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THESIS

FUTURE ROLE OF FIRE SERVICE IN HOMELAND SECURITY

by

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September 2008

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13. ABSTRACT (maximum 200 words)

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This thesis used the Delphi method to explore what this future role might be. Information, responses, and recommendations from three groups of SMEs were examined, analyzed, and synthesized to determine key issues the fire service will face.

The future role of the fire service in homeland security will demand the need for progressive leadership, effective collaboration, intelligence engagement, and the adoption of a shifting mission that supports preparedness, prevention, response, and recovery of terrorist attacks. Emerging issues and areas of responsibility to meet new asymmetrical threats require a response paradigm. This response paradigm in the fire department should include the ability to adjust service delivery to meet all hazard and homeland security demands.
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FUTURE ROLE OF FIRE SERVICE IN HOMELAND SECURITY

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ABSTRACT

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I.   INTRODUCTION

A.   PROBLEM STATEMENT

As action-oriented organizations, fire departments have traditionally played a reactive role in public safety, responding to emergencies in progress to protect the lives and property of its citizens.   The industry has enjoyed a long, successful history of excellent emergency incident management. Usually the first to arrive on the scene, firefighters take pride in how quickly tactical operations can be deployed to mitigate emergencies.

The problem is that the world has changed. Tactical, short-term goals work very well when dealing with ordinary emergencies, but when dealing with the complex and dynamic threats of terrorism or large-scale disasters, they are woefully inadequate. For instance, fire departments employing traditional planning methods for emergency response and recovery were taken by surprise and quickly overwhelmed by the horrific acts and subsequent deaths of thousands of victims, including 350 first responders, on September 11, 2001.

Increasing threats against our homeland and the potential for pandemics or other natural disasters are shifting the mission and placing new, unconventional demands on the fire department.   From this shift to homeland security and disaster preparedness emerges the realization that firefighters will not be successful employing traditional or tactical solutions to these complex incidents.   Meeting these challenges will require strategic planning, prevention, and collaboration with other fire departments and first responders as well as members of the community.   This realization is likely to be a cultural shock to the reactive, quick response quick solution — status quo — vision of firefighting. However, complex emergent issues demand well-thought-out collaborative planning.

Furthermore, homeland security experts believe the probability for future terrorist attacks is imminent.   It is, therefore, essential for public safety leaders to develop

strategic plans to meet these demands. Accordingly, fire service leaders should be developing long-range goals and policies designed to plug current and future gaps in service delivery.

Additionally, much consideration should be given to the ability of fire service leaders to effectively manage the changing mission as well as the ability to forecast the future role of firefighters in homeland security. A basic framework to determine the future role of fire service in homeland security should include strategies to address the four goals defined in the revised National Strategy for Homeland Security (NSHS). The goals of the NSHS include prevention, protection, response, recovery; and the aspiration to continue to strengthen the foundation of homeland security in order to ensure long-term success.

In order to achieve these goals, the fire service will need to shift from traditional status quo service delivery and expand its future role in national strategies for homeland security. These changes will have the greatest opportunity to succeed if the fire service establishes its place in homeland security planning and develops a strategy to address leadership and collaboration challenges.

B.   RESEARCH QUESTION

What changes might the fire service make in order to develop a long-term strategic plan to enhance and support critical missions defined in the National Strategy for Homeland Security in the next five to ten years?

- How might leaders in the fire service anticipate and plan for strategic changes in order to support the prevention and protection of — and the response and recovery from — future terrorist acts?

- What strategy could fire service leaders develop to manage leadership and organizational challenges to future homeland security needs?

- How could the role of the fire service be expanded to support future homeland security issues in a changing threat environment?

- What actions would the fire industry need to take to build long lasting integrated, interdependent collaborative relationships with other homeland security agencies?

- What are the emerging issues that could be shaping future fire service homeland security efforts?

C. LITERATURE REVIEW

Since the terrorist attacks, an abundance of information on homeland security has been created around the National Strategy for Homeland Security and the goals of prevention, protection, response, and recovery (Bellavita, 2005). Several theses have been written suggesting the need for strategic and mission changes in the fire service (Doherty, 2004; Flowers, 2006; & Welch, 2006). However, the author was unable to find literature providing information specific to what the fire service should be doing to address future homeland security issues. There are some books that predate the 9/11 attacks which address leadership challenges in the fire service, but they tend to focus on emergency incident management and short-term goals.

On the other hand, perhaps the attempt to separate and distinguish firefighters from the other first responder community members when looking at the future role of fire services could prove to be part of the problem. With the exception of specific operational concerns, emergency response organizations share similar homeland security issues. These issues include concerns about funding, threats, hazards, borders, interoperability, intelligence, response, transportation, equipment, and pandemics (Bellavita, 2006). Additionally, they each face a lack of mission clarity and cultural challenges, and they each require resources, sustained capabilities, guidance, and leadership (Walker, 2001). As such, the skills needed to lead and plan for future expectations are no different from those required of other first responders, the GAO, the Coast Guard, corporate America, or any other discipline.

Consequently, literature on emerging homeland security issues, emergency management, intelligence collection, and national strategies and policies can provide insight and are applicable to the fire service. Since 9/11, a number of theses have been generated focusing directly or indirectly on the need for strategic and adaptive change. Relevant aspects of these perspectives will be evaluated and synthesized into this literature review. In addition to these, there is an abundance of literature that is universal to all disciplines on leadership, strategy, capability, cultural challenges, team building and change management.

1. Leadership Challenges

a. *Leadership*

Carter and Rausch's book, *Management in the Fire Service*, is a basic management book tailored to the specific functions of the fire service. Although the book focused heavily on incident response and mitigation, there is an entire chapter dedicated to fire department service beyond firefighting. However, most of that chapter dealt with emergency management and mitigation of non-fire emergencies such as emergency medical services, confined space, and hazardous material. The author did address the importance of building relationships with local, state and federal first responders in order to better mitigate a major disaster. Some of this information could be used in establishing specific partnerships with members of the community. Carter and Rausch also addressed labor relations, civil rights, and diversity (1999). The book failed to mention growing pains or issues associated with an adaptive environment. Since the book was published in 1999, there is hardly any mention of threats of terrorism.

In their book *Leadership on the Line,* Harvard University Professors Ronald A. Heifetz and Marty Linsky discussed why leadership is so dangerous, how people fail at it, and how some leaders contribute to their own demise when orchestrating change. Authorities resolved technical challenges by applying current expertise. An adaptive leader will coach the people with the problem to resolve the issue. Linsky is very passionate in his belief that when people expect the authority to resolve adaptive problems they end up with dysfunctional leader ship (Heifetz & Linsky 2002).

This line of thinking is exhibited by the behavior and characteristics of managers in the fire industry. There is a prominent problem on the company officer and mid-management level. Some leaders in the fire service believe this dysfunction exists because the hierarchical structure of the organization causes most decisions to be made by upper management.

A study completed by Fire 20/20, a research and education nonprofit organization dedicated to uniting fire and Emergency Medical Services (EMS) stakeholders to recruit and retain a qualified, inclusive, competent fire and EMS

workforce by the year 2020, reported that members of the fire department exhibit a number of dysfunctional behaviors that are present throughout the fire service including supervisory neglect, indifference, inappropriate work place behavior, lack of policies and procedures, failure to enforce existing policies, nepotism, etc. These dysfunctional traits are perpetuated by managers and supervisors throughout the industry (FIRE 20/20, 2007, p. 24).

Similarly, Denise F. Williams, a Colonel in the United States Army, described leaders who take part in destructive behaviors and cause harm to the organization as "toxic leaders." The Williams report went on to identify the characteristics, behaviors, and types of toxic leaders, which she reports are prevalent throughout the U.S. Army (2005).

b. Strategy

According to Dr. Christopher Bellavita, a professor at the Naval Postgraduate School (NPS), managers focus on what *is,* while leaders look forward to what *should be* (2006, p.2). For purposes of this paper, *strategy* will refer to a carefully devised plan of action to identify and achieve long and short-term goals in order to sustain the nation's homeland security efforts (Walker, 2001). The National Strategy for Homeland Security defined strategy as an effort to mobilize and organize the nation to secure the United States homeland from terrorist attacks (Office of Homeland Security [OHS], 2002). Carter and Rausch's references to strategy apply to short-term emergency incidents attack approaches (1999).

Bellavita pointed out that those who are interested in the future have an obligation to know something about the past (2006). Homeland security's past includes lessons learned and the strategies, policies, programs, and processes that are currently shaping efforts to protect America. Therefore, initiatives to formulate a plan of action for securing the homeland in the future should start with a review of the literature identifying related goals and objectives already in place, such as the National Preparedness System.

Six basic documents comprise the National Preparedness System. They are the National Preparedness Goal (NPG), the National Planning Scenarios (NPS), the Universal Task List (UTL), the Target Capabilities List (TCL), the National Response Plan (NRP), and the National Incident Management System (NIMS) (Clovis, 2006). Literature within these documents defined goals, objectives, and critical missions that can be used to explore the future role of the Fire Department. Homeland Security Presidential Directive 8 (HSPD), the National Strategy for Homeland Security (NSHS), which has been revised and will be discussed later; and HSPD-5, offer a broader framework for homeland security. In fact, most of these documents are too broad and unspecific. Some provided perimeters that could limit an organization's role in homeland security by marginalizing them to specific functions; such is the case with firefighters being limited to response and recovery. In this case, the fire service was not included in the prevention pillar of the NSHL. None of the strategies provided guidance on adaptive and/or cultural changes, though they are all essential to establishing the foundation of this thesis.

c.   *Expanding Role of Firefighters*

The need to expand and enhance the role of firefighters in prevention and mitigation of emergencies has not only been demonstrated by past large-scale disasters but is supported by the National Strategy for Homeland Security (NSHS). The NSHS requested mobilization and organization of Americans to create a culture of preparedness to fight terrorism (Office of the President, 2007). In his letter to Americans in which he introduced the NSHS, President Bush explained that homeland security must be a shared responsibility of the entire nation. Aspects of the NSHS could serve as a guide for fire service leaders to develop a framework designed to expand the role of firefighters to prevent terrorist attacks and both natural and man-made disasters (Office of the President, 2007). Conversely, a comprehensive review of this document revealed the exclusion of the fire department in five of the six critical missions.

The NSHS critical mission "Intelligence and Warning" expressed the need to detect terrorist activities, but it does not include firefighters, citizens, or even law

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enforcement in its recommendation. This view is supported by Mark Lowenthal, whose book on intelligence supported the exclusion of firefighters by omission (2006). Although he drew an obvious distinction between intelligence and information, he clearly assumed only law enforcement or federal intelligence agents are able to collect information. Most literature the aspect of prevention and protection under the NSHS referred to the intelligence and law enforcement community. The detection of intelligence information is usually limited to the Intelligence Community (IC), which often even excludes local law enforcement.

However, the National Intelligence Strategy (NIS) called for a shift from status quo intelligence to a transformation of the IC through the doctrine of integration (U.S. Department of Homeland Security [DHS], 2005). In the NIS, the IC is specifically directed to attract, engage, and unify an innovative and results-focused IC workforce. The NIS recommended a paradigm shift in the intelligence process (DHS, 2005). One such paradigm shift could include the expansion of the reporting of information of intelligence value to include local fire departments.

d.   *Adaptive Changes*

The fire department is known as an organization with hundreds of years of tradition unimpeded by progress. It is an industry widely known for its rigidity and extreme resistance to adaptive change. Adaptive change refers to an organization's ability to assess and alter current processes and/or outputs to meet a change in demands or the environment. In the book, *Organization Behavior*, the authors claimed that in order for planned change programs to be effective employees must be aware of the need, believe in its value, and be willing to change their behavior (Hellriegel, Slocum, & Woodman, 1998). Firefighters have not been convinced of the need or value of changing their behavior.

According to Heifetz and Linsky, the single most common source of leadership failure in politics, community life, business or the nonprofit sector is that people, especially those in authority, treat adaptive challenges like technical problems (2002). Leaders approach issues from either a technical point of view or an adaptive

point of view. The book described the difference between these two points, and it clearly identified the danger of adaptive leadership. It also offered some suggestions on how to avoid obstacles and navigate changes of a non-technical nature.

Another prominent school of thought congruent to Heifetz and Linsky is the idea that cultural impediments to change may be hindering homeland security in general and the ability to meet the expectations of the critical missions defined in the NSHS specifically. In his thesis describing collaboration, communication, and information sharing challenges in Utah, Robert L. Flowers, a graduate of the Naval Postgraduate School, explained that purchasing equipment for first responders without a strategy for change is wasteful and will not fix the problems (2006). Bellavita confirmed the need to manage change when he states that the next significant national event will create an environment that supports if not demands substantial changes (2006). He is not alone in this prediction.

Vincent J. Doherty, in his NPS thesis, Metrics for Success: Using Metrics in Exercises to Assess the Preparedness of the Fire Service in Homeland Security called for a major conceptual change in order for first responders to become more prepared for any hazard (2004). Alicia L. Welch, in her thesis Terrorism Awareness and Education as a Prevention Strategy for First Responders, expressed the need for a complete revamping of existing policies, training, and response duties if the fire department is to be effective in homeland security (2006).

In contrast, some believe that adequate funding, equipment, and training for state and local first responders would solve future homeland security needs (Gilmore Commission, 2003). Most leaders in the fire service throughout the United States focus on tools and equipment as opposed to change management (J. Harmes, personal communication, 2007). Moreover, this belief is demonstrated in the criteria for the Fire Act Grant process, which leaves no provisions for adaptive change or leadership initiatives (Federal Emergency Management Agency, Fire Act Grant).

2. Cultural Challenges

Heillriegel defined organizational culture as a multifaceted system of shared beliefs, expectations, ideas, values, attitudes, and behaviors (Hellriegel et al., 1998). Edgar H. Schein defined organizational culture as a pattern of shared behavior based on assumptions that the group has learned as it solved its problems. These assumptions have proven to be valid and therefore can be taught to new members as the correct way to perceive, think, and feel (Schein, 1985). Schein's views have been supported by other experts who also believe that organizational culture develops as a result of external adaptation and survival, as well as internal integration (Hellriegel et al., 1998).

Heroism and courage are beliefs and expectations shared by all firefighters. A firefighter who dies in the process of rescuing a citizen is viewed as an honorable hero who made the ultimate sacrifice. However, the majority of injuries to and deaths of firefighters do not occur during attempts to rescue citizens or mitigate an incident. Rather, emergent causes are risky behaviors and the refusal to adhere to directives administered by authority figures. Moreover, a slowly increasing perception among fire service leaders is the belief that a culture that supports impulsive behavior, intolerance; machismo, invulnerability, anti-authority, and lack of accountability are major contributors to firefighter injuries and deaths (International Association of Fire Chiefs (IAFC), 2002).

In spite of this, few leaders consider that these same behaviors are a major hindrance to integration, cooperation, and collaboration with outside agencies and other public safety organizations as well. Instead, they continue to fix these cultural issues with technical solutions despite the fact that several technical reference models have failed to improve communication and collaboration (Tolk, 2003).

D. SIGNIFICANCE OF RESEARCH

This research project will add to a very limited body of knowledge specific to the future role of the fire industry in support of the National Strategy for Homeland Security. It will identify emerging homeland security issues facing the fire service in the next five to ten years and provide strategies to address those concerns. Immediate consumers of

this project include fire departments, law enforcement and other first responders. Homeland security leaders, including members of the intelligence community, fusions centers, and Joint Terrorism Task Force (JTTF) could also benefit from the results of this research through improved and increased situational awareness.

E.   METHOD

The Delphi Method was used in this study to elicit expert opinions in a systematic, confidential manner to explore the future role of the fire service in homeland security (Thomas, 2007). This research process requires the use of a multi-round survey process to structure confidential groups communicating around a complex issue (Thomas, 2007).

Questions were initially created based on interview responses from two select groups: Four members of the International Association of Fire Chiefs (identified as FC-A through D) and five NPS cohort members of the fire service (identified as Cohort). Information was gathered from the FC group by email responses, face to face, and telephone interviews.

Both groups of subject matter experts were asked questions using open-ended questions to glean information on their experiences, perceptions, opinions, feelings, and knowledge relating to homeland security (Hocevar & Wollman). Responses from the FC group were synthesized into categories and constructs based on the results of open coding. This information was then evaluated, analyzed, and used as a guide to determine the concepts and variables to be measured during the Delphi study.

The first round of questions was then developed based on the analysis of responses and was presented to a second set of subject matter experts who agreed to be participants of the Delphi study. These members, identified and color coded as DM-1 through DM-6 were queried with three different rounds of questions. Each set of questions was derived from DM members' responses to the previous questions.

The result of this study provides valuable insight into the future role of firefighters in homeland security. Additionally, the data supports the idea of developing a strategy to expand the fire service mission beyond response and recovery.

F.   CHAPTER OVERVIEW

Chapter I has identified problems with applying tactical short-term goals to prepare for, prevent and mitigate complex, and unconventional threats of terrorism, or large scale disasters. It suggests that these dynamic events require innovative unconventional approaches to meeting the goals of the National Preparedness Systems, and has asserted the need for fire service leaders to anticipate and explore its role in homeland security in the next five to ten years; develop long range strategies to support the NSHS; manage mission shifts, and it addresses leadership and cultural challenges. This chapter also discusses relevant literature.

Chapter II examines historical approaches to leadership and homeland security leadership challenges to strategic planning and adaptive changes in the fire service. It discusses why these may present problems in dealing with new asymmetrical threats of terrorism. It questions whether traditional autocratic or transactional leadership styles and the organization's scalar structure of the past five decades should be modified to fit today's homeland security needs. This chapter examines collaboration barriers to prevention, preparedness and response to terrorist attacks and major disasters. It also discusses the need to develop strategies to build collaborative relationships and examines a successful non-emergency statewide collaborative effort.

Chapter III is an analysis of Phase 1 of a two part Delphi mixed method process. Three groups participated in this process: (a) four fire chiefs (FC); (b) five members from the fire discipline enrolled in NPS (Cohorts); and (c) six fire service alumni of the NPS program (Delphi members or DM). This chapter describes how members of the three groups were selected. It discusses how initial questions were developed, responses grouped, categorized, and prevailing themes identified. Using open first order and second order coding, an analysis exploring patterns, themes, conflicts, and problems associated with responses to emerging issues is presented. This analysis discusses the

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fire service's leadership, cultural, and collaborative challenges as well as the fire service role in prevention and detection of terrorist acts. Key areas of concern identified from this analysis include response capabilities, intelligence, leadership, and collaboration. These prevailing themes were used to create questions for Phase 2.

Chapter IV is an analysis of Phase 2 of the two-part Delphi process. Opinions expressed by DM members in Phase 1 generated additional interesting ideas that gave rise to a second set of questions sent to the same DM group. Responses to questions about the fire service role in homeland security as it relates to intelligence, leadership issues, and collaboration are grouped, coded, and examined using the same system as described in Phase 1. Analyses of these responses were used to form the conclusion and recommendations described in Chapter V.

Chapter V offers conclusions based on responses to emerging issues in the fire service: leadership challenges, collaboration barriers to partnerships, and whether to expand the fire service role to include prevention and detection of terrorism. The author used the synthesized views of these subject matter experts to explore strategies and make recommendations on the fire service's role in homeland security in the next five to ten years.

II. LEADERSHIP ROLE IN HOMELAND SECURITY

After action reviews and the subsequent development of national homeland security strategies have validated the need for the fire service to redirect its mission, anticipate and navigate change, build partnerships, and identify and eliminate barriers to collaboration (DHS, 2005). To do this, the industry will need to create proactive and preventive strategic plans designed to engage the community, other first responders, and public, private, and non-profit stakeholders. Navigating these adaptive changes will require collaboration and strong, progressive leadership from all areas of the fire service but most assuredly from the fire chief.

A. LEADERSHIP/STRATEGIC THINKING

Much has been written on the management function of leading and the role of leaders in an organization. Indeed, do a search for the word *leadership* and Google offers 180,000,000 search sites. This list includes the research of scholars, psychologists, and executive leaders of public, private, and nonprofit organizations who offer many concepts and theories (Cochran, 2006). An entire thesis could be written on the various views of leadership.

The scope of this paper is not intended to address these assorted leadership styles and approaches. Rather, it will examine historical approaches to leadership in the fire service and homeland security leadership challenges to strategic planning, adaptive changes, collaboration, integration, and interoperability in the fire service.

1. Historical Approaches

In his book *Strategic Planning for Public and Nonprofit Organizations,* Bryson argued that it is helpful for an organization to look forward by first looking backward (2004, p. 138). Likewise, a historical review of leadership in the fire industry should prove to be a useful technique for measuring effectiveness and determining the path of future leadership.

