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THESIS

**LEADING PREPAREDNESS
FOR LOCAL FIRE AGENCIES**

by

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December 2014

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LEADING PREPAREDNESS FOR LOCAL FIRE AGENCIES

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ABSTRACT

In the post-9/11 world, the role of the fire service in the homeland security space is not clearly defined. The fire service has provided America's emergency response since the days of Benjamin Franklin and the Union Fire Company. Neighborhood fire stations have expanded since those early days as the threats and hazards have evolved. Fire departments remain firmly entrenched in communities delivering traditional services, such as fire suppression, fire prevention, emergency medical services, rescue, and hazardous materials service that translate directly to some core capabilities in homeland security and preparedness. Homeland security preparedness reaches beyond emergency response and fire prevention for fire departments. Preparedness can be enhanced by fire department participation as whole community partners. This preparedness requires full engagement of leadership and implementation of effective management systems across all levels of the fire service. This research is conducted through a content analysis of homeland security literature and comparative analysis of existing preparedness strategies. The information is synthesized to produce recommendations for advancing the role of the fire service and local fire departments in homeland security and preparedness.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACLU	American Civil Liberties Union
ANSI	American National Standards Institute
AFG	assistance to firefighters grant
CBP	capability-based planning
CIKR	critical infrastructure and key resources
DOD	Department of Defense
DHS	Department of Homeland Security
DRM	disaster risk management
EMAP	emergency management accreditation program
EMPG	emergency management performance grant
EOP	emergency operations plan
ESF	emergency support function
FBI	Federal Bureau of Investigations
FEMA	Federal Emergency Management Agency
FDMA	Fire and Disaster Management Agency
FDNY	Fire Department of New York
FOUO	For Official Use Only
HSGP	homeland security grant program
HSPD-1	Homeland Security Presidential Directive
HSPD-5	Homeland Security Presidential Directive 5: Management of Domestic Incidents
HSPD-8	Homeland Security Presidential Directive 8
IMT	incident management team
IAFC	International Association of Fire Chiefs
ISO	International Organization for Standardization
JTTF	Joint Terrorism Task Force
MOPS	Ministry of Public Security
NDRF	National Disaster Recovery Framework
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NIPP	National Infrastructure Protection Plan
NPLI	National Preparedness Leadership Initiative
NPS	National Preparedness System

NDEM	Nevada Division of Emergency Management
OEM	Office of Emergency Management
PDCA	plan–do–check–act
PKEMRA	Post-Katrina Emergency Management Reform Act of 2006
PS-Prep	Preparedness Accreditation and Certification Program
PPD-8	Presidential Policy Directive 8: National Preparedness
QHSR	Quadrennial Homeland Security Review
SNCTC	Southern Nevada Counter Terrorism Center
USFA	United States Fire Administration
UASI	urban area security initiative

EXECUTIVE SUMMARY

President Barack Obama directed the development of a national preparedness strategy that is set out in Presidential Policy Directive 8: National Preparedness (PPD-8). The applicability of PPD-8 and the implementing strategies for fire agencies is in question; and the relevance and benefits of the guidance are ambiguous. If the guidance is applicable, it is incumbent upon the fire service to establish a functional means for managing preparedness. Without a systematic means of doing so, preparedness principles will continue to be inconsistently applied,¹ the fire service will remain reactionary and planning will be influenced by “flavor-of-the-month” decision-making leading to continued lack of unifying goals.² The homeland security mission reaches beyond emergency response and fire prevention for fire departments, which requires a better understanding of the role in this evolving enterprise.

This thesis is the product of a qualitative research approach to understand better the role of the fire service in disaster preparedness. Analytical and applied research methods were used to study the following questions:

- Is PPD-8 and its implementing strategies relevant and beneficial to local fire departments?
- How can preparedness strategies based on the tenets of PPD-8 be implemented for the fire service and local fire departments, including the Henderson Fire Department?

The relevance and benefit of the guidance was evaluated through the analysis of 1) homeland security guidance documents including PPD-8 and its implementing frameworks, strategies, and reports, and 2) public policy research and journal articles by authors with subject matter expertise in the fields of homeland security and the fire service. The relevance and benefit of the national preparedness guidance to the fire

¹ U.S. Government Accountability Office, *FEMA Lacks Measures to Assess How Regional Collaboration Efforts Build Preparedness Capabilities* (GAO-09-651) (Washington, DC: U.S. Government Accountability Office, 2009), 1–41.

² Peter J. May, Ashley E. Jochim, and Joshua Sapotichne, “Constructing Homeland Security: An Anemic Policy Regime,” *Policy Studies Journal* 39, no. 2 (May 2011): 285–307.

service is best understood through a “what can be” lens. The benefit is dependent on the level of engagement.

It was found that the fire service could add capacity and preparedness expertise for preparedness by building and sustaining additional core capabilities within local fire departments. Additional capabilities have been delivered by some fire departments in mission areas other than response for national preparedness.³ The prevention mission can be enhanced through intelligence and information sharing gathered through unique access to businesses and residences afforded while delivering traditional services.⁴ The protection mission can be positively impacted by screening, search and detection at critical infrastructure, for key leadership, and events. Fire and building codes that guide building construction and maintenance enhance mitigation. Fire service providers have a role in pre-disaster planning, short term, intermediate, and long-term recovery by continuing to respond to emergencies and facilitating other aspects of recovery.

This thesis explored the status quo of the national leadership and possible alternatives to advance preparedness for local fire departments including Henderson. Existing preparedness strategies were studied for potential application to local fire agencies. A comparative analysis of a capability-based approach and a standards-based approach as a management system was also performed. These two models were evaluated to develop a proposal that meets the goals outlined in PPD-8 and to help build consistency in fire service efforts for preparedness. The Henderson Fire Department in Nevada was examined as a prototype that informs the inquiry

It was found that the problems of inconsistency and lack of accountability could be attributed to a void in leadership of the fire service with respect to homeland security at the national level. There are agencies and initiatives that provide advisory guidance including the United States Fire Administration (USFA), International Association of

³ Fire Department of New York, “FDNY Counterterrorism and Risk Management Strategy 2011,” 2011, http://www.nyc.gov/html/fdny/pdf/publications/FDNY_ct_strategy_2011_12.pdf.

⁴ International Association of Fire Chiefs, *Homeland Security: Intelligence Guide for Fire Chiefs* (Fairfax, VA: IAFC, n.d.).

Fire Chiefs (IAFC),⁵ and the National Preparedness Leadership Initiative (NPLI). However, these groups lack the authority to hold the fire service accountable to a prescribed, as yet undefined, mission for homeland security preparedness. Establishing leadership at the national level would allow the fire service to unite behind a singular vision, clarify its mission, and define a consistent strategy for preparedness. The USFA is uniquely positioned to provide this leadership and oversight if granted the necessary authority. The USFA would establish the vision, define the mission, and develop the strategies to guide the fire service as it builds preparedness. The USFA would consequently guide expansion of the role of the fire service to produce tangible benefit while minimizing impacts to essential service delivery.

The management of preparedness in the fire service requires applicable management systems that can be adapted to the complexities of preparedness. Management systems standards are generally a uniform set of measures, agreements or conditions, or specifications that establish performance objectives that address management themes.⁶ The capability-based planning approach is valuable as an operational tool for establishing resources and methods for preparedness but it lacks overarching principles for program management.⁷ The National Fire Protection Association (NFPA) outlines a management system standards approach in NFPA 1600: Standard for Disaster/Emergency Management and Business Continuity (NFPA 1600) that provides a familiar model for fire departments.

The results of this analysis can be useful to the policy makers of local fire agencies, including the Henderson Fire Department, in terms of informing decisions regarding resource allocation, operational practicality, and the social acceptability of participation in preparedness for their communities. In addition, the information derived

⁵ “About IAFC” accessed October 5, 2014, <http://www.iafc.org/About/index.cfm?navItemNumber=537>.

⁶ Sharon L. Caudle, “National Preparedness Requirements: Harnessing Management System Standards,” *Homeland Security Affairs* 7, art. 14 (June 2011), <https://www.hsaj.org/?article=7.1.14>.

⁷ FEMA, *Developing and Maintaining Emergency Operations Plans: Comprehensive Preparedness Guide (CPG) 101* (Washington, DC: Department of Homeland Security, 2010), http://www.fema.gov/media-library-data/20130726-1828-25045-0014/cpg_101_comprehensive_preparedness_guide_developing_and_maintaining_emergency_operations_plans_2010.pdf.

from the management system analysis was synthesized into a model for a hybrid management system standard combining sound elements from the *National Preparedness System* with NFPA 1600 for use by the fire service including the Henderson fire department. It offers an alternative leadership strategy to advance the preparedness mission within the fire service.

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This journey through the Center for Homeland Defense and Security master's program has been intensely challenging. The starting line seems a distant memory. I came into the program just hoping to be a better fire chief when I finished. I leave now a better advocate of and practitioner in the homeland security enterprise. My first thank you goes to the leadership of the security studies program who had the foresight to bring us all together to teach us and allow us to learn from one another. Thank you for creating an intellectually challenging learning environment that proved that an old dog might actually be able to learn new tricks. A special thank you to Lauren and Glen for taking on the challenge of co-advising for this thesis. Your patience and reassurance helped me to believe it could be done.

To the 1303/1304 cohort, thank you for the support, encouragement, and most of all, for the laughter and friendship. We had fun. After all, all work and no play makes Steve a dull boy. You are consummate professionals and I know that the security of our nation is in good hands.

Thank you to the members of the City of Henderson for supporting me through this adventure, and allowing me this opportunity and endorsing my application. To Matt and Shawn, thanks for keeping the lights on and taking care of our great department while I engaged in this incredible and demanding educational program.

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I. INTRODUCTION

The fire service has taken care of America's emergency response needs since the days of Benjamin Franklin and the Union Fire Company.¹ The service provided from neighborhood fire stations has expanded since those early days as the threats and hazards have evolved. However, in the post-9/11 world, the limits and boundaries of the role of the fire service in the homeland security arena are not clearly defined. The fire service remains firmly entrenched in communities delivering traditional services with some parallels in homeland security and preparedness. The homeland security mission reaches beyond response and the fire service must understand its role in relation to this evolving enterprise.² This research explores the role of the fire service in the realm of homeland security and the national preparedness strategy.

In this chapter the current problems encountered by the fire service and local fire departments are outlined as the ambiguity of their role in relation to homeland security is contemplated. An analysis of the literature was conducted in an effort to define the course forward for the fire service in alignment with contemporary national homeland security doctrine.

A. PROBLEM STATEMENT

President Barack Obama directed the development of a national preparedness strategy in which many local fire departments have only a limited level of engagement. Presidential Policy Directive 8: National Preparedness (PPD-8) established national preparedness as an "all of nation" strategy for securing the homeland.³ The *National Preparedness Goal, National Preparedness System, National Planning Frameworks*, and

¹ "Fire Department," accessed November 23, 2013, <http://www.ushistory.org/franklin/philadelphia/fire.htm>.

² Dennis D. Jones, "Defining the Role and Responsibility of the Fire Service Within Homeland Security" (master's thesis, Naval Postgraduate School, 2010), <https://www.hsdl.org/?view&did=27149>.

³ Barack Obama, *Presidential Policy Directive 8: National Preparedness* (Washington, DC: Department of Homeland Security, 2011), <http://www.dhs.gov/presidential-policy-directive-8-national-preparedness>.

National Preparedness Report all emerged out of PPD-8.⁴ This federal level guidance identifies the five mission areas of homeland security: prevention, protection, mitigation, response, and recovery. Thirty-one core capabilities within those five mission areas have been established. The *National Planning Frameworks* identify the core capabilities for each mission area along with the stated objective and associated critical tasks.

The national preparedness guidance⁵ lacks guidelines for central leadership, consistent management and buy-in for preparedness in the fire service. For local fire departments, the task at hand is working within the capabilities-based frame of the federal guidance. The applicability of PPD-8 and the implementing strategies for fire agencies is in question and the benefits and relevance of the guidance are ambiguous. If the guidance is applicable, it is incumbent upon the fire service to establish a functional means of managing preparedness. Without a systematic means to manage the preparedness mission, preparedness principles will continue to be applied inconsistently,⁶ the fire service will remain reactionary, and planning will be influenced by “flavor-of-the-month” decision making leading to continued lack of unifying goals.⁷

B. RESEARCH QUESTIONS

- Is PPD-8 and its implementing strategies relevant and beneficial to local fire departments?

How are relevance and beneficial defined and measured in this context?

⁴ Department of Homeland Security, *National Preparedness Goal* (Washington, DC: Department of Homeland Security, 2011); Department of Homeland Security, *National Preparedness System* (Washington, DC: Department of Homeland Security, 2011); FEMA, *National Planning Frameworks* (Washington, DC: Department of Homeland Security, 2014), last updated July 30, 2014, <http://www.fema.gov/national-planning-frameworks>; Department of Homeland Security, *National Preparedness Report* (Washington, DC: Department of Homeland Security, 2013); HSPD-8 provided a significant direction for national preparedness and was the precursor to PPD-8.

⁵ The documents related to PPD-8 will collectively be referred to as the “national preparedness guidance” or “guidance” throughout this thesis and not refer to the DHS document called the *National Preparedness Guidance* unless specifically noted.

⁶ U.S. Government Accountability Office, *FEMA Lacks Measures to Assess How Regional Collaboration Efforts Build Preparedness Capabilities* (GAO-09-651) (Washington, DC: U.S. Government Accountability Office, 2009).

⁷ Peter J. May, Ashley E. Jochim, and Joshua Sapotichne, “Constructing Homeland Security: An Anemic Policy Regime,” *Policy Studies Journal* 39, no. 2 (May 2011): 285–307.

In what ways is PPD-8 and its implementing strategies relevant and beneficial to local fire departments, if at all?

What is the relevance and benefit of the fire service including the Henderson Fire Department to the homeland security mission?

How would implementing PPD-8 impact local fire departments?

- How can preparedness strategies based on the tenets of PPD-8 be implemented for the fire service and local fire departments, including the Henderson Fire Department?

What leadership concepts and structures would advance the preparedness mission within the fire service?

Do existing preparedness strategies exist for the fire service that could be applied locally?

How does the existing national preparedness system implement PPD-8 guidance? What are its strengths and weaknesses?

Is there an alternative management system for preparedness that could be used to implement PPD-8 guidance for the fire service?

C. RESEARCH DESIGN

This research design is premised on a qualitative approach to understand better the role of the fire service in disaster preparedness. Analytical research was conducted to study the question of whether current federal preparedness guidance is relevant and beneficial to local fire departments. Applied research was used to determine how the guidance might be implemented at the local level for fire service providers. The Henderson Fire Department in Nevada is examined to provide an exemplar to inform this inquiry.

- Q1: Is PPD-8 and its implementing strategies relevant and beneficial to local fire departments?

The relevance and benefit of the guidance was evaluated through the analysis of 1) homeland security guidance documents including PPD-8 and its implementing frameworks, strategies, and reports, and 2) public policy documents and journal articles by authors with subject matter expertise in the fields of homeland security and the fire service. The foundational documents for the analysis are PPD-8 and the implementing strategies of the directive. These strategies include the national preparedness goal, national preparedness system, and national preparedness reports. The national

preparedness system is comprised of the comprehensive preparedness guide 201: *Threat and Hazard Identification and Risk Assessment, National Prevention Framework, National Protection Framework, National Mitigation Framework, National Response Framework, National Disaster Recovery Framework, and Federal Interagency Operational Plans.*

The City of Henderson was used as a case study to examine in what ways the national preparedness guidance is relevant and beneficial to local fire departments. Henderson was selected because the author is the fire chief of the municipality, the city is a typical urban community, and the city has an emergency management strategy for analysis. Open source reports and policies from Henderson were used as the basis of the study. The content for this analysis was discovered through open sources and is unrestricted.

The possible impacts of implementing PPD-8 for local fire departments were then examined. The potential cost and the impacts of an “all-in” strategy for preparedness must be understood before undertaking an expanded role. The analysis regarding the impacts of implementation relied upon the foundational documents noted previously. Additional public sector legislative reports and acts, and governmental and non-governmental organization homeland security reports, guides and standards were analyzed. This information was distilled to inform financial impacts, impacts to existing services, legal and regulatory issues, and social/cultural impacts to departments and the communities that they serve.

The results of this analysis can be useful for policy makers at local fire agencies, including the Henderson Fire Department, to inform decisions regarding resource allocation, operational practicality, as well as the social acceptability of participation in preparedness for their communities.

- Q2: How can preparedness strategies based on the tenets of PPD-8 be implemented for the fire service and local fire departments, including the Henderson Fire Department?

In the first step, leadership concepts and structures for preparedness of fire services were explored by examining examples from the United States Fire

Administration (USFA), the International Fire Chiefs Association (IAFC), and the National Preparedness Leadership Initiative (NPLI).

- The USFA is a small agency within FEMA. It was selected due to its mission of providing leadership to provide national leadership in order to foster a foundation for fire service preparedness.
- The IAFC is a professional organization with a membership comprised of leaders and stakeholders from the fire service. The IAFC was chosen for this research due to its level of influence in matters of disaster preparedness policy. The IAFC has published and distributed position statements on active shooter, coordinated response to acts of terrorism, pandemic plan, and active involvement in emergency management.
- The NPLI is a collaboration between the Harvard School of Public Health's Division of Policy Translation and Leadership Development, the Harvard Kennedy School's Center for Public Leadership, and key leaders from federal, state, and local government focused on preparedness leadership. The NPLI was selected for this research due to its targeted mission of leadership in the preparedness space.

The analysis was intended to explore the status quo of national leadership and possible alternatives to advance preparedness in the fire service and its affects on local fire departments including Henderson.

In the second step, existing preparedness strategies were examined for potential application to local fire agencies. Case studies of existing preparedness strategies from New York City, Israel, and Japan were examined to ascertain sound practices that might be applicable at the local level. New York City has been the site of multiple disasters and was selected as an example of a local fire department that has a disaster preparedness plan that aligns with the national preparedness guidance. The fire service preparedness strategies from Israel and Japan were studied as international examples of significantly disaster prone countries.

In the third step, analysis was conducted to compare the National Preparedness System (NPS) and the standard for disaster management published by the National Fire Protection Association, NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity (NFPA 1600). Both offer a management system model, the NPS uses a capability-based planning approach and NFPA 1600 uses a management system

standards approach. This analysis was conducted to evaluate the assertions made in an article by Dr. Sharon Caudle in Homeland Security Affairs, *National Preparedness Requirements: Harnessing Management System Standards*. Dr. Caudle asserts that capability-based planning is inadequate for the complexities of national preparedness. She argues that management system standards are a more appropriate model and makes a case for NFPA 1600 as a management system standard for preparedness.

Finally, the information derived from the analysis was synthesized into a hybrid management system that incorporates elements of capability-based and standards-based systems for use by the Henderson fire department and other fire services. It offers an alternative concept and structure for leadership to advance the preparedness strategy within the fire service. The system was designed to meet the goals outlined in PPD-8 and will help to build consistency in fire service efforts for preparedness.

This research is compelled by the author's professional interest as the fire chief for the City of Henderson fire department in Nevada. Tenure as a member of the department for more than 24 years, informs the issues of culture and capability of the agency.

II. LITERATURE REVIEW

The topic of national preparedness was researched to build foundational knowledge of the field of study. The literature review was organized in relation to the research questions to maintain consistent flow in the document. Federal level documents supporting PPD-8 were plentiful, providing strategic and operational guidance for implementing the national preparedness doctrine. The foundational information was an important aid to comprehension and analysis of both the relevance and benefit of the guidance to the fire service and fire department participation in national preparedness. The relevance was researched in reference to the federal guidance. Core capabilities are described in the guidance and the relevance of fire service resources to build those capabilities was weighed to establish the benefit of participation.

Next, literature regarding impacts of broader participation by the fire service was reviewed. The possible financial impact was reviewed in homeland security budget literature and federal grant programs. Operational impacts were explored by reviewing current practices and expectations for the Henderson fire department. Social issue literature was reviewed regarding both fire department culture and social identity. Social identity is a person's sense of who they are on the basis of group affiliation. Individuals, such as those in the fire service, identify themselves on the basis of their membership in the organization.⁸ The literature suggests that a strong social identification exists within the fire service.⁹ Legal and regulatory impacts were reviewed by examining existing laws at the federal, state and local level. The final portion of the literature review was an exploration of how a preparedness strategy might be implemented for the fire service. The existing management system literature was reviewed and compared to prominent fire industry management system standards.

⁸ Blake E. Ashforth and Fred Mael, "Social Identity Theory and the Organization," *The Academy of Management Review* 14, no. 1 (January 1, 1989): 20–39, doi: 10.2307/258189.

⁹ Alan Thomas Cox, "The Significance of Fire Service Culture as an Impediment to Effective Leadership in the Homeland Security Environment" (master's thesis, Naval Postgraduate School, 2012), <http://calhoun.nps.edu/public/handle/10945/6781>.

The literature reviewed for this thesis was accessed through open sources. While the information available via open source is substantial, it is recognized that some literature that informs the issue is classified “For Official Use Only” (FOUO). Information deemed FOUO has not been incorporated into this thesis.

