ These statements specifically instruct all DoD components to be proficient in stability operations on the same level as combat operations. Stability operations involve a range of activities from repairing critical infrastructure in other countries to responding to natural disasters in the U.S. under a DSCA mission. DSCA includes “support to prepare, prevent, protect, respond, and recover from domestic incidents including terrorist attacks, major disasters, both natural and man-made, and planned domestic special events.”³⁰ Response to major natural disasters is just

²⁸ Chairman of the Joint Chiefs of Staff (CJCS), *Defense Support of Civil Authorities Standing Execution Order (EXORD)*, June 07, 2013.

²⁹ US Department of Defense, *Stability Operations*. Instruction 3000.05, September 16, 2009.

³⁰ US DoD, JP 3-28.

one aspect of DSCA but the laws and policies within the NRF apply to all domestic incidents that Title 10 forces must be familiar with.

As every organization has its own priorities, so do each of the military departments. The U.S. Army, especially active duty Title 10 forces, has experienced a decade-long war with a predominant focus on high intensity combat operations. Although “Mother Nature” has been very active during this time and active duty forces have been called upon to respond, it has been minimal when compared to the Army’s other core missions. The U.S. Army mission is to fight and win the nation’s wars, and that mission has created a very action-oriented force focused on combat operations.³¹ However, the NSS includes an increased array of stability operations that the Army must be prepared to conduct including DSCA.

CURRENT SITUATION

Defense Coordinating Officers (DCO) are individuals that serve as DoD’s single point of contact in the Joint Field Office and there is one assigned to each FEMA region. Each DCO holds the rank of Colonel or above and receives extensive education in DSCA operations. When Hurricane Matthew hit the east coast in October 2016, USNORTHCOM sent DCOs to Florida, Georgia, South Carolina, and Virginia, and DSCs were designated for each of those states except Virginia.³² ARNG Soldiers operating under a Title 32 status continue to gain more experience in DSCA than Title 10 forces because they are the first responders when

³¹ Michael B. Siegl, “Clarity and Culture in Stability Operations,” *Military Review*, (November-December 2007): 101, http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20071231_art016.pdf.

³² U.S. Department of Defense, “Department of Defense’s Preparation, Support, and Recovery Efforts for Hurricane Matthew,” news release, Oct 8, 2016, <https://www.defense.gov/News/News-Releases/News-Release-View/Article/968975/department-of-defenses-preparation-support-and-recovery-efforts-for-hurricane-m>.

state governors need assistance. ARNG Soldiers frequently deploy so they learn mitigating strategies to deal with the complexities involved in the whole-of-government response. Title 10 Soldiers inevitably lack the level of expertise that their Title 32 counterparts have due to their limited employment during DSCA operations, but small adjustments in current PME courses can mitigate this gap. The nation has transitioned to a newly appointed administration under President Donald Trump, and future DoD and Army priorities are uncertain. As the Army moves forward with assigned missions in an increasingly complex world, leaders must ensure that Title 10 officers continue to enhance their knowledge and expertise in DSCA operations.

The CSZ fault line eruption is just one of a number of large disasters that could happen at any time with no warning. History and science show the damages and havoc caused by catastrophic natural disasters. The single deadliest natural disaster in U.S. history, Hurricane Galveston, killed an estimated 8,000 people in 1900.³³ The American Red Cross reported that disaster workers responded to 176 large U.S. disasters in 2015, which was more than each of the past three years. According to FEMA, there were seven emergency declarations in 2016, including Hurricane Matthew's effects as well as severe storms and flooding in Louisiana, contaminated water in Michigan, and the combination of storms, flooding, and tornados across Missouri. These numbers do not include the dozens of fire management assistance declarations and forty-six Presidential declared major disasters that occurred in 2016.³⁴

³³ Tuan C. Nguyen, "The 10 Worst U.S. Natural Disasters," *Live Science*, November 7, 2007, <http://www.livescience.com/11365-10-worst-natural-disasters.html>.