Traditional leadership in the fire service has been modeled after the military leadership style practiced during World War II, the Korean War, and the Vietnam War (Cochran, 2006, p.16). This model includes three basic leadership styles: autocratic, democratic, or laissez-faire. Through the years, these leadership styles have been used by fire chiefs, chief officers, and managers of individual fire stations. Of the three styles, democratic leadership has proven to be more successful in most situations in the fire service (Cochran, 2006, p.16).

However, many fire chiefs believe adhering to the paramilitary organization structure mandates the use of authoritative leadership (Shepard, 1999). This assumption, which is likely based on the historical tradition of past chiefs, who practiced autocratic leadership, is still prevalent today.

Most fire departments operate in a scalar, paramilitary, pyramidal structure. Authority is centralized at the top where decisions are made and information is transmitted from the top down in an uninterrupted chain of authority or chain of command. This allows decisions to be made at the top of the structure, information to be filtered down, and standard operating procedures to be implemented uniformly throughout the organization (International Fire Service Training Association (IFSTA) 1989, pp. 11-25).

During the past five decades, fire service leaders have been able to navigate successfully in this pyramidal environment. Traditionally, scalar structures have worked well in emergency and non-emergency situations. Organizational standards such as unity of command, span of control, division of labor and discipline serve as sound management principles (IFSTA, 1989). Basic strategies and tactics are effectively executed on the fire ground. The span of control is kept manageable, information is centralized, and the chain of command is maintained. However, in today's era of "lone wolf" terrorist, leaderless groups, Al Qaeda cells, and threat networks where extremists, defeated in one area, regenerate elsewhere as if they were starfish should this system be modified?

In the book *The Starfish and the Spider – The Unstoppable Power of Leaderless Organizations*, Ori Brafman and Rod A. Beckstrom argued that there is a great deal of

power in leaderless groups (2006). The authors used a series of leaderless groups to demonstrate the power of a decentralized organization. Alcoholics Anonymous (AA), founded by Bill Wilson, is an example of how an organization can flourish when there is no appointed leader. AA has been in existence since 1938 and has over two million members. Any party of two or more people can start a group and the only requirement for membership is a desire to stop drinking. The program has twelve steps and twelve traditions. The traditions are written for the sole purpose of keeping the group leaderless.

AA is analogous to a starfish. Brafman and Beckstrom explained that when an arm is severed from a starfish, the fish grows another arm, and in some types of starfish, the severed limb becomes another starfish (2006). There is no leader or head of a starfish; in order for it to move one of its arms, it has to convince the other arms of the idea. The same is true for AA, where decisions are made by group consensus. By contrast, the spider *does* have a head (leader) If a spider loses one of its legs, it may be able to continue to live, but if the spider's head is cut off, it will cease to exist (Brafman & Beckstrom, 2006, pp. 33-35).

In the case of the global war on terrorism, when attacked, decentralized organizations become even more decentralized (Brafman & Beckstrom, 2006, pp. 33-35). Instead of dealing with one terrorist group, the United States is confronted with a multitude of groups that share a common desire to attack democracy and thus the United States. Public safety and military organizations in America, although multi-tiered, are centralized structures struggling to fight non-state terrorists operating without clearly defined leadership.

Furthermore, according to James R. Locker III, Executive Director of the Project on National Security Reform, the National Security System, used by the president and funded by congress to manage national power, do not permit the agility required to protect the United States and its interests (2008, pp. 19-27).

This system was based on lessons learned from World War II and designed to fight the Cold War. Current exposure to terrorism and terrorist cells is vastly different

from exposure during the Cold War. These threats demand more effective communication and a common vision and organizational culture (Locker, 2008, pp. 19-27).

The combination of the effects of this new form of terrorism and its increasing threats globally and domestically along with natural disasters and potentials for pandemic health crisis are forcing leaders to realize the need for a new way of thinking. More than ever, these disruptive events are creating the need for transformational leadership, collective leadership and strategic thinking across the board (Weeks 2007; Welch, 2006).

Since terrorists are not operating from a centralized posture and since according to Brafman and Beckstrom the best opponent for a starfish organization is another starfish, first responder, military and intelligence communities should closely examine the effects, or lack there of, their organizational and leadership structures have on homeland security (2006). For instance, in the fire department is there a fundamental or cultural obstruction, ingrained in the traditional leadership and organizational structure of the fire department that hinders collaboration, partnership, adaptive change, collective leadership, and thus homeland security?

2. Organizational Structure and Leadership

Although the paramilitary environment in the fire service has served leaders well in both emergency and administrative capacities, it has also presented challenges and contributed to a rigid culture that is unwilling to change (Week, 2007). Some of the disadvantages of strict adherence to this paramilitary structure include the lack of flexibility, progress, inclusion, innovation, and teamwork involved in the decision-making and planning processes. Decisions, strategies, goals, and objectives are determined by those at the top of the pyramid. The lack of flexibility results in an inability to adjust to a growing and changing environment (Doherty, 2004).

According to James MacGregor Burns, leadership can be divided into two fundamentally different types: transactional and transformational. Transactional leadership is based on an exchange of values. It is a "quid pro quo" system where a

relationship is established based on the agreement that rewards will be given for a certain level of service or participation (Burns, 1979, pp. 19-20).

In the fire service, the reward may be in the form of a promotion, appointment, reassignment, or some other form of acknowledgment (Weeks, 2007).   As long as the rules are followed, firefighters and company officers have very little contact with the fire chief or in some cases, other chief officers. Transactional leadership does not allow for expansion, innovation, or strategic thinking (Weeks, 2007). Transactional leadership is common in the fire service where meritocracy is sometimes the end result and strategic change is not encouraged (Weeks, 2007).

In many departments, the rank and file is often not included in the planning process.   As a result, some of these members are uncomfortable with sending ideas up the pyramid. In some cases, use of the chain of command suppresses the flow of innovative ideas and strategic thinking on the company officer and firefighter level. This could be due in part to unresponsiveness or lack of empowerment. At any rate, since in some cases meetings are only attended by chief officers, and since chief officers tend to agree with the fire chief, there is danger of creating a group think environment.

Perhaps as a result of this restrictive chain of communication, company officers and middle managers expect the top brass to resolve both easy and complex problems. Whether it is intentional or because of the power structure, these officers make few decisions. This restrictive behavior also limits participation and collaboration with other members of the first responder community.   Participation in the planning process facilitates communication, synthesizes interests and values, and promotes successful implementation and accountability (Bryson, 2004, p. 6). David Butler, quoted in the book *The Leadership Challenge* by James Kouzes and Barry Posner, supported the need to give people on the front lines proper vision, training, and responsibility so they can act on decisions (1995, 12; Welch, 2006).

Consequently, the pyramidal chain of command structure and the practice of traditional autocratic and/or transactional leadership style could obstruct an organization's ability to grow and meet current expectations on a fundamental level

(Weeks, 2007; Welch, 2006). It stifles progress, cuts off opportunities for other members of the organization, as well as outside agencies, to contribute, and it could obstruct the organization's ability to adapt to a changing environment and/or prepare for the future.

3.   Leadership Failures/Successes

However, some may point out that the pyramid chain of command structure, in several cases, has not stifled the progress and advancement of good leadership in certain organizations.   Quite the contrary, there are some leaders operating within the paramilitary structure, who are able to influence followers to sacrifice self-interest for the good of the group, and go far beyond transactional boundaries.

These leaders seek solutions from the lowest level upward because they practice transformational leadership.   Transformational leadership is a relationship of mutual stimulation and elevation that converts followers to leaders.   Transformational leaders behave in ways that make themselves role models, motivate and inspire others, and approach situations in new ways (Burns, 1979, pp. 19-20). This model, if executed, could turn followers into starfish.

Some leaders have made marked progress towards empowerment and decentralization within the pyramid environment of their organization.   New York Police Chief Bill Bratton provides an example of how to demonstrate exceptional tipping point leadership in spite of the system and its culture.

In the book *Blue Ocean Strategy* W. Chan Kim and Renee Mauborgne introduced this concept to describe organizations or businesses that have expanded outside of normal competition to create new territory or new ideas (2005). The gist of the matter is that "Blue Ocean Strategy" operates outside of the known market or today's existence by applying strategic principles that are effective in spite of the status quo. Tipping point leadership is based on the principle that in any organization there are people, acts, and activities that exercise a disproportionate influence on performance (Kim & Mauborgne,

2005, p.151). In tipping point leadership, leaders demonstrate to managers how to overcome political, financial, cultural, and morale hurdles to identify and capture future ideas today.

Chief Bratton's accomplishments serve as an excellent example. In 1994, as the recently appointed police chief, Bratton inherited the entire gamut of problems. New York City had one of the worst crime records in the country including, but not limited to, murders, muggings, armed robberies, and Mafia hits. The department was entrenched in turf wars and politics. Additionally, morale was extremely low, confidence and trust was clearly lacking, and budget cuts had stripped the police department. Using tipping point leadership, in less than two years Bratton was able to overcome all of these obstacles to create a "Blue Ocean Strategy" that changed police status quo operations and turned New York City into the safest large city in the United States (Kim & Mauborgne, 2005, pp. 148-150).

He accomplished this by creating a revolutionized policing strategy that has been adopted by law enforcement organizations through out the United States. Although he operated in a paramilitary, centralized environment, he pushed responsibility and accountability down to every level. At regularly scheduled meetings, he made his leaders responsible for any crime activity in their precincts; this was unheard of. How could someone make law enforcement responsible for a criminal's action? His managers had to accept responsibility and give be accountable in front of their peers and others. Moreover, he put managers back in touch with the public. They were required to ride the subway—at night no less. The effects of Bratton's actions were astounding!

There are several schools of thought on the cause or source of leadership successes and failures. According to Kouzes and Posner, a leader must accomplish five basic things to succeed and get "out of the box" performance from members of an organization: challenge the process, inspire a shared vision, enable others to act; model the way, and encourage the heart (Kouzes & Posner, 1995, p. 12).   Leaders must challenge the process by moving the fire service beyond the status quo to a level of

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proactive strategic performance. They must inspire a shared vision by engaging and soliciting participation in the planning process from the rank and file, chief officers, and other stakeholders.

In the case of the fire service, the mission and vision, though somewhat similar to the past, has changed since 9/11. But there have not been any formal revisions (Weeks, 2007; Welch, 2006). The result of engaging firefighters from every rank as well as stakeholders to participate in the planning process will enable and empower them to act and make decisions. These leaders will demonstrate or model the way for others to ensure resilience and the positive succession of up coming leaders. Leaders must encourage the heart, by keeping the goals up front and attainable. Just as most firefighters are inspired and encouraged to participate in fire prevention to reduce the number of fire deaths, going forward, leaders must stay connected to all stakeholders, in order to encourage the heart.

Bryson's definition of leadership is congruent to Kouzes and Posner's. He defined it as "the inspiration and mobilization of others to undertake collective action in pursuit of the common good" (2004). Although this definition is used to describe a single leader, leadership in public and nonprofit organizations is a collective endeavor involving many people and many roles. Bryson argued that leading is a strategic thinking plan and that there is not a plan unless the leader is actively involved and is leading the plan; otherwise it is not going to work (2004, p. 26). According to him, lack of leadership is the reason most strategic plans fail. Likewise, it is leadership, not the plan that accounts for 60 percent of organizations' successes (2004, p. 298).

On the other hand, Heifetz and Linsky believe the most common source of leadership failure in politics, community life, business, or the non-profit sector is that people in authority treat adaptive challenges like technical problems (2002). Leaders can resolve technical problems by applying current know-how, but when it comes to adaptive issues, the leader should create a collaborative environment and coach the people with the issue to resolve the problems (Heifetz & Linsky, 2002).

This explains the leadership issues in some fire departments where the fire chief makes all of the decisions and the solutions are designed to correct operations issues. The lack of strategic thinking and planning keeps the organization struggling to react as problems occur. The custom of top management making all of the decisions and dealing with all issues as operational problems results in dysfunctional leadership. On every level, firefighters, station officers, and chief officers are uncomfortable making decisions and resolving issues. They look to the next level of command to deal with the concern. This behavior, or more appropriately this culture, has been created and perpetuated by fire chiefs who employ an autocratic leadership style. Many of these chiefs are simply duplicating the shared values and beliefs that were passed on to them by previous chiefs.

However, Bratton represents the exception rather than the norm. Instead of creating tipping point leadership or "Blue Ocean Strategies," most public safety organizations are led by transactional, autocratic leaders who only expect subordinates to uphold their end of a predefined agreement. Under strict chain of command and pyramidal organizations, members are rarely considered or invited to participate in any planning or decision-making processes (A. Welch, personal communication April 10, 2008).

Brafman and Beckstrom claimed, and many agree, that the people in positions of power need to understand that great ideas come from the people who are closest to the idea (2006). In the fire service, this means including people who have the best knowledge and experience as opposed to those with the highest rank.

A quick glance at the roster of the alumni members and current participants of the Center for Homeland Defense and Security Master's Degree Program provides good examples of the aforementioned theory. These members are innovative strategic thinkers and leaders who may or may not have the title of chief officers but who certainly can contribute to homeland security in all levels of government. However, in some fire departments, which are based on rank and command structure, they are not even considered to participate in homeland security initiatives.

In addition to the organization's failure to take advantage of its subject matter experts, this lack of inclusion and mentoring of rank and file members creates gaps in experience and lengthens the learning curve of newly promoted officers when senior chief officers leave the organization. In the next five years, as members of the fire service who are "Baby Boomers" will retire, this could present a serious problem. According to one of the survey participants, DM-4, traditionally, fire departments do not have built-in management and supervisory mandates for newly promoted officers to correct this problem. Emerging leaders who lack both administrative and operational experience could make decisions that are deadly and costly to the organization.

In one particular case, after action reviews of an incident that led to the death of a firefighter revealed that the administrative decision of a newly appointed assistant chief to disregard seniority and experience when staffing units resulted in the response of a fire company where the senior member had less than five years experience. Many who participated in the lessons learned process of this incident believe, in this case, that the lack of experience likely contributed to the tragedy. DM-4 argued, the lesson here is this: It is essential to empower emerging leaders early in their career before they assume a formal role of leadership.

On the other hand, some might reason that since leadership in the fire industry is based on leadership styles of old and since these styles should be revised, the retirement of senior members who practice these styles will impact the organization positively. One fire chief views attrition as a positive action and believes that retirement of some senior members will open doors that allow for better recruitment, retention, and career advancement of innovative employees wishing to advance the vision and mission of the organization.

4. Adaptive vs. Technical Solutions

The focus and value placed on technical experience and operational solutions is another organizational issue that is ingrained in the fire service culture that could hinder collaboration, partnership, adaptive change, collective leadership and thus homeland security. In some fire departments, a leader's worth is often measured by the number of fires they have fought and certifications they have achieved. High angle roper rescue,

smoke divers, trench rescue, and hazardous material are just a few of the technical training and certifications available. Training and certifications are extremely important, and members who are trained have successfully contributed to the mitigation of a countless number of emergency response incidents.

Nevertheless, the problem with relying mainly on technical experience is that the environment has changed; it is more disruptive, and is too complex to be solved by technical application alone. The following is just a sample of why technical application cannot be used to address today's issues:

- Will not work on homeland security and all hazard problems
- Tend to be short term and reactionary
- Not conducive to strategic thinking and planning
- Does not allow for expansion or broader view
- Risk decreasing instead of increasing public value

According to Ronald A. Heifetz and Marty Linsky in their book *Leadership on the Line*, there is the tendency to treat adaptive problems with technical solutions (2002). Technical problems are problems that people have the necessary know-how and procedures to resolve quickly. This application does not work when facing an adaptive problem. There is a list of problems that cannot be resolved by authoritative and administrative means, or even standard operating procedures (Heifetz & Linsky, 2002, p. 14).

Consider this as an example of technical versus adaptive change. An electrical shortage causes a fire in a citizen's attic. The fire department arrives, has the electricity shut off, and extinguishes the fire. This is an example of technical solution that successfully resolved the issue. On the other hand, if the fire is caused by the repeated careless behavior of family members, it will probably happen again. The fire department would have to devise an adaptive solution — fire prevention education — to convince the family to correct their behavior to prevent future fires. In order to do this, the family must recognize the need to make changes and address the issue of carelessness.

The tendency to focus on technical issues as opposed to adaptive or strategic solutions permeates the fire service and can lead to dysfunctional leadership (Heifetz & Linsky, 2002, p. 14). As a result, people look for the fire chief to resolve all problems. When people rely on top leaders to resolve or address adaptive change they tend to avoid communication and conflicts, both of which are essential to managing adaptive challenges (Heifetz & Linsky, 2002, p. 105).

Some may argue that the fire service should not be about the business of long-range planning, strategic thinking, or creating "Blue Ocean Strategies." Rather, it is a first response organization whose service delivery only involves technical solutions. Firefighters are in the business of putting fires out and their rapid responses and actions have saved thousands of lives. This has earned the industry a top place on the list of agencies revered by the public. Firefighters risk their lives daily to reduce damage and save lives. Many in the industry feel that nothing further should be expected from these heroes and if they are allowed to perfect the ability to respond and mitigate emergencies, then there is nothing operationally that cannot be resolved. Indeed, the fire department has enjoyed 200 years of successful service to the public.

However, lessons learned from past disastrous events prove that employing the same short-term, technical solutions to complex and dynamic acts of nature and terrorism are costly, deadly, and insufficient (National Commission, 2005, p.567). Events of this magnitude are adaptive problems and technical solutions do not work on them. Adaptive changes require experience, new discoveries, inclusion, collaboration, collective leadership, and adjustments from a variety of organizations, businesses, and communities (Heifetz & Linksy, 2002; 13).

The fire department is not alone in its application of technical solutions to adaptive problems. On September 11, 2001, the United States was forced to face an adaptive challenge that had been festering for years. For the first time, Americans, collectively, felt vulnerable in the homeland. The initial tendency of government officials was to treat terrorism as a problem of security systems. While military, police, criminal justice and intelligence operations needed revamping, terrorism represents an adaptive challenge to civil liberties and the long standing divide between Christian West

and Muslim East (Heifetz & Linksy, 2002; 13). Moreover, the National Security System does not easily facilitate the development and implementation of long-term, comprehensive national security policies designed to diminish the probabilities of threats before they occur (Locher, 2008).

Since 9/11, first response organizations in all disciplines have been struggling to redefine their mission and establish their role in homeland security. What is glaringly obvious is the fact that no one leader or organization is able to prevent or respond to catastrophic disasters single-handedly. Mark Gerezon defined it best in his book titled *Leading through Conflict* when he stated that there is a class of problems facing this nation that cannot be solved by individual leaders or a single organization (2006, p. 199). As is the case with homeland security, the fire service needs the coordinated participation of many groups, including rank and file members, those from other first responder communities, and those who may be unorganized and voiceless. And while there are individual leaders who, formally and informally, command authority, leadership, in the case of homeland security, cannot be reduced to any single person (Gerzon, 2006). Accordingly, strategies designed to facilitate collaboration, interdependence, and synthesis with other first responders as well as public, nonprofit, and business communities is essential.

5.   Strategic Planning and Change

If the fire service is going to move forward to ensure and enhance its role in homeland security, its leaders must learn a new way of thinking. This new way of thinking should be guided by both internal and external planning efforts, which will ultimately result in a change from status quo service delivery. Rapid response and recovery represent the traditional status quo service delivery mission in the fire department. The culture is predisposed to a reactive response posture. Without a doubt, firefighters take pride in how quickly they arrive on an emergency scene to mitigate a crisis and protect the community. The larger the scope of the emergency, the more equipment and resources are deployed to manage it. No one could argue that these

strategies and tactics work very well in ordinary conventional fire emergencies; but they are woefully inadequate in response and in preparation for catastrophic events (Doherty, 2004; Welch, 2006).

Presiding over an industry entrenched in tradition and accustomed to always reacting to make a bad situation better, these leaders must understand and get their members to understand that the cheese has moved. *Who Moved my Cheese* is a story about change. It takes place in a maze and describes how two mice and two little people deal with the fact that the cheese in the maze has been moved. Spencer Johnson, M.D., the author, uses cheese as a metaphor of what people want to achieve; in other words, their goals. The maze represents where people spend time looking for what they want, in other words, a strategic plan (2002, p. 94).

Like the two little people who are continually looking in the same place for their cheese and caught up in the maze, many in the fire service believe that the mission and focus of the fire service and its service delivery approaches should not be changed. However, the environment has become more demanding and more complex than the days of simple firefighting — "putting the wet stuff on the red stuff." The nation now faces a plethora of threats including, but not limited to: natural disasters, hazardous material releases, CBERN, pandemics, and domestic and international acts of terrorism.