A. IS PRESIDENTIAL POLICY DIRECTIVE-8 AND ITS IMPLEMENTING STRATEGIES RELEVANT AND BENEFICIAL TO LOCAL FIRE DEPARTMENTS?

The national preparedness strategy is declared in PPD-8 and the implementing documents establish guidance that is intended to assist the whole community in achieving preparedness. To establish relevance and benefit, historical perspective is vital to understanding the role of the fire service and evaluating whether the preparedness guidance is relevant and beneficial to local fire agencies. The evolution of homeland security is rooted in large-scale disasters from early in American history.¹⁰ The historical account of the FEMA chronicles much of the pre-9/11 programs for disaster management. The tragic events of September 11, 2001 mark the beginning of the contemporary iteration of homeland security and preparedness.

1. Pre-9/11 Preparedness

The roots of the homeland security discipline as a government responsibility can be traced back as far as 1803. In that year the City of Portsmouth, New Hampshire suffered tragic fires that devastated the town. In response, the 7th United States Congress passed the Congressional Act of 1803 that provided the town with federal assistance.¹¹ Numerous additional disasters such as the New York City fire in 1835, the Chicago fire in 1871, and the 1906 San Francisco Earthquake drove an ad-hoc approach to emergency management over the next century.¹² Civil defense took center stage during the 1940s and 1950s when the threat of airborne attacks from abroad resulted in the first

¹⁰ Henry B. Hogue and Keith Bea, *Federal Emergency Management and Homeland Security Organization: Historical Developments and Legislative Options* (CRS Report No. RL33369) (Washington, DC: Congressional Research Service, 2006), <http://fas.org/sgp/crs/homesecc/RL33369.pdf>.

¹¹ Charles Hogan, “Origins of U.S. Emergency Management,” *Anna Maria Online*, April 28, 2014, <http://online.annamaria.edu/mpa/resource/emergency-management-history>.

¹² *Ibid.*

acknowledgement that disasters could come from man-made sources. The 1960s and 1970s brought significant natural disasters such as Hurricane Camille in 1969 and the San Fernando Earthquake in 1971. These events and others led to a proliferation of emergency preparedness related governmental agencies and increased support at the federal level with a focus on natural disasters.¹³

The FEMA was created by Executive Order 12127 by President Carter in 1979. The order merged a number of disaster related responsibilities under the umbrella of a single agency. The mission of FEMA evolved into disaster relief, recovery, and mitigation.¹⁴ The Robert T. Stafford Disaster Relief and Emergency Assistance Act was signed into law in 1988 and provided a system for authorizing federal assistance for relief from disasters. This act was revised in 2013 and includes provisions for a system of emergency preparedness.¹⁵

2. Post-9/11 Preparedness

The tragic events of 9/11 led to sweeping changes for homeland security. President George W. Bush issued the first Homeland Security Presidential Directive (HSPD-1) on October 29, 2001 shortly after the 9/11 attacks. HSPD-1 established the homeland security council to ensure coordination of all homeland security-related activities among executive departments and agencies and to promote the effective development and implementation of all homeland security policies.¹⁶ The Homeland Security Act of 2002 authorized a massive restructuring under the newly created Department of Homeland Security.¹⁷ In 2003, the DHS was created as a stand-alone

¹³ Hogue and Bea, *Federal Emergency Management and Homeland Security Organization: Historical Developments and Legislative Options*.

¹⁴ "About the Agency," accessed September 7, 2013, <http://www.fema.gov/about-agency>.

¹⁵ U.S. Congress, Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended, 2013.

¹⁶ George W. Bush, *Homeland Security Presidential Directive-1* (Washington, DC: The White House, 2001), <http://fas.org/irp/offdocs/nspd/hspd-1.htm>.

¹⁷ Homeland Security Act, 107th Cong., 2002.

cabinet level department charged with integrating 22 different departments and agencies under a single umbrella to unify homeland security efforts.¹⁸

Homeland Security Presidential Directive 5: Management of Domestic Incidents (HSPD-5) was issued in February 2003 to establish a consistent incident management system to deal with disasters.¹⁹ The National Incident Management System (NIMS) was developed as a result. NIMS was established to be the standard management platform for incident response. All levels of government, non-governmental agencies, and the private sector are all expected to follow the NIMS guidance. The scalability of NIMS recognizes the concept that all incidents begin at the local level and are managed daily at the lowest possible jurisdictional level. NIMS provides for the coordinated growth of incidents through to the Federal level in a systematic and planned way.²⁰

HSPD-5 further established the need for a common operating model for response to disasters. The *National Response Plan* was part of the policy developed to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. While NIMS provides the doctrine, concepts, common terminology and organizational process of incident management, this first version of the *National Response Plan* provided the operational coordinating structure and direction for managed Federal support across all levels of government.²¹ This guidance established the base plan along with the emergency support functions (ESF), support and incident annexes. The ESFs detail the missions, policies, structures, and responsibilities for coordinating resource and programmatic support across jurisdictions and entities during large-scale events. The introduction to the ESF annexes summarizes the functions of ESF coordinators and primary and support agencies.²²

¹⁸ “Creation of the Department of Homeland Security,” 2013, <http://www.dhs.gov/creation-department-homeland-security>.

¹⁹ George W. Bush, *Homeland Security Presidential Directive 5: Management of Domestic Incidents* (Washington, DC: The White House, 2003).

²⁰ “National Incident Management System,” accessed June 21, 2014, <http://www.fema.gov/national-incident-management-system>.

²¹ Department of Homeland Security, *National Response Plan* (Washington, DC: Department of Homeland Security, 2004).

²² *Ibid.*, 11.

President Bush issued Homeland Security Presidential Directive 8 (HSPD-8) addressing national preparedness in December 2003. HSPD-8 established policies to strengthen national preparedness to prevent and respond to terrorism, major disasters, and other emergencies. The directive spelled out the responsibility of the DHS to take the lead in creating a *National Preparedness Goal*; that coordinated federal, state, local, and private sector efforts to recognize and engage citizens in preparedness; and the strengthening of preparedness capabilities at all levels of government.²³ The directive called for the creation of measurable readiness priorities and targets. The costs of preparedness were conscientiously addressed by directing a balance between preparedness resources and the potential threat and the magnitude of an event.²⁴

An *Interim National Preparedness Goal* was crafted in March 2005, which established the vision “to engage Federal, State, local, and tribal entities, their private and non-governmental partners, and the general public to achieve and sustain risk-based target levels of capability to prevent, protect against, respond to, and recover from major events in order to minimize the impact on lives, property, and the economy.”²⁵ This interim guidance would later be finalized in the *National Preparedness Guidelines* in 2007.²⁶

3. Hurricane Katrina

The Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA) addresses many of the weaknesses demonstrated in the DHS response to Katrina. The focus on prevention did not serve the department well in its reaction to this hurricane. A broader focus was necessary and was the focus of the PKEMRA therefore included an

²³ George W. Bush, *Homeland Security Presidential Directive/HSPD 8* (Washington, DC: The White House, 2003).

²⁴ *Ibid.*

²⁵ Department of Homeland Security, *National Preparedness Goal—DRAFT* (Washington, DC: Department of Homeland Security, 2005), <https://www.hsdl.org/?view=docs/dhs/nps03-010306-02.pdf>.

²⁶ FEMA, *National Preparedness Guidelines* (Washington, DC: Department of Homeland Security, September 2007), http://www.fema.gov/pdf/emergency/nrf/National_Preparedness_Guidelines.pdf.

emphasis on the areas of preparedness, response and recovery.²⁷ The DHS had undertaken three major policy initiatives shortly before Katrina, which constituted an attempt to incorporate the FEMA all-hazards approach to disaster response. The three initiatives were intended to craft an updated *National Response Plan*, a command and management process, and a national preparedness goal.²⁸

The *National Preparedness Guidelines* were published as part of the solution to preparedness woes by finalizing the national preparedness goal and its related preparedness tools. They were established to organize and synchronize national efforts across all levels of government in order to strengthen preparedness, guide national investments in preparedness, incorporate lessons learned from previous disasters into national preparedness priorities, facilitate capability-based and risk-based investment planning, and implement readiness metrics to measure progress.²⁹

The *National Preparedness Guidelines* include a vision, capabilities, and priorities for national preparedness. They set a national preparedness vision of “A nation prepared with coordinated capabilities to prevent, protect against, respond to, and recover from all hazards in a way that balances risk with resources and need.”³⁰ The guidelines introduced the concept of a capabilities-based approach to preparedness. A capabilities-based approach is one that identifies the competencies, skills and resources that are necessary to achieve a given goal.³¹

The homeland security council issued a revised *National Strategy for Homeland Security* in October 2007. This strategy replaced the terrorism-centric earlier version with a broader perspective that included terrorism, natural disasters, infectious diseases, and man-made accidents. The strategy reinforced the concept of a shared responsibility for

²⁷ U.S. Government Accountability Office, *Actions Taken to Implement the Post-Katrina Emergency Management Reform Act of 2006* (GAO-09-59R) (Washington, DC: U.S. Government Accountability Office, 2008), <http://www.gao.gov/assets/100/95881.html>.

²⁸ U.S. Government Accountability Office, *Homeland Security: DHS' Efforts to Enhance First Responders' All-Hazards Capabilities Continue to Evolve* (Washington, DC: U.S. Government Accountability Office, 2005), <http://www.gao.gov/products/GAO-05-652>.

²⁹ FEMA, *National Preparedness Guidelines*.

³⁰ *Ibid.*, 1.

³¹ *Ibid.*, 4.

preparedness across government and the private sector. The strategy outlined four objectives that remained consistent with past guidance for preparedness: 1) prevent and disrupt terrorist attacks, 2) protect the American people, our critical infrastructure, and key resources, 3) respond to and recover from incidents that do occur, and 4) continue to strengthen the foundation to ensure our long-term success.³² The strategy continued the capabilities-based approach to preparedness for homeland security.

The Implementing Recommendations of the 9/11 Commission Act of 2007 provides for the application of the suggestions made by the National Commission of Terrorist Acts Upon the United States (9/11 Commission). The act captured the recommendations and established enabling actions to meet the objectives outlined in the commission report. An important provision of the act in Title XXIV was a call for a quadrennial review of the homeland security of the nation including aspects of preparedness.³³ Two *Quadrennial Homeland Security Reviews* have been published since the act was implemented.

The first *Quadrennial Homeland Security Review* (QHSR) was published in February 2010. Its primary purpose was to outline the strategic framework to guide the activities of participants in homeland security toward a common end. The report laid out a vision, five homeland security priorities, and goals and objectives for homeland security. The five priorities identified were preventing terrorism and enhancing security, securing and managing our borders, enforcing and administering our immigration laws, safeguarding and securing cyberspace, and ensuring resilience to disasters.

The QHSR identifies key strategic outcomes within the priorities that enhance the nation's ability to produce desired outcomes by achieving associated goals and objectives to enhance preparedness.³⁴ The QHSR also provided broad guidance for roles and

³² Department of Homeland Security, *National Strategy for Homeland Security* (Washington, DC: Department of Homeland Security, 2007).

³³ Bennie G. Rep Thompson, "H.R.1—Implementing Recommendations of the 9/11 Commission Act of 2007," Legislation, Title XXIV Miscellaneous Provisions, January 5, 2007, <http://thomas.loc.gov/cgi-bin/bdquery/z?d110:HR00001:@@L&summ2=m&>.

³⁴ Department of Homeland Security, *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland* (Washington, DC: Department of Homeland Security, 2010), 59–64, https://www.dhs.gov/xlibrary/assets/qhsr_report.pdf.

responsibilities of stakeholders in homeland security to assist agencies in better understanding where they fit in the enterprise.³⁵ The QHSR served as the foundation for the *DHS Bottom-Up Review Report*, an inward-looking review of the entire department that set the future course of the organization. The *Bottom-Up Review Report* set a departmental plan for improving operations, management, and increasing accountability within the DHS. The document is not intended to evaluate other levels of government or other partners in preparedness.³⁶

The second QHSR report was published in June 2014.³⁷ It recognized that the centralized threat of terrorism was diminishing but that the threat from lone actors or small groups was increasing. The report noted that border security and immigration issues remain complex and difficult to manage, both practically and politically. It stated that cybersecurity is a critical area of need in homeland security. The 2014 QHSR revises the DHS mission to “strengthening national preparedness and resilience.”³⁸ The QHSR indicated that national preparedness and the whole community approach was an ongoing area of priority and emphasis.³⁹ The campaign to build and sustain preparedness had four key elements: public outreach and community-based and private-sector programs, federal preparedness efforts, grants along with technical assistance, and other federal support, and research and development.⁴⁰

³⁵ Department of Homeland Security, *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland*, Appendix A-7.

³⁶ Department of Homeland Security, *Bottom-Up Review Report* (Washington, DC: Department of Homeland Security, 2010), http://www.dhs.gov/xlibrary/assets/bur_bottom_up_review.pdf.

³⁷ Department of Homeland Security, *The 2014 Quadrennial Homeland Security Review* (Washington, DC: Department of Homeland Security, 2014), 5, <http://www.dhs.gov/sites/default/files/publications/qhsr/2014-QHSR.pdf>.

³⁸ *Ibid.*, 8.

³⁹ *Ibid.*, 71.

⁴⁰ FEMA, *Learn About Presidential Policy Directive-8* (Washington, DC: Department of Homeland Security, 2013), <http://www.fema.gov/learn-about-presidential-policy-directive-8>.

4. PPD-8

President Obama issued PPD-8 to address national preparedness.⁴¹ This directive commands systematic preparation for the threats that pose the greatest risk to the security of the nation, whether man-made or naturally occurring. President Obama directs,

...the development of a national preparedness goal that identifies the core capabilities necessary for preparedness and a national preparedness system to guide activities that will enable the Nation to achieve the goal. The system will allow the Nation to track the progress of our ability to build and improve the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation.⁴²

The directive describes these efforts as an integrated, all-of-nation, capability-based approach to preparedness.

A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.⁴³

The *National Preparedness Goal* (the Goal) defines the primary mission areas of prevention, protection, mitigation, response, and recovery.⁴⁴ The document identifies 31 core capabilities that are distinct critical elements necessary to secure the homeland. These are essential to achieving success in the five mission areas (Table 1). Within each core capability there are capability targets that provide measurable performance criteria. The Goal is intended to be a national effort involving the whole community not a single jurisdiction or agency. Application to a single jurisdiction will have to include participation at the broader level and the inferred results from that participation.⁴⁵

⁴¹ Obama, *Presidential Policy Directive 8: National Preparedness*.

⁴² Ibid.

⁴³ Department of Homeland Security, *National Preparedness Goal*.

⁴⁴ Ibid.

⁴⁵ Ibid.

Table 1. Core Capabilities by Mission Area⁴⁶

Core Capabilities by Mission Area				
Prevention	Protection	Mitigation	Response	Recovery
Planning				
Public Information and Warning				
Operational Coordination				
Forensics and Attribution	Access Control and Identity Verification	Community Resilience	Critical Transportation	Economic Recovery
Intelligence and Information Sharing	Cybersecurity	Long-term Vulnerability Reduction	Environmental Response/Health and Safety	Health and Social Services
Interdiction and Disruption	Intelligence and Information Sharing	Risk and Disaster Resilience Assessment	Fatality Management Services	Housing
Screening, Search, and Detection	Interdiction and Disruption	Threats and Hazard Identification	Infrastructure Systems	Infrastructure Systems
	Physical Protective Measures		Mass Care Services	Natural and Cultural Resources
	Risk Management for Protection Programs and Activities		Mass Search and Rescue Operations	
	Screening, Search, and Detection		On-scene Security and Protection	
	Supply Chain Integrity and Security		Operational Communications	
			Public and Private Services and Resources	
			Public Health and Medical Services	
			Situational Assessment	

⁴⁶ FEMA, *National Preparedness Goal* (Washington, DC: Department of Homeland Security, 2013), <http://www.fema.gov/national-preparedness-goal>.

The other components of PPD-8 include a national preparedness system that includes national planning frameworks, a national preparedness report, and a campaign to build and sustain preparedness. It provides a road map of guidance, programs, and processes for achieving the national preparedness goal. The national planning frameworks are implementing strategies for each mission area and describe how the whole community works together to achieve the Goal. Frameworks have been written for each of the five mission areas; prevention, protection, mitigation, response, and recovery.⁴⁷

a. Prevention

The *National Prevention Framework*⁴⁸ establishes that the fire service has a role in the prevention mission. The framework also establishes the guiding principles, core capabilities, coordinating structures and integration, and operational planning guide for achieving the prevention mission.

The report “Policing Terrorism” authored by Gartenstein-Ross and Dabruzzi⁴⁹ offers insight into the role of the fire service as a partner for intelligence collection, users and sharers, and as organizers of joint planning, preparedness and response. The report suggests that the more than one million firefighters across the country have unique opportunities and access to residences, commercial buildings and other facilities in the course of daily work responsibilities. The International Association of Fire Chiefs (IAFC) published the *Homeland Security: Intelligence Guide for Fire Chiefs*⁵⁰ to assist fire service leaders to understand their role in the mission better. Bryan Heirston⁵¹ wrote a thesis “Terrorism Prevention and Firefighters: Where Are the Information-Sharing

⁴⁷ FEMA, *National Preparedness Goal*, 2.

⁴⁸ Department of Homeland Security, *National Prevention Framework* (Washington, DC: Department of Homeland Security, 2013).

⁴⁹ Daveed Gartenstein-Ross and Kyle Dabruzzi, “Policing Terrorism Report 3, Firefighters’ Developing Role in Counterterrorism,” Manhattan Institute for Policy Research, August 2008, http://www.manhattan-institute.org/html/ptr_03.htm.

⁵⁰ International Association of Fire Chiefs, *Homeland Security: Intelligence Guide for Fire Chiefs*.

⁵¹ Bryan Heirston is a retired Oklahoma City Deputy Fire Chief who is a graduate of the Naval Postgraduate School as a member of cohort CA0705/0706.

Boundaries?”⁵² and the subsequent journal article “Firefighters and Information Sharing: Smart Practice or Bad Idea?”⁵³ Heirston offers a comprehensive study of the challenges and opportunities for the fire service in the information-sharing arena. *United States Supreme Court, Michigan v. Tyler* upheld the practice of reporting on observations made by firefighters in the course of their duties.⁵⁴

The American Civil Liberties Union (ACLU) holds a different view of the use of firefighters for intelligence collection. In the article, “Spy Files,” the ACLU calls this type of information gathering illegal domestic spying.⁵⁵ The ACLU holds the position that warrantless search and seizure is an intrusion on personal liberties afforded by the Fourth Amendment of the United States Constitution.

b. Protection

The protection mission area has the newest national planning framework which was released earlier this year. The *National Protection Framework* sets the strategy for building, sustaining and delivering the core capabilities for protection identified in the Goal.⁵⁶ The document identifies the touch points for the fire service in community and infrastructure protection, and protection of key leadership and events. Critical infrastructure and key resources (CIKR) is the most relevant touch point, with significant literature available.

Presidential Policy Directive 21: Critical Infrastructure Security and Resilience provides direction in advance of a national unity of effort to strengthen and maintain

⁵² Bryan Heirston, “Terrorism Prevention and Firefighters: Where Are the Information-Sharing Boundaries?” (master’s thesis, Naval Postgraduate School, 2009).

⁵³ Bryan Heirston, “Firefighters and Information Sharing: Smart Practice or Bad Idea?,” *Homeland Security Affairs* 6, no. 2 (May 2010): <http://www.hsaj.org/?article=6.2.6>.

⁵⁴ “Michigan v. Tyler—436 U.S. 499 (1978),” accessed April 18, 2014, <http://supreme.justia.com/cases/federal/us/436/499/case.html>.

⁵⁵ “Spy Files,” accessed April 18, 2014, <https://www.aclu.org/spy-files>.

⁵⁶ FEMA, *National Protection Framework* (Washington, DC: Department of Homeland Security, 2014), 1, http://www.fema.gov/media-library-data/1406717583765-996837bf788e20e977eb5079f4174240/FINAL_National_Protection_Framework_20140729.pdf.

secure, functioning, and resilient critical infrastructure.⁵⁷ The DHS drafted the first *National Infrastructure Protection Plan* (NIPP) in 2006, revised it in 2009, and again in 2013, as the *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience*. The NIPP provides guidance on building a safer more secure and resilient America through protection of the nation’s CIKR through national preparedness, timely response, and rapid recovery in the event of an attack, natural disaster, or other emergency.⁵⁸

c. Mitigation

The *National Mitigation Framework* document is a valuable resource in terms of constructing mitigation plans. The planning framework utilizes seven core capabilities to address the mission. The fire service engages in several of these core capabilities, most notably in the planning and operational coordination activities.⁵⁹ The document identifies critical tasks within each core capability that will be important to building a case for fire service involvement in mitigation. With an eye to all-hazards, examples of successes in mitigation that have a fire service nexus are plentiful. Flooding mitigation, fire mitigation, storm sheltering, building and fire codes, among others, are all tied to the all-hazards mission.⁶⁰

d. Response

The literature supporting the fire service role in the response mission area is bountiful. The Robert T. Stafford Disaster and Emergency Assistance Act of 1988 revised the Disaster Recovery Act of 1974 and established the statutory authority for

⁵⁷ Barack Obama, *Presidential Policy Directive—Critical Infrastructure Security and Resilience* (Washington, DC: The White House, 2013), <http://www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>.