³⁴ Department of Homeland Security. FEMA Homepage, "Disaster Declarations for 2016," accessed January 14, 2017, https://www.fema.gov/disasters/grid/year/2016?field_disaster_type_term_tid_1=All.

The United Nations head of disaster planning warned that climate change is fueling a huge increase in catastrophic droughts and floods. Robert Glasser, the special representative of the secretary general for disaster risk reduction said, “As the odds of any one event go up, the odds of two happening at the same time are more likely. We’ll see many more examples of cascading crises, where one event triggers another event, which triggers another event.”³⁵ This is perhaps why the NSS includes climate change as a threat to the homeland. If the U.S. experiences multiple disasters simultaneously, USNORTHCOM and USARNORTH would likely have to dispatch Title 10 forces from dispersed geographic locations that may lack experience with operating under the rules of the NRF.

RECOMMENDATIONS

While all Title 10 forces should have a general awareness of operating in a whole-of-government environment, the commanders and staffs of the units that maintain specific capabilities critical to DSCA missions should clearly understand federal laws as codified in Title 10 United States Code (USC) and policies within the NRF. Commanders and Army staff officers operating in combat service support, combat arms, SAR, and DCRF units should ensure that their Soldiers are familiar with existing DSCA laws and guidelines. A direct proposal from the Hurricane Katrina Senate Hearing was for the Federal government to plan, train, and equip in a way that will meet the requirements for responding to an event that exceeds local and State governments. DoD has significantly improved its disaster response processes since Hurricane Katrina, but in order to mitigate challenges

³⁵ Sam Jones, “World heading for catastrophe over natural disasters, risk expert warns,” *The Guardian*, April 24, 2016, <https://www.theguardian.com/global-development/2016/apr/24/world-heading-for-catastrophe-over-natural-disasters-risk-expert-warns>.

that Title 10 forces may face as a result of not knowing the laws that limit their efforts during DSCA operations, junior officers should learn about the NRF, C2 structures, and interagency coordination earlier in their careers.

A typical Army officer's professional schooling includes the Basic Officer Leader Course, Captain's Career Course, Command and General Staff College, and Army War College, with some variations depending on the branch the Officer serves in. Civilian and military leaders in the Army continuously assess, revise, and implement curriculums for each of these schools that are designed to teach officers how to effectively operate at the next rank. There are many opportunities for DSCA-related course material to be incorporated throughout the PME system. Another way the Army can educate officers in emergency preparedness is to create a special skill identifier for active duty officers who are extensively trained and specially qualified to perform DSCA. These officers will serve as future commanders or staff officers in charge of the units called to respond to disasters. For example, an officer who has received a Bachelor of Science in Emergency and Disaster Management, or one who has worked with FEMA, the American Red Cross, or similar agency in his or her career would be eligible to obtain the special skill identifier. This officer would be required to conduct specific training to receive qualification and could then be assigned to a yearlong utilization tour that would broaden their experience and knowledge in DSCA. Potential broadening positions for Title 10 officers can include DCO or LNO positions with FEMA, or an assignment at USNORTHCOM, the National Military Command Center, Department of State, or USAID. Many of these positions are already designated and held by officers in the Army, but Human Resources Command does not track those personnel as having DSCA expertise.

USARNORTH is on the right path with the DSCA-related courses it has developed over the years. Particular to the CSZ scenario, USARNORTH could facilitate cross training between the active duty and National Guard forces near the CSZ fault line states. Several Army agencies partnered with U.S. Agency for International Development (USAID) in creating a video game designed to train Soldiers how to respond to natural disasters. The game simulates a disaster and tests a Soldier's ability to prioritize resources to meet the most critical needs while teaching him or her the consequences of the choices he or she makes.³⁶ This is one example of an innovative and cost effective approach to teaching future Army leaders how to conduct DSCA. While encompassing DSCA into unit training calendars may not be feasible due to higher priorities, leaders could find inventive ways to include elements of a DSCA response into regular training exercises. Senior leaders in the Army operating in staff positions must be educated on DSCA operations more often and work with other agencies to the greatest extent possible. Because the DSC is usually a National Guard Officer, Title 10 officers called to support DSCA may not understand the C2 structure, which can cause further confusion in their own units. These leaders must understand the many laws, policies, and procedures that are articulated in the NRF and joint doctrine as it pertains to DSCA.