Some have suggested, and this author agrees, that traditional leadership practices and response capabilities are not meeting the current demand (Weeks, 2007). And while fire service leaders have acknowledged the need to prepare for future terrorist attacks as well as the mitigation of all risks, they have not developed new strategies to meet these challenges (Weeks, 2007). Pre-existing systems and pre-9/11 standards of practice are still being used (Weeks, 2007).

For fire service professionals, it is important to plan for the future now and not wait until it is forced upon the fire department. For example, fire departments in the past should have been thinking strategically to deliver EMS or hazardous material response

services and more recently should be thinking how to address our terrorism threats (Lacey & Valentine, 2007). Thinking strategically is the key to define the fire service role in disaster preparedness and prevention.

Using John M. Bryson's definition of strategic planning, the fire department should develop an orderly and controlled proactive procedure to determine the decisions and actions that will be used to shape and guide what the fire industry is, what services it provides, and why it provides those services (2004). The results of making fundamental disciplined efforts to define what the industry does could mean that nothing should change, that the service delivery should remain the same. Or it could be that going through this process demands drastic mission changes to meet future homeland security and disaster preparedness needs. Regardless of what the outcome proves to be, one of the greatest benefits of going through a strategic planning process for the fire department is it will enable leaders to learn to think strategically (Bryson, 2004, p. 6).

Leading the industry from a traditional reactive culture to strategic thinking and planning conducive to all hazards and terrorism preventive decisions and actions as well as interdependence, collaboration, and integration with other agencies is a daunting task (Weeks, 2007). Added to this dilemma of shifting mission, some would say, is the fact that there is not a single voice to represent the fire service.

The National Fire Protection Association has been establishing standards on fire service delivery for over forty years. However, these standards are only recommendations and have no force of law. Furthermore, while the International Association of Fire Chiefs (IAFC), the International Association of Firefighters (IAFF), International Association of Black Professional Firefighters (IABPFF), and a myriad of other minority organizations all have voices in the fire service, typically, these voices do not sing the same tunes. Each of these organizations has developed strategic plans but they are independent of one another. This makes it difficult to establish strategic plans, frameworks, and structures with national endorsement by the fire industry that could result in legislative, homeland security, and mission changes.

On the other hand, some leaders believe that the IAFC is the lead voice for the fire industry, citing its role with homeland security initiatives and the strategic planning documents currently completed by the IAFC as proof of its position. As an organization of chiefs and chief officers, the IAFC should take the lead to fuse lead representatives from the IAFF, IABPFF, other minority groups, and the volunteer and combination fire departments into a team and develop a unified strategy that represents the voice of the fire department. Although the IAFC and other fire service organizations have scrambled to develop strategic plans since the 9/11 attacks, these plans typically include only the insight and ideas of its individual members.

This limited point of view is not the best use of planning approaches. Strategic planning is useful only if it influences strategic thought, action, and learning; and strategic thought, action, and learning should take many sources into consideration including the shifting mission; and the vision and expectations of the community, other first responder agencies, public and nonprofit organizations, citizens, and members of the business community (Bryson, 2004).

Contributions from all of these stakeholders are essential to formulating a plan of action to facilitate adaptive changes. Synthesizing their thoughts, actions, and experiences into a strategy to facilitate change will require strong leadership from the top and cooperation among the rank and file. Here, Bryson's "Strategic Change Cycle" is appropriate to join key internal and external decision makers. Bryson offers that information, support, and commitment from major stakeholders are vital to the success of strategic planning (2004, p. 65). Additionally, members of the first responder community will need to be convinced of the need to change, to do what they have never done before, as well as be shown the path to get there. Leaders must realize the purpose of strategy is to change an environment in a way that makes it possible for all members to operate (Bryson, 6). This will not be an easy task because of the fire service and other agencies' inherent resistance to change (Doherty, 2004; Weeks, 2007; Welch; 2006). But the rewards will be worth the efforts.

6.   Summary

Today's terrorists operate in a decentralized, leaderless, environment and present a different challenge to homeland security efforts. While leaderless groups are very powerful, they are not invincible. However, to be effective in the war on terror, public safety, military, and intelligence organizations may need to examine organizational structures to identify obstacles to homeland security.

The paramilitary pyramid structure of the fire service has served the industry well for the past 200 years. However, strict adherence to this system and/or transactional management style could obstruct or inhibit innovation and contributions. It could also hinder collaboration, inclusion, partnerships, and adaptive change, which in turn inhibits homeland security.   These are essential components to the prevention, preparedness, and response to current and future threats of terrorism and potential natural disasters.

On the other hand, there are some innovative transformational leaders working within this same system re-defining their departments, their missions, and are learning a new way of thinking. Unfortunately, leadership training is not readily available in some departments. Fire service leaders should consider improving the effort to inspire, provide modeling, and leadership training to their members early in their career.

The treatment of all problems as operational issues can contribute to dysfunctional organizations and leadership failure. Leaders must learn to discern the difference between operational or technical problems and adaptive or strategic challenges and shift solutions accordingly.

Leaders should also develop strategic plans to improve strategic thinking and to identify goals to incorporate emerging trends, ideas, and requirements to meet current and future homeland security issues. Failure to make these strategic changes will have adverse effects on the safety of firefighters, other first responders, and the public (National Commission; 2005; Bryson, 2004).   Although the fire department does not have single voice of representation, the IAFC and the IAFF, the two largest groups, are able to collaborate on common issues.

B.   COLLABORATION, INTEGRATION, INTEROPERABILITY

Homeland security is an exceedingly complex mission that requires agencies, organizations, and individuals from many tiers of public and private sectors, working, training, and exercising together for the common purpose of preventing terrorist threats to people and property (Pelfrey, 2005).   Today's environment has become increasingly uncertain and chaotic. It has also become increasingly interconnected. To navigate in these surroundings, public, private, and non-profit organizations must think strategically, translate their insights into strategies, develop and implement strategies, and they must build sustainable coalitions to support the implementation of the strategy.

Likewise, the prevention, preparation, and response to terrorist attacks will require the collaborative, interdependent efforts of firefighters, law enforcement, emergency medical, public health, public utility, public works, security guards, taxi drivers, the intelligence community, the armed forces, citizens, businesses, and public and non-profit organizations.

Katrina exposed a major lack of collaboration among local, state, and federal agencies, which consequently created chaos, animosity, mistrust, inadequate communication, and a failure to cooperate. These issues are still resonating today, three years later (Locher, 2008). Lessons learned from this and other natural disasters, as well as the 9/11 terrorist attacks, suggest the need for emergency responders to expand responsibilities and become more networked and interactive with their peer disciplines to achieve higher levels of homeland security preparedness, prevention, and response capability (National Commission, 2005).

In order to meet this challenge, federal, state, and local managers of homeland security will need to develop a strategy to build collaborative capacity within and across all emergency response disciplines (DHS, 2005). Until homeland security leaders accomplish this goal, America will continue to experience "the disaster that comes after a disaster," as was witnessed in response to Hurricane Katrina (K. Cochran, personal communication).

At face value, most leaders would agree that collaboration positively impacts homeland security. Some may even conclude that building a collaborative relationship with other agencies is an easy task. However, in their article "Building Collaborative Capacity: an Innovative Strategy for Homeland Security Preparedness," Susan P. Hocevar and Gail F. Thomas argued that collaboration is extremely difficult (2004). Often there are deep-seated covert barriers and well-known overt barriers that are significant to individual organizations and impede relationships. Their view is supported by the Office of the Director of National Security (ODNS). While making great progress in efforts to reorganize and train for current and future challenges, the ODNS is nevertheless finding it difficult to integrate and align various aspects of the intelligence community. On every level, organizational cultures and competing budgets resist collaboration (Locher, 2008).

Other obvious barriers include organizational and leadership issues, structural obstacles, conflicting goals and missions, competing incentives, narrow focus, lack of familiarity, and histories of distrust, as was the case between the New York Police Department (NYPD) and Fire Department of New York (FDNY). After action reports on the accounts of 9/11 revealed major gaps in communication, coordination, and collaboration within and among fire, police, and emergency medical agencies. These same overt issues were identified as weaknesses during critiques of the 1993 World Trade Center bombing. Yet leaders of both departments failed to establish and implement policies and procedures identified as critical deficiencies following the 1993 attack (National Commission, 2005, p. 567).

Moreover, as early as 1996 interoperable radios were issued to key leaders in both organizations, but the system was never activated because chief officers could not agree on who would be in charge of the interagency frequency. Consequently, when the attack of 9/11 occurred, first responders experienced the same communication challenges of the past primarily because these very same radios were in the fire chiefs' trunks and on the police chiefs' shelves (Hocevar & Thomas). This incident is just one example of the long-standing tension and mistrust between these two departments (R. Blatus, personal communication).

According to Stephen Covey with Rebecca Merrill, in the book *The Speed of Trust*, when a person distrusts people, he or she is suspicious of that person and his or her integrity, agenda, track record, and abilities (2006, p. 5). It is likely that in this case both the Police Chief (NYPD) and Fire Chief (FDNY) were operating in a "Distrust" zone of suspicion. Based on the premise that life is filled with risk and risk taking is a part of life. In the "Smart Trust Matrix," Covey claimed there is a combined factor of propensity to trust and analyze. In varying combinations, this matrix includes four zones of trust. Zone 1 is the blind trust of everyone and Zone 2 is the "Smart Trust" zone of judgment. In Zone 2, the right combination of analysis and propensity to trust allow for good business and people judgment. Conversely, Zone 3 is the no trust zone where people have low propensity and low analysis. Finally, Zone 4 is the distrust or suspicious zone (Covey & Merrill, 2006, pp. 278-291).

Firefighters and law enforcement leaders fit into the Zone 4 of the matrix. They extend trust very cautiously or not at all to people outside of their discipline. People in Zone 4 rely almost exclusively on analysis—mostly their own—for evaluation, decision making, and execution (Covery & Merrill, 2006, pp. 278-291). Unchecked by the authorizing power, this long-standing lack of trust between NYPD and FDNY has festered and built-up through years of tension and resentment (R. Blatus, personal communication).

The lack of trust here is representative of the relationship between law enforcement and fire departments in other cities. Competing for grants, jockeying for favor from elected officials, and competing for staffing and equipment resources are just a few contributors. In addition to these outside influencers, the lack of trust is also cultural. Recruits graduate the training academy with a one-sided understanding of the friction between agencies.

Other not so obvious obstacles to collaboration include the lack of authorizing support, the lack of goal clarity, incompetence, distrust, and lack of active support from leadership. A case in point is currently playing out in two metro Atlanta area counties. In both cases, disputes between the sheriff, who is an elected official, and the police

chief, appointed by a commission chair, are being aired on local television. Accusations include obstructing justice, withholding vital information, and not allowing access to respective facilities.

These examples support the views of academic scholar Martin Linsky, a professor at the John F. Kennedy School of Government. According to Linsky, the origin of disputes or issues between agencies can almost always be traced back to the leadership and/or authorizing authority. Collaboration failed among emergency responders in the city of New York because it was not a priority among the powers that be. Likewise, the county commissioners' relationship and influence is currently affecting cooperation between law enforcement agencies in metro Atlanta. In both cases, had the authorizing authority taken a strong non-negotiable stance on the need to collaborate, clarified the city and/or county missions, and values, relationships may have improved between these organizations.

Unfortunately, with the exception of recent grant requirements, there have not been many attempts to resolve this issue. Perhaps the reason is the lack of importance placed on trust. Many view trust and even collaboration as minor "warm and fuzzy" issues. However, the author agrees with Stephen M. Covey; trust is not a soft issue. According to him, when the level of trust is changed between two organizations, the quality and value of service delivery is dramatically improved. The author also agrees with Covey that trust can be created and improved. To improve trust in these cases, the authorizing authority, in addition to department leaders, will need to accept and understand that trust can be leveraged as a strategic advantage to improve collaboration and enhance homeland security prevention, preparedness, response, and recovery (Covery & Merrill, 2006, pp. 23-25).

1.   Bridges

According to Jansen, Hocevar, and Thomas, the same organization design components—purpose and strategy, structure, lateral mechanisms, incentives, and people—could be either bridges or barriers to building partnerships (2004). Success is the outcome when the following elements are realized:

- Acknowledge interdependency

- Share goals

- Sufficient authority and leadership support

- Commitment

- Effective communication and information sharing

- Trust and appreciation

Trust and collaboration are critical component of leadership. To extend trust a leader must have strong characteristics such as integrity, intent, capabilities, and the ability to produce results. Collaboration, which is built on trust, empowers people, leverages leadership, creates a high trust culture, and maximizes the ability to accomplish results (Covery & Merrill, 2006, pp. 23-25). In this case, the end result would be a strategic plan for fire service in homeland security.

According to Mark Gerzon in the book, *Leading through Conflict: How Successful Leader Transform Differences into Opportunities*, when one brings the right people together in constructive ways and give them reliable information, they will create authentic visions and strategies for addressing the shared concern. He quoted David Chrislip who described this successful fusion of people as the collaborative principle (2006, p. 50). What should successful collaboration or the collaborative principle in a non-emergency homeland security effort look like?

The 2004 Group of Eight (G-8) Summit involved the successful, coordinated, and focused effort of 11,000 public safety officials from 136 agencies and the states of Georgia, South Carolina, Louisiana, and Florida. Planning, preparation, and prevention efforts were organized one year in advance by a Public Safety Command (PSC) steering committee appointed by the governor of Georgia. Committee members consisted of executive level members of Secret Service, Georgia Office of Homeland Security, Georgia Emergency Management Agency (GEMA), Georgia Bureau of Investigations (GBI), Georgia State Patrol (GPS), Joint Terrorism Task Force (JTTF), and the FBI. This committee successfully created and supported a collaborative structure consisting of 26 sub-committees comprised of stake holders from state, federal, and local public safety agencies.

According to John M. Bryson in *Strategic Planning for Pubic and Nonprofit Organizations,* when trying to link different processes and functions of a large organization, an effective solution is to appoint heads of all the major players (Bryson, 2004, p. 58). Key decision makers get the information first hand, and in the case of the PSC steering committee, appoint sub-committees. The PSC, acting as facilitators to the sub-committee, empower them with the appropriate responsibility and authority.

Through a series of monthly and bi-monthly meetings, work sessions, and memorandums of understanding; teams, committees, liaisons, and task forces were created forming what Jansen, Hocevar, and Thomas describe as a formalized collaborative structure (2004). This successful collaborative initiative allowed all committees to make faster internal decisions, reduce cost through shared resources, and develop teams that are more productive. Two key factors contributed to the success of this collaborative effort: an Executive Order issued by the governor and coordination of operational planning (D. Burns, personal communication, May 22, 2007).

2.   Governor Executive Order

The governor issued an executive order establishing a Public Safety Command (PSC) consisting of the Georgia Office of Homeland Security, GBI, GSP, DHR-PH, GEMA, and GANG. His directive served as an external incentive for these five lead state agencies to coordinate and collaborate with one another and all outside agencies. As a result, conflicting protocols, missions, plans, and procedures were quickly revised and implemented. Joint procedures and memorandums of understandings were established to address preparedness and prevention. The effects of the order also eliminated structural barriers such as procedures, chain of command, and territorial conflicts. Accordingly, the PSC and/or its sub-committees had the authority to dispatch any agent, officer, or responder anywhere in the state.

While members of the PSC still had to establish ground rules and build trust and respect, an executive order from the governor directing state agencies to work as a team was a key factor to the success of this collaborative network effort (D. Burns, personal communication, May 22, 2007).

In contrast to the governor and his executive order, and the current National Security System, there is no mechanism in place that would allow the president to force implementations of the president's decisions (Locher, 2008). In the case of the Department of Defense (DoD), it took an act of congress to make the military collaborate.

3. Coordination of Operational Planning Efforts

Another critical factor to the success of the G-8 was the fact that coordination and planning efforts started a year in advance. The PCS met on a monthly basis to assess progress and to make sure that systems and processes were supportive of the sub-committees. For instance, in the case of first responders, many of the smaller departments did not have written mutual aid agreements or language in their City Charter to provide such arrangements. Without this approval, they would not have been able to participate in the event. There also was a need to obtain approval to dispatch fire equipment 150 plus miles outside of their respective cites. Seeking this type of authority in the form of a resolution or ordinance change could take three to six months. However, since these issues were identified early in the process, and since the requests were supported by the PCS and sub-committees, local elected officials were persuaded to act quickly (D. Burns, personal communication, May 22, 2007).

4. Pros and Cons

According to some, collaboration is on the rise in cooperate, military, and government organizations. It has been found to reduce litigation, decrease costs, increase innovation, significantly reduce cycle time, allow cross sharing of best practices, and save millions of dollars. In the case of homeland security, benefits to collaborative relationships also include an increase in situation awareness and prevention of terrorist acts, which directly impact injuries, property damage, and the loss of lives. Moreover, when facing unconventional threats and major disasters, whether in the preparatory or response phrase, tasks interdependency as well as innovative and improvising decision making are critical goals that can only be accomplished by collaboration (Jansen, Hocevar, & Thomas, 2004).

On the other hand, collaboration can be stagnated based on the approach to building partnerships. Contrary to the views of Jansen, Hocevar, and Thomas, Jeff Weiss and Jonathan Hughes, published in the in the *Harvard Business Review*, stated the quest for harmony and common goals can actually obstruct teamwork (2005). If there is conflict between organizations, collaboration will not be successful until this issue is addressed. Organization silos will continue to be a problem. Therefore, leaders should first develop strategies for managing and resolving conflict (Weiss & Hughes, 2005).

Although Weiss and Hughes's article spoke to internal cooperation, based on the author's experience, these same disadvantages apply to multi-agency group efforts (2005). The wrong approach to collaboration can create a "group think" environment During a meeting with city and county managers, fire, and law enforcement leaders of South Fulton County, the attendees were so determined to be cooperative that they failed to address fundamental issues that interfered with information sharing and emergency scene safety.

5. Impact

Forming effective partnerships will likely strengthen preparedness and prevention efforts, improve situation awareness, increase capabilities, and allow for seamless operations.

6. Possible Political Fallout

As was demonstrated in the G-8 Summit, building effective collaborative capacities requires political endorsement and participation from the top. Depending on the political climate and the desired outcome there could be resistance from elected officials within and across local, state, and federal boundaries. In metro Atlanta, unlike other areas in this country where consolidation is taking place, after years of lobbying and heated debates, portions of Fulton County have separated to form independent cities. Financial resources in the county have been greatly impacted. This heated climate could interfere with attempts to join forces and share resources.

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7.   Recommendations

The G-8 Summit was a well-planned, very successful event that can be used as a model to develop an effective strategy to improve relationships and build collaborative capacity. The strategy should include the following elements:

- **People** – Include all stakeholders. Determine ground rules and procedures for managing and resolving conflicts. Disharmony in the preparedness phrase has its advantages. Be willing to agree to disagree. Respect and value differing opinions and skills and abilities of other members.

- **Purpose** – Teams should have good knowledge of the core purpose, principals, mission and goals. Additionally, members should understand and respect individual organizational missions, try to understand how they fit into organizational missions, and improve collaborative efforts to reach the desired outcome.

- **Authorizing Power** – Elected officials on federal, state, and local levels will need to express a formal show of support for the collaborative effort. In turn, executive homeland security leaders should follow-up with over-arching policies, procedures, and memorandums of understanding. Leaders should establish and support roles and responsibilities of all parties, as well as directives and orders from grant awards to collaborative initiatives meet the mission.

- **Social capital** – Encourage interpersonal, interactive networks by organizing tiers of authority to share information and build trust, i.e.: top tier of elected officials meet quarterly, executives emergency response leaders meet monthly, and managers meet bi-monthly.

- **Incentives** – Make collaboration between elected officials and first response agencies a prerequisite for funding and resources, discouraging competitive behaviors, and acknowledging contributions from all parties.

III.   METHODOLOGY

To determine the role of the fire service and identify emerging issues shaping its contribution to homeland security in the next five to ten years the author completed a series of informal interviews, structured and open-ended questions, and surveys of subject matter experts (SME) to generate ideas using the Delphi method.

To develop a framework from which to draft the first round of questions for the Delphi members (DM), literature on emerging homeland security issues, leadership, intelligence collection, and national strategies and policies were reviewed. In addition to using this information, the author used qualitative research by building questions from ground up. Two separate groups of fire service leaders were interviewed including four fire chiefs (FC) and five current members of the NPS cohorts 701 and 702 (Cohorts). The FC members, identified confidentially as FC-A through D, were chosen because of their active involvement with the International Association of Fire Chiefs (IAFC), community, and response discipline (see Appendix A, B, and C).