⁵⁸ Department of Homeland Security, *National Infrastructure Protection Plan 2013: Partnering for Critical Infrastructure Security and Resilience; Working Draft - Pre-Decisional* (Washington, DC: Department of Homeland Security, 2013), http://www.federalnewsradio.com/pdfs/NIPP_2013_Partnering_for_Critical_Infrastructure_Security_and_Resilience.pdf.

⁵⁹ Department of Homeland Security, *National Mitigation Framework* (Washington, DC: Department of Homeland Security, 2013), http://www.fema.gov/media-library-data/20130726-1914-25045-9956/final_national_mitigation_framework_20130501.pdf.

⁶⁰ “Mitigation Best Practices Portfolio,” accessed November 25, 2013, <http://www.fema.gov/mitigation-best-practices-portfolio>.

federal disaster response. The Stafford Act was in turn revised in 2013.⁶¹ Hurricane Katrina made landfall on the gulf coast on August 30, 2005. The response was viewed as a failure in the International Risk Governance Council report entitled, *The Response to Hurricane Katrina*.⁶² The report cites other reports with similar conclusions. The storm spawned a number of changes to federal response management led by the Post-Katrina Emergency Management Reform Act of 2006. Significantly, for the fire service, this legislation aligned the USFA under FEMA to strengthen the homeland security mission.⁶³ The *National Response Framework* was originally published in 2008. The second edition was published in 2013.⁶⁴ The framework is a planning tool that outlines authorities and best practices for managing natural and manmade disasters of all sizes.

e. Recovery

The review of the literature linking the fire service to the recovery mission reveals that the primary link is through effective response and planning. The National Disaster Recovery Framework (NDRF) details the recovery mission recognizing the whole community approach.⁶⁵ The NDRF core capabilities are applied in pre-incident planning, and in short term, intermediate, and long-term recovery. Each of these phases of the recovery mission has implications for the fire service. The National Fire Protection Association, the fire service standards organization, updated NFPA 1600 in 2013. The DHS has endorsed the standard as the criterion for voluntary certification of private sector preparedness.⁶⁶ The standard emphasizes a continuity of operations in all sectors

⁶¹ Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended.

⁶² Donald P. Moynihan, *The Response to Hurricane Katrina, Risk Governance Deficits* (Geneva: International Risk Governance Council, 2009), http://irgc.org/wp-content/uploads/2012/04/Hurricane_Katrina_full_case_study_web.pdf.

⁶³ Post-Katrina Emergency Management Reform Act of 2006, 109th Cong. (2006).

⁶⁴ Department of Homeland Security, *National Response Framework, Second Edition* (Washington, DC: Department of Homeland Security, 2013), http://www.fema.gov/media-library-data/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf.

⁶⁵ Department of Homeland Security, *National Disaster Recovery Framework* (Washington, DC: Department of Homeland Security, 2011), http://www.fema.gov/media-library-data/20130726-1820-25045-5325/508_ndrf.pdf.

⁶⁶ National Fire Protection Association, *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs; 2013 Edition* (Quincy, MA: NFPA, 2013).

including local fire agencies to ensure continued service delivery after disaster strikes. This planning for continuity is essential to recovery.

f. Core Capabilities

Three core capabilities transcend across every mission; planning, public information and warning, and operational coordination. These core capabilities are essential to the success of the other capabilities and serve to unify the mission areas. The planning core capability is directed at conducting a systematic process engaging the whole community as appropriate for the development of executable strategic, operational, and/or community-based approaches to meet defined objectives.⁶⁷ The public information and warning core capability seeks to deliver coordinated, prompt, reliable, and actionable information to the whole community.⁶⁸

Operational coordination establishes and maintains a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities. The National Incident Management System (NIMS) provides a common approach to managing incidents. It supports operational coordination with an emphasis on common principles, a consistent approach to operational structures and supporting mechanisms, and an integrated approach to resource management.⁶⁹ The remaining 28 core capabilities are dispersed across the mission areas.

g. Threat and Hazard Identification and Risk Assessment

The National Preparedness Goal recommends that risk assessment be conducted similarly across the enterprise to ensure commonality. The Comprehensive Preparedness Guide 201: Threat and Hazard Identification and Risk Assessment (THIRA) Guide, Second Edition describes a standard process for identifying community specific threats

⁶⁷ “Core Capabilities,” accessed October 7, 2014, <http://www.fema.gov/core-capabilities#Planning>.

⁶⁸ Ibid.

⁶⁹ “National Incident Management System.”

and hazards along with setting capability requirements for managing the threats outlined in the National Preparedness System.⁷⁰

h. National Preparedness Report

An annual National Preparedness Report (NPR) is mandated by PPD-8 and provides information regarding national progress toward building, sustaining and delivering the 31 core capabilities. NPRs were published in 2012, 2013 and 2014.⁷¹ The 2014 NPR focuses on preparedness activities during the 2013 calendar year. It was compiled through a collaborative outreach effort between DHS, federal partners, states, and professional organizations and associations. It included information provided by states that was gathered through integrated self-assessments including threat and hazard identification and risk assessments (THIRA) and state preparedness reports.⁷²

The year 2014 was marked by significant incidents that provided tests of preparedness against both acts of terrorism and natural disasters. The Boston Marathon bombing and Washington Navy Shipyard shootings tested responses to acts of terror within our borders. Natural disasters tested preparedness as recovery efforts from Hurricane Sandy continued, Moore Oklahoma was struck by an EF5 tornado, wildfires and flooding ravaged Colorado, and drought persisted in the western US. The NPR identified overarching areas of emphasis. These were: drawing clearer links between post-event recovery and pre-event mitigation, the sustainment of mature capabilities, the identification of national areas of improvement such as long-term vulnerability reduction as a new area of improvement, new national policy and planning initiatives, increased emphasis on innovation and whole community engagement to offset budget uncertainties,

⁷⁰ FEMA, *Comprehensive Preparedness Guide 201: THIRA* (Washington, DC: Department of Homeland Security, 2013), 1, <http://www.fema.gov/media-library/assets/documents/26335>.

⁷¹ FEMA, *National Preparedness Report* (Washington, DC: Department of Homeland Security, 2013), <http://www.fema.gov/national-preparedness-report>.

⁷² Department of Homeland Security, *National Preparedness Report 2014* (Washington, DC: Department of Homeland Security, 2014), http://www.fema.gov/media-library-data/1409688068371-d71247cab52a55de78305a4462d0e1a/2014%20NPR_FINAL_082914_508v11.pdf.

continued integration of tribal partners, and continued improvement in state performance measurement of preparedness capabilities.⁷³

The NPR includes state preparedness reports that lend credence to the whole community approach. The state reports are compilations of reported statewide data in the 31 core capability areas. The report data is expressed in percentage of goal in each of the capabilities and is derived from self-assessment. It is graded on a five-point scale for capability in terms of planning, organization, equipment, training, and exercises.⁷⁴ The performance measurement method is meant to show progress or regression in each of the core capabilities year over year.

5. Impacts of Implementing PPD-8 for Local Fire Departments

This section of the literature review seeks to explore the impacts of adopting the national level preparedness guidance for local fire departments. Impacts on current service delivery including operational practicality and social/cultural issues, costs associated with expanding the scope of services, and the legal ramifications will be explored. Every community faces different challenges with respect to providing services to their respective constituencies. The information regarding agency services is extracted from local resources and agency-specific documents, including those of the City of Henderson fire department web page,⁷⁵ the police web page,⁷⁶ and emergency operations plan.⁷⁷

Social identity⁷⁸ and fire service culture were examined to better understand the social and cultural impacts on both those within the fire service and the communities they serve. Fire service culture has been explored extensively in the literature. Alan Thomas

⁷³ Department of Homeland Security, *National Preparedness Report 2014*, 6–12.

⁷⁴ *Ibid.*, 10.

⁷⁵ “Emergency Management,” accessed August 22, 2014, http://cityofhenderson.com/fire/emergency_management.php.

⁷⁶ “Police,” accessed August 22, 2014, http://www.cityofhenderson.com/police/johnston_bio.php.

⁷⁷ City of Henderson, *City of Henderson All-Hazard Emergency Operations Plan* (City of Henderson, NV: 2012).

⁷⁸ Social identity is a way for people to classify themselves based on their affiliations, organization, etc.

Cox offers his thesis on the significance of fire service culture as it relates to homeland security⁷⁹ and Matthew I. Hinds writes of “The Way of the Smoke Eater”.⁸⁰ The community impacts of added service demand were also studied through this lens. The expansion of services will come at a monetary cost as well. This information available is rich with data for federal grant programs⁸¹ that can offset startup costs and the effectiveness of these programs is a topic of considerable discussion.⁸² The legal and regulatory implications of homeland security are also considered in the research; federal, state and local regulations are all available for contemplation.

B. HOW COULD PREPAREDNESS STRATEGIES BASED ON THE TENETS OF PPD-8 BE IMPLEMENTED FOR THE FIRE SERVICE AND LOCAL FIRE DEPARTMENTS, INCLUDING THE HENDERSON FIRE DEPARTMENT?

Literature on the topic of potential implementation strategies for fire service participation in national preparedness was limited, with the element of leadership conspicuous by its absence.⁸³ There are examples of department specific preparedness leadership in the fire department of New York⁸⁴ but little in the way of national leadership for homeland security preparedness for the fire service. The federal hierarchy was reviewed in an effort to learn where the fire service fit into the preparedness mission. The United States Fire Administration was examined as a viable candidate agency to

⁷⁹ Cox, “The Significance of Fire Service Culture as an Impediment to Effective Leadership in the Homeland Security Environment.”

⁸⁰ Matthew I. Hinds-Aldrich, “The Way of the Smoke Eater: Rethinking Firefighter Culture in the Field of Structural Fire Protection (PhD diss. Thesis Excerpt, Canterbury, England, 2012), http://www.academia.edu/2470907/The_Way_of_the_Smoke_Eater_Rethinking_Firefighter_Culture_in_the_Field_of_Structural_Fire_Protection_Ph.D._Thesis_Excerpt_.

⁸¹ Department of Homeland Security, *Budget-in-Brief Fiscal Year 2015* (Washington, DC: Department of Homeland Security), accessed October 4, 2014, <http://www.dhs.gov/sites/default/files/publications/FY15BIB.pdf>.

⁸² Tom Coburn, *Safety At Any Price: Assessing the Impact of Homeland Security Spending in U.S. Cities* (United States Senate, 2012).

⁸³ Douglas M. Weeks, “Strategic Changes for the Fire Service in the Post 9/11 Era” (master’s thesis, Naval Postgraduate School, 2007), handle.dtic.mil/100.2/ADA474342.

⁸⁴ Fire Department of New York, *FDNY Counterterrorism and Risk Management Strategy* (New York: Fire Department of New York, 2011), http://www.nyc.gov/html/fdny/pdf/publications/FDNY_ct_strategy_2011_12.pdf.

carry out this mission.⁸⁵ The National Preparedness Leadership Initiative (NPLI) was a source of knowledge in this field that provided significant information.⁸⁶ The concept of meta-leadership provided a noteworthy perspective on the dimensions of leadership required in an extremely complex environment. Meta-leadership is a leadership framework that advocates connectivity of effort among organizations or organizational units in a shared unity of effort despite being from different disciplines.⁸⁷

1. Existing Fire Service Strategies in Homeland Security

This section of the literature review consists of an examination of fire service preparedness and begins with U.S. fire departments. Large metropolitan fire agencies are one source of comparison for preparedness programs. This survey of best practices starts with the fire department of New York (FDNY). New York City remains a target for terrorism and the symbol of resilience in America. The FDNY Counterterrorism and Risk Management Strategy, published in 2011, is an excellent example of the application of the DHS preparedness model.⁸⁸ The document begins with a risk/threat assessment followed by a mission-by-mission analysis of core capabilities as they apply to each mission area. The criticism here is that the core capabilities do not align exactly with the National Preparedness Goal. The Los Angeles fire department (LAFD) is faced with preparing for threats and hazards from 13 of the 16 possible federally identified natural and man-made disasters.⁸⁹ Information on the preparedness approach for LAFD via open source research is limited. Some actions for the LAFD are presented in threat-specific terms.

⁸⁵ “About the U.S. Fire Administration,” accessed November 23, 2014, <http://www.usfa.fema.gov/about/index.html>.

⁸⁶ “NPLI,” accessed November 28, 2014, <http://npli.sph.harvard.edu/>.

⁸⁷ Leonard J. Marcus et al., “Meta-Leadership: A Primer,” Harvard School of Public Health and the Kennedy School of Government at Harvard University, 2009, http://npli.sph.harvard.edu/wp-content/uploads/sites/8/2013/04/meta-leadership_primer.pdf.

⁸⁸ Fire Department of New York, *FDNY Counterterrorism and Risk Management Strategy*.

⁸⁹ “Emergency Management Department: LA Emergencies & Threats,” accessed May 25, 2014, <http://emergency.lacity.org/EmergencyCheckList/LAEmergenciesThreats/index.htm>.

Another large city that faces a number of threats is Miami, Florida. Miami-Dade Fire Rescue is responsible for oversight of the Office of Emergency Management. The agency recognizes the federal guidance in its preparedness mission. The agency published the 2011-2012 Miami-Dade County Emergency Preparedness Report, which is closely aligned with the National Preparedness Goal.⁹⁰

Other examples of mid-size agencies of similar scope to the Henderson fire department with emergency operations style plans are Tacoma, Washington⁹¹ and Plano, Texas,⁹² which utilize the emergency support function (ESF) format for response. These programs fulfill a role in the response mission area with touch points in mitigation and protection. However, the literature yields little by way of comprehensive homeland security programs that address preparedness goals in all five mission areas.

By comparison, the current preparedness practice for the City of Henderson is based on the 2012 City of Henderson All-Hazard Emergency Operations Plan managed through the Division of Emergency Management and Safety.⁹³ Henderson is located in Clark County in Nevada. Clark County also has limited guidance available; it is primarily in the form of the Clark County 2012 Multi-Jurisdictional Hazard Mitigation Plan.⁹⁴ The state also offers the Nevada State Comprehensive Emergency Plan.⁹⁵ These plans address many areas of preparedness but are primarily built on the National Response Framework and defined ESF. The next section looks beyond U.S. borders at international fire agencies is pursued.

⁹⁰ Miami-Dade Fire Rescue and Office of Emergency Management, *Miami-Dade County Emergency Preparedness Report FY2011–2012* (Miami, FL: Miami-Dade Fire Rescue and Office of Emergency Management, n.d.).

⁹¹ “City of Tacoma, Comprehensive Emergency Management Plan,” accessed September 8, 2013, <http://cms.cityoftacoma.org/fire/website%202013/prevention%20division/emergency%20management/cem%20p/comprehensive%20emergency%20management%20plan.pdf>.

⁹² “Emergency Management,” accessed September 8, 2013, <http://www.plano.gov/index.aspx?nid=224>.

⁹³ City of Henderson, *City of Henderson All-Hazard Emergency Operations Plan*.

⁹⁴ Clark County Local Emergency Planning Committee, *Clark County 2012 Multi-Jurisdictional Hazard Mitigation Plan* (Clark County, NV: Local Emergency Planning Committee, 2012).

⁹⁵ “State Comprehensive Emergency Management Plan,” accessed May 18, 2014, <http://dem.nv.gov/uploadedFiles/demnv.gov/content/Resources/2014-SCEMP.pdf>.

a. International Fire Service Preparedness

United States policy directives have no authority in the international arena. It is, however, worthwhile to examine international preparedness models for comparison. The United Kingdom provides some key information about one system utilized overseas. The Civil Contingencies Act of 2004 established the framework for emergency preparedness and response for the United Kingdom. The Act identifies six areas of integrated emergency management; anticipation, assessment, prevention, preparation, response, and recovery.⁹⁶ The Guidance on Emergency Preparedness sets out a generic framework for the pre-emergency areas in support of the Act.⁹⁷ The Emergency Response and Recovery guidance addresses the areas of response and recovery.⁹⁸ The United Kingdom and the Civil Contingencies Act of 2004 offers an opportunity for comparative analysis with the U.S. National Preparedness Goal.

(1) Israel. In Israel, the Ministry of Public Security (MOPS) manages emergency preparedness. The MOPS description of emergency preparedness is intended to ensure the operational readiness of the agencies operating under its authority including the Israeli Police, Israeli Prison Service, and Fire and Rescue Services.⁹⁹ The Israeli Fire and Rescue Services is a recent addition to the MOPS. Fire and Rescue Services was under the auspices of the Ministry of the Interior up until 2011. The move was made after the devastating Mt. Carmel Forest Fire that claimed 44 lives and burned across 8600 acres in 2010.¹⁰⁰ The fire and rescue service was woefully under staffed, under equipped, under trained, and under supported to manage incidents of this scale.¹⁰¹ The fire service

⁹⁶ United Kingdom, *Civil Contingencies Act 2004* (United Kingdom, The National Archives, 2004), <http://www.legislation.gov.uk/ukpga/2004/36/section/1>.

⁹⁷ Cabinet Office, *Emergency Preparedness: Revised Version* (London: Cabinet Office Civil Contingencies Secretariat, 2012).

⁹⁸ HM Government, *Emergency Response and Recovery Non Statutory Guidance Accompanying the Civil Contingencies Act 2004* (London: Cabinet Office Civil Contingencies Secretariat, 2013).

⁹⁹ "Emergency, Fire & Rescue Services," accessed October 5, 2014, <http://mops.gov.il/English/HomelandSecurityENG/Pages/default.aspx>.

¹⁰⁰ "Carmel Fire," accessed October 5, 2014, <http://www.ynetnews.com/home/0,7340,L-10180,00.html>.

¹⁰¹ Tomer Zarchin, "State Comptroller Report: Netanyahu, Yishai and Steinitz Responsible for Failures of Carmel Fire," Haaretz, June 20, 2012, <http://www.haaretz.com/news/national/state-comptroller-report-netanyahu-yishai-and-steinitz-responsible-for-failures-of-carmel-fire-1.439806>.

was therefore nationalized and placed under the MOPS where the link to public security was formalized.

(2) Japan. Japan is another example of a country that has experienced considerable impact from large-scale disasters. The Fire and Disaster Management Agency (FDMA) is the central organization that manages disaster preparedness. The FDMA is of particular interest in this research because it is a fire service based agency. The frequency of events and vulnerability of Japan has focused the entire country on preparedness. The involvement of the citizenry in the preparedness mission is notable.¹⁰² International and domestic preparedness is accomplished in a variety of ways. The next section of the review sought to discover literature for managing the implementation of preparedness.

2. Management System—National Preparedness System

The National Preparedness System is a management system for implementing the national preparedness strategy. This system was formulated using a capability-based planning method that has its roots in the Department of Defense. The Congressional Research Service report “Presidential Policy Directive 8 and the National Preparedness System: Background and Issues for Congress” breaks down PPD-8 and outlines the trajectory for successful implementation of the National Preparedness System.¹⁰³ The CRS report presents a strategic overview of the homeland security mission and is a tool for evaluating the overarching effectiveness of the department. The National Preparedness System describes a process for implementation. The next section explores an alternative.

¹⁰² “FDMA: Fire and Disaster Management Agency,” accessed May 25, 2014, <http://www.fdma.go.jp/>.

¹⁰³ Jared T. Brown, *Presidential Policy Directive 8 and the National Preparedness System: Background and Issues for Congress* (CRS Report No. R42073) (Washington, DC: Congressional Research Service, 2011), <http://www.fas.org/sgp/crs/homsec/R42073.pdf>.

3. Management System Standards

A possible method for preparedness implementation is presented in the article *Homeland Security: Using Standards to Improve National Preparedness*.¹⁰⁴ Management system standards apply to organizations as a whole rather than to the products and services they supply.¹⁰⁵ The International Organization for Standardization (ISO) popularized management system standards with its ISO 9000 Quality Management series.¹⁰⁶ The American National Standards Institute (ANSI) is a standards approval organization that advocates management system standards.¹⁰⁷ The National Fire Protection Association (NFPA) is a consensus standard development organization that has built a reputation as the authority for standards for the fire service.¹⁰⁸

The Deming Cycle, also known as the plan–do–check–act (PDCA) cycle, is the foundation of all ISO management system standards. The cycle promotes development, continuous improvement, and overall control of the management system. The Deming Cycle consists of the following:

- Plan—establishing the architecture of the management system
- Do—implementing the plans
- Check—reviewing the results
- Act—improving the management system¹⁰⁹

Dr. Sharon Caudle calls for management system standards to guide preparedness. The fundamental reason is that management system standards embrace what an

¹⁰⁴ Randall Yim and Sharon Caudle, “Homeland Security: Using Standards to Improve National Preparedness—ISO,” *ISO Management Systems*, January–February 2004.

¹⁰⁵ “Management System Standards—Chartered Quality Institute,” accessed October 26, 2014, <http://www.thecqi.org/Knowledge-Hub/Knowledge-portal/Compliance-and-organisations/Management-system-standards/>.

¹⁰⁶ “ISO 9000 Quality Management,” accessed November 16, 2014, http://www.iso.org/iso/home/standards/management-standards/iso_9000.htm.