During catastrophic disasters, road networks, communications systems and telephone lines are often wiped out. Soldiers have to deal with the chaotic environment they are in and quickly adapt to the problems on ground. Educating Army officers on the complexities involved in DSCA at PME schools will mitigate the lack of expertise they currently have as a result of not participating in many DSCA events. This addition to PME

³⁶ Mike Casey, "New Video Game Trains Response to Foreign Disasters," *Combined Arms Center*, May 17, 2016, <http://tradocnews.org/new-video-game-trains-response-to-foreign-disasters/>.

curriculums will offer opportunities for officers to role play as liaison officers (LNO), DCOs, DSCs, or other agency leads. A staff officer that can operate in an environment involving numerous stakeholders and comprehend how procedures work will undoubtedly perform better during any DSCA mission. There is little time to learn such a great amount of material after being notified for a PTDO.

Partly why the response to Hurricane Katrina did not go as smooth was because key decision-makers were unfamiliar with existing plans and frameworks. Before the NRF was created, responders at the local, state, and Federal levels used the National Response Policy (NRP), but there was a common misunderstanding of the ends, ways, and means to properly execute the national plan. Every organization is charged with creating internal response plans, doctrine, policies, and standard operating procedures when responding to disasters. The ARNG, interagency, non-governmental, local, State, and Federal government agencies all have emergency plans and each train their personnel slightly different than the others. To say that DSCA training will always be conducted with all agencies present is idealistic, but the more they integrate efforts and share lessons learned, the better they will be at preparing for future disasters and solving unity of effort issues. USNORTHCOM and USARNORTH cannot control how other agencies operate, but they can ensure Title 10 forces understand how to function under the DSC C2 structure and in unity with other agencies by ensuring staffs are familiar with the NRF and USNORTHCOM's CONPLAN.

In preparation for the next catastrophic disaster, the Army must ensure that units that provide logistics, security, SAR, and/or CBRNE capabilities are accustomed to working under civilian authority, understand the role of the DSC, and can quickly adapt to the situation on the ground. Commanders and staff officers in combat service support, combat

arms, SAR, and DCRF units must be comfortable planning disaster response in conjunction with non-DoD primary agencies. Innovative DSCA education that allows officers to focus on solving complex problems despite the limitations, laws, and policies that exist when working with other agencies will prove beneficial in the long run. This combined effort will improve coordination across the broad spectrum of agencies and functions.