Both groups were asked to discuss current, emerging, and future issues in homeland security specifically on leadership, collaboration, and intelligence opportunities as well as the fire service role in the National Strategies for Homeland Security. Feedback from both the FC and the Cohort groups provided the information needed to create a framework of three key categories from which a set of eight questions were developed to survey the Delphi members (DM). The first round of responses from Delphi members were analyzed and synthesized. They revealed four topics as key issues to future homeland security needs.   These three of the essential topics were further developed into a second round of twelve questions. Responses to these questions are followed by conclusions and recommendations based on feedback from the DM and the other two participants.

The author used open coding to develop a set of emerging concepts relating to future homeland security issues in the fire service. Based on quotes taken from the FC interview transcripts, first order codes that were grounded in the language of the

interviewees were generated. From these first order codes, the author generated second order codes or concepts (conscripts). Appendix D illustrates the open coding process in the Fire Chief (FC) interviews. Phase One responses from the DM were examined and arranged in like manner. First order and second order codes are reflected in Appendix E. These responses generated additional interesting ideas captured in the second round of DM questions. First order and second order coding for Phase Two of the DM is reflected in Appendix F.

A.   PHASE ONE – ANALYSIS OF DATA

1.   Fire Chief Group (FC)

In discussions about the role of the fire service in homeland security, core mission, traditional mission, critical mission, and new mission were terms used by all four chiefs to define where the fire department fit in the homeland security/all hazard matrix. One chief (FC-A) stated that the original mission, in its simplest terms, says it all. He explained that fire service leaders should expand the mission to include all hazard mitigation only for the benefit of the stakeholders. Otherwise, he believes homeland security is merely an extension of the original mission. While three FCs claimed the fire service should focus on strategies to address any major disaster, regardless of whether it is intentional, accidental, or an act of nature, responses from two of these members (B and D) indicate their belief that the mission has changed. One of these chiefs (FC-B) had an interesting comment; he felt fire service leaders should consider the organization a homeland security agency that occasionally goes to fires as opposed to a fire rescue department that occasionally respond to homeland security incidents. Still another fire chief (FC-D) expressed the need to create and fund homeland security positions in fusion centers, and to develop a Homeland Security Oversight Committee. Even though three chiefs expressed the need for all hazard, some of their responses also indicated that they recognized the need for a specific homeland security focus.

Other indications of change to the traditional mission of the fire department appeared in three of the fire chief's (FC-B, C, D) recommendations to engage in intelligence information sharing; expand the fire service role to include prevention,

collection, and detection; and the need to provide homeland security and intelligence training. These three chiefs also had similar recommendations on how to prepare for an expanded role in homeland security: train/cross train, plan mock terrorist and mass casualty drills, develop subject matter experts, provide proper CBRNE equipment, and network with other agencies.

All participants expressed concerns about the need to build collaboration, relationships, and partnerships. All agreed that the lack of effective collaboration has a major impact on homeland security. One member stated that as a culture, the fire service isolates from other agencies, including elected officials. He theorized that if members connect with the people who pay them then members would receive recognition. His was an interesting comment on isolations that might offer some insight into why the fire service is often not included in homeland security initiatives. This same member (FC-B) declared that the fire service's greatest challenge to collaboration and integration is its closed culture, a culture of self-reliance. He supposed that members are afraid of rejection and loss of hero status. He said that in order to have a relationship, one must be vulnerable. It would be interesting to see this theory further developed. Another comment about collaboration came from a different chief who declared relationship barriers do not exist on the leadership level but among the rank and file members of fire and law enforcement. This comment is disputed in the literature review, in the Leadership/Collaboration Chapter, and it was unsubstantiated by other participants in the process.

Additional issues articulated by three fire chiefs included: (1) concerns about the fire service's lack of inclusion in homeland security, and (2) the need to interface and learn from international counterparts in Israel, France, and the United Kingdom (UK). Citizens and homeland security leaders in these countries have had decades of experience in preparedness, prevention, response, and recovery of terrorist attacks. As one chief observed, it is a lifestyle for them, and Americans could learn a lot, from not only the leaders, but the citizens as well. This observation rang true for other members, including members of the Cohort and DM groups.

Involvement in all aspects of homeland security in essence would be a life style change for fire fighters. As FC-D described, the fire service should play an active role in transportation and border security, domestic counterterrorism, protecting critical infrastructure as well as emergency preparedness and response. The key is involvement and FC-D thought the fire department could be grouped in all of the pillars of homeland security. He acknowledged that to make these shifts in service a change in the mind set of firefighters and leaders in the industry would be required.

The need for standardized training and/or education among career and volunteer firefighters, in some form or another, was mentioned by two FC members. It was considered a top priority with one fire chief, and another felt that cross certifications among law enforcement and fire members would increase situation awareness and encourage collaboration. One chief (FC-A) expressed that the IAFC's National Mutual Aid System has federalized the fire department by virtue of its plan to connect intrastate and interstate mutual aid. However, concerns expressed about standardized training and federal mandates indicate that other participants either have no knowledge of this or did not view national mutual aid as a system that could work on a federal level. For instance, two FC members, all five Cohorts, and members of the Delphi group felt firefighters were not trained in a consistent manner. This being the case, while departments across state lines may respond to an incident, performance and capabilities are likely to be ineffective because of the lack of standardized training. Two fire chiefs expressed concerns about firefighter safety and one of these voiced concerns for the need to secure apparatuses and equipment. Currently, fire trucks do not have lockable ignitions, or even in most cases, lockable doors.   Anyone can gain access to the truck and start it up by turning the master switch and pushing the ignition button.

2.   Fire Chief (FC) Analysis

Members of the fire chief group were conflicted in their view of whether the industry is working within the existing mission or if the mission has changed since the terrorist attacks of 9/11. They all agreed that if the fire department focused on all hazard response mitigation then terrorist attacks and homeland security would be included. The premise is if first responders are prepared for all hazards they will be able to effectively

mitigate disastrous incidents that are accidental, acts of nature, or intentional acts of terrorism. However, this somewhat conflicts with the belief some expressed about the need to budget and staff a homeland security section, committee, or representative. FC members agreed there is a definite need to be included in the national strategies whether represented by the IAFC or the National Fire Administration. There was also a consensus on providing training and preparing firefighters to engage in prevention, intelligence collection, and information sharing. Recognizing the need to staff a homeland security representative, to engage in training, and to have a presence in national strategies are indications that the mission is more than all hazards.

The most passionate responses were expressed about the culture, tradition, and mindset of the fire service. They all agreed that conventional practices prevent progress and hinder homeland security. However, none of the four participants mentioned the role leadership plays in the problem and/or solution. Yet, unquestionably, leadership must play a role in mission shifts and change management. Finding ways to maneuver through these barriers will result in positive, proficient, and collaborative partnerships.

3.   Cohorts 701 and 702

In a separate setting, at the Naval Postgraduate School, the author met informally with five members of the fire department currently enrolled in Cohorts 701 and 702 (Cohorts). Attendees were asked to share their views on the fire department's future role in homeland security. Several points were discussed. Contrary to the concerns of the FC group, where only one member mentioned funding, all five cohort participants emphasized the lack of adequate staffing and funding as a current and future issues impacting homeland security. Perhaps the four fire chiefs were accustomed to navigating solutions with limited resources. In any case, funding and lack of resources have been issues in the fire service for at least the past twenty-eight years and will continue to be a habitual concern in the future.[1] Moreover, in the public safety network the lack of funding must not dictate strategic planning to meet future expectations. As one member of the FC group (FC-D) stated, "…we must budget accordingly…government grants will

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[1] This is based on author's 28 years of experience in the fire service.

not subsidize this function indefinitely." While funding and resource issues are extremely important, they are not considered extraordinary or specific to future homeland security concerns in the fire service. Therefore, they will not be addressed in this thesis.

In the process of analyzing this data, the author's department was reduced by 48 percent, which resulted in the closure of two of five fire stations and the layoff of forty-eight firefighters. In response to this massive budget cut, a member from the fire chief group (FC-A) declared that fire members must not rush to help a department that has been cut to this degree, lest they experience the same. He went on to point out that the fire service has a tradition of "making do" and delivering quality service with very little resources. He felt this issue could grow to become a serious threat to all hazard and homeland security capabilities. His comments prompted the author to reexamine all remarks. A second and third review of both FC-4 and Cohorts' comments revealed that lack of funding was a considerable concern for all Cohorts but only slightly touched upon by one of the FCs. However, increased financial deficits, diminishing public safety budgets, and the growing threat of public safety layoffs could become capability issues; this, supported DM-1's suggestion to shift focus to a strategy designed to leverage the community and private businesses.

In addition to voicing budgetary concerns, all five members of the Cohort group were concerned about the fire service's lack of inclusion in homeland security strategies and the need to make standardized training and national standards funded mandates instead of suggestions. Four of the five advocated that national standardized homeland security detection, prevention, and preparedness training should be provided and required for firefighters. Not all agreed on the role firefighters should assume once this training is complete. All affirmed that barriers to collaboration, interoperability, and information sharing does and will continue to negatively impact homeland security.

Analysis of responses from both the FC and Cohorts groups revealed four prevailing themes that stood out and generated more discussion than others:

- Lack of inclusion in national strategies
- Expanding the role of the fire service to include collection and sharing of intelligence information

- Need for progressive leadership
- Improved collaboration

The lack of inclusion in national strategies and in state, regional, and federal planning was a major concern in both the FC and Cohorts groups. Three of the five Cohorts members declared that the fire service must expand its role to include the prevention and detection of terrorist activities or risk losing its tenuous position in homeland security.

One member had not decided whether to support or oppose involving firefighters in this manner. This Cohort's main concern was protecting the rights of citizens in need of help from the fire service. This member could only support the idea of using firefighters as collectors if strong guidelines and standard operating procedures were in place first with a system to monitor for abuse. Amazingly, there were few others to voice concerns about privacy rights and the loss of trust. Another Cohort member vehemently objected to the prospect of using firefighters in this capacity. This participant thought the focus should be on improving response and recovery instead of participating in any of the other pillars of homeland security. All but one member of the FC group articulated the need to expand homeland security duties in the fire department.

Another issue that surfaced was the need for progressive leadership. All Cohorts members believed there is a lack of understanding of national homeland security strategies among some fire service leaders. They also agreed barriers to collaboration and interoperability are exacerbated by leaders across all first responder disciplines. They acknowledged that these issues are not likely to be resolved without directions from across agency leadership. Responses from the Cohorts group in this category were interesting because although each of the FC members also expressed concerns about collaboration, interoperability, and communication, none of them viewed these as leadership induced or exacerbated. It would be interesting to see a researcher explore how fire chiefs view their roles in collaboration, integration and leadership. Although none of the FC members expressed concerns about leadership, the Cohort group and the author believes leadership applies to every aspect of concerns expressed, and therefore it has been included as a topic in the Delphi study.

4. Cohort Group Analysis

The need for progressive leadership generated a greater degree of consensus and resonated more passionately with the Cohorts group than that of the FC. Members claimed that the lack of effective leadership across disciplines prevents collaboration among first responders. All members of the Cohorts group believe the fire service should be included in national strategies, as well as state, regional, and federal level fusion centers. However, the Cohorts also said there is a lack of understanding concerning national homeland security strategies among some fire service leaders. The inference is that this lack of understanding among leaders could be hindering effective collaboration and preventing the fire service inclusion in national homeland security strategies. This interpretation is likely influenced by Cohorts members' exposure to educational programs designed to stimulate strategic thinking.

Standardized mandated training was recognized across the board as being an emerging issue as well as a current problem. Like the FC group, the Cohorts recognized that resources for all hazard mitigation will depend on members from varied departments, agencies, and jurisdictions. This means that different fire departments will be required to work together. To make a seamless operation, joint training, and cross training is needed. There were conflicts concerning whether the fire service role should be expanded or current response capabilities enhanced. Concern for privacy was not a major issue for four of the five respondents.

5. Delphi Members (DM 1-6)

Feedback from both the FC and the Cohorts groups provided the information needed to create a framework of three key categories that referenced the future role of the fire service in homeland security strategies. Open-ended questions were created and grouped using the following categories:

- Emerging issues facing the fire service
- Leadership/collaboration/partnership challenges
- Expand fire service current role in the National Strategy for Homeland Security (NSHS)

A total of eight open ended questions were developed from this broad outline of three topics. They were sent to a new group of six fire service leaders, referred to as Delphi Members (DM). DM group members were selected from a list of Naval Postgraduate School alumni members with fire service backgrounds and because of their experience and familiarity with homeland security strategies. Each member is a graduate of the Center for Homeland Defense and Security's Master's Degree Program.

6. Emerging Issues

The DM group was asked to identify emerging issues that are shaping future homeland security efforts in the fire service. Mirroring the FC group, they expressed concerns about the lack of clarity in the role and mission of the fire service and all hazards verses homeland security. They also identified the following as emerging concerns: lack of inclusion in national strategies, reductions in funds, budgetary constraints, having to compete for funds, apathy for the homeland security mission, lack of effective collaboration, the need for progressive leadership, reactive verses proactive service delivery, education and training, engaging the community, response capability, the need for information sharing, the need for planning, and a focus on intelligence collection. These issues are parallel to the ones raised by the FC and Cohorts groups.

Just as was mentioned with previous group members, lack of funds and budgetary constraints were listed as key issues among some Delphi participants. DM-3 declared that local government, initially blinded by available grant funds, has focused solely on the purchase of equipment to support response and recovery and will not be able to fund long-term maintenance of those items. Moreover, prevention, deterrence, and preparation are becoming lost in the shadows of increasing response capabilities. Indications here suggest that supporting homeland security and national strategies were perceived as secondary to concerns of response and equipment. DM-1 predicted that absent another attack apathy for the homeland security mission would result in dramatic reductions in funds. DM-2 deemed competition for grant funds and tax levy budgetary funds will get tighter in the near future. He suggested the fire service increase its grant writing skills or hire outside professionals. However, an increasing need to compete for grant funds could create additional barriers to collaboration and trust among first response agencies.

Considering this and the recommendations concerning the need to fund specific homeland security staff and training made by several members from each group, the need to overcome or manage within budgetary constraints becomes an evermore pressing matter.

The lack of inclusion of the fire service as partners in national strategies for homeland security was another issue that was almost unanimous among all three groups. In addition to response and recovery, all members of the Cohorts and Delphi groups and three members of the FC group, argued that the fire department should be included in preparedness, prevention, detection, and information sharing initiatives. However, they did not all agree on how this should happen or who should make it happen.

Some Delphi Members strongly suggested the solution lies outside of the fire department. DM-2 stated the hierarchy fire service and jurisdictional administrators must decide how extensively they will allow fire departments to participate in homeland security. Others argued that the fire service vision is not clear, even almost seven years after 9/11, and implied this may be the reason for being the exclusion of the fire service.. DM-3's observation may offer some insight as to why the vision is unclear. She suggested that local fire service leaders will need to gain a clear understanding of the critical missions defined by the federal government. This is a very interesting comment that raised several questions: If local fire service leaders do not have a clear understanding of national homeland security strategies, would including the fire service as partners in all of the pillars of the mission make any difference? What will it take and who shall be responsible, for reaching, teaching, and convincing these local leaders of the importance of their involvement in the national strategies?

This brought up the issue of mission again and whether leaders believe that it has changed or remains the same. There were some conflicts in the discussion of whether the mission has changed or if the fire service's role in homeland security an adaptation of the original mission. FC-A claimed the mission is essentially the same and was supported by DM-6, who maintained that engaging in prevention or intelligence activities would be an adaptation of the current mission as opposed to an expansion of the fire service role. He pointed out that adaptation is not expansion. He explained that the fire department has

already expanded their role to include emergency medical, fire prevention, heavy rescue, and hazardous material mitigation. The fire service already has significant role in homeland security, which they need to continue to fill while adapting to demands of terrorist threats. His assessment was on the mark in the sense that adaptation is a constantly evolving and unlimited process that is defined by current and future circumstances or demands. This is certainly a posture that would allow the fire service to adjust to current and future trends and threats. At any rate, the issue of whether the future role of the fire service involves an adaptation of current service delivery or an expansion that would include prevention and detection of terrorist acts can be summed up in this quote by FC-B from the fire chief group, "Fire suppression is not a growing industry."

Uncertainty and lack of mission clarity or understanding could impact homeland security efforts. Once again, it could also cause the fire service to be left out of homeland security strategies. For instance, if a leader believes the mission to be the same then that leader may not see a need to become educated on national homeland security missions. The need for local fire service agencies to have a clear understanding of critical mission as defined by the national strategies is an emerging issue that is also connected to the need to include the fire service in these strategies.

Another matter that may be contributing to lack of inclusion of the fire service in national strategies could be, as DM-1 suggested, the fact that the industry does not have a single voice or organization that represents the American fire service as a whole. There are 30,000 fire departments that are similar to one another in some ways but are vastly different in service delivery. DM-1 considered this a fundamental impediment to building effective relationships.

Response and recovery concerns expressed by the DMs and other participants included preparedness, adequate training, adequate resources to respond to improvised explosive devices (IEDs), the need for adequate staffing, the ability to evacuate large cities, terrorism, and the need to leverage citizens and businesses in the community.

7.   Expanding Role

DMs were asked to discuss if the fire industry should expand its current role in homeland security to support the other pillars of homeland security including prevention, and protection as well as response and recovery. An overwhelming majority of DM participants, as well as other participants, agreed the fire service should include prevention in their homeland security efforts. However, not all agreed on how this should be done. Responses included the need to collect intelligence information while on routine inspections and responses; to assume an intelligence role and be represented in fusion centers; to be fully integrated into the intelligence cycle but take no part in collection or receiving of intelligence information; and for the intelligence community to share information with the fire service. These varying views on the fire service role in prevention support the idea of adaptation, which allows for fluid changes.

One DM argued that the fire service would fail in its mission to provide public safety if it does not shift focus from tactical planning to a strategy designed to leverage the community and engage in intelligence. He said this would allow the fire industry to maximize its efficiency and effectiveness. In view of increasing financial constraints, and overwhelmed response capabilities, leveraging the community and businesses is a key strategy.

Another member (DM-4) supported the idea of involving firefighters in prevention through intelligence collection. He expressed the need to become more proactive as opposed to reactive; he explained response and recovery by nature is reactive. Since firefighters have access to areas normally restricted to other agencies, engaging in collecting intelligence information would be proactive.

DM-2 agreed stating that the fire service will need to choose whether to retreat back into the firehouse and remain a reactive workforce or become proactive and engaging. Proactive leaders will need to decide whether or how extensively they would like to take on the challenge of homeland security as it relates to community engagement, intelligence, protection, and prevention. DM-2 had the same views as DM-4. He advocated that fusion centers and intelligence roles are a natural avenue through which

mid-level managers in the fire service can contribute. In many states, fire and emergency medical disciplines are not included in fusion centers.

DM-5 held a similar opinion. He declared this expansion should include tapping into the ability to collect information, networking with other disciplines and fire departments across the country, and gaining more awareness of precursors of terrorism through intelligence. DM-3 paralleled this idea and went on to express the need to fuse law enforcement and intelligence professionals with fire personnel together on task forces and joint terrorism initiatives.

On the other hand, DM-1 asserted that the fire service should ever be tasked with terrorism prevention. Like Cohort 5, he maintained the fire service should focus on doing what it does- protection, response, recovery, and endurance- better. Both these participants called for the need to broaden response capacity by providing adequate training, equipment, personnel, protective equipment, and expanding capabilities. Specialized teams cannot always be relied upon. Therefore, the fire service must look to build capacity by training its own members. He pointed out that there are a number of special hazard courses available to the fire department. Leaders should adjust to the new threat environment by training, equipping, and allowing first responders to do more – that is with response, not collection. However, he thought that in order to maximize efficiency and effectiveness and to provide the greatest protection the fire service must recognize the advantage of participating in tactical, operational, and strategic intelligence and information sharing. While these are legitimate needs, other participants do not view them as mutually exclusive to intelligence, detection, or information sharing.

A third member, DM-6, declared the fire service should be expanded. However, he agreed one of the issues facing the fire industry is deciding whether it should "fuse" with the intelligence service and decide what the requirements for the fire service should be just as law enforcement has decided. He was convinced that the fire service should be fully integrated into the intelligence cycle.

8. Leadership

Delphi Members were asked to identify strategies that fire service leaders could develop to manage leadership, organizational, and collaboration challenges to future homeland security needs. In every category, emerging issues, expanding the role of fire service, and barriers to collaboration, members in the DM group recognized that fire service leaders must take the helm: Leaders must demand a seat at the homeland security and intelligence table (DM-6). DM-1 articulated that leaders should lobby (as opposed to demand) national legislators to be included in public policy documents and strategies. In order to do so they will need to gain a clear understanding of the critical missions identified in national strategies (DM-3). They must clearly communicate their agency's homeland security mission to all levels of personnel. They must be willing to take risks and embrace new concepts. DM-1 suggested that on a federal level the fire service will need to find a way to coalesce around a common vision of what role the fire service wishes to take in homeland security.