¹⁰⁷ “About ANSI,” accessed November 16, 2014, http://www.ansi.org/about_ansi/overview/overview.aspx?menuid=1.

¹⁰⁸ “About NFPA,” accessed October 6, 2014, <http://www.nfpa.org/about-nfpa>.

¹⁰⁹ “Medical Devices Management System: ISO 13485,” accessed November 16, 2014, <http://arc.ms.ie/home/quality-systems/iso-13485-medical-devices-management-system/>.

organization itself must do to manage its processes or activities. Management system standards foster flexibility, adaptability, and more localized decision-making as they rarely state specific “down in the weeds” performance criteria to judge performance. Instead, they set a condition the individual organization is to meet through its own specific performance criteria and management system. This decentralized method allows local fire departments to focus on the most applicable components rather than the overly cumbersome federal program in total.¹¹⁰

NFPA 1600 is constructed to meet the rigorous standards of ANSI and offers a template for cultivating preparedness in a wide variety of organizations, including the fire service.¹¹¹ NFPA standards are developed using a consensus model that involves committees made up of a broad cross section of stakeholders.¹¹² The NFPA is widely accepted by fire departments as the codes and standards development organization for all things related to the fire service.¹¹³

C. LITERATURE REVIEW SUMMARY

A comprehensive review of the existing knowledge base in the subject area was conducted to build comprehension of the topic. The foundational federal doctrine was explored in depth. Some of the pertinent history of homeland security and preparedness was also chronicled. The literature review established PPD-8 as the current basis for the national preparedness strategy. An extensive library of supporting documents for PPD-8 establishes the Goal and implementation strategies in the form of national planning frameworks. The directive further mandates annual national preparedness reports that provide useful material that informs the subject. A wealth of information is available to support PPD-8.

¹¹⁰ Sharon L. Caudle, “Homeland Security Capabilities-Based Planning: Lessons from the Defense Community,” *Homeland Security Affairs* 1, no. 2 (Fall 2005), <http://www.hsaj.org/?fullarticle=1.2.2>.

¹¹¹ National Fire Protection Association, *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs; 2013 Edition*.

¹¹² “About NFPA.”

¹¹³ “NFPA Overview,” accessed November 13, 2014, <http://www.nfpa.org/about-nfpa/nfpa-overview>.

The federal level guidance in support of PPD-8 emphasizes the whole community approach and routinely includes specifics for local government. However, specific guidance for the fire departments in this space is lacking in this sphere. The literature that is available is indicative of the problems cited. The inconsistent application of the federal guidance is striking with little that would indicate cohesive strategic alignment with federal doctrine.¹¹⁴ This inconsistency is evidence that reform is needed to structure preparedness management. A review of international fire service approaches was conducted to compare strategies. The Israeli and Japanese examples revealed very different management strategies that implore further study. While Japan and Israel have national fire agencies, it important to note that they are both relatively small countries with government systems and a citizenry that are receptive to nationalization. These countries have a history of disaster, primarily human-caused in Israel and natural disaster in Japan. The countries have demonstrated resilience due to strong preparedness strategies that engage their respective fire services.

The culmination of the literature review is an exploration of how a preparedness strategy might be implemented for the fire service. The existing management system literature was reviewed and compared to prominent fire industry management system standards. This literature provided insight into the role of the fire service, and more importantly, what the role might be if the national preparedness guidance was institutionalized.

¹¹⁴ U.S. Government Accountability Office, *FEMA Lacks Measures to Assess How Regional Collaboration Efforts Build Preparedness Capabilities*.

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III. IS PPD-8 AND ITS IMPLEMENTING STRATEGIES RELEVANT AND BENEFICIAL TO LOCAL FIRE DEPARTMENTS?

This chapter is structured to evaluate the relevance and benefit of PPD-8 to local fire departments through analytical research. The analysis uses four steps to evaluate the applicability of the guidance. The first step is to define relevance and benefit in this context. Second, an analysis of how the national guidance is relevant and beneficial to local fire departments, if at all, is presented. Third, the relevance and benefit of the fire service in homeland security is evaluated. Finally, the impact of implementing the national preparedness strategies is explored. This research seeks to examine these questions qualitatively in order to inform policy makers in local fire departments with regard to resource allocation, operational practicality, and the social acceptability of participation in preparedness for their communities.

A. HOW ARE RELEVANCE AND BENEFIT DEFINED IN THIS CONTEXT?

- **Relevance:** 1: a: relation to the matter at hand b: practical and especially social applicability: pertinence <giving relevance to college courses>¹¹⁵

Relevance, as established by *Merriam Webster*, asks whether a relationship exists to the matter at hand and whether the matter has practical and social applicability. Relevance is determined based on context. Relevance is a product of how important something is to the person or group making the determination. Relevance of the national preparedness guidance to the fire service can be directly related to the benefit that the guidance provides to the individual department or jurisdiction. Chief James Schwartz offered his testimony before the U.S. House of Representatives Committee on Homeland Security assessing the relevance of PPD-8 in areas of capability building through mutual-aid agreements and national assistance programs.¹¹⁶

¹¹⁵ “Relevance,” accessed July 13, 2014, <http://www.merriam-webster.com/dictionary/relevance>.

¹¹⁶ James H. Schwartz, *Assessing the Nation’s State of Preparedness: A Federal, State, and Local Perspective* (Fairfax, VA: International Association of Fire Chiefs, 2013), http://www.iafc.org/files/1GR/gr_testimonySchwartzHomeSec130919.pdf.

Relevance of PPD-8 can also be measured by the benefit that it creates for the community. The goal of the guidance is to influence greater preparedness, resulting in a secure and resilient nation. The practical applicability of the national guidance on local fire departments is enhanced preparedness resulting in a more resilient community. The relevance in this context is defined in the way the national guidance benefits the citizenry.¹¹⁷

- **Benefit: 1:** an advantage of profit gained from something¹¹⁸

For something to be beneficial, it must provide personal or social wellbeing. This research seeks to evaluate the benefit of preparedness as defined in PPD-8 across the homeland security enterprise, especially at the local fire department level. Preparedness as a homeland security concept refers to the actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the nation.”¹¹⁹ The prescribed benefit of preparedness at the national level is a more secure and resilient nation, as noted in the Goal.¹²⁰

The ideal of security and resilience is the goal for the whole community including state and local levels of government. Local communities are the beneficiaries of preparedness through reduced impact and effective, rapid recovery from man-made and natural disasters. The impacts of disasters can be measured in terms of outcomes such as life safety, timeliness, and economics. Other impacts that center on meeting basic social needs are more difficult to measure but play a significant role in determining resilience.

¹¹⁷ Department of Homeland Security, *National Preparedness Goal*.

¹¹⁸ “Benefit: Definition of Benefit in Oxford Dictionary (American English) (US),” accessed December 15, 2014, http://www.oxforddictionaries.com/us/definition/american_english/benefit.

¹¹⁹ Obama, *Presidential Policy Directive 8: National Preparedness*. This is the definition directly from PPD-8.

¹²⁰ Department of Homeland Security, *National Preparedness Goal*.

B. IN WHAT WAYS IS PPD-8 AND ITS IMPLEMENTING STRATEGIES RELEVANT AND BENEFICIAL TO LOCAL FIRE DEPARTMENTS, IF AT ALL?

The relevance of PPD-8 and its implementing strategies to the fire service and local fire departments is rooted in the history of homeland security. On September 11, 2001, 19 Al-Qaeda extremists hijacked four commercial airliners and carried out the most devastating terrorist attacks in U.S. history. The suicide missions killed more than 3,000 people, toppled the towers of the World Trade Center, and caused massive damage to the Pentagon building. The courageous response to the twin towers resulted in the deaths of 343 New York City firefighters; the admission to homeland security for the fire service was solidified.¹²¹

Homeland security as known today began in earnest in response to the 9/11 attacks. The purpose was deeply rooted in counterterrorism and prevention to stop another attack from occurring. The fire service does not have primary responsibility for investigating criminal acts or arresting terrorists. However, more than one million firefighters respond to incidents in homes and businesses every day and may witness suspicious activity that may not be accessed any other way. The fire service may be uniquely positioned to support counterterrorism efforts through information sharing. It could collect and forward information gathered in the course of performing traditional services.¹²²

After Hurricane Katrina struck the Gulf Coast, the DHS and FEMA were faced with reassessing what it meant to secure the homeland. The PKEMRA reformed homeland security, and FEMA in particular, to more clearly set expectations, roles, and responsibilities more clearly for emergency management.¹²³ Natural disasters and all-hazards became part of the DHS lexicon. This reform signaled an equalizing momentum across the mission areas creating additional opportunities for the fire service to engage in homeland security.

¹²¹ “9/11 Attacks—Facts & Summary,” accessed October 4, 2014, <http://www.history.com/topics/9-11-attacks>.

¹²² Heirston, “Firefighters and Information Sharing: Smart Practice or Bad Idea?.”

¹²³ Post-Katrina Emergency Management Reform Act of 2006.

Administrations under President Bush and President Obama worked to define the mission and scope of homeland security for America. A series of homeland security presidential directives issued by President George W. Bush are directed at securing Americans from man-made and natural disasters.¹²⁴ President Barack Obama continued the focus on homeland security through presidential policy directives. The relevance of national preparedness was emphasized when PPD-8 was issued in 2011. PPD-8 identifies preparedness as an “all-of-nation” mission.¹²⁵ The Goal goes on to describe preparedness as a whole community responsibility, not just a responsibility of the federal government. This approach requires the involvement of state, tribal, and local governments, as well as private sector entities. Some states and a few local governments have embraced the national guidance. An example from Henderson, Nevada is discussed in the next section to evaluate the relevance of the guidance to state and local agencies.

1. Henderson, Nevada

The State of Nevada has embraced the guidance and strategies that have evolved from PPD-8. The State of Nevada Commission on Homeland Security has established priorities based on the core capabilities presented in the preparedness goal.¹²⁶ In Nevada, homeland security priorities are established by the governor as recommended by the Nevada Commission on Homeland Security. This committee is responsible for establishing priorities and distributing funding in support of the established priorities.¹²⁷ The national level guidance provided through PPD-8 and its implementing strategies has relevance at the state level in determining priorities and allocating funding. The priorities

¹²⁴ *United States Congress House Committee on Homeland Security and United States President (2001-2009 Bush), Compilation of Homeland Security Presidential Directives (HSPD)(updated through December 31, 2007): Prepared for the Use of the Committee on Homeland Security of the House of Representatives*, vol. 4 (2008).

¹²⁵ Obama, *Presidential Policy Directive 8: National Preparedness*.

¹²⁶ Nevada Department of Public Safety, Division of Emergency Management and Homeland Security, “2012 State of Nevada Commission on Homeland Security Governor’s Annual Report,” 2013, <http://www.leg.state.nv.us/interim/77th2013/Committee/StatCom/Sunset/Other/8-April-2014/6aHSCAnnualReport2012Final.pdf>.

¹²⁷ “Nevada Homeland Security Commission,” accessed October 8, 2014, http://dem.nv.gov/homeland_security/HS_Commission/.

are chosen from the list of core capabilities and funding decisions are made based on the projects that address those priorities.

Through national and state adoption of the PPD-8 strategies, local agencies such as the Henderson fire department are encouraged to engage in the national preparedness strategy. The local level of preparedness is closest to the citizenry. For most Americans, the first contact with the government before or during a disaster is from local agencies. The relevance at the local level is defined by the whole community approach that is prevalent in the preparedness guidance. The whole community approach recognizes that preparedness is a shared responsibility that involves everyone; individuals, nonprofit organizations, private sector, faith-based organizations, and others. The whole community also includes all levels of government, including federal, state, local, tribal, and territorial.¹²⁸

The relevance of preparedness is further solidified for local fire departments by the concept of the all-hazards approach to homeland security. The term “all-hazards” refers to threats and hazards from both man-made and natural causes. The fire service plays a significant role in providing highly trained and technically proficient responders to manage natural disasters such as forest fires, urban search and rescue, and weather related events.¹²⁹ This traditional role has been integrated into homeland security. The preparedness guidance acknowledges that securing the homeland means that all-hazards must be considered. All mission areas include reference to both manmade and natural disasters apart from the prevention mission, which is focused solely on terrorism.¹³⁰

As a municipal governmental agency, the City of Henderson has established its mission as providing services and amenities that enhance the quality of life for those who

¹²⁸ “Whole Community,” accessed October 3, 2014, <http://www.fema.gov/national-preparedness/whole-community>.

¹²⁹ U.S. Fire Administration, *Special Report: Fire Department Preparedness for Extreme Weather Emergencies and Natural Disasters* (Emmitsburg, MD: U.S. Fire Administration, 2008), https://www.usfa.fema.gov/downloads/pdf/publications/tr_162.pdf.

¹³⁰ Department of Homeland Security, *National Preparedness Goal*.

live, learn, work and play in the city.¹³¹ A strategic goal of the organization is community safety achieved by providing quality public safety services and programs. The function of providing public safety services, including fire and emergency medical response, is defined as “critical services” in the most recent City of Henderson strategic plan.¹³²

The City of Henderson fire department provides traditional response services including emergency medical response and transport, fire suppression, technical rescue response, hazardous materials response, public education and community outreach, and fire investigations.¹³³ The department is also home to the Office of Emergency Management (OEM), which is responsible for the emergency management function across the city including planning and coordination of disaster management activities. The OEM is integral to the homeland security endeavors of the municipality and collaboration across jurisdictions in regional partnerships.¹³⁴ The OEM has identified specific threats to the jurisdiction including terrorism, earthquake, hazardous materials, and flash flooding. The OEM also recognizes that the fire department has a supporting role across the region in these areas.¹³⁵

Protecting people and providing for safety and security against human-caused and natural disasters is a priority of governmental agencies large and small. The horrendous events of 9/11 solidified the concept of homeland security as an enterprise. Hurricane Katrina forced the evolution to a more comprehensive all-hazards approach. Through it all, fire departments have played a significant role in responding to these events to help keep people safe. Fire departments are, first and foremost, response agencies and are inextricably linked to homeland security in this role. There is evidence that fire

¹³¹ “City Manager’s Office—Purpose and Mission,” accessed September 7, 2013, http://www.cityofhenderson.com/city_managers/purpose_and_mission.php.

¹³² “2014–2019 City of Henderson Strategic Plan,” 900, 9, 2014, http://www.cityofhenderson.com/city_managers/emagazine/strategic_plan_2014-2019/pubData/source/14-219502_Strategic_Plan_Booklet_revision_13_FINAL.pdf.

¹³³ “Fire–Fire/Rescue Operations,” accessed October 4, 2014, http://www.cityofhenderson.com/fire/fire_rescue_operations.php. City of Henderson,

¹³⁴ “Emergency Management.”

¹³⁵ Clark County Local Emergency Planning Committee, *Clark County 2012 Multi-Jurisdictional Hazard Mitigation Plan*.

departments may have relevance in other mission areas for preparedness. The benefits of fire service participation can help to establish relevance.

C. WHAT IS THE RELEVANCE AND BENEFIT OF THE FIRE SERVICE, INCLUDING THE HENDERSON FIRE DEPARTMENT, IN HOMELAND SECURITY?

A review of the Henderson fire department's preparedness strategy presents an opportunity to study whether or not preparedness has enhanced the ability of the whole community to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk. The agency was studied to establish the applicability and value of national preparedness guidance at home.

The Henderson fire department lacks a structured and strategic approach that comprehensively adopts the tenets of PPD-8 for preparedness. In 2011, Henderson saw improvements in planning with a revised all-hazards emergency operations plan (EOP) that aligned with the National Response Framework, following the emergency support function model.¹³⁶ The benefit of adopting this model is standardization regionally, statewide, and nationally. The city has engaged in numerous exercises and planning for large-scale incidents and is constantly improving its level of preparedness, but many of the core capabilities are problematic for the organization in terms of scope and scale.

Since the 9/11 attacks and Hurricane Katrina, Henderson has built its programs to adapt to the new threats to homeland security. The local division of the Federal Bureau of Investigations (FBI) stood up and strengthened the Las Vegas Joint Terrorism Task Force (JTTF) in the days following the 9/11 attacks. The JTTF is comprised of 43 representatives from local, state, and federal law enforcement agencies including the City of Henderson Police Department.¹³⁷ The priority of the JTTF is to protect the United States from terrorist attack and its methodology is prevention through intelligence gathering and information sharing. The prevention mission has been further enhanced

¹³⁶ City of Henderson, *City of Henderson All-Hazard Emergency Operations Plan*.

¹³⁷ "FBI—What We Investigate," accessed September 7, 2013, <http://www.fbi.gov/lasvegas/about-us/what-we-investigate/priorities>.

through the creation of, and participation in, the Southern Nevada Counter Terrorism Center (SNCTC).

The limited incorporation of preparedness guidance for Henderson has yielded some recent benefits. In 2011, a representative of the fire departments in the region was assigned to the SNCTC. This participation has led to increased safety and situational awareness through directed information sharing for all fire response personnel. The core capability of operational coordination was enhanced through collaboration and planning for active shooter incidents in the region. Partnerships established in the SNCTC initiated a multi-agency plan to manage these highly complex and dynamic incidents.¹³⁸ Using the *Threat and Hazard Identification and Risk Assessment (THIRA) Guide: Comprehensive Preparedness Guide (CPG) 201*,¹³⁹ the Henderson fire department identified that its hazardous materials response capabilities fell short of the threat posed by the known hazards in the community. The City of Henderson petitioned the Nevada State Homeland Security Commission for grant funding to support training and equipment to enhance hazardous materials response capabilities for the fire department.¹⁴⁰ Based on the enhanced core capability of environmental response/health and safety, the project was approved and a dedicated hazardous materials response team was formed.¹⁴¹

The benefits derived from preparedness are evident in the local effort to address this topic. PPD-8, the Goal, and the National Preparedness System with its planning frameworks are strong foundations for national preparedness that have application at the local level, as evidenced by the whole community philosophy. The Henderson fire

¹³⁸ Bertral Washington and Willie McDonald, “Southern Nevada Fire Operations—Hostile MCI Presentation to Metro Fire Chiefs 2014” (presented at the Metro Fire Chiefs Conference, Baltimore MD, June 2, 2014), <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCAQFjAA&url=http%3A%2F%2Fwww.nfpa.org%2F~%2Fmedia%2FFiles%2FMember%2520access%2Fmember%2520sections%2FMetro%2520Chiefs%2F2014%2520conference%2F2014%2520MetroFire%2520Chiefs%2520Conf%2520June%25202%25202014.pptx&ei=wfoxVKGJKIX7yAS7wIHABQ&usg=AFQjCNHyj6bwrBKeXtVbcmWICOjyYgbhbA&bvm=bv.76802529,d.aWw>.

¹³⁹ FEMA, *Comprehensive Preparedness Guide 201: THIRA*.

¹⁴⁰ “Approved Minutes,” accessed October 6, 2014, http://dem.nv.gov/uploadedFiles/demnv.gov/content/homeland_security/APPROVED%20MINUTES_HSC%20051515.pdf.

¹⁴¹ Arnold M. Knightly, “Henderson Firefighters Train to Become Hazmat Response Team,” *Las Vegas Review-Journal*, accessed October 6, 2014, <http://www.reviewjournal.com/news/fire-rescue/henderson-firefighters-train-become-hazmat-response-team>.

department has limited participation in preparedness as defined in the Goal; however, some benefits have been realized, even with incomplete involvement.

D. HOW WOULD IMPLEMENTING PPD-8 IMPACT LOCAL FIRE DEPARTMENTS?

Expanding into a broader role within the national preparedness strategy would come at a price. There would be a financial cost in building resources and capabilities to achieve mission goals. There could also be operational penalties, social/cultural impacts, and legal ramifications. This section reviews each of these potential impacts. The benefit has to be worth the investment whether the costs are in the form of money, services, reputation, or regulatory demand. It would be incumbent upon fire agencies to employ mitigating strategies to minimize these impacts. Options for abatement are included in this exploration of the impacts of fire agency engagement in national preparedness strategies.

Every community faces unique challenges in providing services to its citizenry. The infinite variables that determine which services to provide make the decisions for preparedness highly individualized to each specific community. Impacts need to be evaluated and benefits weighed to determine the best course of action.

The core capabilities cover the full spectrum of preparedness; each capability has a specific function in attaining the goals of preparedness. The whole community approach distributes the responsibilities across the spectrum of stakeholders. Local governments and local agencies, such as the fire department, within those governments have defined roles and responsibilities. These roles are broadly referenced in each of the planning frameworks.¹⁴² The five mission areas - prevention, protection, mitigation, response and recovery - are supported by a combination of the core capabilities from the Goal. The capabilities are the cornerstones of the strategy for preparedness.¹⁴³ Each fire

¹⁴² Department of Homeland Security, *Overview of the National Planning Frameworks* (Washington, DC: Department of Homeland Security, 2013), http://www.fema.gov/media-library-data/1406718145199-838ef5bed6355171a1f2d934c25f8ad0/FINAL_Overview_of_National_Planning_Frameworks_20140729.pdf.

¹⁴³ Department of Homeland Security, *National Preparedness Goal*.

department must make a determination as to which of the core capabilities fall within their defined role.