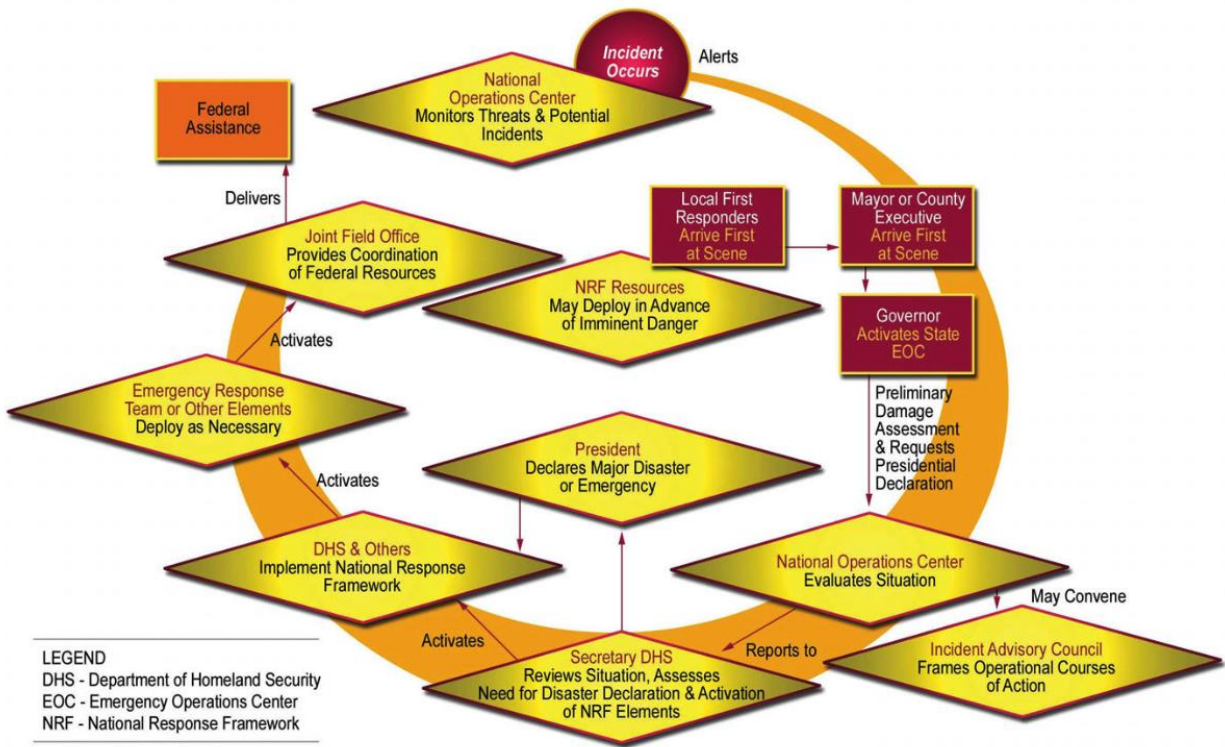
CONCLUSION

DoD has realized the significance of a more joint force and adjusted each service's posture to become more interoperable. If this "jointness" concept is taken just a step further and Title 10 officers are challenged to operate in a whole-of-government approach, they will be significantly broadened. The downfall and alternative is that Title 10 forces responding to disasters on the homeland will not understand the various laws involved in DSCA operations, their role as part of a national effort, nor the complexities involved in an overly chaotic environment. There is no single solution to every DSCA response because every disaster will have its own challenges. No matter how proficient each organization gets, including the Army, there will always be lessons learned from the challenges faced. The goal is to continue to improve emergency response efforts and prepare Soldiers to provide the support anticipated by the nation when they show up, whether in response to a catastrophic natural disaster or other domestic crisis on the homeland.

When the CSZ fault line erupts, Title 10 forces will inevitably be requested. *OPN Cascadia Rising* shows improvement in DOD's disaster response efforts at the USNORTHCOM headquarters level, but also reveals that many Title 10 forces that will perform hands-on disaster response tasks after the CSZ eruption do not participate in these

exercises for various reasons. USNORTHCOM and USARNORTH, as the primary DoD participants at the exercise must ensure that the right active duty units are aware of the scenario, the complexities involved, and their role on the ground when the CSZ exercise becomes a real-world disaster response. Commanders and staff officers operating in those units must understand federal law, the NRF, and the DSC C2 structure when conducting DSCA operations and ensure their Soldiers understand how they will support the effort.