Other responses were also consistent in recommendations for the need to address collaboration and cultural barriers, education, training; and the need to develop members in lower ranks in order to prepare them for promotions and to include them in decision processes. DM members also identified the following strategies for leaders to develop: the need to provide training for supervisors, empower middle managers, get outside of the fire department mindset, engage in strategic programs such as the one offered by NPS, and create a homeland security structure Strategic leadership, education, and collaboration were prevailing issues in their responses.

9. Strategic Leadership

Several members emphasized the need for leaders to sharpen and build strategic thinking skills for themselves and management staff. They expressed the need for the fire department to embrace homeland security needs from a strategic rather than tactical level. DM-5 explained that leaders could do this by getting outside of the fire mindset, forging into the world, and participating in educational programs like the one NPS offers and thus be introduced to other points of view. DM-1 went further and said leaders need

to begin working more at the macro-level and step outside of their own political boundaries. This need was also identified by FC-C and FC-D of the fire chiefs group. FC-C acknowledged the need to expose staff to forums discussing perspectives in homeland security on a national and international level. And FC-D recommends developing a Homeland Security Oversight Committee to evaluate key strategies and provide leadership training to management. DM-2 endorsed a program the FDNY has developed. The course offers training and educational modules designed to teach every level of supervisor decision making strategies. All of these suggestions described the need for adaptive change.

10. Education/Training

All of the participants considered the need for formal education, networking, and/or training within and across disciplines as an emerging issue. DM-2 recommended the development of internal training programs and the use of external opportunities offered by DHS and other federal and state agencies. His observation that supervisors should receive courses designed to move them away from tactical decision making to strategic thinking was a key point that is indirectly echoed by other members. DM-4 hesitantly concurred with this assessment. Starting out by saying "as much as I hate to admit this," he agreed that the fire service needs to re-direct training from response and recovery to proactive prevention strategies and become less reactive. Participants from all three groups viewed standardized training as a current issue that will increasingly become a challenge in the next five to ten years.

Recommendations for standardized training in homeland security prevention and preparedness as well as terrorist detection, awareness, and intelligence were not surprising. These were a constant across all participants' responses. Based on responses, it is apparent that the need to recognize terrorist threats, maximize effectiveness, improve planning skills, communications, and collaboration among and between a host of disciplines is becoming more and more important to national homeland security missions. For example, as part of the planning process, DM-2 stated the fire service must allocate and budget for necessary training for personnel in order to maintain capability in specific areas.

The need to decentralize the structure and leadership in career/paid fire departments surfaced as an interesting idea. Although only three DM specifically identified decentralization as a future need, several expressed the same concerns by using different descriptions. For example, some of the descriptions included the needs: for a bottom-up approach; to allow mid-managers more flexibility, to allow participation in homeland security based not on rank but knowledge, to think outside the box, to cross pollinate, to flatten the organization structure, and the need for leaders to get out of the way. One member also felt that there are too many managers and not enough leaders. This statement also inferred the need to change the current organizational structure as well as the leadership approach.

11. Collaboration

The lack of information sharing, once again is an issue of concern expressed by all participants. Although law enforcement and the fire service work together regularly, one member (DM-1) claimed cultural differences limit information sharing and true collaboration. By pointing out that this barrier is more prevalent in law enforcement he gave and interesting example. DM-1 explained that although there are claims that information cannot be shared, he has never found a legal basis for that claim- not in the privacy act of 1984, the Freedom of Information Act, Title 18 of the U.Ss Code, nor under Title 28 of the U.S. Code. It is an issue of law enforcement culture. This writer and other members have always assumed reluctance to share information with the fire department was governed by state or federal statutes. But as DM-6 later pointed out, if firefighters must be certified in order to receive intelligence information, how is it that policy makers qualify to receive this information?

On the other hand, FC-B observed that the closed culture of the fire department is also one of the biggest challenges. As the two primary agencies tasked with homeland security missions at the local level, both fire and law need to set aside traditional barriers and work cooperatively. He and several other members named tradition, culture, and the lack of collaboration as barriers preventing homeland security. The issue of cultural barriers inhibiting collaboration and thus homeland security is not likely to be resolved on its own. Some participants argued, and this author agrees, that breaking down these

barriers must be done at the chief's level and higher. Strong leadership from the city manager or mayor in conjunction with lead organizations such as the IACP, IAFC, and ICMA need to take up the issue of public safety agency information sharing and collaboration and move it center stage.   One again, what is most interesting is that the fire chiefs in the FC group did not mention leadership as a barrier to collaboration.

Not surprising is the fact that all six DMs advocated the need to leverage and build collaborative relationships with public/private and other first responders is imperative to meeting future homeland security needs. In both formal and informal queries, all NPS respondents expressed the need to address collaborative issues. Perhaps, as many participants have indicated, strategic educational programs such as the NPS program allow them a different perspective. Another interesting point was made by two members who listed private security, taxi drivers, and the metro rapid transit authority as agencies the fire service needs to partner with.   These three partners would join traditional first responders such as public utilities, public works, emergency medical, and public health agencies in preventive efforts.

After analyzing and synthesizing the first round of DM responses in like categories, four topics emerged as key patterns:

- Response capabilities
- Intelligence
- Leadership
- Collaboration

Concerns about the ability to respond and manage large scale emergencies are huge issues in all first responder disciplines. As such, of the four topics above response capabilities are not discussed because they warrant attention beyond the undertaking of this thesis.

In regards to intelligence, leadership, and collaboration, the opinions expressed on these subjects by DM participants in the first round of questions generated additional interesting ideas and considerations. For instance, could leadership in the fire service be hindering its role in homeland security; should the fire service participate in intelligence collection; and would cross training and assigning duties improve collaboration? Do

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these responses suggest significant systemic issues that could affect the future role of the fire service in homeland security? A second round of questions for the DM members was generated to find these and other answers.

B.   PHASE TWO – ANALYSIS OF DATA

In this second and final phase of the survey, twelve questions were developed based on the three key categories of intelligence, leadership, and collaboration. Issues and recommendation expressed in the first phase were used to formulate sub-questions designed to further identify essential concerns and to offer solutions, conclusions or recommendations to the effects these key categories will have on future homeland security efforts. Reactions and recommendations were quite similar. However, one of the questions was vague or misleading and therefore did not generate the responses sought. The question of whether the fire service should be decentralized was meant to discern whether centralized organizational structures in paid departments should be flattened. The author did not make this clear so some participants responded based on the assumption that the question referred to both paid and volunteer firefighters. For instance, DM-6 responded that with 30,000 fire departments and only a quarter were paid; the fire service is one of the most decentralized professions in the U.S. Nevertheless, these responses were fruitful.

1.   Intelligence

DM group members were asked the following questions associated with intelligence:

- If there is an intelligence role for the fire service what would it look like?
- If the fire service played a role in the collection of terrorist information, how would this affect the privacy rights of citizens?

a.   How Could Intelligence Information be Shared with the Fire Department? What Would Intelligence Look Like?

An intelligence role for the fire service should include the participation of a fire representative in joint task forces and fusion centers. In urban areas and others where there is a valid threat, DM-1 declared that at least one person from the fire service should be designated to the fusion center. This person would monitor the current threat environment, do analysis on trends, liaison with law enforcement, and collaborate with other fire departments.

DM-3 echoed this assessment in her belief that giving information on trends and tactics to first responders will improve response capabilities. She supported the idea of a member from the fire service having a seat at the table. DM-2 declared the fire service's primary role in the community would allow them to act as sensors and gather significant information while they respond, educate, inspect, and train the public. One member (DM-5) expressed the belief that the ability to discover suspicious activities and define changes in conditions would be the result of engaging the fire service in an intelligence role.

While DM-6 agreed that the fire service should be integrated into the intelligence cycle as sensors, and he made a valid point when he suggested the intelligence community needs to adapt their culture to allow these non-traditional participants. Since this will require proactive change from the intelligence community (IC), his statement illustrated the need for legislative authority to regulate the IC in information sharing and inclusion. Just as the fire department and law enforcement culture inhibit homeland security initiatives, so is the case with the intelligence community. DM-6 went on to say that although there is great value in firefighters as sensors forming networks distributed through out the nation, it is more important for firefighters to be considered homeland security leaders deserving to be served by the intelligence community.

All respondents agreed on the value of intelligence in the fire service in both receiving and dispensing information. Some pointed out that the value of intelligence on the receiving end is that it could be used to direct operational strategy,

drive the budget, staffing, planning, and training. Another member raised a most crucial point; receiving intelligence information in a timely manner would protect firefighters and improve safety.

b.   *Privacy Rights of Citizens?*

All Delphi Members and other participants agreed that access into the private homes of the public and inspections of business facilities offer the opportunity for firefighters to detect suspicious behaviors and precursors to terrorist acts. However, concerns for the invasion of privacy and the loss of trust are issues some suggested would manifest as a result of using these first responders as intelligence sensors. DM-1 asserted that using firefighters as collectors of intelligence information would conflict with privacy. He stated firefighters are bound by law to protect and safeguard sensitive information (HIPPA or SARA Title 3). They already have experience in managing confidential information through emergency medical service, fire suppression, and fire safety inspections. DM-2 agreed that firefighters could be used as collectors of information within the realms of the law. This information should be funneled through screeners and solid information passed to the IC.   But DM-2 failed to identify who would screen this information. This raises the issue of the IC becoming overwhelmed with too much information and inadequate means of analysis.

The need to be clear and offer precise definitions to words like terrorist information, collectors, and sensors was made apparent by responses from DM-5 and DM-3.   DM-5 pointed out that terrorist activities, privacy policies, and information should be transparent and clearly defined.   Other responses were distorted.   For example, although DM-3 was not convinced that firefighters should be used as collectors, she acknowledged they are in a unique position to collect information and they have an obligation to recognize and report criminal activity to the proper authority.   Her description matched the author's definition of intelligence collection. Even though she was not convinced, this portion of her response will be considered a positive endorsement with reservations.

Another Delphi Member (DM-6) responded that there are legal precedents and community standards to support firefighters as sensors, not collectors. He joined

DM-1 and DM-2 in the view of what is required by law. Knowledge of domestic violence and child abuse must be reported. Even in the strictest circumstances of confidentiality such as between attorney/client and doctor/patient have reasonable limits. Likewise, he affirmed that firefighters have an obligation to report this and other crimes or suspicions of criminal activity.

Unlike DMs 1 and 2, DM-3 expressed major concerns about compromising the public's privacy and trust. She argued the fire service would need strict enforcement of laws, rules, and standard operating procedures along with extensive training to become collectors of intelligence information. Her view was congruent to another Cohort. DM-1 did see a problem with the 4th Amendment rights if firefighters elected to search beyond what is readily available at the open site. This concern was echoed by DM-6 when he emphasized the point that firefighters do not *investigate* but *report* crimes that shock the community. DM-1 joined several others in recognizing the need to have clear, concise procedures and significant training.

c. *How Could Intelligence Information be Shared with the Fire Department?*

All agreed intelligence information should be shared with fire departments in a similar manner as it is shared with law enforcement (LA) - from the top down from leaders and commanders with adequate clearance. The discussion on clearance once again surfaced. As appropriately pointed out by DM -6, if there was a requirement to be a sworn law enforcement officer before receiving classified information, then policy makers and homeland security leaders outside of law enforcement would not be privy to intelligence. An interesting fact surfaced as a result of this. Several DMs pointed out that they could find no statutes or laws, including Title 18 and Title 28 of the U.S. Codes that precluded LA from sharing information with the fire department. This long believed justification, according to DM-1 and DM-6, has more to do with culture than law.

Although fire and law enforcement have different roles, DM-6 claimed the IC must accept its obligation to serve a greater community than just LA. He stated unclassified information should be shared with all fire service members and classified information only with those properly cleared and vetted command. DM-1 also stipulated

that individuals should be vetted. He described the need for a sophisticated interactive information network that is accessible to all public safety agencies nationwide. Individuals would be vetted for access with multi-tiered security clearances. This sounded like an effective way to distribute information. It could be used, as DM-5 recommended, to distribute threat alerts, sector specific reports (HITAC), and situational awareness. However, while DM-3 agreed that technology can be used as a means to share information, she made a valid point. The collectors of information, assuming they are from another discipline, may not understand that which is pertinent to the fire service. She joined other Delphi Members in her concern that the fire department should have a designated place in fusion centers, with the IC, and in homeland security planning.

2.   Leadership

Delphi members were asked the following questions to generate dialogue on leadership:

- What are the leadership issues around homeland security?
- What, if any, are the benefits to be gained by decentralizing the fire service?
- If the fire service was decentralized what would the chain of command look like?
- How could the fire service leverage private businesses to enhance homeland security capabilities (metro transit, cab companies, utility companies, etc.)?

a.   What are the Leadership Issues Around Homeland Security?

Leadership issues in homeland security are so vast that a number of books and theses could be written on the subject. With that being said, one Delphi Member asserted that a very significant issue is that leaders waste too much time on discussing who is in charge or at fault as opposed to building true homeland security capability. For many years, this was the case between the fire department and law enforcement; however, at least in the case of emergency response since 9/11 practice of the NIMS incident management system allowance for a unified command has made it easier to accomplish emergency tasks.   Unified command assures a representative from all

stakeholders a place at the command site.   In reference to leadership issues, DM-2 responded that leaders should ensure that all stakeholders are included in strategies and confirmed the need to use the unified command principle in non-emergency situations.

DM-3 stated that failure to understand the differences between leadership and management and education and training are barriers to homeland security. She made an interesting distinction in her definition of education and training.   Education, similar to what is provided at NPS, is the foundation upon which understanding the new threats associated with terrorism must reside. Training, on the other hand, is the actions agencies can take to prepare for and practice to respond to terrorist events. Proactive verses reactive and strategy verses operational have been distinctions made throughout this thesis by most participants as well as the author. Education verses training are another variation. So are transformational verses transactional leadership. The author and the Delphi Members strongly believe that both education and transformational leadership are key components to future homeland security needs across all disciplines.

DM-2 pointed out that it is up to fire service leadership to create a response paradigm that accepts the unique role of the fire department and is proactive in planning and collaborating with other disciplines in the prevention of and preparation for potential emergency events. His observation that fire service leaders must push their departments into multi-discipline activities, including assigning them to emergency operation centers and JTTFs to improve collaboration, was congruent with the views of other DMs. His suggestion of also assigning someone to the mayor's office is an interesting idea that might be an effective strategy to improve fire service inclusion in planning initiatives.

DM-1 observed that the biggest issue facing leadership is that the fire service is being pushed towards all hazard and all risks, which includes homeland security. All hazard preparedness speaks to the need for leaders to understand the environment in which they are now operating. Understanding the environment speaks to the need to increase education and strategic thinking. It also relates to the industry's understanding, or lack there of, of its mission and the homeland security mission. Another issue of concern for DM-1 was the shift in public expectation. As a result of

9/11, Hurricane Katrina, Columbine, and other recent disasters, communities realize they are at risk. This realization has made them more vocal and has sparked their desire to form effective partnerships. The problem here as DM-1 described it is that fire service *managers* view this opportunity as a threat to status quo. In this case, DM-1 inferred, and the author further suggests, leaders should use this opportunity to leverage the community to improve situation awareness, response capacity, and prevention efforts.

> **b.   *What, if any, are the Benefits to be Gained by Decentralizing the Fire Service, and if the Fire Service was Decentralized, What Would the Chain of Command Look Like?***

As mentioned earlier, these questions were vague and misleading and therefore did not generate the responses sought. The question of whether the fire service should be decentralized was meant to generate discussions on whether centralized organizational structures in paid departments inhibit homeland security efforts. It was meant to determine if empowerment, the sharing of ideas, and lateral collaboration across agencies could be improved as a result. In some cases, DM Members' responses were crafted under this assumption, and in other cases they referred to volunteer and paid departments.

For instance, three members responded to the questions as it relates to a paid department (FDNY). In reference to boroughs, divisions, and battalions, DM-5, supported decentralization if it meant empowering decision makers at lower levels. He also claimed decentralization would encourage the sharing of ideas in think tanks or other regional avenues that foster critical thinking. His position is supported by DM-3 who stated benefits to decentralization would promote cross training and educational initiatives, resulting in a greater understanding of terrorist related issues. She observed the sharing of fund allocations, equipment, and information would also improve as a result of decentralization.

This observation was echoed by DM-2 who in addition to the above, also feels decentralization could influence political policy, broaden fire officers' experiences, and make them think outside the box. Increasing political influence may result from assigning fire officers to other divisions as was mentioned earlier when DM-2 suggested

assigning someone to the mayor's office. According to him, decentralization should involve liaisons from various agencies, but not top management, assigned to multi-agency/jurisdictional offices meeting daily or as needed making appropriate decisions and briefing command regularly. However, DM-3 explained that decentralization should involve a Public Safety manager at the top to connect fire and law enforcement deputies. Most indicated that the emergency response structure should remain the same.

On the other hand, two members responded to the question based on both paid and volunteer departments. For example, one of the members (DM-6), believes there would be absolutely no benefit to decentralizing the fire department. He explained that with more than 30,000 fire departments and only a quarter of those being paid/career departments, the fire industry is already one of the most decentralized organizations in existence. In the case of volunteer departments, where fire protection comes from independent members of the community, it certainly is decentralized. Although the crew is not exactly leaderless, in many cases fire suppression depends on leaderless actions.

Another member expressed these same feelings (DM-1). With more than 30,000 providers, DM-1 articulated, it is nearly impossible to have one plan, one idea, and one voice. The fire services in the United Kingdom, Australia, and Israel are centralized, organized, and managed on a state or federal system. DM-1 suggested agencies benefit tremendously from this centralization, which is similar to the consolidation of services in the U.S. However, unlike in the U.S., they are represented by a single voice.

This lack of a single voice is an issue that has broad and far-reaching implications to future homeland security efforts. It is likely a major cause of the lack of inclusion of the fire service in homeland security strategic planning efforts. It is also connected to the concern many participants expressed about the need for standardized training, progressive leadership, familiarity with national homeland security strategies and barriers to collaboration. Most participants agreed that the fire department needs to have one single voice; the question is how to get there.

c. How Could the Fire Service Leverage Private Businesses to Enhance Homeland Security Capabilities (Metro Transit, Cab Companies, Utility Companies etc.)?

Whether dealing with prevention, preparedness, or response and recovery, the participation of private businesses could be leveraged to enhance homeland security efforts. Since 80 percent of U.S. infrastructure is privately owned, and since the ability of a city to recover from any disaster depends on how quickly businesses are restored, it is imperative to leverage this group. As a first responder agent, the fire service must strategically plan to augment its capacity to reach, train, and prepare business owners and members of the public for large scale disasters whether they are intentional, accidental, or acts of nature.

This question was meant to generate responses on ways to engage business owners in risk assessments, continuity of operations plans, evacuation planning, disaster planning, emergency response, mitigation, and recovery. Three of the Delphi Members responded in this manner. DM-1, who named the above examples, pointed out that there are substantial incentives to partnerships between the fire service and business owners. He stipulated that partnership should also be extended to other community stakeholders. DM-3 recommended that financial rewards such as reduced property taxes or regulatory fees be used to as incentives to encourage business owners to participate. She recommended the use of reciprocal training and equipment to foster commitment and information sharing. One of the members (DM-5) offered the Shield Program in New York City as a successful example of such a program. He considered pilot programs that promote understanding and development of mutual missions to be key actions needed to leveraging support.

However, some responders interpreted the question as be related to intelligence activities. As such, they could not endorse the idea of the fire service leveraging business owners or members of the public in this manner. One of these participants (DM-2) explained reporting intelligence information through this conduit should be handled by law enforcement, not fire department. The other member (DM-6) advised the fire service to tread very carefully in engaging private sector in intelligence. Although he agreed the fire service has a strong role in homeland security and

intelligence, he cautioned, "this is the responsibility of the IC and POSSIBLY law enforcement." He concluded with the reminder that the fire service gets irritated when law enforcement interferes in hazardous material mitigation (FDNY verses NYPD) or other fire related activities. According to him, interference in this manner would have much graver consequences than minor irritation.

Collaboration: Members were asked to respond to the following:

- How could fire service leaders be developed to prepare for new demands to the fire service mission?

- How could the fire service provide training designed to engage other disciplines?

- What are the barriers to collaboration between first responders?

- How could obstacles to interoperability be removed?

- If a program were established to cross train public safety employees, what would that program look like?

d. *How Could Fire Service Leaders be Developed to Prepare for New Demands to the Fire Service Mission?*

New demands to the fire service mission will most assuredly include the need to collaborate and build teams of first responders, elected officials, public and private interest, and the IC. Responses from other participants indicated that current fire service culture could hinder this achievement. This question was meant to solicit suggestions on ways to prepare leaders to meet these new demands. Key responses here were quite similar to those recommended in the leadership category.