1. Fiscal Impact

Cost to implement the strategy is a significant part of any decision-making process. If costs are unmanageable, then the project cannot be implemented. Programs and objectives must be prioritized and funding directed to those items that bring the most value in return. The return on investment for preparedness is a more secure and resilient community through prevention, protection, mitigation, response and recovery. Large fire departments that face heightened levels of threat such as the fire department of New York and the Los Angeles fire department have the ability to commit considerable resources to homeland security and preparedness. Agencies such as the Henderson fire department operate with significantly limited resources by comparison. The principles of engaged partnerships and scalability are important to achieving preparedness goals in a cost restrictive environment.¹⁴⁴

The homeland security enterprise is an incredibly expensive proposition; security and resilience do not come cheap. The DHS has an annual budget of over \$38 billion for the 2015 fiscal year.¹⁴⁵ The national planning frameworks include three key themes that help to build capability while controlling costs. The key themes are: 1) engaged partnerships, 2) scalability, flexibility, and adaptability in implementation, and 3) integration among frameworks.¹⁴⁶

Engaged partnerships allow for distribution of capabilities across agencies. Every agency does not need to maintain every capability; through regional collaboration, costs can be controlled. Scalable, flexible and adaptable coordinating structures allow agencies to address the unique needs specific to each community without demanding that every entity be capable of addressing all possible scenarios.¹⁴⁷ The State of Nevada spent more

¹⁴⁴ Department of Homeland Security, *National Preparedness Goal*.

¹⁴⁵ Department of Homeland Security, *Budget-in-Brief Fiscal Year 2015*.

¹⁴⁶ Department of Homeland Security, *Overview of the National Planning Frameworks*, 1–2.

¹⁴⁷ *Ibid.*, 2.

than \$16 million on homeland security in 2011. That amounts to \$6.20 per resident in the state.¹⁴⁸ If the per capita logic were applied to the City of Henderson, the cost would be approximately \$1.7 million in additional expense on an already strained budget. The fiscal impacts can be diluted through partnerships and scalability. Extensive federal grant programs are also in place to assist cash strapped agencies.

Federal assistance is available to support preparedness. Costs are an important consideration in preparedness. These costs can be significant and beyond the capacity of local entities. The DHS sponsors numerous grant programs to assist local agencies to build needed capabilities. Federal grant programs have been helpful in building core capabilities that might otherwise have gone unfunded, but the grant system has its flaws. Over the past decade, the DHS has awarded more than \$35 billion in grant funding to support the homeland security mission.¹⁴⁹ In the political report, *Safety at Any Price*, Senator Tom Coburn opines that governmental agencies have become effective in spending the awarded funding, but there is no strategic evaluation of projects, nor is there a universal approach to what is bought and why it is bought. Little accountability for performance occurs once the purchase is made.¹⁵⁰

The federal funding remains an important resource for capability building; the tightening of the programs will make access to these funds an exercise in justifying the linkage to the core capabilities and preparedness. The homeland security enterprise is supported at the local level through generous federal grant programs. FEMA is a primary administrator of preparedness grants like the homeland security grant program (HSGP), the emergency management performance grant (EMPG), and the assistance to firefighters grant (AFG).¹⁵¹

The EMPG grant program provides resources to assist state, local, tribal, and territorial governments in preparing for all hazards, as authorized by the Robert T.

¹⁴⁸ “States Spend Billions on Local Homeland Security | America’s War Within,” accessed November 27, 2014, <http://militarization.apps.cironline.org/>.

¹⁴⁹ Coburn, *Safety At Any Price: Assessing the Impact of Homeland Security Spending in U.S. Cities*.

¹⁵⁰ Ibid.

¹⁵¹ “Plan, Prepare & Mitigate,” accessed October 8, 2014, <http://www.fema.gov/plan-prepare-mitigate>.

Stafford Disaster Relief and Emergency Assistance Act. The FY14 EMPG grant program is funded at \$350 million. It focuses on planning, operations, equipment acquisitions, training, exercises, and construction and renovation to enhance and sustain all-hazards core capabilities.¹⁵² The State of Nevada received more than \$4 million from EMPG including funding for the emergency management program for the City of Henderson.¹⁵³

The HSGP provides funding to states, territories, urban areas, and other entities to prevent, protect against, mitigate, respond to, and recover from potential terrorist attacks and other hazards. The HSGP distributed more than \$1 billion through the state homeland security program (\$401,346,000), urban area security initiative (\$587,000,000), and Operation Stonegarden (\$55,000,000).¹⁵⁴ State homeland security program grants are allocated to each state to assist with homeland security. In the State of Nevada, the funds are administered by the Nevada Homeland Security Commission and distributed to agencies based on investment justifications that target building and delivering core capabilities.¹⁵⁵

The AFG is of particular importance to local fire agencies. The purpose of the AFG grant program is to assist fire departments and affiliated emergency medical service organizations to meet firefighting and emergency response needs. The grant funds critical equipment purchases, training, protective gear and other resources to protect the public and responders from threats and hazards.¹⁵⁶ This grant is essential for funding response related items to achieve core capabilities for preparedness.

¹⁵² “Emergency Management Performance Grants Program,” accessed October 8, 2014, <https://www.fema.gov/emergency-management-performance-grants-program>.

¹⁵³ “FY 2014 Emergency Management Performance Grants (EMPG),” accessed October 8, 2014, http://www.fema.gov/media-library-data/1406301164934-dc25444d26520013bbd504904dca9936/EMPG_Fact_Sheet_Final.pdf.

¹⁵⁴ “FY 2014 Homeland Security Grant Program (HSGP),” accessed October 8, 2014, http://www.fema.gov/media-library-data/1406300389096-4a90f0348040a8210de9854d8f597edf/HSGP_Fact_Sheet_Final.pdf.

¹⁵⁵ “Nevada Homeland Security Commission.”

¹⁵⁶ “Assistance to Firefighters Grant—Program Info,” accessed October 8, 2014, <http://www.fema.gov/assistance-firefighters-grant-program-info>.

Hard costs for preparedness can be readily calculated, as capability is largely a matter of resource allocation. The cost to build these capabilities can be limiting for most fire agencies. The DHS has provided funding opportunities through grant programs, but entities will ultimately have to weigh the return on investment of preparedness. The financial impact is significant but there are other costs. The impact on existing services is explored next.

2. Impact on Existing Services

The fire service has a traditional role as responders to all manner of emergencies. These emergencies include large incidents caused by natural and manmade disasters. The fire service is also involved in mitigation and protection, which is addressed through fire prevention, code development, and fire code enforcement. The concept of preparedness goes beyond these traditional roles for fire departments. Expanding the role of fire departments into broader, non-traditional areas of preparedness as described in PPD-8 will involve significant changes. The changes will present challenges to the fire service in the areas of operational practicality and social/cultural acceptability.

a. Operational Practicality

This portion of the exploration strives to address the challenges that come from adding additional capabilities. Fire agencies have set existing responsibilities that have evolved over time. Gone are the days of fire suppression being the sole purpose for fire departments. The frequency of fire incidents continues to decline and nationwide consists of only about 28% of the calls for service.¹⁵⁷ The fire service routinely engages in an array of non-fire suppression activities including emergency medical services, hazardous materials response, technical rescue, vehicle extrication, and community outreach.¹⁵⁸ With all the services provided, does capacity exist to add more capabilities without impacting current services? An examination of the current preparedness activities of the Henderson fire department is used to answer this question.

¹⁵⁷ “U.S. Fire Statistics,” accessed November 26, 2014, <http://www.usfa.fema.gov/data/statistics/>.

¹⁵⁸ “National Fire Department Census Quick Facts,” accessed May 26, 2014, <http://apps.usfa.fema.gov/census/summary.cfm#a>.

The City of Henderson has engaged, on a limited scale, in national preparedness. The emergency management division within the fire department has responsibility for preparedness.¹⁵⁹ A homeland security unit exists within the police department in the special operations division,¹⁶⁰ but to date, their efforts are more closely aligned with regional law enforcement than within the city.

The City of Henderson fire department, office of emergency management, and the City of Henderson all-hazards EOP, which form the core of these preparedness efforts, are strongly involved in the response mission.¹⁶¹ The EOP is aligned with the *National Response Framework*, detailing response roles and responsibilities and a plan for responding to manmade and natural disasters using ESF as the framework. The current emergency management-centric slant to all-hazard preparedness emphasizes the mitigation, response, and recovery mission areas. The fire department serves in a traditional role of response almost exclusively, with some mitigation and protection mission elements provided through the adoption and enforcement of the International Code Council's set of comprehensive construction codes including the International Fire Code.¹⁶² This engagement in preparedness is not by design; it is the result of circumstance. The EOP was drafted around the existing activities of the fire department.

The current practice employed by the Henderson fire department would have to change to accommodate full engagement with the guidance offered through PPD-8 and the supporting preparedness system. The five mission areas and the core capabilities identified in the Goal are the foundation for evaluation of the potential impacts to participating agencies. The added preparedness responsibilities will impact current operations and be impractical to implement without careful planning and adequate resource allocation. The practicality is a challenge: if financial costs can be managed,

¹⁵⁹ "Emergency Management."

¹⁶⁰ "Police."

¹⁶¹ "City of Henderson All-Hazard Emergency Operations Plan."

¹⁶² "Construction Codes," accessed August 24, 2014, http://www.cityofhenderson.com/building_fire_safety/php/codes/codes_home.php.

successful implementation will be highly reliant on the social and cultural acceptance of the fire service and the public.

3. Social/Cultural Acceptability

The social and cultural impacts of expanding the role of the fire service in homeland security are divided into internal and external impacts. The internal impact is on the men and women of the fire service who are on the frontlines. The culture of the fire service can be beneficial or detrimental. The “can-do” attitude is valuable on incident scenes and when decisive action and adaptability are at a premium. However, the culture and strong traditions can work against changes processes.¹⁶³ The social identity of groups is important to the sense of value and effectiveness of the organization.¹⁶⁴

Firefighters are no different; the culture of the fire service is carefully cultivated to add to the value of the group. Preparedness does not carry the bravado of rushing into a burning building, but the end result is the same; lives saved.¹⁶⁵ The fire service was inextricably linked to homeland security on 9/11 when 343 New York City firefighters were killed in the terrorist attacks at the World Trade Center.

Preservation of the cultural link to homeland security that makes firefighters a part of the preparedness missions will be necessary with any change. Fire service personnel are attached to the stanchions of tradition and may be difficult to convince that change is necessary.

The fire service has a conventional role in the community and the expectations of the citizenry are well established. The citizens will need to understand and accept that preparedness of their local fire department is beneficial. Any preparedness initiative will need to be evaluated for operational practicality; adopting departments will need to ensure that the expanded role makes sense for their community. The fire service has established trust within most communities. Fire departments must preserve the public

¹⁶³ Cox, “The Significance of Fire Service Culture as an Impediment to Effective Leadership in the Homeland Security Environment.”

¹⁶⁴ Ashforth and Mael, “Social Identity Theory and the Organization.”

¹⁶⁵ Hinds-Aldrich, “The Way of the Smoke Eater.”

trust to be effective. This trust will be tested with the introduction of information sharing regarding suspicious activity reporting by firefighters. The fire service enjoys unrestricted access to homes and businesses in the course of performing its service. If citizens perceive that firefighters are “spying” on them, the trust will be broken. The fire service will need to carefully manage this type of preparedness and present it wisely within the frame of homeland security.¹⁶⁶

4. Legal Requirements

The legal requirements are an important consideration when contemplating expanding roles for government agencies. A number of federal, state and local regulations would govern participation in the national preparedness strategy. Legal considerations include a review of authorizing legislation and any requirements implied by those laws. The legal requirements to provide for homeland security were largely initiated in response to the attacks of 9/11 and the response to Hurricane Katrina. To ensure compliance, it is important to understand the significant laws that apply to homeland security. Actions shall not be taken outside of the law in the name of homeland security and preparedness. Laws that govern the actions of organizations and individuals in the homeland security and preparedness mission have been established at federal, state and local levels. Some laws do not compel action but rather enable the enterprise in pursuit of the goal of building a secure and resilient nation.

a. Federal

PPD-8 requires federal departments to act in a manner consistent with their statutory roles and responsibilities. The directive further points to the PKEMRA as the relevant authority. Nothing in the directive is intended to alter or interfere with existing authorities in the performance of their legal responsibilities.¹⁶⁷

¹⁶⁶ Heirston, “Terrorism Prevention and Firefighters: Where Are the Information-Sharing Boundaries?”

¹⁶⁷ Barack Obama, *Presidential Policy Directive 8: Roles and Responsibilities* (Washington, DC: Department of Homeland Security, 2011).

PKEMRA is the primary authorizing legislation for preparedness. The PKEMRA made revisions to the Homeland Security Act of 2002. The Homeland Security Act was the organic statute that fully authorized FEMA, statutorily assigning the agency rights and authorities and aligned it within the DHS.¹⁶⁸ The PKEMRA revisions made sweeping reforms based on failures during the response to Hurricane Katrina. The PKEMRA gave FEMA a clear statutory mission to lead the nation’s efforts to prepare for, protect against, respond to, recover from, and mitigate against all-hazards. PKEMRA reorganized the administrative structure and authorities, providing the agency increased ability to influence U.S. emergency management policy, in part by giving the FEMA Administrator a rank equivalent to Deputy Secretary, and making the Administrator the principal advisor to the President, the Homeland Security Council, and the Secretary of Homeland Security. A third significant part of PKEMRA was defining a clear operational mission for FEMA; that of providing the federal level response to major disasters whether natural or manmade. PKEMRA also established in statute the 10 FEMA regions and the authorities of the FEMA regional administrators to support preparedness efforts in each of the regions.¹⁶⁹

Another key piece of authorizing legislation for preparedness is the Robert T. Stafford Disaster and Emergency Management Act (Stafford Act). The Stafford Act was an amended version of the Disaster Relief Act of 1974; it was originally signed into law in 1988 and was revised in 2013.¹⁷⁰ The Stafford Act authorizes the programs and processes of the federal government to provide disaster and emergency assistance to other levels of government, non-profit organizations, and individuals affected by declared disasters. The Stafford Act advocates and supports mitigation efforts and provides grant programs to reduce loss before, during, and after a disaster. The provisions of the Stafford Act are designed to supplement state and local relief and recovery efforts in the

¹⁶⁸ Homeland Security Act, 2002, 107th Cong. (2002).

¹⁶⁹ “S.3721—109th Congress (2005–2006): Post-Katrina Emergency Management Reform Act of 2006,” accessed October 8, 2014, <https://www.congress.gov/bill/109th-congress/senate-bill/3721>.

¹⁷⁰ “Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93–288) as Amended,” April 2013, <http://www.fema.gov/robert-t-stafford-disaster-relief-and-emergency-assistance-act-public-law-93-288-amended>.

preparedness mission. The act is enabling legislation for states to request federal assistance for major disaster declarations, emergency declarations, and fire management assistance, any of which requires a governor's request to activate.¹⁷¹

Title VI of the Stafford Act addresses emergency preparedness. The purpose of this section of the act is to provide a system of emergency preparedness to protect life and property. The title assigns responsibility for emergency preparedness across federal, state and local government. The title further states that the federal government shall have responsibility to provide direction, coordination and guidance for preparedness. The federal government shall provide necessary assistance to ensure that a comprehensive emergency preparedness system exists for all hazards.¹⁷² The Stafford Act fixes responsibility for preparedness on all levels of government including local government. Fire departments, through local government, have a legal responsibility for preparedness.

b. Nevada State Laws

Federal level regulations point to a shared responsibility for emergency preparedness. States are compelled to participate. State level legislation is more specific to local entities and has a direct role in governing emergency preparedness. Regulations for the State of Nevada are reviewed for applicability and impacts to the City of Henderson and its fire department. The legislature of the State of Nevada enacts laws under authority granted by the constitution of the State of Nevada. The legislature is responsible for general laws that are applicable throughout the state.¹⁷³

One such general law is found in Nevada Revised Statute 239C—Homeland Security. This law establishes legislation that leads the fight against terrorism through cyber security, critical infrastructure protection, continuity of government operations, operational interoperability and communications, access control and verification, and

¹⁷¹ Robert T. Stafford Disaster Relief and Emergency Assistance Act, as Amended.

¹⁷² *Ibid.*, Title VI.

¹⁷³ "The Constitution of the State of Nevada," accessed October 9, 2014, <https://www.leg.state.nv.us/const/nvconst.html#Art4Sec21>.

comprehensive state oversight for all counterterrorism initiatives.¹⁷⁴ The statute established the Nevada Commission on Homeland Security, a recommending body with responsibility for activities such as proposing goals and programs, funding recommendations, and grant guidance.¹⁷⁵ The statute requires each political subdivision within the state to adopt and maintain an emergency plan. These plans must provide key demographic information about the entity, a plan for state and local government continuity of operations, and a utility (public or private) vulnerability assessment.¹⁷⁶ This regulation applies to the City of Henderson and its fire department.

Nevada Revised Statute 414—Emergency Management is a related statute that addresses emergency management for all-hazards disasters.¹⁷⁷ This law establishes the Nevada Division of Emergency Management/Homeland Security (NDEM) within the Department of Public Safety, authorizes creation of emergency management organizations for local entities, and creates the position of Chief of Division. NDEM is charged with ensuring that the preparations of the state will be adequate to deal with large-scale emergencies or disasters. The purpose is to protect public welfare and to preserve the lives and property of the people of the state. The legislation makes NDEM responsible for establishing mutual aid programs among the political subdivisions of the state, with other states, and with the federal government with respect to carrying out the functions of emergency management.¹⁷⁸

The governor has overall responsibility for carrying out the provisions of NRS 414. Under the provisions of this statute, the governor may make, amend and rescind the necessary orders and regulations to carry out the provisions of this regulation. In addition, the governor may prepare a comprehensive state emergency management plan and develop a program for emergency management in the state that integrates with other

¹⁷⁴ “NRS: Chapter 239C—Homeland Security,” NRS 239C.010, accessed October 9, 2014, <https://www.leg.state.nv.us/NRS/NRS-239C.html>.

¹⁷⁵ *Ibid.*, NRS 239C.120.

¹⁷⁶ *Ibid.*, “Emergency Plans.”

¹⁷⁷ “NRS: Chapter 414—Emergency Management,” accessed October 9, 2014, <https://www.leg.state.nv.us/NRS/NRS-414.html>.

¹⁷⁸ *Ibid.*, “Policy and Purpose.”

states and the federal government. The governor may procure supplies and equipment, institute planning, training and exercise programs, carry out public information programs, and take all other preparatory steps, including the partial or full mobilization of organizations, for emergency management in advance of an actual emergency or disaster, to ensure the availability of adequately trained and equipped forces in time of need. On behalf of the State of Nevada, the governor may enter into mutual aid agreements with other states and coordinate mutual aid plans between local, state and federal agencies.¹⁷⁹

NRS 414 confers certain emergency powers upon the governor and executive heads of governing bodies of the political subdivisions within the state. The statute requires that all functions of emergency management in Nevada be coordinated to the maximum extent with the comparable functions of the federal government, of other states and localities, and of private agencies of every type, to provide for preparedness for dealing with any emergency or disaster.¹⁸⁰ This statute assigns local government entities, such as the City of Henderson, responsibilities before, during, and after disasters.

c. City of Henderson

Legal requirements and authorities are granted to local governments in the State of Nevada by law.¹⁸¹ The state legislation specifically provides for the ability for local government to create emergency management organizations. Pursuant to this provision, the City of Henderson has created such an organization. Henderson Municipal Code Chapter 2.24 Emergency Management establishes the organization and creates the position of emergency management coordinator with responsibility for the emergency management program of the city. The code allows for the creation of an emergency management council, delineates the process for declaration of an emergency, defines the operational emergency management organization and special emergency powers, and establishes continuity of government.¹⁸²

¹⁷⁹ “NRS: Chapter 414—Emergency Management”; “Policy and Purpose”; NRS 414.060 “Powers and Duties of Governor.”

¹⁸⁰ NRS 414.060 “Powers and Duties of Governor”; Policy and Purpose.”

¹⁸¹ “NRS: Chapter 239C—Homeland Security”; NRS: Chapter 414—Emergency Management.”

¹⁸² *Henderson Municipal Code, Chapter 2.24 Emergency Management* (Henderson, NV: n.d.)

The code defines emergency management as the preparation for and the carrying out of all emergency functions to minimize injury and repair damage resulting from emergencies or disasters. These functions include fire services, law enforcement services, medical and health service, planning and coordination, and other services that support the mitigation of, preparation for, response to or recovery from emergencies or disasters. The statute includes provisions for support of search and rescue operations, engineering, communications, weapons of mass destruction, evacuation, sheltering and social services, emergency transportation, infrastructure protection, temporary restoration of public utility services, and other activities necessary or incidental to the preparation for and carrying out of the foregoing functions.¹⁸³

The code is an authorizing code and is specific to the emergency management function. City departments have functional assignments assigned within the code; the public works department has special responsibilities defined in the ordinance.¹⁸⁴ The fire department is not specifically called out in the code, but firefighting and medical services are part of the responsibility of the emergency management program. The fire department is required to participate in mutual aid and to protect life and property. The emergency management function resides within the fire department; therefore, the codification of the emergency management responsibility is assigned to the department.¹⁸⁵

E. CONCLUSION

In this chapter, an analysis of relevance and benefit was conducted from several perspectives but a single lens. That lens was the context of relevance and benefit as it relates to the national preparedness strategy. Once the context was established, relevance and benefit were analyzed using the following frames: 1) In what ways is PPD-8 and its implementing strategies relevant and beneficial to the fire service? 2) What is the relevance and benefit of the fire service, including the Henderson fire department, in the homeland security mission? 3) How would implementing PPD-8 impact local fire

¹⁸³ *Henderson Municipal Code, Chapter 2.24 Emergency Management.*

¹⁸⁴ *Ibid.*

¹⁸⁵ "Organizational Chart," accessed October 4, 2014, http://www.cityofhenderson.com/fire/organizational_chart.php.

departments? This qualitative research was conducted using an analytical approach to determine the relevance and benefit of the national preparedness strategy for the fire service.