APPENDIX A: DoD National Response Framework for Domestic Emergencies Figure



Source: Defense Procurement and Acquisition Policy

ACRONYMS (in order of appearance in document)

DoD-Department of Defense
USNORTHCOM-United States Northern Command
C2-Command and control
DSCA-Defense Support of Civil Authorities
JP-Joint Publication
RFA-Request for assistance
Stafford Act-Robert T. Stafford Disaster Relief and Emergency Assistance Act
DHS-Department of Homeland Security
FEMA- Federal Emergency Management Agency
NRF- National Response Framework
NIMS- National Incident Management System
USFORSCOM-United States Forces Command
EXORD-Execution Order
CJCS- Combined Joint Chiefs of Staff
PME- Professional Military Education
CSZ-Cascadia Subduction Zone
AAR-After action review
SAR- search and rescue
CBRNE- Chemical, Biological, Radiological, Nuclear, and Explosives
ARNG-Army National Guard
JTF- Joint Task Force
Lt. Gen- Lieutenant General
NDAA- National Defense Authorization Act
DSC- dual status commander
TACON- tactical control
OPCON- operational control
DCRF- Defense CBRNE Response Force
HITRAC- Homeland Infrastructure Threat and Risk Analysis Center
OPN-Operation
USTRANSCOM- United States Transportation Command
USARNORTH- United States Army North
NSS- National Security Strategy
QDR- Quadrennial Defense Review
AOR- area of responsibility
SecDef- Secretary of Defense
CONPLAN- Concept Plan
CCDR- combatant commanders
RFF- request for forces
PTDO- prepared to deploy order
DCO-Defense Coordinating Officer
USC-United States Code
USAID-United States Agency for International Development
LNO-liaison officer
NRP- National Response Policy

BIBLIOGRAPHY

- Burke, Ryan and Sue McNeil. "Toward a Unified Military Response: Hurricane Sandy and the Dual Status Commander." Master's thesis, Strategic Studies Institute and U.S. Army War College Press, 2015).
<http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB1263.pdf>.
- Chairman of the Joint Chiefs of Staff. *Defense Support of Civil Authorities Standing Execution Order (EXORD)*, June 07, 2013.
- Elliott, Robert L. "Improving the Efficacy of Department of the Army Title 10 Forces Performing Defense Support of Civil Authorities." Master's thesis, U.S. Army Command and General Staff College, 2013.
- Headquarters, US Northern Command. *Defense Support of Civil Authorities (DSCA)*. CONPLAN 3501-08. Peterson AFB, CO: US Northern Command, May 16, 2008.
http://www.governmentattic.org/6docs/CONPLAN_3501-08_2008.pdf.
- National Defense Authorization Act for Fiscal Year 2004. Public Law 108-136, November 24, 2003.
- NORAD and USNORTHCOM. *USNORTHCOM Playbook CSZ Catastrophic Earthquake & Tsunami Response*. PowerPoint presentation. Headquarters, USNORTHCOM, Peterson AFB, CO, April 29, 2016.
- Siegl, Michael B. "Clarity and Culture in Stability Operations." *Military Review*, (November-December 2007): 101-102.
http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20071231_art016.pdf
- The White House. *The Federal Response to Hurricane Katrina: Lessons Learned*. Washington, DC: The White House, February 2006.
<https://www.uscg.mil/history/katrina/docs/KatrinaLessonsLearnedWHreport>.
- The White House. *The National Security Strategy of the United States of America*. Washington, DC, 2015.
https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf.
- Under Secretary of Defense (AT&L), *Climate Change Adaptation and Resilience*, DoD Directive 4715.21, Washington, DC: Under Secretary of Defense (AT&L), January 14, 2016.
- US Department of Defense. *Defense Manpower Requirements Report*. Washington, DC: Office of the Assistant Secretary of Defense for Manpower & Reserve Affairs, April 2016.

US Department of Defense. *Defense Support of Civil Authorities*. JP 3-28.
Washington, DC: U.S. Government Printing Office, July 31, 2013.

US Department of Defense. *Stability Operations*. Instruction 3000.05, September 16,
2009.

US Department of Homeland Security, Federal Emergency Management Agency.
The National Response Framework. Washington, DC: Government Printing Office,
2016. https://www.fema.gov/media-library-data/1466014682982-9bcf8245ba4c60c120aa915abe74e15d/National_Response_Framework3rd.pdf.

US Forces Command, *FORSCOM Execution Order In Support Of DSCA FY17*, November
18, 2016.