Education was at the top of the list with four of the DM group members. Each of these members stressed once again the need to make programs such as the one at NPS or other federal programs available. One member responded that educational training should include homeland security and counter-terrorism along with best practices using Great Britain and other countries as frameworks.

Another member suggested leaders can be developed through mandatory promotional requirements to liaison and practice multi-agency decision making. DM-2,

who replied "education, education, and education, with a little training thrown in…" joined DM-4 in making the distinction between education and training.   And, although one member did not mention education, he emphasized the need for basic intelligence training.

An interesting response to developing leaders was expressed by DM-1 involved the relationship between the fire department and the community. He explained that since 9/11, Hurricane Katrina, Columbine, etc., the public has grown much more conscientious of their vulnerability. This has caused community leaders to seek effective partnerships with public safety agents. He declared that fire service leaders have fallen behind in keeping up with this demand. He called for adept leaders to exploit and leverage this opportunity in a positive manner.   He also pointed out once again the issue of tradition and an over-reliance on the mission of firefighting as issues that need to be addressed. The inference here was that these are barriers that will need to be abandoned in order to meet current and future demands.

e.   *How Could the Fire Service Provide Training Designed to Engage Other Disciplines?*

As one DM expressed, the process of creating a joint training program is easy; include representatives from each discipline in the development of the plan and identify mutual goals and outcomes. The implementation is another matter. Engaging other disciplines will be extremely difficult unless full endorsements from top leaders are clearly articulated. Three DM agreed that this is a leadership issue that should start at the top. One claimed this should take place on the local level but others inferred that it should be from a higher authority. They all agreed that first responder training such as ICS, NIMS, response to suicide bombers, etc. should be shared among several disciplines to enhance engagement and collaboration. These multi-agency courses should have buy-in from all parties. One suggested developing relationships, not just networks. DM-6, interpreted the question of training to engage other disciplines to be on the subject of intelligence, did not believe fire provide training designed to engage other disciplines in intelligence.

f. What are the Barriers to Collaboration Between First Responders?

Participants' responses to barriers to collaboration included tradition, culture, law, personality types, money, power, politics, lack of understanding, ego, funding, fear of losing power, culture and internal demands within disciplines. One member (DM-3) expounded that in addition to these, lack of education, training, and awareness to the value in collaboration are also barriers. In view of the consistent recommendations of the use of training and strategic educational courses to meet future demands, this makes sense. The value of collaboration presented from a strategic approach to a multi-discipline environment seems like an effective way to minimize barriers. Another member explains the ego creates a sense of loss of influence, territory, or mission. Once again, the U.K. Contingency Act is offered as a model to collaboration.

g. How Could Obstacles to Interoperability be Removed?

The definition of interoperability varied. Some members in the fire department used the terms interoperability and integration interchangeably. Others viewed interoperability as being able to talk to inter-governmental agencies and in some cases neighboring jurisdictions. However, there is no model that reflects how far beyond municipalities boundaries (local, county, region, state, interstate) operability should extend.

One member listed three issues that limit interoperability, governance and architecture; cost; and the issue of decentralization. There was no unified concept or prescription on how it is suppose to work. Cost was listed as an obstacle to interoperability by most of the participants. DM-1 explained that many jurisdictions already have millions of dollars committed to their current systems and some of this infrastructure is new. It is therefore, unlikely that these agencies will discard a new system for interoperability. In which case, he suggested, it would take a national directive and federal funds to make effective change. The third issue is the fact that there are 30,000 individual fire departments. He surmised that uniting them into agreement is not going to happen.

Governmental mandates, adequate funding, and development of technology are all major obstacles DM-3 saw to interoperability. Another member (DM-2) suggested obstacles to funding could be overcome by stressing the safety benefit to interoperability. His comment suggested safety could be used to influence funding from officials. On the other hand, the recommendation of using joint efforts, cross training, both top down and bottom up, implied DM-5 response leaned toward the integration and/or collaboration aspect of interoperability.

h. *If a Program were Established to Cross Train Public Safety Employees, What would that Program Look Like?*

As pointed out by one Delphi Member, there are vast differences in how public safety agencies function on local, state, regional, and national level. But if there was a program to train public safety employees, DM-1 said it should offer pre-event to post-event activities. Each discipline should receive training in intelligence, mitigation, preparedness, response, and recovery. They each must also have a basic understanding of the capabilities and limitations of each phase.

Another member (DM-1) was in agreement and elaborated further that a program would include the recognition and understanding of terrorist planning activities, trends, and strategies as well as information collection, intelligence sharing, and information technology awareness and updates, weapons of mass destruction (WMD), NIMS, critical infrastructure, and more. Although both members mentioned training, recommendations would that would accomplishing this level of understanding would be a win/win for all disciplines and most assuredly improve homeland security. However, according to DM-2, these training components already exist in the form of DART.

On the other hand, one member (DM-6) disagreed with the idea of cross training employees. He recommended that members should be taught how to work with other disciplines by training within their own discipline. He explained that he has extensive experience and knowledge with working with fully cross trained public safety departments where each employee has multiple certifications; he pointed out that such training is unsustainable. He stated employees would not achieve deep competency in

any discipline - similar to a jack-of-all-trades, master of none. However, he did point out that education is another story. Once again, the recommendation to provide educational programs similar to the NPS program was mentioned. Both DM-6 and DM-5 concurred that the program offered by NPS represents an effective solution. DM-5 suggested the NPS program at the local level would be a good mechanism to cross train multiple disciplines. DM-6 declared the NPS program represents the best example on a graduate level.

3. Delphi Members (DM) Summary

All members of the DM thought that there is an intelligence role for the fire service in homeland security. Respondents agreed on the value of intelligence, both in the receiving and dispensing of information. On the receiving end, several DMs expressed this information should drive administrative and operational planning and determine capabilities and training needs. Furthermore, it could improve safety and decrease firefighter injuries and death.

One of the roles of the fire service in the IC community should include a seat at the table - an active position in fusion centers and on task forces. Information could then be filtered from the fire representative in the center to determine what could be valuable to the fire discipline. This would address the valid concern expressed by DM-3. She was concerned that the IC or even law enforcement may not understand what is pertinent to the fire and rescue discipline. Some of the things this liaison in the fusion center could be responsible would include: collaborating with the IC, law enforcement, and other agencies; monitoring current trends and tactics; and analyzing information.

Another role might be that of a collector or sensor of intelligence information. All DM respondents agreed that since the fire department plays a primary role in the community, firefighters are ideally suited to act as sensors or collectors. As expressed by three DM members, the fire service could gather significant information through its emergency response, inspections, and public education programs. Firefighters could increase situational awareness and report suspicious circumstances and precursors to terrorist activities.

However, DM-6 conveyed it best when he reflected that although there is great value in firefighters supporting the IC, it is more important for firefighters to be considered homeland security leaders deserving to be served by the IC. He recognized that the IC would need to make adaptive changes and adjustments to its culture to become willing to establish a reciprocal relationship with a non-traditional partner. How this information would get shared would depend in large part on the ability to shift cultural differences. All members felt information should be shared with the fire department in the same manner it is with law enforcement. Some members argued that information should be sectioned and shared in a tiered format based on adequate clearances. However, as two DMs pointed out, there is no legal basis to determine clearance levels or to prevent IC or LA from sharing information with the fire discipline.

The invasion of privacy and loss of trust were concerns raised by two Delphi Members. They feared these consequences would result from firefighters acting as sensors. Citing HIPPA and SARA Title 3 other DMs asserted the fire service is accustomed to maintaining patient privacy. Additionally, they explained that in certain cases the fire service is already bound by law to report confidential information. At any rate, they all recognized the need for the establishment and adherence to policies and statutes to protect privacy rights.

Leadership issues around homeland security included the needs to: understand and be included in national strategies, adopt an adaptive mission to include all hazard and homeland security, for effective community preparedness, and to be proactive and inclusive in strategic planning and collaboration among and between disciplines. Other topics were explored to see if they hindered or enhanced homeland security on an organizational level or leadership level.

For instance, some members indicated a belief that the centralized nature of paid fire departments could inhibit new ideas, leadership development and collaboration. They pointed out benefits to decentralization would include empowering firefighters from the bottom up, encouraging participation in the decision making process, encouraging cross training and communication, promoting career development, and welcoming new ideas. Another leadership issue involved partnering with business

owners; this is a good strategy since they own 80 percent of the infrastructure. One member expressed that transformational leaders recognize and leverage communities and private business owners to enhance prevention, preparedness, response, and recovery efforts. Assistance with evacuation, emergency, and continuity of operation plans is an effective way of engaging and gaining support of business owners. Another member suggested tax and other financial incentives to private owners to encourage collaborative partnerships. As one member declared, fire service leaders must create a response paradigm that acknowledges the need to shift from reactive to proactive and from transactional to transformational leadership.

Training and education were offered as a means to create a response paradigm and bridge gaps between homeland security agents. Members acknowledged joint and cross training that identifies mutual goals and outcomes would enhance collaboration. From pre-event to post-event, the inference from most DMs was basic knowledge of each agent's responsibility would enhance leadership, collaboration, and subsequently homeland security. If such a program did exist, DMs were convinced that each discipline should be trained in intelligence, mitigation, response, recovery, preparedness, NIMS, WMD, critical infrastructure, terrorist awareness, trends, and strategies and more.

On the other hand, DM-6 has had extensive experience and knowledge with working with fully cross trained agents and he maintained that such training was unsustainable and ineffective. He reflected that NPS type educational programs offered on the local level would be a successful mechanism to achieve the same objective. The training subjects recommended above are included in the NPS program. However, this does not clearly indicate a contradiction to those views of the other Delphi Members listed above.

Citing programs like the NPS one, DM group members either directly or indirectly assigned great value to the need for education to promote strategic thinking, and for training to enhance collaboration and capabilities. All DMs associated these issues with leadership. Their responses reflected that they strongly believe both education and transformational leadership are key components to the future role of the

fire service in homeland security. Delphi Members also unanimously agreed that collaboration is essential to homeland security and leadership is essential to collaboration.

The ability and need to form collaborative partnerships with all stakeholders was vehemently repeated among each group of participants, but more particularly with the DM and Cohorts groups. They indicated ego, culture, tradition, lack of understanding national strategies, lack of training, lack of advanced education, and lack of endorsement and/or involvement from the top as some of the barriers to collaboration. Members in these two groups suggested the need for transformational leadership and education to develop strategies to remove barriers to collaboration. The message here clearly spells out the solution lies with collaboration. It has to come from the strong leadership of the authorizing authority.

IV. CONCLUSION/RECOMMENDATIONS

A. EMERGING ISSUES AND EXPANDING ROLES

Emerging issues and areas of responsibility to meet new asymmetrical threats require a response paradigm. This response paradigm in the fire department should include the ability to adjust service delivery to meet all hazard and homeland security demands. These adaptive changes ought to be ever-evolving. As one Delphi Member claimed, mission statements should have expiration dates. Perhaps not quite as severe as a shelf life, mission statements should be adjusted and defined to ensure strategies and goals are adopted based on current and future all risk and prevention needs. Therefore, the future role of the fire service in homeland security will demand the need for progressive leadership, effective collaboration, intelligence engagement, and a shifting mission that supports preparedness, prevention, response, and recovery of terrorist attacks.

1. Collaboration

Barriers to collaboration will inhibit future abilities to prevent, prepare, and respond to all hazards or acts of terrorism. No single public safety entity will have the resources necessary to meet challenges of this magnitude. Connecting law enforcement, emergency medical, fire departments, public works, community leaders, and the intelligence community – just to name a few – is vital. Although joint training efforts, policies, and memorandums of understanding have proven to be effective tools in some municipalities, in the case of homeland security the lack of collaboration is much too vital to be left entirely to local leaders. Improving collaboration among all homeland security stakeholders will require a concerted and assertive effort from authorizing authorities and leadership on all levels. In addition to endorsement from elected an appointed officials, cross training, and assigning members to other disciplines will improve collaborative efforts.

2. Education/Training

As one Delphi Member expressed, education, education, education. Education is the key to changing perspective and perspective changes worldview. Delphi and Cohorts group members readily identified needs and recommended strategic change, particularly as it relates to leadership, leadership development, and collaboration. On the other hand, the FC group offered solutions to address operational challenges and more importantly failed to associate barriers to collaboration as a leadership issue. The lack of transformational leadership is and will continue to present a major challenge to pre and post homeland security events.

Consequently, educational programs, such as is offered by NPS, designed to increase strategic thinking and unite teams and representatives from military, medical, public health, intelligence, public safety, and private industries are effective avenues to promoting a response paradigm. Therefore, encouraging firefighters, from top to bottom to seek educational opportunities is likely to reduce resistance to changes in tradition/culture and promote transformation.

Similarly, standardized and cross training among and between first responders, will improve response and prevention capabilities and the sharing of funds, equipment, and information. Furthermore, providing standardized training, promoting critical thinking, and creating a dialogue of continuous communication will improve leadership and collaboration.

3. Exclusion

The profoundly obvious lack of reference to the fire service in national strategy documents is and will continue to have adverse effects on homeland security efforts. Fire service leaders view this as a major issue. Exclusion from the NSHS affects mission clarity and contributes to lack of understanding U.S. missions and goals. It minimizes the role of the fire service, creates disharmony, hampers partnerships, and reduces terrorism prevention efforts. This exclusion is exacerbated by the patchwork leadership and organization make up of the fire service.

4. Leadership

Current fire service leadership is hindering homeland security. The lack of a single voice; strict chain of command, top-down transactional management styles, and a culture of reactive operational posture are also barriers to future homeland security efforts in the fire service. These systemic and organizational challenges should be modified to facilitate change, ensure inclusion in strategic planning, and improve service delivery. As expressed by FC-4, one of the most critical changes the fire service needs to make is one of mindset. The view of invincibility, brute force, independence, and rapid response must change. This change in mindset must be orchestrated by the progressive leadership of chief officers and should include both formal and informal leadership along with a proactive aggressive stance from top jurisdictional leadership.

These leaders will first need to recognize and convince their members of the vital need to adjust to the adaptive changes inherent in all hazard and homeland security prevention and response efforts. Second, they must identify and preserve those cultural or traditional characteristics that are positive forces in meeting today's demands. Third, they must be willing to modify organizational culture and traditions that prevent homeland security. Fourth, they must establish policies, practices, and guidelines, transformational in nature, to develop, educate, and empower members of all ranks. Finally, they must continue to monitor and educate themselves and the organization on national strategies, leadership, collaborative partnerships, and ways to engage members in multi-discipline activities, fusion centers, and planning efforts.

5. Intelligence

The fire service should absolutely be engaged in the receiving and delivery of intelligence information in order to support the pillars of homeland security strategies and meet current and future capability needs. The organization is in a unique position to assist the IC through increased situation awareness and the detection of precursors to terrorist activities while performing ordinary duties. Thus, firefighters trained by and accepted in the IC could easily become the eyes and ears needed to enhance

counterterrorism efforts. However, strict adherence to privacy laws as well as close monitoring of internal policies and procedures will be essential to ensure compliance.

Likewise, to increase safety the fire department must also have its intelligence needs met. Receiving valuable information in a timely manner could mean the difference between life and death for first responders. Sharing valuable intelligence information will minimize loss of life and injuries, improve response and recovery capabilities, and help to establish effective budgetary and strategic planning. Therefore, fire service leaders should demand and get their jurisdictional leaders to demand inclusion in homeland security planning, local, state, and regional fusion centers, and in intelligence requirements. However, expanding the role of the fire service to include the collection and detection of potential terrorist activities is just one of many ways to support national homeland security strategies and should not be viewed as the panacea to future homeland security fire service delivery.

B.   RECOMMENDATIONS

- **Develop a strategy to unite IAFC, IAFF, National Fire Academy, IABPFF, and other fire organizations/associations to form a single voice.** The fire service's contribution to homeland security is being impeded by exclusion and disharmony. Complex issues demand clarity and congruency. The patchwork of 30,000 fire services in the U.S., while qualified, need to be seamless in homeland security efforts. These stakeholders must establish a Homeland Security Oversight Committee (HSOC) team representative of all groups to ensure the fire service is represented in homeland security planning.

- **Lobby local, state, and federal legislatures to establish laws mandating collaboration and inclusion in homeland security strategies.** Have HSOC identify and make recommendations for revision of national strategies to reflect the adaptive role of the fire service. Push to make collaboration and inclusion legislative mandates. The United Kingdom Civil Contingency Act, created to apply the force of law to collaboration and information sharing, is a good example for U.S. legislatures to use as a model.

- **Adopt a mission addressing all hazards and adaptive changes.** Potentials for pandemics and catastrophic disasters are forcing the fire service to take an all hazard approach to preparedness, prevention, response, and recovery planning. This is an effective strategy. However,

next generation terrorism and increasing threats demand the inclusion of an adaptive approach as well. An all hazards and adaptive mission will allow for the use of imagination associated with the out of the box evolving and planning needed to meet future challenges, i.e., detection of precursors to terrorism.

- **Promote and reward strategic thinking through the use of planning and education.** Lobby federal authorities to extend programs such as the one at NPS to local and state levels. Make leadership, collaboration, and education grant criteria and incentives. Add education as a goal in strategic plans. Encourage all members to take advantage of current federal, national, and state homeland security educational opportunities.

- **Provide national standardized and multi-discipline training mandates.** Lobby legislatures to fund and mandate uniformed training to meet nationally recognized standards. Lobby IC and first responder leaders to establish cross agency training.

- **Create open dialogue among agency leaders.** Lobby mayors, commissioners, and city/county managers to adopt/mandate/endorse collaboration as a key strategy. Invite all stakeholders to participate in a process to develop strategies to facilitate collaboration, identify barriers, and resolve conflicts.

- **Transformation of fire service leaders.** Lobby ICMA, IAFC, IAFF, the National Fire Academy, and other fire service organizations to develop a strategy designed to influence and coach leaders to support and gain an understanding of the national strategies, mission shifts, strategic thinking, transformational leadership, etc.

- **Inclusion in intelligence.** Lobby legislators to create policy directing the IC to establish process to include the fire service in the intelligence cycle. Convene a meeting with members of IC and other stakeholders to determine the fire service role as a vital customer and as a vital partner in the intelligence collection and information sharing.

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APPENDIX A   FC INTERVIEWS

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"The fire and emergency services sector should be (through the U. S. Fire Administration) should play an active role the development of these efforts since we are the first responders to both." FC - B	Fire Administration as portal	**<u>Homeland Security Inclusion/exclusion</u>** <u>In</u> NSHS, the Fire Service is only mentioned once but is expected to be first to respond to nine of the fifteen National Planning Scenarios. Many fire service leaders feel this exclusion influence the lack of inclusion in intelligence and information sharing on a local, state and regional level.
"The original mission in its simplest term says it all. But for the benefit of stakeholders we need to explain our mission so that they will understand what it is that we do. All hazard mitigation." FC - A	All Hazard Mission	**<u>Role/Mission/All Hazard</u>** All Hazards describes the focus of preparedness and prevention strategies in response to any major disaster whether; accidental, man made caused by terrorists acts, or tornados and hurricanes caused by natural disasters.
"There needs to be a shift in the more traditional focus of fire and emergency services leadership to embrace the "all risk" nature of our industry, for not only the betterment of service to the public but for long term viability of the industry itself. Fire suppression is not a growth industry." FC - B	Embrace all risks	**<u>Role/Mission/All Hazard</u>**
"The rise of Fusion Centers across the nation clearly addresses the aspect of Intelligence and Warning. Cities and counties with fire agencies not yet involved must step up to the plate and take	Intelligence and warning through Fusion Centers	**<u>Expand Role through Prevention & Detection</u>** Fire service should support all of the pillars homeland security including: Prevention, Detection, Intelligence and Information Sharing

on this responsibility. It is our duty to do so." FC - D		
"Every act of terrorism we prevent, we also prevent our firefighters from being injured in these attacks." FC - B	Prevent terrorist acts	**Expand Role through Prevention & Detection**
"I don't think we have a choice, since we are located throughout municipalities. We don't need to get extraordinary on information or detection. One of the things about the fire service is we are used to filling in the gaps." FC - C	Information or detection – Fire Service fills in gaps	**Expand Role through Prevention & Detection**

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"Border and Transportation Security must also be addressed. Those fire departments bordering Mexico and Canada must educate, train and grant authority to act on suspicious actions encountered within their districts." FC - D	Educate and grant authority fire departments act on suspicious actions	**Prevention and Detection**
"Anytime something goes wrong so that we have to respond, we should be collecting as much information as possible." FC - B	Collecting information	**Prevention and Detection**
"Protecting Critical Infrastructure can easily be	On responses and routine business,	**Prevention and Detections**

achieved through educational awareness. Fire department personnel are constantly out in their districts on responses and routine business. Establishing training programs which identify potential terrorist target areas and anomalies to look for during the course of ones duties would greatly enhance local security." FC - D	protect critical infrastructure I.D. anomalies	
"...the only time detection and collection will impact the public trust as long as detection/collection is not our main goal. We are not primarily detectives, but firefighters who should be collecting information anyway." FC - B	Detection/Collection impact on Public Trust	**Prevention and Detection**
"We must expose our folks to the greatest minds in the area of all risk all hazard response. We must put them in forums that discuss perspectives in homeland security from a national and international perspective". FC - C	Exposures to forums and perspectives in homeland security	**Leadership** The ability, or lack there of, to develop long range goals and policies designed to plug current and future gaps in service delivery as well as address concerns around funding, threats, hazards, interoperability, response, equipment, pandemics and ways to sustain appropriate staffing.