PPD-8 establishes the national preparedness strategy. The supporting elements of PPD-8 include the *National Preparedness Goal*, *National Preparedness System* including the *National Planning Frameworks* and *Comprehensive Planning Guide*, and *National Preparedness Report*. The guidance for national preparedness is comprehensive as it applies to capability building and sustainment.

The first step to answering the question was to establish the definition of relevance and benefit in this context. The national preparedness guidance prescribes an end-state goal of a secure and resilient nation.

The second step was to analyze in what ways PPD-8 and its implementing strategies are relevant and beneficial to local fire departments. Relevance and benefit was explored through an analysis of the national preparedness guidance. The guidance establishes that the preparedness goal is achieved through engagement of the whole community, including local governments and their local fire departments. This whole community approach is essential to managing large-scale events through the mission areas of prevention, protection, mitigation, response and recovery. Specific roles for whole community partners are described in each of the *National Planning Frameworks*. The security and resilience of the citizenry are enhanced through this whole community approach. The conclusion drawn from the analysis is that the PPD-8 and its implementing strategies are relevant and beneficial to local fire departments.

The third step in this analysis was to determine the relevance and benefit of the fire service, specifically the Henderson fire department, in the homeland security mission. The Henderson fire department is included in this analysis because it is the home agency of the author and it represents a typical urban fire department with a preparedness strategy. The analysis was constrained to how the fire service could impact the national preparedness goal of a secure and resilient nation by the context defined for relevance and benefit. The evidence from the analysis was found in the effectiveness of the

Henderson fire department's preparedness strategy. The conclusion drawn by the analysis indicates that preparedness can have a positive effect on the community's security and resilience. The fire service, including the Henderson fire department, is relevant and beneficial to homeland security.

The final step in the analysis was to evaluate the impacts of engagement in the national preparedness strategy on local fire departments. The impacts cited included fiscal impacts, impacts to existing services, social implications, and legal requirements. The national preparedness guidance recognizes that preparedness is not a one-size-fits-all endeavor and espouses scalability, flexibility, and adaptability to minimize impacts on an agency. The costs can be significant in terms of money, operational impact, and culture. The return on investment is high in this case, with the security and resilience of the community at stake. The conclusion is that each fire department must fully understand the impacts of participating in the national preparedness strategy before engaging. A risk-based approach would provide direction for prudent action to establish a scalable strategy that takes full advantage of partnerships in the whole community. Implementation is discussed in the next chapter.

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IV. HOW CAN PREPAREDNESS STRATEGIES BASED ON THE TENETS OF PPD-8 BE IMPLEMENTED FOR THE FIRE SERVICE AND LOCAL FIRE DEPARTMENTS INCLUDING THE HENDERSON FIRE DEPARTMENT?

This chapter of the thesis examines leadership and management for implementing preparedness across the fire service and ultimately down to the local fire department level. The qualitative research was framed by four questions: 1) What leadership concepts and structures would advance the preparedness mission within the fire service? 2) Are there existing preparedness strategies for the fire service that could be applied locally? 3) How does the existing national preparedness system for preparedness implement PPD-8 guidance? What are its strengths and weaknesses? and 4) Is an alternative management system for preparedness that could be used to implement PPD-8 guidance for the fire service? These questions were studied through applied analysis of current and alternate national fire service leadership concepts and structures. A comparative analysis was conducted to examine prominent management systems for preparedness. The overarching goal for implementation is to prescribe leadership and management frameworks that will advance preparedness strategy within the fire service.

A. WHAT LEADERSHIP CONCEPTS AND STRUCTURES WOULD ADVANCE THE PREPAREDNESS MISSION WITHIN THE FIRE SERVICE?

An abundance of doctrine has been established in support of the national preparedness strategy found in PPD-8 complete with a vision, mission, and purpose; many of the elements closely align with the fire service yet there is limited engagement. Fire service leaders will need to carry the vision forward and establish clarity of mission and accountability by integrating management processes that will enhance an entity's ability to participate as a member of the whole community to help build a secure and resilient nation.

The fire service has a storied history as America's first responders. The fire service is comprised of more than 26,000 fire departments, all of which deliver services

from decentralized fire stations. However, when the need arises, companies assemble to form a single unified force to provide for the safety of the public.¹⁸⁶ Ultimately, when these forces unite, a strong hierarchical structure is created that provides top-down leadership to define strategies on the fire ground.¹⁸⁷ This style of leadership is prevalent in the American fire service. In pursuit of the ideals of national preparedness, this leadership is lacking. Communities and fire departments have embraced the concepts of preparedness as seen in the fire department of New York and others.¹⁸⁸ Professional membership organizations such as the International Association of Fire Chiefs have weighed in on the issue, but wide spread acceptance remains limited.¹⁸⁹ These examples of engagement in preparedness are localized and do not reflect widespread acceptance of the preparedness doctrine.

1. United States Fire Administration

The federal level presents challenges similar to those at the local level. Politically, the DHS was created in the wake of 9/11 to combat terrorism. In the direct aftermath of 9/11, the challenges of politics and funding were marginalized due to a sense of urgency to keep America safe. This urgency has waned, but the challenges remain.¹⁹⁰ The fire service has failed to unite under a single banner for preparedness. The decentralized nature of the service has created a disconnected approach that leads to incongruent capability development and an uneven terrain for preparedness. The fire service would be well served to come together and present a unified front to better manage the politics and funding challenges presented by the national preparedness strategy.¹⁹¹ Funding for a centralized fire-based disaster management would require alignment under federal

¹⁸⁶ “National Fire Department Census Quick Facts.”

¹⁸⁷ “National Incident Management System.”

¹⁸⁸ Fire Department of New York, “FDNY Counterterrorism and Risk Management Strategy 2011.”

¹⁸⁹ “Terrorism Response,” accessed October 5, 2014, http://www.iafc.org/files/1DISASTERmgmtHOMEsec/IAFC_Terrorism_Response.pdf.

¹⁹⁰ Adam Stone, “10 Years After 9/11: How Far Did \$635 Billion Spent on Homeland Security Go?,” *Emergency Management*, August 31, 2011, <http://www.emergencymgmt.com/safety/10-Years-After-911-Homeland-Security-Funding.html>.

¹⁹¹ Weeks, “Strategic Changes for the Fire Service in the Post 9/11 Era.”

leadership and realignment of funds that are currently committed throughout the DHS. The biggest challenge is agency conflict and jurisdictional protectionism. The culture of U.S. disaster management is fractured and a move to centralized leadership will require a dramatic cultural shift.¹⁹²

The USFA is a federal level agency housed within FEMA in DHS. The USFA mission is to provide national leadership to foster a solid foundation for our fire and emergency services stakeholders in prevention, preparedness, and response.¹⁹³ This mission statement correlates nicely with the leadership issues that are plaguing the fire service. However, the USFA does not have regulatory authority over individual fire departments and as a result does not carry the power to compel action for preparedness. The USFA was funded at \$44 million for FY14, a meager 0.112% of the \$39 billion DHS budget. This allocation of funds is primarily directed to education and training programs through the national fire academy and national emergency training center.¹⁹⁴ The small staff and microscopic budget can only engage to provide national preparedness leadership at a very basic level. The USFA would seem to be the ideal agency to lead preparedness for the fire service, but adequate resources and regulatory authority would need to be granted to facilitate this leadership role. The administration is uniquely positioned to unite fire agencies and provide connectivity throughout the DHS. The transfer of authority to the USFA would not be without challenges. The impacts of institutional change would be similar to those anticipated in Chapter III; fiscal impacts, operational practicality, social and cultural issues, and legal ramifications that would need to be taken into account.¹⁹⁵ Any attempt to implement these monumental changes will require substantial collaboration. Another source of influence is through professional member organizations of the fire service.

¹⁹² Marcus et al., “Meta-Leadership: A Primer,” 5.

¹⁹³ “About the U.S. Fire Administration.”

¹⁹⁴ Lennard G. Kruger, *United States Fire Administration: An Overview* (CRS Report No. RS20071) (Washington, DC: Congressional Research Service, 2014), <http://fas.org/sgp/crs/homsec/RS20071.pdf>.

¹⁹⁵ Tim McGrath and Victoria McGrath, “Fire Service Consolidations: Is It Inevitable?” McGrath Consulting, accessed December 9, 2014, <http://www.mcgrathconsulting.com/municipal-consultant/articles/fire-service-consolidation-is-it-inevitable.php>.

2. The International Association of Fire Chiefs

Outside of federal direction, the U.S. fire service is influenced by professional member organizations such as the IAFC. The IAFC provides guidance for preparedness in recognition of the beneficial role of the fire service at large.

The IAFC represents the leadership of firefighters and emergency responders worldwide, with members who provide leadership and expertise in firefighting, emergency medical services, terrorism response, hazardous materials spills, natural disasters, search and rescue, and public safety policy.¹⁹⁶ The IAFC authored separate position papers on involvement with emergency management¹⁹⁷ and coordinated response to acts of terrorism.¹⁹⁸ The 2002 IAFC position supports active involvement with emergency management through prevention, mitigation, preparedness, and effective response for a reduced community impact and to minimize recovery costs.¹⁹⁹ In 2002, the IAFC also came out in support of coordination with other agencies prior to and during response to acts of terrorism.²⁰⁰ Both supporting positions come with the realization that the fire service is often called into action to address mission-related emergency issues, such as fire, hazardous materials management and medical emergencies, before, during, and after disasters. The IAFC supports the establishment of organizational partnerships to support preparing for and responding to disasters.

The IAFC published the 3rd edition of *Terrorism Response: A Checklist and Guide for Fire Chiefs and Community Preparedness Leaders* in 2011 to provide fire service leaders with guidance for preparedness. The title of the guide includes terrorism but the reference is intended to be an all-threats, all-hazards checklist. The checklist,

¹⁹⁶ “International Association of Fire Chiefs.”

¹⁹⁷ “IAFC Position: Active Involvement with Emergency Management—Administration Resources—IAFC,” accessed October 5, 2014, <http://www.iafc.org/Admin/ResourceDetail.cfm?ItemNumber=7803>.

¹⁹⁸ “IAFC Position: Coordination of Responses to an Act of Terrorism—Administration Resources—IAFC,” accessed October 5, 2014, <http://www.iafc.org/Admin/ResourceDetail.cfm?ItemNumber=7801>.

¹⁹⁹ “IAFC Position: Coordination of Responses to an Act of Terrorism—Administration Resources—IAFC.”

²⁰⁰ *Ibid.*

while published prior to the Goal, includes many of the same core capabilities.²⁰¹ The IAFC supports participation in preparedness because of the enhanced security provided to the community. Again, the IAFC can recommend policy and strategy but has no power to coerce adoption of these strategies. Education programs are another means to influence leadership.

3. National Preparedness Leadership Initiative

A cultural shift is needed to unite diverse factions and fire departments within the fire service. There is also a need also exists to integrate the fire service into the whole community as described in PPD-8. The cultural shift needed in the fire service can be influenced through strong leadership. Ideally, this leadership could begin at the USFA, but leadership will be needed throughout the industry. The NPLI has advanced a concept for leadership for national preparedness coined “meta-leadership”. The NPLI is a collaboration between the Harvard School of Public Health and the Harvard Kennedy School Center for Public Leadership. The NPLI works with leadership from key government agencies at federal, state, and local levels to encourage connectivity across public, private, and non-governmental sectors.²⁰² Meta-leadership is an overarching framework affording guidance, direction, and momentum across organizational lines that develop into a shared course of action and a commonality of purpose among people and agencies that are doing what appears to be very different work.²⁰³ Meta-leadership can help build common purpose within the fire service and create connectivity to the whole community.

The framework was developed by the NPLI after extensive research and observation of leaders in high-stress, high-stakes situations. PPD-8 acknowledges that achievement of national preparedness goals will require whole community engagement from all stakeholders. A significant barrier is the tendency of these stakeholders to defend

²⁰¹ “Terrorism Response.”

²⁰² “NPLI.”

²⁰³ Leonard J. Marcus, Barry C. Dorn, and Joseph M. Henderson, “Meta-Leadership and National Emergency Preparedness: A Model to Build Government Connectivity,” *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 4, no. 2 (2006): 130.

their silos. The fire service is no exception. Silos exist both internally among distinct fire departments and externally with non-fire service agencies. Meta-leaders think differently and recognize that connectedness is a critical element of preparedness. Leadership has three functions in this framework: a comprehensive organizing reference to understand and integrate leadership, a strategy to engage collaborative activity, and a cause and purpose to improve governmental function and performance,

Meta-leadership is organized across five dimensions: 1) the person of the meta-leader, 2) the situation, 3) lead the silo, 4) lead up, and 5) lead connectivity. The meta-leader is the person who sees the big picture and has the emotional intelligence, situational awareness, and ability to inspire connectivity of action in difficult circumstances. The meta-leader can inspire across functions and disciplines to achieve results.²⁰⁴ The situation is the problem, change or crisis that requires a solution. The meta-leader creates a frame of reference to determine what is happening in order to establish a common operating picture.²⁰⁵ Leading the silo refers to individuals' ability to lead their own base organization.²⁰⁶ Leading up means to manage "the boss" effectively. This requires skillful application of effective communication and building trusting relationships.²⁰⁷ To lead connectivity, these same qualities are required to generate a common, multi-dimensional thread of interests and involvement to optimize capacity and response.²⁰⁸ Therefore, meta-leadership is a result of visionary leaders with credibility within their base organization, up the chain, and across disciplines to address problems and implement solutions.

Meta-leadership in national preparedness is especially important because of the diverse network of stakeholders that comprise the whole community. Fire service leadership would be well served by the principles of meta-leadership. A single point of

²⁰⁴ Leonard J. Marcus et al., "The Five Dimensions of Meta-Leadership," Harvard School of Public Health, 6–7, November 2007, <http://npli.sph.harvard.edu/wp-content/uploads/sites/8/2013/04/Meta-leadership-Distribution.pdf>.

²⁰⁵ *Ibid.*, 9.

²⁰⁶ *Ibid.*, 13.

²⁰⁷ *Ibid.*, 18.

²⁰⁸ *Ibid.*, 21.

leadership would help to unite the fire service in preparedness. The silo needs to be brought together by a cohesive vision. Once the silo is in alignment, the industry can push the involvement of the fire service up to FEMA and the DHS and across disciplines to optimize preparedness of the whole community. With national leadership in place, local fire departments will need to develop preparedness strategies that support their communities.

B. ARE THERE EXISTING PREPAREDNESS STRATEGIES THAT COULD BE APPLIED LOCALLY?

In the United States, fire services are delivered primarily at the local level. America has more than 26,000 fire departments staffed by more than one million firefighters. The departments are comprised of volunteer, career, or a combination of career/volunteer firefighters who deliver emergency services with varied levels of capability.²⁰⁹ States within this system, like Nevada, are typically charged with training, enforcement, administration, and coordination.²¹⁰ Some states with specific response needs utilize state response forces for specialized incidents such as hazardous materials or investigations.

This local response-ready workforce is charged with emergency service delivery in every city, town and village across America. Fire departments respond to more than 30 million calls for service each year. These responses are for large and small fires, emergency medical service, technical rescue, hazardous materials, and other hazards. The fire service is well prepared to manage these emergencies and does so thousands of times every day. The fire service is the expert in this regard.

FEMA is charged with disaster management and often leads federal response in the United States. FEMA, founded in 1979, began as a coordinating agency to deliver aid for communities impacted by natural disasters. After the attacks of 9/11, the agency became aligned under the DHS and joined the fight to secure the homeland. FEMA provides support to the fire service but does not rely on the fire service for disaster

²⁰⁹ “National Fire Department Census Quick Facts.”

²¹⁰ “Nevada State Fire Marshal Division,” accessed May 26, 2014, <http://fire.nv.gov/>.

management or overall disaster response. Fire departments in the United States have responsibility for homeland security and preparedness at the local level.

1. Fire Department of New York

In this section of the research, an existing preparedness strategy from a local fire department is examined. New York City has been the site of multiple disasters and was selected as an example of a local fire department that has a disaster preparedness plan that aligns with the national preparedness guidance. The Fire Department of New York (FDNY) crafted the 2011 FDNY Counterterrorism and Risk Management Strategy.²¹¹ The strategy recognizes that response to acts of terrorism is a critical component of the strategy to combat terrorism. That response must include the fire department.²¹² The FDNY strategy is risk-based, as outlined in the Goal. The strategy is defined by the projected risks inherent to the New York metropolis and includes man-made and natural disasters.²¹³ The strategy is organized into the five mission areas outlined in the Goal: prevention, protection, mitigation, response, and recovery. Each of the mission areas has operational objectives that loosely align with the core capabilities. Most importantly, each of these operational areas is objectively assessed and evaluated for effectiveness.²¹⁴ The document provides the most complete approach available for a comprehensive homeland security program at the local fire department level.

The FDNY identifies terrorism preparedness and disaster response as core services and supports these services with a disaster management program with dedicated resources. The department further lists preparedness as a core value, defining it as combining all core values to maintain its constant state of readiness to meet all threats and challenges, traditional and new.²¹⁵ The 2012 FDNY Annual Report details accomplishments and progress towards goals for that year. The report points to the

²¹¹ Fire Department of New York, “FDNY Counterterrorism and Risk Management Strategy 2011.”

²¹² *Ibid.*, 2.

²¹³ *Ibid.*, 3.

²¹⁴ *Ibid.*, 8–29.

²¹⁵ “FDNY Mission Statement,” accessed October 6, 2014, <http://www.nyc.gov/html/fdny/html/general/mission.shtml>.

benefits of the program in actual responses.²¹⁶ It cites success in dealing with the Times Square bombing attempt and the Staten Island ferry accident in 2010, and Hurricane Irene in 2011, due in part to increased preparedness.²¹⁷ Still, the mission to achieve preparedness within the fire service remains a largely individual community or agency choice with limited overarching leadership.

Hurricane Sandy hit New York City on October 29, 2012. The rare late season Atlantic hurricane struck with ferocity killing 149 people from the Caribbean to Canada, injuring thousands, and wreaking enormous damage.²¹⁸ The FDNY faced many challenges with the super-storm but credits its preparedness as a key contributor to saving lives.²¹⁹ Hurricane Sandy was a known event that provided some time to take action before making landfall. Officials in New York activated storm response plans and ordered evacuations to mitigate the impact of the storm. The FDNY brought in hundreds of extra staff to work in the days prior to, during, and after the storm to aid in managing the disaster.²²⁰ New York had a plan and the capability to take action that made all the difference.²²¹

Grant programs to enhance staffing and equipment bolstered preparedness efforts. The New York City metropolis is considered to be at high risk of terrorist attack and is named as an Urban Area Security Initiative (UASI) region with access to additional Homeland Security Grant Program funding. The New York City UASI put this status to good use by funding preparedness initiatives for incident management team (IMT) training, additional OEM staffing to support training and exercise, strategic food and

²¹⁶ City of New York, *Fire Department of New York Annual Report 2012/2013* (New York: New York City Fire Department), accessed October 6, 2014, http://www.nyc.gov/html/fdny/pdf/publications/annual_reports/2012_annual_report.pdf.

²¹⁷ *Ibid.*, 12.

²¹⁸ Tim Sharp, "Superstorm Sandy: Facts About the Frankenstorm," LiveScience.com, accessed October 6, 2014, <http://www.livescience.com/24380-hurricane-sandy-status-data.html>.

²¹⁹ "FDNY Commissioner Salvatore Cassano on Hurricane Sandy Response: 'I've Always Been Proud... but This Brought It to an Even Higher Level,'" accessed October 6, 2014, <http://www.nydailynews.com/new-york/fdny-chief-takes-news-sandy-response-article-1.1200088>.

²²⁰ City of New York, *NYC Hurricane Sandy After Action* (New York: City of New York, 2013), http://www.nyc.gov/html/recovery/downloads/pdf/sandy_aar_5.2.13.pdf.

²²¹ "Two Storms, Two Cities: Not Many Parallels Between Sandy, Katrina," accessed October 6, 2014, <http://citiwire.net/columns/two-storms-two-cities-not-many-parallels-between-sandy-katrina/>.

water stockpiles, enhanced public information and warning, and communications system improvements.²²² The preparedness of the City of New York and FDNY demonstrated the benefit of preparedness during this uncommon storm. There are examples of organizations outside of American fire departments that have successfully engaged in preparedness.