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"Development of a Homeland Security Oversight Committee chaired by key department members which could evaluate these key areas of concern. Provide Leadership Training to management personnel." FC - D	Committee of key department members – leadership training	**Leadership**
"The greatest barrier in my opinion is the culture of the industry itself to focus exorbitant amounts of effort on certain aspects of our business as well as a lack of acceptance of our individual limitations. As we understand our limitations, we embrace opportunities to collaborate, integrate and interoperate." FC - B	Cultural barriers, lack of acceptance	**Collaboration/Integration** In reference to homeland security - agencies, organizations, and individuals from many tiers of public and private sectors, working, training, and exercising together for the common purpose of preventing terrorist threats to people and property.
"Territorialism have a major impact on emergency management" FC - A	Territorialism	**Collaboration- Barrier**
"Relationship Barriers do not exist on the leadership level, but among fire department and law enforcement." FC - A	Relationship among leaders	**Leadership**
"The most critical change the fire service needs to make in order to develop a long term strategic plan to enhance and support these critical missions is one of mindset. 911 brought our nation into a new era." FC - D	Critical mission strategy	**Role/Mission/All Hazard**
"It is the responsibility of ever fire department across the nation to address, become involved and provide	HLS protection	**Role/Mission/All Hazard**

Homeland Security protection to their citizens." FC - D		
"If we are going to embrace our position in homeland security we must shift – look at the departments as Homeland Security Departments that just happens to go to fires." FC - B	Position in HLS	**Role/Mission/All Hazard** Homeland Security Inclusion/exclusion

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"The fire and emergency services sector should be (through the U. S. Fire Administration) should play an active role the development of these efforts since we are the first responders to both." FC - B	Fire Administration as portal	**Homeland Security Inclusion/exclusion** In NSHS, the Fire Service is only mentioned once but is expected to be first to respond to nine of the fifteen National Planning Scenarios. Many fire service leaders feel this exclusion influence the lack of inclusion in intelligence and information sharing on a local, state and regional level.
"The original mission in its simplest term says it all. But for the benefit of stakeholders we need to explain our mission so that they will understand what it is that we do. All hazard mitigation." FC - A	All Hazard Mission	**Role/Mission/All Hazard** All Hazards describes the focus of preparedness and prevention strategies on response to any major disaster whether; accidental, man made caused by terrorists acts, or tornados and hurricanes caused by natural disasters.
"There needs to be a shift in the more traditional focus of fire and emergency services leadership to embrace the "all risk" nature of our industry, for not only the betterment of service to the public but for long term viability of the industry itself. Fire suppression is not a growth industry". FC –B	Embrace all risks	**Role/Mission/All Hazard**

	Intelligence and warning through Fusion Centers	**Expand Role through Prevention & Detection** Fire service should support all of the pillars homeland security including: Prevention, Detection, Intelligence and Information Sharing
"The rise of Fusion Centers across the nation clearly addresses the aspect of Intelligence and Warning. Cities and counties with fire agencies not yet involved must step up to the plate and take on this responsibility. It is our duty to do so." FC - D		
"Every act of terrorism we prevent, we also prevent our firefighters from being injured in these attacks." FC - B	Prevent terrorist acts	**Expand Role through Prevention & Detection**
"I don't think we have a choice, since we are located throughout municipalities. We don't need to get extraordinary on information or detection. One of the things about the fire service is we are used to filling in the gaps" FC - C	Information or detection – Fire Service fills in gaps	**Expand Role through Prevention & Detection**

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"Border and Transportation Security must also be addressed. Those fire departments bordering Mexico and Canada must educate, train and grant authority to act on suspicious actions encountered within their districts." FC - D	Educate and grant authority fire departments act on suspicious actions	**Prevention & Detection**
"Anytime something goes wrong so that we have to	Collecting information	**Prevention & Detection**

respond, we should be collecting as much information as possible." FC - B		
"Protecting Critical Infrastructure can easily be achieved through educational awareness. Fire department personnel are constantly out in their districts on responses and routine business. Establishing training programs which identify potential terrorist target areas and anomalies to look for during the course of ones duties would greatly enhance local security." FC - D	On responses and routine business, protect critical infrastructure I.D. anomalies	**Prevention & Detections**
"…the only time detection and collection will impact the public trust as long as detection/collection is not our main goal. We are not primarily detectives, but firefighters who should be collecting information anyway." FC - B	Detection/Collection impact on Public Trust	**Prevention & Detection**
"We must expose our folks to the greatest minds in the area of all risk all hazard response. We must put them in forums that discuss perspectives in homeland security from a national and international perspective." FC -C	Exposures to forums and perspectives in homeland security	**Leadership** The ability, or lack there of, to develop long range goals and policies designed to plug current and future gaps in service delivery as well as address concerns around funding, threats, hazards, interoperability, response, equipment, pandemics and ways to sustain appropriate staffing.

FC INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"Development of a Homeland Security Oversight Committee chaired by key department members which could evaluate these key areas of concern. Provide Leadership Training to management personnel." FC –D	Committee of key department members – leadership training	**Leadership**
"The greatest barrier in my opinion is the culture of the industry itself to focus exorbitant amounts of effort on certain aspects of our business as well as a lack of acceptance of our individual limitations. As we understand our limitations, we embrace opportunities to collaborate, integrate and interoperate." FC – B	Cultural barriers, lack of acceptance	**Collaboration/Integration** In reference to homeland security are agencies, organizations, and individuals from many tiers of public and private sectors, working, training, and exercising together for the common purpose of preventing terrorist threats to people and property.
"Territorialism have a major impact on emergency management." FC –A	Territorialism	**Collaboration- Barrier**
"Relationship Barriers do not exist on the leadership level, but among fire department and law enforcement." FC –A	Relationship among leaders	**Leadership**
"The most critical change the fire service needs to make in order to develop a long term strategic plan to enhance and support these critical missions is one of mindset. 911 brought our nation into a new era." FC –D	Critical mission strategy	**Role/Mission/All Hazard**
"It is the responsibility of ever fire department across the nation to address, become	HLS protection	**Role/Mission/All Hazard**

involved and provide Homeland Security protection to their citizens." FC -D		
"If we are going to embrace our position in homeland security we must shift – look at the departments as Homeland Security Departments that just happens to go to fires." FC - B	Position in HLS	**Role/Mission/All Hazard** Homeland Security Inclusion/exclusion

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APPENDIX B   PHASE ONE DELPHI INTERVIEWS

Delphi Member Open Coding

DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
DM – 1 "*Lobby national leadership to specifically include fire service in public policy, documents, and strategies. The lack of reference to the fire service in the public policies, strategies, or documents needs to be changed.*"	Fire Service in public policy	**Homeland Security Inclusion/exclusion** In NSHS, the Fire Service is only mentioned once but is expected to be first to respond to nine of the fifteen National Planning Scenarios. Many fire service leaders feel this exclusion influence the lack of inclusion in intelligence and information sharing on a local, state and regional level.
DM – 1 "*At the federal level, the fire service must find a way to coalesce in a common vision of what role the fire service should take in homeland security. This has not been done yet. Even as we approach the seven year anniversary of 9/11, no one has ever defined the vision.*"	Federal level role in homeland security	**Role/mission/All Hazard** All Hazards describes the focus of preparedness and prevention strategies on response to any major disaster whether; accidental, man made caused by terrorists acts, or tornados and hurricanes caused by natural disasters.
DM - 1 "*If the fire service is going to maximize its efficiency and effectiveness, provide the greatest degree of safety for its personnel, it must embrace the advantages of participating in tactical, operational, and strategic information and intelligence sharing.*"	Tactical, operational, and strategic information sharing	**Expanded Role through Prevention & Detection** Fire service should support all of the pillars homeland security including: Prevention, Detection, Intelligence and Information Sharing
DM – 6 "*The fire service should be fully integrated into*	Fire service in intelligence	**Expanded role through Prevention & Detection**

the intelligence cycle."		
DM - 5 "By becoming more aware of precursor indicators and greater awareness of the threat-through intelligence."	Precursor indicators	**Expanded role through Prevention & Detection**
DM – 2 "Also the fusion center and intelligence roles can begin to be natural avenues where the FS can contribute. The roles to be filled in these areas will tend to be middle to senior management positions. Clearances will also need to be another avenue that needs to be embraced by the FS so that they can take a place among the intelligence community."	Fire service Intelligence roles in middle to senior management	**Expanded role through Prevention & Detection**
DM - 5 "By partnering in meaningful initiatives that include the community's input. For example, co-development of privacy policies-an activity like this fosters organizational transparency and builds trust with the community. This is a very important activity in the information sharing age. It also sets the stage for future projects because co-ownership is developed."	Build trust and partner with community	**Collaboration/Integration/Barriers** In reference to homeland security are agencies, organizations, and individuals from many tiers of public and private sectors, working, training, and exercising together for the common purpose of preventing terrorist threats to people and property.
DM – 4 "Private and public need to understand that each is co-dependent upon the other. For example, private industry has the playground to conduct exercises and first responders have the manpower and need. By	Private, public, and fire co-dependent	**Collaboration/Integration/Barriers**

providing a realistic setting first responders can train and private business can determine their readiness and also be prepared for first responders should the need arise."		
DM – 2 "There is a growing trend in large metropolitan agencies to cross train and cross pollinate agencies to better cooperate and understand the cultures within disciplines."	Agencies cross train to cooperate	**Collaboration/Integration/Barriers**
DM – 3 "Foster positive and collaborative relationships locally and abroad to stimulate creative exchange in the planning and implementation process (i.e. study best practices both within and outside the fire discipline)".	Positive relationships abroad	**Collaboration/Integration/Barriers**
DM – 3 "The fire industry should continue to integrate into non-fire agencies over the long term (i.e. TEW and JRIC), and possibly integrate law enforcement personnel within fire service organizational structure."	Integrate fire with law enforcement	**Collaboration/Integration/Barriers**
DM – 4 "Developing local fusion center… report to state to national…by having information pass up and down this chain, Intel will be shared and collaboration will be established."	Fuse state, local and federal for info sharing	**Collaboration/Integration/Barriers**

DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
"The fire service largely wastes the public's faith and desire to partner with the service with a few exceptions, including Phoenix fire, who, regardless of their motivation, has established the close relationship with their community. A strategy of community oriented, intelligence led government could meet both the traditional and emerging demands on the fire service.' DM - 6	Strategy Public Partner with Fire	**Collaboration** **Leadership**
"A philosophic shift to community oriented intelligence led government would demand geographic integration of government services in partnership with the geographic community of interest, contributing toward synchronization of effort." DM - 6	Shift to community led intelligence Integration	**Collaboration** **Leadership**
"Building mutually dependent, interlocking partnerships with other service delivery partners can contribute to partnership, i.e. a Police/Fire PSAP managed by the fire service, a police/fire records department managed by police, under a public safety command that is responsible for budget of both services." DM - 6	Police/Fire/Mutually dependent partners	**Collaboration/Integration**

"I do not believe the role of the fire service should be expanded. Most of the fire service has already expanded their role to include emergency medical services and must be cautious in further expansion. It is very difficult to maintain a deep competency in firefighting; fire prevention, emergency medical response, heavy rescue, hazardous materials, and the role of the fire service should not change, but adapt to include terrorism." DM - 6 *"Fire already has a very significant role in homeland security, we need to be able to continue to fill that role while adapting to the added threat of terrorism."* DM - 6	Do not believe role should be expanded… Fire must adapt Adaptation is not expansion	**Do not expand role** **Role/Mission/All Hazard**
"Demand intelligence support from the national intelligence community and local law enforcement through active engagement and specific intelligence requirements for the fire service and their geographic community." DM - 6	Demand support from intelligence community	**HS Inclusion** **Do not expand role**
"The FS needs to embrace education on many levels to create a workforce that will be capable of accomplishing the many roles that will need to be	Embrace education Accomplish many roles	**Education** **Mission/Role**

filled in the 21st century." DM - 2		
"Although law enforcement and the fire service work together regularly, even in the best of circumstances, there are cultural differences that limit a truly collaborative relationship. My experience is that this is most prevalent on the law enforcement side, but the fire service also has its own issues. A prime example is the sharing of information." DM - 1	Culture limit truly collaborative relationships	**Collaboration /Integration** **Leadership**
"Although there are claims that information cannot be shared, I have never found a legal basis for that claim- not in the privacy act of 1984, the Freedom of Information Act, Title 18 of the US Code, or Title 28 of the US Code. It is an issue of law enforcement culture." DM - 1	Information sharing Privacy Act/Freedom of Information	**Collaboration** **HS Inclusion/exclusion** **Expanded role prevention/detection**

DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
DM – 3 "First, the local fire service agencies will have to gain a clear understanding of those critical missions that are defined within the National Strategy for HLS."	Fire service critical mission in HLS	**Role/Mission/All Risk Homeland Security Strategies**
DM – 6 "Most significantly too much time is wasted on who is in charge or who is to blame than building true homeland security capability."	Too much blame – building capacity	**Leadership Collaboration**
DM – 5 "Leaders do this by forging into the world outside of the fire service mindset. By this, I mean engaging in NPS-like programs where other points of view educate future leaders into a more worldly vision."	Educate future leaders –NPS -Outside fire service	**Leadership-Education Collaboration**
"The actions required are simple- engage them in planning efforts, maintain open lines of communication, and have someone act as a liaison to those agencies with more commitment that just speaking with them at monthly, quarterly, or annual meetings." DM - 1	Engage them, maintain open line of communication	**Leadership Collaboration HS Inclusion/exclusion**s
DM – 3 "Advise fire service leaders to clearly communicate the HLS mission within their agency to all levels of personnel."	Leaders in HLS mission	**Leadership Role/Mission**
"As with all public safety providers, the service must	Fire must adapt Must demand	**Role/Mission/All Hazard HS Inclusion**

successfully adapt to the terrorism aspect of homeland security, must demand a seat at the table of homeland security, must demand its intelligence requirements are met, and acknowledge terrorism prevention as a role of the fire service, not just terrorism response." DM - 6	seat at table	
"Adaptation is not expansion. The Fire Service adapts to changing threats presented by building design, vehicle design, urban/wild land interface, declining revenue, increasing population, etc. The answer is seldom expansion, but adaptation." DM - 6	Adaptation vs. Expansion of duties	**Role/Mission/All Hazard** **Collaboration** **Do not expand role**
"Building effective and collaborative relationships at the local level is much more doable with law enforcement, EMS, and public health. This probably varies greatly by region, but I have found that EMS and public health are ready, willing, and able to form integrated relationships." DM - 1	More doable with law enforcement, EMS, and Public Health	**Collaboration**
"At the federal level, the fire service must find a way to coalesce in a common vision of what role the fire service should take in homeland security. This has not been done yet. Even as we approach the seven year anniversary of 9/11, no one has ever defined the vision." DM - 1	Fire must coalesce with federal common vision	**HS Inclusion/exclusion** **Collaboration** **Role/Mission** **Leadership**
"Chiefs in general need to	Chiefs and City	**Leadership**

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look beyond their own political boundaries and begin working more at the macro level. The same is true for the city manager's as they will be the ones who provide primary support to the changing mission of the fire service at the local level." DM - 1	Managers must work on macro level	

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APPENDIX C   PHASE TWO DELPHI INTERVIEWS

Delphi Member Open Coding
DELPHI INTERVIEWS

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Intelligence Role? *DM - 1* *"The fire service absolutely has an intelligence role in homeland security. …the value of intelligence for the fire service is that it should drive our planning, budget, training, staffing, and equipment acquisition."*	Fire service in intelligence	<u>Intelligence-</u> Fire service should support all pillars of homeland security including prevention and preparedness through detection and sharing of intelligence information
DM - 1 "Although the other disciplines (law, intelligence, and military) have the primary responsibility to prevent an attack, when they fail, it is the fire service that has the primary responsibility to respond, manage the incident, minimize the loss of life, clean up the mess, and provide for the safety of its personnel in a very uncertain and hostile environment."	Primarily responds to attacks	Intelligence
DM - 1 "It seems myopic to believe that we will be able to do all of those things well, including plan, equip, train, staff, and budget for every possible event, without knowing what the current threats are and what the future trends will be."	Need to know current threat and future trends	Intelligence
DM - 1 "*…fire service agencies, especially in urban areas and others where there is a validated threat, need to have at least one person designated to monitor the current threat environment, do analysis on trends, liaison with their law enforcement agency, collaborate with the other fire departments who are doing the same, and develop a relationship with whoever their fusion/JIC*	Fire representative in JIC group to monitor threat environment	Intelligence

group might be."		
DM - 1 *"In addition to that persons networking responsibilities, he/she should work closely with the agency's emergency services coordinator, training department, administrative personnel, and budget administrator to coordinate grant applications, insure training is done to support the anticipated response, etc…"*	Work with emergency services, administrative, to coordinate, train and anticipate response	Intelligence **Leadership** -The ability, or lack there of, to develop long range goals and policies designed to plug current and future gaps in service delivery as well as address concerns around funding, threats, hazards, interoperability, response, equipment, pandemics and ways to sustain appropriate staffing. **Collaboration –** In reference to homeland security - agencies, organizations, and individuals from many tiers of public and private sectors, working, training, and exercising together for the common purpose of preventing terrorist threats to people and property.
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Intelligence Role?		
What would it look like?		
DM - 2 *"There is an intelligence role for the FS. The FS has primary touch with the local community in the form of education, response, inspection and training. The info they can accumulate can be significant. They not only can provide Intel they need to be a receiver to protect their personnel."*	Fire service through education, response, inspection	Intelligence
How would Collection affect privacy rights?		
DM - 2 *"Information collected should be funneled through screeners. Good, solid Intel should be pushed forward under*	Information collected and funneled lawfully	Intelligence

present lawful means and the rest safeguarded and/or destroyed. All applicable laws should be adhered to by the FS."		
How would Intelligence information be shared?		
DM - 2 "It should be shared from the top down. The leaders and commanders should have clearance as needed to the Intel/info. This Intel/info should form the basis of operational decisions that will safeguard their personnel."	Operational decisions top down info clearance	Intelligence Leadership Collaboration
Intelligence Role?		
What would it look like?		
DM - 3 "The intelligence role in the fire service is one that shares information with local first responders regarding trends, tactics, and capabilities that are ongoing within the response districts of the firefighters. The intelligence capability has to include fire service personnel in the process by giving them a seat at the table (or in the fusion center), and including them in the collection process. The intelligence needed by firefighters is such that will improve response capabilities of the responders."	Fire service in fusion center. shares information trends and tactics	Intelligence Leadership Collaboration
How would Collection affect privacy rights?		
DM - 3 "I am not convinced yet that firefighters should be doing collection if it does not originate from within a collection center. I do believe firefighters are in a unique position to collect information because we are invited into homes and businesses within communities, but risk losing the public trust we enjoy by overstepping this boundary."	Firefighters in position to collect but risk public trust - should not	Intelligence
DM - 3 "I *do believe that fire service personnel have an obligation first to be able to recognize criminal activity when they are in homes or businesses and second*	Firefighters obligated to report criminal activity	Intelligence

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
to report such crimes to the proper law authority for follow-up."		
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
How would Intelligence information be shared?		
DM - 3 "Intelligence can be easily shared with fire departments when they are represented in the fusion centers. Again, the easiest way to share information is to give Firefighters a seat at the table – they will glean the information that is of value to their operations."	Firefighters seat at table in Fusion Centers share information	Intelligence Collaboration
DM - 3 "Technology (computers, e-mail, teletype, etc.) can be used as a means to share information with fire departments; however, the collectors of intelligence don't necessarily understand what is pertinent to the fire service responders."	Collectors may not understand pertinent to fire service	Intelligence
DM - 4 No response		
Intelligence Role?		
What would it look like? DM - 5 "*-discovering suspicious activities (events)* *-defining changes in structures (conditions)*"	Events and condition	Intelligence
How would Collection affect privacy rights? *DM - 5 "(Define terrorist information) Should not, "information" should be clearly defined (terrorist information) and activities should be transparent-re: local privacy policy created and understood."*	Information and activities defined and transparent	Intelligence