2. Israel

This section of the research is intended to provide a structural and historical perspective of emergency preparedness strategies of the fire service in Israel. Israel was selected for this analysis primarily because the country is prone to terrorism and has a robust emergency preparedness strategy. The country recently restructured its preparedness strategy to enhance the role of the fire service as a result of tragic wildfire. This reorganization reflects contemporary thought in disaster management and preparedness.²²³ The inclusion of the fire service in the emergency preparedness strategy provides a foundation for the research.

Israel has been surprisingly devoid of natural disasters in its short history, with limited impact from floods, droughts, and disease.²²⁴ The Mt. Carmel fire was Israel's Hurricane Katrina in that the realization that the security of the country was rooted in all-hazards and not just terrorism or war. The fire and rescue service was woefully understaffed, under-equipped, under-trained, and under-supported to manage incidents of this scale. The report further pointed to failure of operational coordination between agencies, inadequate communications, and failure to integrate into the national emergency system.²²⁵

²²² "Written Testimony of FEMA for a Senate Homeland Security and Governmental Affairs Subcommittee on Emergency Management Hearing Titled 'Are We Prepared? Measuring the Impact of Preparedness Grants Since 9/11,'" June 25, 2013, <http://www.dhs.gov/news/2013/06/25/written-testimony-fema-senate-homeland-security-and-governmental-affairs>.

²²³ "Emergency, Fire & Rescue Services."

²²⁴ "Disaster Statistics—Israel—Asia—Countries & Regions," accessed October 5, 2014, <http://www.preventionweb.net/english/countries/statistics/?cid=84>.

²²⁵ "State Comptroller Report."

The fallout from the mismanaged Mt. Carmel fire was an overhaul of fire and rescue services. The fire service was nationalized and placed under the Ministry of Public Security (MOPS) in which the link to public security was formalized. Efforts were initiated to build a national communication network, and operational integration with other response agencies was mandated. Preparedness is a focus of the Israel Fire and Rescue Services; resources needs are being addressed, equipment and facilities are being procured, and preparedness to face uncommon events such as the Mt. Carmel Fire is a priority.²²⁶ Evidence exists that the benefits of the focus on preparedness borne out of the Mt. Carmel Fire are increased interoperability and enhanced capability to secure the public from all types of threats.²²⁷ The centralization of the preparedness mission within MOPS has created a unified purpose and accountability for preparedness for the Israeli fire service. The Japanese have employed a similar centralized structure.

3. Japan

In Japan, disaster management and preparedness evolved differently. The primary threats to the small island nation in the Pacific were from natural disasters rather than terrorism. Japan faces a multitude of natural hazards including fires, earthquakes, tsunamis, typhoons, active volcanoes, flooding, and severe weather. The island nation sits along what is known as the “ring of fire”, which is a particularly active seismic region around the Pacific Ocean. Japan has a long history of earthquakes that have inflicted tremendous loss on the nation. About 1,500 earthquakes strike the country each year.

The Great Kanto Earthquake struck the Tokyo area killing more than 142,000 people in 1923. The earthquake spawned a large tsunami and fires throughout the region.²²⁸ The Hanshin-Awaji Earthquake struck the Kobe region in 1995, killing more

²²⁶ “The Fire and Rescue Commission’s Response to the State Comptroller’s Report on the Mt. Carmel Fire,” accessed October 5, 2014, <http://mops.gov.il/English/HomelandSecurityENG/NFServices/Pages/FireResponseCarmelReport.aspx>.

²²⁷ “Israel Fire & Rescue Services,” accessed October 5, 2014, <http://mops.gov.il/English/HomelandSecurityENG/NFservices/Pages/default.aspx>.

²²⁸ “The Great Japan Earthquake of 1923,” accessed June 1, 2014, <http://www.smithsonianmag.com/history/the-great-japan-earthquake-of-1923-1764539/>.

than 6,000 people, injuring more than 40,000 and leaving 300,000 people homeless.²²⁹ Most recently, the Great East Japan Earthquake struck off the Honshu coast on March 11, 2011. The magnitude 9.0 earthquake was one of the most powerful earthquakes ever recorded. The massive quake created a 30-foot tsunami that raced across coastal cities including Fukushima where the Fukushima-Daiichi nuclear power station was flooded. The disaster killed more than 18,000 people.²³⁰

Japan is home to more than 100 active volcanoes,²³¹ and is frequently impacted by severe weather including typhoons. One such storm, Typhoon Isewan, struck the Nagoya region of Japan in 1959 and caused record damage from high tides and floods. The storm killed more than 5000 people. Typhoon Isewan marked the need for change for the Japanese: the storm and its aftermath caused the nation to shift to a strategy that placed a great deal of emphasis on preparedness and disaster management.²³²

The enactment of the Disaster Countermeasures Basic Act in 1961, two years after Typhoon Isewan, was foundational to establishing the strategy for Japanese disaster management, preparedness, and response. The Japanese disaster management system addresses the major areas of prevention, mitigation, preparedness, emergency response, recovery, and rehabilitation. The act forms four levels for disaster management: national, prefecture, municipal, and residents.²³³ The act sets the following as its objective:

For the purpose of protecting the national territory, the life and limb of the citizens and their property, this Act shall have for its aim the establishment of a machinery working through the State and local governments and public corporations and the clarification of where responsibilities lie, and provide for the formulation of disaster prevention plans and basic policies

²²⁹ “Kobe Earthquake of 1995 (Japan),” accessed May 26, 2014, <http://www.britannica.com/EBchecked/topic/873249/Kobe-earthquake-of-1995>.

²³⁰ “Japan Earthquake and Tsunami of 2011: Relief and Rebuilding Efforts,” accessed June 1, 2014, <http://www.britannica.com/EBchecked/topic/1761942/Japan-earthquake-and-tsunami-of-2011/299865/Relief-and-rebuilding-efforts>.

²³¹ “Volcanoes of Japan: Facts & Information,” accessed June 1, 2014, <http://www.volcanodiscovery.com/japan.html>.

²³² “Typhoon Isewan (Vera) and Its Lessons,” accessed June 1, 2014, http://www.waterforum.jp/jpn/katrina/Typhoon_Isewan.pdf.

²³³ “Disaster Countermeasures Basic Act Amended 1997 (Provisional Translation),” November 15, 1961, <http://www.adrc.asia/documents/law/DisasterCountermeasuresBasicAct.pdf>.

relating to preventive and emergency measures and rehabilitation programs to deal with disaster, and other necessary measures, as well as financial action, thus ensuring an effective and organized administration of comprehensive and systematic disaster prevention with a view toward the preservation of social order and the security of the public welfare.²³⁴

The central disaster management council is the national coordinating agency with responsibility for formulating overall policy for disaster risk management (DRM) and the basic disaster management plan. The basic plan clarifies the duties of the central government, public corporations, and local governments in implementing measures.²³⁵ Under the basic plan, government organizations at every level must have a disaster operations plan. The central disaster management council has the right to establish technical committees to study specific issues when necessary, as was the case when the act was revisited after the Hanshin-Awaji earthquake of 1995, and then again after the Great East Japan earthquake in 2011.²³⁶

In 1995, the cult group, Aum Shinrikyo, released sarin nerve gas into five Tokyo subway trains. The attack killed 12 people and more than 5,500 people were hospitalized. The event brought terrorism into the equation for the Fire and Disaster Management Agency (FDMA). The FDMA was ill prepared and lacked the training, monitoring equipment, personal protective equipment, and decontamination capability to manage the incident. The multi-discipline nature of the incident brought to light the lack of cooperation between first responders and other governmental agencies. These shortcomings were not fully addressed until the attacks of 9/11 occurred in the United States. In November 2001, the Model for Cooperation by Local Institutions Involved in Nuclear, Biological, and Chemical Terrorism Response, was issued by the executive board of the Japanese government's council on nuclear, biological, and chemical terror countermeasures was published to define the role of each first responder organization.

²³⁴ “Disaster Countermeasures Basic Act Amended 1997 (Provisional Translation).”

²³⁵ Makoto Ikeda, “Disaster Management Plan—Knowledge Note 2–2 (Asian Disaster Reduction Center), 55, accessed June 2, 2014, http://wbi.worldbank.org/wbi/Data/wbi/wbicms/files/drupal-acquia/wbi/drm_kn2-2.pdf.

²³⁶ *Ibid.*, 6.

The Tokyo attacks served as the catalyst to refine the emergency preparedness strategy for the country.²³⁷

The prefectural disaster management council level has responsibility to formulate and promote implementation of the local disaster management plan. The Prefecture has additional responsibility to coordinate and assist in the performance of disaster operations. The Disaster Countermeasures Basic Act further compels cooperation between local agencies for disaster management.²³⁸ Municipalities play a key role in the disaster management system for Japan. The daily management of emergency services falls squarely on the shoulders of the cities, towns, and villages. The municipalities are required to cooperate in the formulation and implementation of the local disaster management plan along with the prefecture. The mayor of the city or town is required to ensure the highest capacity for preparedness by maintaining fire fighting forces, flood prevention units, and other needed resources. Again, the act emphasizes that all agencies act in concert to fulfill the objectives of the act.²³⁹

The fire service in Japan has long played a key role in disaster management across the country. The organization of the fire service, though pre-dating the Disaster Countermeasures Basic Act, follows a national, prefectural, municipal design. The Fire Defense Organization Law enacted in 1947 defines the duties of the fire service as protecting lives and property from fire and for preventing and minimizing damage due to fire, flood, earthquake, and other disasters. The law further defines the role of the national fire defense forces.²⁴⁰ The Fire Service Act of 1948 is the main regulation for the functioning of fire agencies and the relationship to prefecture agencies.²⁴¹ The Fire Service Act defines the fire defense system that all fire agencies recognize and participate in. Japan has a robust fire service organization that is the lead component in disaster management and response. Based in the Fire Defense Organization Law and Fire Service

²³⁷ Tomoya Saito, "Tokyo Drift," *CBRNe World* (Autumn 2010): 20–24.

²³⁸ "Disaster Countermeasures Basic Act Amended 1997 (Provisional Translation)."

²³⁹ *Ibid.*

²⁴⁰ Japan, Fire Defense Organization Act, No. 226 (1947), <http://www.okdict.com/reibun1/192508.html>.

²⁴¹ Japan, Fire Service Act, No 186 (1948).

Act, the FDMA was established as the national level agency for the fire service in Japan.²⁴²

The FDMA is an agency within the Ministry of Internal Affairs and Communication. It provides guidance, research, and assistance to fire agencies to strengthen fire service activities, and is also responsible for training for fire service personnel including volunteers. It has a significant role in the administration of the Japanese fire service but also takes an active role in large-scale disaster response.²⁴³

In Japan, the FDMA activates emergency fire response teams well versed in rescue and relief operations, as well as firefighting. Among 789 firefighting departments nationwide, 4,264 teams are registered. These teams are deployed by the prefecture governor at the request of the mayor of a damaged municipality. The request goes to the prefecture governor who dispatches the team with the approval of the director general of the FDMA.²⁴⁴ The agency fulfills a critical role in disaster response through direct participation in the response, as well as the administration and planning for all fire service activities. The national strategy for disaster management is clearly established and the role of the fire service within that plan is clear. The United States has a national strategy but it has not been widely implemented in the fire service.

C. HOW DOES THE EXISTING NATIONAL PREPAREDNESS STRATEGY IMPLEMENT PPD-8 GUIDANCE? WHAT ARE ITS STRENGTHS AND WEAKNESSES?

This section of the analysis seeks to explore the implementation guidance for the national preparedness strategy. The guidance employs a management system a model for implementation. A management system is a set of processes and procedures used to ensure that an organization can fulfill all tasks required to achieve given objectives.²⁴⁵ These systems can typically be modeled and applied in a variety of environments. A

²⁴² “FDMA: Fire and Disaster Management Agency.”

²⁴³ Ibid.

²⁴⁴ Ibid.

²⁴⁵ “How to Build Effective Management Systems,” 2014, <http://www.bizmanualz.com/blog/building-effective-management-systems-discovery.html>.

prescriptive management system is defined through PPD-8 and the implementing documents. A systematic capabilities-based planning approach is provided in the national preparedness system.²⁴⁶ This exploration studies this management system for the guidance and examines the strengths and weaknesses of the model.

Capability-based planning (CBP) is adopted from the Department of Defense (DOD). CBP is a management system for risk that establishes goals and priorities and provides a means to measure results. This system is used for long-term planning for defense forces.²⁴⁷ CBP allows entities to develop capabilities to address a wide range of challenges. The method relies on risk assessment to develop “what-if” scenarios against which capabilities are identified and built. The framework of CBP provides a means for planning by identifying mission objectives, measures of success, and risk-based options. CBP occurs under uncertainty to provide capabilities suitable for a wide range of threats and hazards while affording prioritization and discretion in decision-making.²⁴⁸ The national preparedness strategy is based on a foundation of capability-based planning.²⁴⁹

The *National Preparedness System* employs CBP to define a process of repeating steps to build, sustain, and deliver the core capabilities required to achieve desired preparedness outcomes.²⁵⁰ The steps in the *National Preparedness System* are designed to provide a consistent and reliable approach to support decision making, resource allocation, and measure progress toward these outcomes. The steps in the process are: 1) identifying and assessing risk, 2) estimating capability requirements, 3) building and sustaining capabilities, 4) planning to deliver capabilities, 5) validating capabilities, and

²⁴⁶ Department of Homeland Security, *National Preparedness System*.

²⁴⁷ “Guide to Capability-Based Planning,” accessed October 6, 2014, <http://webcache.googleusercontent.com/search?q=cache:9xFrmlCkqPOJ:www.acq.osd.mil/ttcp/reference/docs/JSA-TP-3-CBP-Paper-Final.doc+&cd=2&hl=en&ct=clnk&gl=us&client=firefox-a>.

²⁴⁸ Paul K. Davis, *Analytical Architecture for Capabilities-Based Planning, Mission-System Analysis, and Transformation* (RAND, 2005), http://www.rand.org/content/dam/rand/pubs/monograph_reports/2005/MR1513.pdf.

²⁴⁹ FEMA, *Developing and Maintaining Emergency Operations Plans: Comprehensive Preparedness Guide (CPG) 101*.

²⁵⁰ Department of Homeland Security, *National Preparedness System*.

6) reviewing and updating. These steps comprise a management system that is a continuous cycle supporting ongoing process improvement, as shown in Figure 1.²⁵¹



Figure 1. Components of the National Preparedness System²⁵²

The strengths of CBP are that it provides a rational basis for making resource decisions, makes planning more responsive to uncertainty, and provides a framework to support analysis and facilitate risk management. CBP is a goal-oriented approach that focuses on end-state preparedness against threats and hazards. However, CBP is not without its challenges in the homeland security environment.

Weaknesses are inherent in the CBP model as presented in the *National Preparedness System*. The biggest challenge to this type of planning is the complexity of

²⁵¹ Department of Homeland Security, *National Preparedness System*.

²⁵² FEMA, *Comprehensive Preparedness Guide 201: THIRA*.

the problem. Building a method for preparedness capability assessments that integrates and aggregates assessments across all levels and across diverse communities is an unfathomable task. The top down approach outlined by PPD-8 may be appropriate at the federal government level; however, the limitless variables and seemingly infinite possibilities make the use of this system impractical to implement with consistency at the local level.²⁵³

Dr. Sharon Caudle challenges CBP as an effective model for preparedness. Dr. Caudle, of the Bush School of Government and Public Service, Texas A&M University, is a distinguished alumnus of the Center for Homeland Defense and Security, Naval Postgraduate School in Monterey, California, who has performed extensive research in this field. Caudle agrees that the problem of preparedness is too complex to adapt to the CBP approach. She states that the DOD mission scope is more clearly defined and that the homeland security mission's inclusion of prevention, mitigation, response, and recovery responsibilities are complicating factors. Caudle argues that organizational perspective is a challenge. The DOD, as a federal department, is an appropriate environment for CBP while the DHS is national in scope, requiring much more collaboration and cooperation across public and private interests. Chain of command and exercise of authority are different and more challenging in homeland security.²⁵⁴

Another challenge cited by Caudle is resource development and leveraging of resources across disciplines. The defense community has invested heavily in developing plans, procedures, personnel, and equipment that complement each entity's mission. A comprehensive understanding of what resources each can bring to bear is absent in homeland security. Consistent resource development is applied across the DOD, but it is not the case for communities across the United States that all have different abilities to develop or not develop preparedness resources. Lastly, Caudle argues that the target audiences of the DOD and the homeland security community are so different that the

²⁵³ Jerome H. Kahan, "Preparedness Revisited: W(h)ither PPD-8?," *Homeland Security Affairs* 10 Article 2, (February 13, 2014): 6.

²⁵⁴ Caudle, "Homeland Security Capabilities-Based Planning: Lessons from the Defense Community."

method does not effectively translate.²⁵⁵ Dr. Caudle believes that the CBP approach is inadequate and advocates for a management system standards approach for preparedness.

D. IS THERE AN ALTERNATIVE MANAGEMENT SYSTEM FOR PREPAREDNESS THAT COULD BE USED TO IMPLEMENT PPD-8 GUIDANCE FOR THE FIRE SERVICE?

This section of the thesis seeks to identify an alternative to the *National Preparedness System* for implementing preparedness. The foundation of this research is the work of Dr. Caudle, who has performed extensive research to inform this segment of homeland security. Dr. Caudle offers an alternative perspective on implementing preparedness strategies, utilizing a management system standards approach. This approach is analyzed and related to the specifics of the fire service in this section of the research.

A potential solution for managing the diverse scope of homeland security preparedness is to establish a common system for managing the complex environment that preparedness presents. Management system standards establish concepts, principles, guidelines and criteria for establishing, maintaining and improving the processes by which an organization defines and achieves its goals. Management system standards are generally a uniform set of measures, agreements or conditions, or specifications that establish performance objectives that address management themes.²⁵⁶ Management system standards are not product standards; no requirements exist that govern the characteristics of particular products or services in management system standards. These standards apply to organizations as a whole rather than to the products and services they supply.²⁵⁷ The Implementing Recommendations of the 9/11 Commission Act of 2007 called for the secretary of the DHS to establish management system standards.²⁵⁸

²⁵⁵ Caudle, “Homeland Security Capabilities-Based Planning: Lessons from the Defense Community.”

²⁵⁶ Caudle, “National Preparedness Requirements: Harnessing Management System Standards.”

²⁵⁷ “Management System Standards—Chartered Quality Institute.”

²⁵⁸ Thompson, “H.R.1—Implementing Recommendations of the 9/11 Commission Act of 2007,” chap. Title XXIV Miscellaneous Provisions.

The Deming Cycle, also known as the PDCA cycle, is the foundation of all ISO management system standards. The cycle promotes development, continuous improvement, and overall control of the management system. The Deming Cycle consists of the following, as shown in Figure 2.

- Plan—establishing the architecture of the management system
- Do—implementing the plan
- Check—reviewing the results
- Act—improving the management system



Figure 2. Deming Cycle—PDCA Model²⁵⁹

The management system standards approach is seen in two voluntary national preparedness programs today: the Private Sector Preparedness Accreditation and Certification Program (PS-Prep)²⁶⁰ and the Emergency Management Accreditation Program (EMAP).²⁶¹ PS-Prep is a DHS-led voluntary preparedness accreditation and

²⁵⁹ “Medical Devices Management System: ISO 13485.”

²⁶⁰ “Being Prepared: Makes Good Business Sense,” November 6, 2014, http://www.fema.gov/pdf/privatesector/FEMA_PS-Prep_One-Page_Generic.pdf.

²⁶¹ “What Is EMAP,” accessed November 1, 2014, <http://www.emaponline.org/>.

certification program designed for private sector and non-governmental agencies. PS-Prep enables participating organizations to identify and institute comprehensive management systems that address preparedness and resilience.

The program identifies three standards that provide a comprehensive management system approach. The first is from ASIS International. ASIS is a member organization comprised of security practitioners from the public and private sector. It has a standards development process that meets the rigorous requirements of the American National Standards Institute (ANSI).²⁶² The ASIS standard, ASIS SPC.1-2009 Organizational Resilience, describes itself as a management system standard.²⁶³ The second approved standard is from the ISO, ISO 22301:2012: Societal Security—Business Continuity Management Systems—Requirements.²⁶⁴ The third approved standard in the PS-Prep program is the NFPA, NFPA 1600.²⁶⁵

EMAP is an independent, non-profit organization that has developed comprehensive management standards for emergency management and homeland security programs. Organizations build excellence and accountability through a peer review accreditation process.²⁶⁶ The EMAP emergency management standard is a collection of 64 standards used to evaluate emergency management programs in both the public and private sectors. The program was established in 2002 when the first commission was seated. Later that year, the first standard was published. The emergency management standards meet the ANSI requirements for standard development. The standard development process has evolved through a stakeholder driven committee governance.

²⁶² “ANSI Essential Requirements: Due Process Requirements for American National Standards,” January 2014, www.ansi.org/essentialrequirements.

²⁶³ “ASIS SPC.1-2009 Organizational Resilience: Security, Preparedness, and Continuity Management Systems—Requirements with Guidance for Use,” March 12, 2009, http://www.ndsu.edu/fileadmin/emgt/ASIS_SPC.1-2009_Item_No._1842.pdf.

²⁶⁴ “ISO 22301:2012—Societal Security—Business Continuity Management Systems—Requirements,” accessed November 6, 2014, http://www.iso.org/iso/catalogue_detail?csnumber=50038.

²⁶⁵ National Fire Protection Association, *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs; 2013 Edition*.

²⁶⁶ “What Is EMAP.”

The NFPA is the consensus standards development organization that is the de facto source of guidance for the fire service. The NFPA is a non-profit organization whose mission is to reduce the burden of fires and other hazards on the quality of life by providing and advocating for codes and standards, research, training and education. The NFPA is an ANSI accredited standards developer. NFPA standards are developed using a consensus model that involves committees made up of a broad cross-section of stakeholders.²⁶⁷ The NFPA is widely accepted by fire departments as the codes and standards development organization for all things related to the fire service. NFPA 1: Fire Code, NFPA 1001: Standard for Fire Fighter Professional Qualifications, and NFPA 1500: Standard for Fire Department Occupational Health and Safety are examples of broadly recognized NFPA products. The broad adoption of NFPA standards such as these indicate acceptance by authorities having jurisdiction, often times local fire departments.²⁶⁸

NFPA 1600 was published as the preparedness guidance led by fire service affiliates.²⁶⁹ The 2013 edition of the standard uses a management system standards approach to build compliance. The NFPA 1600 standard establishes a common set of criteria for disaster management and business continuity. The standard follows the plan-do-check-act model, laying out chapters that define six broad program categories of program management, planning, implementation, training and education, exercises and tests, and program maintenance and improvement. Each chapter sets criterion in each program category. Each set of criterion is supported by a series of objectives, as seen in Figure 3. The objectives are statements of capability that support the overarching criterion. The NFPA is compliance driven and performance is expressed simply in conforming versus non-conforming terms.²⁷⁰

²⁶⁷ “About NFPA.”

²⁶⁸ “NFPA Overview.”

²⁶⁹ National Fire Protection Association, *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs; 2013 Edition*.

²⁷⁰ Ibid.

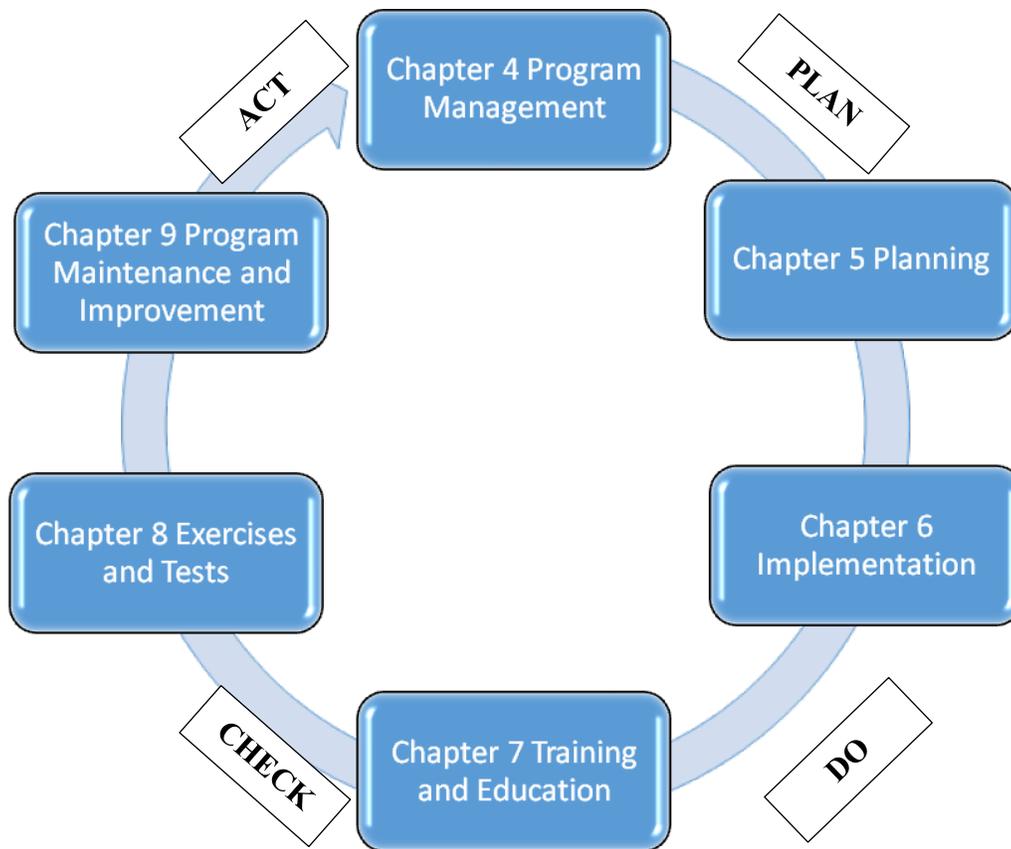


Figure 3. NFPA 1600 Management System Model²⁷¹

E. CONCLUSION

This chapter examined leadership and management for implementing preparedness strategies across the fire service, and ultimately, down to the local fire department level. A qualitative approach was applied to the research to analyze the existing and prospective leadership concepts and structures, existing preparedness strategies, the current capability-based planning approach, and an alternative management system for implementing the strategy. This analysis was performed to answer the question of how the national preparedness strategy championed by PPD-8 could be implemented at the local fire department level.

²⁷¹ Jacque Rupert, "NFPA 1600 2010 Edition: What You Need to Know," Avaluation Perspectives, accessed November 16, 2014, <http://perspectives.avalution.com/2010/nfpa-1600-2010-edition-what-you-need-to-know-2/>.

Leadership structures and concepts from the USFA, IAFC, and the National Preparedness Leadership Initiative were all examined. It was determined that leadership is lacking in homeland security preparedness for the fire service at the national level. While advisory policy and direction do exist, no power exists to enforce or accountability to compel local fire department participation. It is argued that without this accountability, the participation from the local level will remain inconsistent. The concept of meta-leadership endorsed by the NPLI holds promise as a tool for leaders in the fire service. A meta-leader with competency in self, situation, and subject matter expertise can generate influence up, down, and laterally in an organization and across organizational lines. This style of leadership would be ideal in the preparedness mission that seeks to engage the whole community.

The examination of the existing fire service preparedness strategies was conducted to explore what methods are being employed successfully. The review provided additional understanding of the inconsistent approach of the U.S. fire service. The FDNY was an example of a structured approach that aligns with the national preparedness guidance. The FDNY has considerable resources to employ this strategy and has done so with success, as demonstrated in Hurricane Sandy. It is argued in this thesis that the inconsistency of application across America's fire departments is further indication of a failure to lead at the national level. International alternatives from Israel and Japan were explored to gain understanding of nationally led fire services. Both Israel and Japan have national leadership for fire services. This research concludes that the U.S. fire service would benefit from national leadership to provide consistent vision, mission, purpose, and accountability for homeland security preparedness.

The *National Preparedness System* provides the implementation guidance for preparedness. This system employs the CBP approach. The *National Preparedness System* and the CBP approach were examined to determine suitability and adaptability for local fire department implementation of the national preparedness strategy. The CBP focuses on end-state readiness through the development of capabilities derived from risk assessment. The approach was adopted from the DOD and comes with challenges to both adaptability and suitability for the complex environment of homeland security. The

conclusion drawn is that the CBP approach, while potentially adequate for some large-scale applications, is impractical as a tool for implementation for most local fire departments.

A management system standards approach was evaluated for applicability to the fire service for implementation of the national preparedness strategy. Dr. Caudle proposes this approach as a feasible alternative to the capabilities-based planning approach. Management system standards establish concepts, principles, guidelines and criteria for establishing, maintaining and improving the processes by which an organization defines and achieves its goals. These standards apply to organizations as a whole rather than to the capabilities, products and services they supply. The standards-based approach has been employed by FEMA in the PS-Prep private sector program and EMAP accreditation program with success. The NFPA outlines a management system standards approach in NFPA 1600. The NFPA is recognized universally as the authority for standards for the fire service. This broad acceptance might be the key to gaining buy-in from fire departments. The conclusion of this segment of the research is that the management system standard approach could be used as an alternative to the *National Preparedness System* and the capability-based approach.

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V. RECOMMENDATIONS

The role of the fire service in homeland security continues to evolve. The days of men assembling at the sound of a bell into fire companies to pass buckets down a line to put out the fire are long gone. Since the early days of the bucket brigades, the fire service has responded to minimize the impact of disasters in America. In today's fire service threats from natural causes such as fire, flood, and pandemic are joined by human caused events such as mass shootings or international terrorism. Ben Franklin and the Union Fire Company never imagined the complexities that confront today's fire service. The fire service today is part of a larger enterprise known as homeland security. It became entrenched there when international terrorists flew airplanes into the World Trade Center Towers on 9/11.

In the post-9/11 world, the limits and boundaries of the role of the fire service in the homeland security space is not clearly defined. The fire service remains firmly entrenched in communities, delivering traditional services with some parallels in homeland security and preparedness. The homeland security mission reaches beyond response, and the fire service must understand its role in this evolving enterprise. This research explored the role of the fire service in the realm of homeland security and the national preparedness strategy. Through careful analysis of many aspects of homeland security, a way forward was developed and the following recommendations are made.

- Recommendation #1: A working group of stakeholders from within DHS, FEMA, USFA, a sampling of fire agencies, and others should be assembled to evaluate the following:

The USFA should expand its authority and take on a role as the national preparedness coordinating agency for the fire service.

The USFA should be responsible for developing and implementing a national fire service preparedness strategy that aligns fire departments to achieve common goals for preparedness.

The national preparedness strategy calls for the whole community to engage in preparedness. The fire service can be a more participative entity of the whole community with the right leadership to guide its involvement. The USFA has defined its mission to

include preparedness, and is the logical focal point from which leadership should emanate. The Japanese system of fire service-based disaster management follows this centralized approach, providing continuity, which unites fire service organizations, and providing robust resources for disaster management. The Japanese model provides a working framework that the U.S. fire service could emulate.

The need for effective leadership in this realm cannot be overstated. A leader with high emotional intelligence and self-awareness who has the ability to function in difficult environments, with credibility within their own field, up the chain, and across disciplines could facilitate a dramatic shift in the fire service role for preparedness. A meta-leader could bring the capabilities of the fire service into the whole community approach to build a secure and resilient nation. With the right leadership in place, the work can begin to establish a systematic approach to managing preparedness.

- Recommendation #2: The working group should evaluate and initiate a management system standards approach for the fire service to achieve preparedness as outlined in PPD-8.

The operational nature of the national planning frameworks is difficult to adapt below the federal level. This challenge can be overcome by creating a hierarchy of management with strategic and operational level responsibilities. Non-federal level agencies can remain true to the tenets of PPD-8 at a strategic level through management system standards and at an operational level with scalable and flexible capabilities based planning within those standards. This proposal is intended as a potential starting point for discussion. Standard development is a long and laborious process that engages multiple stakeholders and communities of interest and is well beyond the scope of this analysis.

The *National Preparedness System* and NFPA 1600 establish key elements for disaster preparedness programs. The management systems share common components that are relatable and adaptable to a blended model that remains true to the tenets of PPD-8 and the federal guidance. A model that blends this guidance with the familiarity and credibility of the NFPA management system standards could provide the fire service with a standard of their own that has the potential for broad acceptance.

The proposal presented for consideration here offers a model for preparedness for consideration that combines capability-based planning from the national preparedness strategy with the management system standards adapted from NFPA 1600. The proposal adheres to the principles of engaged partnerships: scalability, flexibility and adaptability to allow broad appeal. The proposal combines the familiarity of the NFPA methodology, structured by ISO and ANSI, with the *National Preparedness System* to address PPD-8 and aid in gaining acceptance among fire service practitioners. The proposed method is intended as a guide for the Henderson fire department to direct its preparedness aspirations, but also to serve a broader audience for preparedness for fire departments everywhere.

- Recommendation #3: The working group should consider leveraging the reputation and familiarity of the National Fire Protection Association to gain acceptance of national preparedness strategies (PPD-8) across the fire service.

The national level guidance has not been widely accepted by fire service practitioners in spite of a national preparedness strategy that embraces the whole community. The implementing guidance is cumbersome to implement at the local level and has proven difficult to assimilate into the fire service culture. The standard established in NFPA 1600 has been adopted in many private sector organizations and is referenced by professional emergency management organizations.²⁷² The fire service has not rallied to implement the management system standard for preparedness in lieu of the national preparedness guidance. The ability to fund preparedness through federal grant programs remains an important component. Therefore, any preparedness effort will need to consider the core capabilities. Additionally, any system for preparedness within the fire service will need to be fully scalable to adapt to communities with diverse needs.

The NFPA has developed NFPA 1600 to provide criteria to develop, implement, assess, and maintain programs for prevention, mitigation, preparedness, response, continuity, and recovery. This standard has been used as the foundation for the EMAP accreditation process and is recommended as one of the accepted standards for the DHS

²⁷² “NFPA 1600 Resource Page,” accessed October 7, 2014, http://www.preparednessllc.com/resources/nfpa_1600.html.

sponsored PS-Prep. These two programs demonstrate acceptance of the standard at the national level and by the DHS.

- Recommendation #4: The working group should consider a standard that aligns the *National Preparedness System* within NFPA 1600.

The management system standard outlined in NFPA 1600 serves as the overarching framework for the proposal. The system would follow the Deming Cycle’s plan-do-check-act model. The management system standards major program elements are: program management, planning, implementation, training and education, exercises and tests, and program maintenance and improvement. The capability-based planning elements linked directly to PPD-8 and its implementing guidance will be incorporated as operational components within the standards. The six program elements will serve as the major components of the model, with elements of the *National Preparedness System* embedded within those major component areas. Figure 4 illustrates the proposed structure.

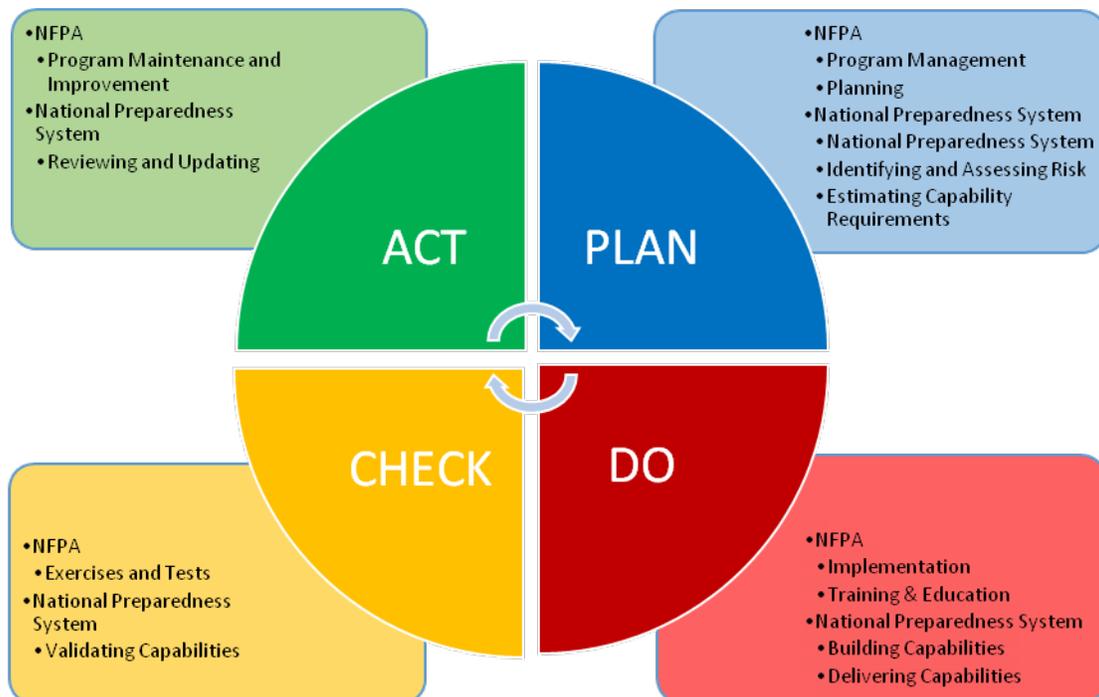


Figure 4. Deming Cycle with NFPA and National Preparedness System Elements

Shifting national preparedness from a robustly supported capability-based planning method to a management system standards approach would be a monumental undertaking. The *National Preparedness System* has received a great deal of investment, both in terms of time and money.²⁷³ Fire departments have accessed substantial federal funding through homeland security grant programs using the capability formula to add resources, equipment, and training.²⁷⁴ These generous grant programs could be used to establish compliance of components of NFPA 1600.

²⁷³ Coburn, *Safety At Any Price: Assessing the Impact of Homeland Security Spending in U.S. Cities*.

²⁷⁴ “Assistance to Firefighters Grant—Program Info.”

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VI. CONCLUSION

All the pieces exist to implement a robust preparedness strategy for the fire service. The missing links are leadership and a management system to serve as the road map to successful implementation. The proposal offered is to empower the USFA to lead the fire service in the preparedness mission. This leadership role must come with the authority to enforce the tenets of the mission and the latitude to hold fire departments accountable to the national preparedness strategy. The applicability of PPD-8 and the implementing strategies to the local government level and the agency level for the local fire department is questioned in this research. PPD-8 mandates a management system for national preparedness, the *National Preparedness System*. The system includes an integrated set of guidance, programs, and processes that provide a path to achieving the Goal. The system is mandated at the federal level of government and is also intended for use, but not mandated, by state, local, tribal, and territorial governments, as well as non-governmental and private sector partners, consistent with the whole community approach. The system follows a capability-based planning method borrowed from the DOD.

Capabilities-based planning addresses uncertainty by analyzing a wide range of scenarios to identify required capabilities.²⁷⁵ There are challenges that come with this management method. The ability to assess preparedness based on capabilities is unproven, the ability to accurately measure capability remains a weakness, and the system still struggles to define capability requirements and appropriate assessment tools. The broad spectrum of the preparedness goal, coupled with vast differences between stakeholder entities makes the standardized capability vision impractical.²⁷⁶

A different approach has been contemplated in the preparedness mission space. The DHS, through the FEMA, produced the PS-Prep, which follows a management system standards approach. FEMA also endorses the EMAP that follows a management

²⁷⁵ FEMA, *Developing and Maintaining Emergency Operations Plans: Comprehensive Preparedness Guide (CPG) 101*, B-2.

²⁷⁶ Sharon L. Caudle, "Homeland Security Advancing the National Strategic Position," *Homeland Security Affairs* 8, art. 11 (August 2012), <http://calhoun.nps.edu/public/handle/10945/25012>.

system standards approach. A management system is the process of systemizing how things are done. Management system standards establish concepts, principles, guidelines and criteria for establishing, maintaining and improving the processes by which an organization defines and achieves its goals. These standards apply to organizations as a whole rather than to the capabilities, products and services they supply.²⁷⁷

The NFPA is the standards development organization most prominently referenced in the fire service. The NFPA is a membership organization that is considered to be the leading advocate of fire prevention and an authoritative source on matters of public safety.²⁷⁸ The NFPA has published NFPA 1600 as a management system standard for preparedness. NFPA 1600 is recognized as an approved standard in the PS-Prep program and the EMAP program has its roots in NFPA 1600.²⁷⁹ The 2013 edition of NFPA 1600 was approved by the American National Standards Institute and was published with the support of the DHS. The 2013 edition includes an annex for use of NFPA 1600 as a management system standard.

National preparedness is a lofty goal that is proclaimed by PPD-8. The history of preparedness strategy in America has taken many turns. The latest iteration provides the most comprehensive approach to date. The plethora of guidance documents provides a path to understanding the goal of preparedness. However, the capability-based approach lacks “stickiness,” that element that makes something memorable so that people care about it.²⁸⁰ Focusing on outcomes rather than inputs would be a move in the right direction. A management system standard would meet this need. The fire service must engage in preparedness to help build a more secure and resilient nation. The right tool might be the key to increased involvement. The right tool would be an outcome-based management system developed by a known and reliable source. The National Fire Protection Association and its NFPA 1600 standard on disaster/emergency management

²⁷⁷ “Management System Standards—Chartered Quality Institute.”

²⁷⁸ “NFPA Overview.”

²⁷⁹ National Fire Protection Association, *NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs; 2013 Edition*.

²⁸⁰ Malcolm Gladwell, *The Tipping Point: How Little Things Can Make a Big Difference*, 1st Back Bay pbk. ed (Boston: Back Bay Books, 2002).

and business continuity programs is the established standard that addresses preparedness. By combining the inputs of the capability-based approach modeled in the *National Planning Frameworks* with the outcome-based management system standard, a workable alternative can be developed that meets the needs of national preparedness.

This thesis posits that the national preparedness strategy is applicable to a fire service that has a role in homeland security. The recommendations made could help the fire service to enhance its role in homeland security and advance the preparedness strategy. The recommendations for leadership by the USFA are not without challenges. The next step would be to overcome the disputes over turf and autonomy that are pervasive in the fire service. The recommendation for the management system offers a theory for a hybrid standard. A later phase would be to develop that standard. Standard development is beyond the scope of this research as it is arduous and time-consuming work. The hope is that this thesis will create discussion for what might be for the fire service.

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