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES

How would Intelligence information be shared? *DM - 5 "-situational awareness; threat alerts; sector specific reports (HITRAC); classified information"*	Situation awareness, alerts	Intelligence
Intelligence Role?		
What would it look like?		
DM - 6 "The fire service should be fully integrated into the intelligence cycle. The discussion on value of firefighters as intelligence sensors is an intelligence community centric view that must change to adapt to both the evolving threat and integration of non traditional participants in the intelligence cycle such as firefighters."	Intelligence community centric view that must change	Intelligence Collaboration Leadership
DM - 6 "While it is true that firefighters are valuable and unique sensors that can form a distributed network across the nation, they are more importantly homeland security leaders who must be served by the intelligence community."	Firefighters can form distributed network- must be served by intelligence community	Intelligence Collaboration Leadership
DM - 6 "Fire Chiefs must actively engage the intelligence community and document their intelligence requirements to the IC as they build internal infrastructure to ensure that those in their command are fully aware of the threat and prepared to address the threat in both prevention and response."	Fire Chiefs must engage, document and build infrastructure to address and prevent threats	Intelligence Collaboration Leadership
How would Collection affect privacy rights?		
DM - 6 "…there is adequate legal and community standard precedents for the role of firefighters as sensors if not "collectors." Firefighters have a right or obligation to report suspicion of other crimes in progress before those crimes result in death or serious bodily injury. Domestic violence and child abuse are two obvious examples. Firefighters do not investigate, however they do fill the	Firefighters have obligation to report suspicion of crimes i.e. domestic violence s	Intelligence Leadership Collaboration

preventative role of reporting crimes such as these that shock the conscious of the community.”		
DM-6 “Attorney/client and Doctor/patient relationships, while some of the most protected and cherished forms of confidentiality have reasonable limits. Neither Doctors nor may Lawyers stand by passively when they reasonably suspect that their silence will result in mass murder.”	Protected relationships have limits	Intelligence
How would Intelligence information be shared?		
DM - 6 Intelligence information may be shared with the fire department *“The same way it is shared with the police department. Unclassified to all members and classified information to properly cleared and vetted command. The arbitrary distinction of what is provided to a police chief and what is provided to a fire chief may be more an artifact of the joint criminal investigation and intelligence roles of the FBI than of need and effectiveness.”*	Unclassified information to all members/classified to vetted and cleared command-----this conflicts with next statement - Weeks.	Intelligence Leadership
DM - 6 “Fire and law enforcement have different roles within homeland security, however intelligence must begin to serve a greater community than just police. If there was a requirement to be a sworn law enforcement officer before obtaining classified information then no policy maker or federal homeland security leader outside of LE would be privy to intelligence.”	Intelligence must serve greater community	Intelligence Leadership Collaboration
Leadership		
What are leadership issues in homeland security?		
DM - 6 “Most significantly too much time is wasted on who is in charge or who is to blame than building true homeland security capability. There are so many issues; this question could be the basis of many thesis, books or discussions. We	Who is in charge and blame instead of building capability	Leadership Collaboration

might as well ask what the leadership issues around government are."		
DM - 5 *"Assurance of recognition of stakeholders and their inclusion in strategies without compromising core mission-includes their core mission as well."*	Stakeholders inclusion in strategies	Leadership Collaboration
DM - 4 *no response*		
DM - 3 *"A huge issue in my opinion is the lack of fire service leadership in terms of understanding the difference between training and education. Education is the foundation that leaders need to understand the new threats associated with terrorism (such as the education provided at NPS)".*	Leaders lack understanding differences between education and training	Leadership Education/Training
DM - 3 *"Training is the exercises agencies can do to practice to respond to terrorist events (WMD, TOP OFF, etc.). Lack of understanding of the difference between effective leadership and management are a barrier to effective homeland security planning."*	Education vs. Training	Leadership Education/training

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Leadership		
What are leadership issues in homeland security?		
DM - 2 *"... first, accepting a promoting a role for the FS in HS. The leadership needs to remove the blinders and accept the unique role the FS has. Second, the Leadership should be proactive in planning with other disciplines for planned events and possible emergency events."*	Accept unique role, be proactive in planning with other disciplines	Leadership Collaboration
DM - 2 *"Presently, the FS likes to ride in, take care of the incident and then ride out to the protection that the "red garage doors" provide. A true FS Leader will push their department into*	Firefighters take care of incident and leave- true leader will push into multi-	Leadership Collaboration/Integration

multidiscipline activities that will solidify their position within their jurisdictions. This means placing detailees to other agencies and multi-agency activities. This could include emergency operations centers, JTTF's and the mayor's office to name a few. This could also include out of jurisdiction agencies like the state."	discipline activities	
DM - 1 "I think the biggest leadership issue within the fire service today is recognizing that we are rapidly being pushed to be an all risk all hazards discipline. A part of that all risk all hazard environment is homeland security."	Recognize push to all risk	Leadership All risk/HS
DM - 1 "The antecedent to that evolution is that communities have witnessed events like 9/11, Hurricane Katrina, Columbine, and others and realized that they are at risk. That perceived risk manifests itself by communities being much more vocal about wanting their public safety agencies to be better prepared so as to minimize their vulnerabilities. It has also brought communities to a point of wanting to form effective partnerships with their public safety providers and have a greater say in how fire and police departments deliver their services."	Communities at risk vocal on public safety and partnerships	Leadership Collaboration/Partnerships
DM - 1 "I believe that there are two problems with fire service ~~leaders~~ managers today. First, most do not understand the environment that they are in. Second, many of those that do understand the environment see community partnerships as threatening."	Leaders do not understand environment; partnerships threatening	Leadership Collaboration/Partnerships Intelligence
Benefits to be gained by decentralization?		
DM - 4 no response		
DM - 3 "I suppose one benefit to decentralizing the fire service would be	Advantage to decentralization	Leadership Collaboration

the background and experience cross trained personnel could bring to the table. A person with both fire service and law enforcement backgrounds would probably have a greater understanding of terrorist –related issues. Sharing of funding allocations, equipment pools, information, and training would also be benefits to decentralization."	– cross trained, greater understanding of terrorism	Intelligence
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Leadership		
Benefits to be gained by decentralization?		
DM - 2 "There could be grave consequences, but the results could be even greater. It would increase FS influence in operations and budgetary. It would broaden the experience of officers and make them think out of the box. It could place the FS in a position to influence political policy and decisions if they have a major role. The service should not be decentralized to the extent that the FS would lose their operational integrity. It should be handled through a multi-agency liaison office under the chief executive for the jurisdiction."	Increase influence operations, budgetary, political and broaden experience. Think outside box Fire service should not decentralize to extent lose integrity	Leadership Collaboration
DM - 1"I don't see any benefit to further decentralizing the fire service. Nor do I see how we could possible become more decentralized than we already are. There are some 30,000 fire service providers in the US, each with their own unique problems, community, and political environment. With that many agencies it is nearly impossible to universally support one plan, one idea, one direction, or have one voice. Even through organizations like the US Fire	No benefit to decentralization 30,000 unique fire service in U.S. Fire Administration and IAFC no one plan or single voice	Leadership Collaboration Lacking

Administration and the International Association of Fire Chiefs, there is no one universal voice for the fire service."		
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Leadership		
Benefits to be gained by decentralization?		
DM - 1 "I have studied the fire service in the UK, Australia, and Israel and found that they function well. Part of the reason is that they are much smaller systems than the US, but part of the reason is that they are organized in either a state or federally organized system. That centralization helps tremendously and is not dissimilar to the benefits that US agencies often espouse when they try to consolidate."	Centralized state and federal systems function well in U.K., Australia, Israel	Leadership Collaboration
DM - 1 "Ironically, the US fire service has the greatest resources of any fire service provider in the world but our decentralized organization makes it nearly impossible to universally move in any single direction."	U.S. fire has greatest resources but decentralized	Leadership Collaboration -Lack
If fire service was decentralized what would it look like?		
DM - 1 "I think it would just like it does now- a hodgepodge of fire chiefs who are forced to focus only on their own environment rather than having the freedom to spend at least a portion of their time working at the macro level for the good of the discipline."	A hodgepodge of fire chiefs focus on own environment	Leadership Collaboration – Lack
DM - 2 "I do not think they would be decentralized to the extent of losing direct command over day to day operations. It should be in the form of reports and liaison meetings on a set schedule, possibly daily or even twice daily as the needs indicate to keep FS commanders	Reports and liaison meetings from multi agencies and jurisdictions so there is coordination and	Leadership Collaboration

	1ST ORDER CODES	2ND ORDER CODES
abreast of possible developing situations or Intel. The meetings or contacts need not be top commanders, just liaisons from all agencies. It may even be advantageous to place them into a multi-jurisdictional office that could meet regularly and brief the appropriate decision makers so that there is coordination and cooperation."	cooperation	
DM - 3 "There would most likely be a Public Safety Manager at the top of the organization, followed by law and fire Deputies, etc."	Public Safety manager	Leadership Collaboration
DM - 4 no response		
DM - 5 "Response chains the same. Propagation of idea change, different, has to be flattened."	Idea change - flattened	Leadership

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
If fire service was decentralized what would it look like?		
DM - 6 The fire service is one of the most decentralized professions in existence, so the question is puzzling. With only ¼ of our 1 million firefighters full time paid, how much more decentralized can we be?	Fire service most decentralized profession in existence	Leadership

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Leadership		
Leverage private businesses to enhance HS capabilities (Metro transit, utilities, taxies		
DM - 1 "The ability for a community to recover from a natural or man-made large scale emergency/disaster often lies in how quickly their business community can get	Incentive to businesses to partner with fire service	Leadership Collaboration

back up and running. Businesses also are experiencing increased awareness that they too need to keep going after a disaster if they are going to survive and minimize financial losses. So there are substantial incentives for fire service providers to partner with the business community (and other community stakeholders) and vice versa to insure each others viability."		
DM - 2 "I think the report of activities through this conduit should be handled through LE not FS. The key to credible info/Intel through the FS is the private and personnel trust between the FS and the community it serves."	LE not Fire should handle	Leadership Collaboration
DM - 3 "Financial rewards could be used to leverage public businesses to partner in counter-terrorism planning/prevention. Lowering of taxes or regulatory fees required to run their business could be offered. Also, sharing all other opportunities like training, education, equipment, and information with business constituents to truly commit them to the process."	Financial rewards, lowering taxes, and fees and sharing to counter-terrorism	Leadership Collaboration Intelligence
DM - 4 no response		

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Leadership		
Leverage private businesses to enhance HS capabilities (Metro transit, utilities, taxies)		
DM - 1 "For the fire service, some of the things that can be done are to assist businesses with their continuity of business plans, conduct risk and vulnerability assessments for businesses at risk, assist businesses with developing and practicing their disaster plans, and train business representatives in emergency management concepts."		

DM - 6 "The fire service should tread very carefully in engaging the private sector in intelligence. This question is under "Leadership," however as I understand it we are discussing the fire service, leadership, collaboration and intelligence. The fire service should have a strong role in homeland security and intelligence; however neither Fire Chiefs nor firefighters should engage the private sector in intelligence partnership. This is the lane of the intelligence community and POSSIBLY law enforcement."	Fire strong role in HS intelligence – should not engage private sector	Leadership Collaborate –no Intelligence – FS yes
Collaboration		
Develop fire service leaders prepare for demands on mission?		
DM - 6 "Every fire service leader should be educated and trained on the benefits and pitfalls in the seam between the fire service and intelligence community. Almost all law enforcement leaders are trained in 28 CFR and basic intelligence, with anyone with a greater role than receiving unclassified intelligence receiving intelligence training or intelligence command training. Fire should have the same minimum training."	All should be educated and trained 28 CFR and basic intelligence	Leadership Intelligence Training
DM - 5 "Through programs like NPS and the guided dialogue theory between agencies."	NPS and dialogue	Leadership Collaboration Education
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Collaboration		
Develop fire service leaders prepare for demands on mission?		
DM - 4 no response		
DM - 3 "Fire Service leaders could be significantly developed through the many federal educational programs offered	Leaders significant development	Leadership Education/Training

today in homeland security and counter-terrorism. Best practices in the fire service could be gleaned to determine the best missions, core values, operating principles, and codes of ethics worldwide. I used framework from fire services in Great Britain to develop theories for my thesis. Mission statements should come with expiration dates so agencies would be more mindful to update, change and grow to address current threats."	through federal programs; best practices; update mission and vision	
DM - 2 "Education, education and education, with a little training thrown into the mix. It could also be achieved through multi-agency, mandatory details into liaison offices for promotional purposes. This would create well balanced decision makers."	Education; training, and mandatory multi-agency liaison	Leadership Collaboration Education/Training
DM - 1 "This issue is not an issue limited to the homeland security mission but is becoming all encompassing. As a discipline, we are lagging behind in our ability to meet the public demand. Incidents like 9/11, Hurricane Katrina, Columbine, etc, are causing the public to feel less secure. That insecurity is manifesting itself by a desire for communities to form effective partnerships with their public safety agencies to insure that they receive the services they demand as well as a say in how those services are delivered. To many fire service managers, this is very unsettling. However, this should be seen as an opportunity, not a challenge."	Fire lag behind meeting public demand; public desire for safety and partnership make leaders insecure	Leadership Collaboration/partnership
DM - 1 "Adept leaders will exploit that relationship in a positive way and leverage community support to support their organizations.	Opportunity to leverage community support	Leadership Collaboration/partnership
DM - 1 "The fire service has a tremendous opportunity to grow and develop into a comprehensive all risk all	Opportunity to grow all hazard/risk but	Leadership/ All Hazard/risk

hazard public safety discipline but it will require that we abandon some of our tightly held traditions and over-reliance on our legacy mission of firefighting."	must abandon tradition	
DM - 1 "If we want to evolve as a discipline, we will need to create healthy organizations that are responsive to the needs of our community's. I believe that the way to accomplish healthy organization relies on four principles: perception modification through mentoring, communication, and education; succession/promotional planning and development; creating formal and informal leaders throughout the spectrum of the organization; and last, providing the staffing, training, tools and equipment to do the job the community wants us to do."	Must evolve as discipline Four principles to health org.	Leadership Collaboration Education
DM - 1 "In order to accomplish all of those things, we will also need a change in how we lead; namely moving away from transactional forms of leadership to a more transformational model. If we do all of those things well, we could be hugely successful as a discipline."	Change from transactional to transformational leadership	Leadership Collaboration Education
How could fire provide training to engage other disciplines?		
DM - 1 "I think this starts at the local level. Even in the best of agencies, there is a cultural barrier that exists between the fire department and other entities. The way around this is to develop positive relationships with other departments, agencies, and disciplines. But like so much we do (or don't do) it requires a commitment from those at the top and so we come back to the issue of leadership."	Requires commitment from leadership- Cultural barriers to positive relationships with others	Leadership Collaboration Training
DM - 1 "The functional aspects of engaging other disciplines in training are relatively easy. Get together with representatives from the other	Other disciplines participate and include in development	Leadership Collaboration Training

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disciplines, invite them to participate, and include them in developing the training plan so that everyone participates and comes away with a predetermined goal or outcome that has value to all of the organizations involved."		
DM - 2 *"That is a tough one! This would need to be enforced from the higher authority, the mayor or executive office of the jurisdiction. Though there are multi-discipline training courses in ICS and other offerings a multi-agency course would need to have buy-in by all parties."*	Enforce from mayor or executive office – buy in from all parties	Leadership Collaboration Training
DM - 3 *"All first responder training should be shared and offered to various disciplines similar to information distribution. I have taken several law enforcement-based courses including Incident Response to Terrorist Bombings, Response to Suicide Bombers, and Anti-Terrorism Intelligence Awareness Training. The fire service could also develop training courses in awareness to indicators of terrorism and offer the training to local businesses, citizen groups, utility companies, postal workers, etc."*	Shared training various disciplines and public/private– include response to terrorist and anti –terrorist training	Leadership Collaboration/P/P Intelligence Training
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Collaboration		
How could fire provide training to engage other disciplines?		
DM - 4 no response		
DM - 5 *"Develop relationships, not just networks".*	Develop relationships	Leadership Collaboration
DM -6 *"Not sure this is the role of the fire service as trainers in regards to intelligence. The fire service should not*		

provide training designed to engage other disciplines in law enforcement, why should it provide training designed to engage other disciplines in intelligence?"		
What are barriers to collaboration between first responders		
DM -6 "Tradition, law, culture, personality types attracted to different disciplines, 187,000 different jurisdictions, money, power, politics, Politics, and day to day demands just handling issues within your own discipline."	Culture, tradition, politics, power	Leadership Collaboration
DM -5 "Organizational bias-just don't understand each other's missions"	Lack of understanding – Missions	Leadership Collaboration
DM -4 no response		
DM -4 "Ego's, funding, fear of giving up power/knowledge traditions/culture, lack of education/training opportunities, awareness to the value in collaboration"	Ego, culture, tradition, power	Leadership Collaboration
DM -2 "Ego, ego, ego! Lose of sphere's of influence and perceived lose of territory and missions."	Ego, loss of influence, mission	Leadership Collaboration
How could obstacles to interoperability be removed?		
DM -1 "I think that there are three issues that limit interoperability. The first is governance and architecture. There is no unified concept on how interoperability is supposed to function. Although some agencies see this as being able to talk to their neighbor, few think beyond their immediate county or region. The technology is doable but no one has stood up a strategic plan that establishes what the architecture is supposed to look like at a national level. Furthermore, there is no concept on	Governance, no unified concept, no strategic plan architect Technology is doable	Leadership Collaboration

how it would be used from a governance perspective."		
DM -1 "The second problem is cost. Many jurisdictions have several hundred million dollars invested in the infrastructure they currently have. Some of those systems are aged and could be replaced but others are new and there is reluctance to discard systems that were just installed. It would likely take a national directive and lots of federal dollars to make any effective change."	Cost in infrastructure, new and aged, directive and federal dollars	Leadership Collaboration

PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Collaboration		
How could obstacles to interoperability be removed?		
DM - 1 *"Last is the issue of the decentralized nature of the fire service. There are some 30,000 fire service entities in the US and trying to coalesce all of them into agreement is probably not going to happen without some sort of legislative action."*	Decentralization, 30,000 fire units Legislative action	Leadership Collaboration
DM - 2 *"Attack it from safety and cost savings motivations. Make it a plus-plus for all participants. This could be from safety or monetarily."*	Safety and cost motivators	Leadership Collaboration
DM - 3 *"Governmental mandates, adequate funding, adequate development of technology that is functional to all agencies/disciplines, effective leadership and management skills development within first response agencies, improved collaboration/networking amongst all disciplines/agencies"*	Government mandates, funding, technology functional all disciplines	Leadership Collaboration
DM - 4 no response		
DM - 5 *"Through joint efforts, cross-training, both top-down and bottom-up methods."*	Joint efforts, top down, bottom up	Leadership Collaboration Training
DM - 6 *"Open source platforms or monopoly"*	Platforms or monopoly	Leadership
What would program cross train public safety look like?		
DM - 1 *"Because there is so much variance in how public safety agencies do what they do, I don't know that*	Too much variance Don't know of	Leadership Collaboration Training

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there is a generic program that could be modeled on either a state or national level. From a regional perspective, we do some but not enough cross training with other disciplines. The limiting factor is always the overtime dollars needed for training."	model state and federal use Regional not enough	
DM - 1 "However, if a comprehensive cross training program were to be developed it seems logical that it should follow the spectrum of pre-event to post-event activities, beginning with intelligence/mitigation, preparedness, response, and recovery. Each discipline should be involved in each of the processes so that there is and basic understanding of the capabilities and limitations in each phase."	Training pre and post event all pillars of NSHS	Leadership Collaboration Intelligence Training
DM - 2 "These training components exist in the form of DART"	Components exist	Leadership Collaboration Training
DM - 3 "Recognition of terrorist planning activities, understanding of terrorist tactics, strategy, and trends, information collection, analyzing, distribution, sharing, etc., intelligence sharing, information technology awareness and updates, WMD response for emergency responders, NIMS training, critical infrastructure planning and protection, emergency management planning for large-scale incidents, emergency Operation Center training and development"	Terrorist recognition, tactics, strategy, collection, intelligence	Leadership Collaboration Training Intelligence
PHASE 2 DELPHI MEMBERS INTERVIEW QUOTES	1ST ORDER CODES	2ND ORDER CODES
Collaboration		
What would program cross train		

public safety look like?		
DM - 4 no response		
DM - 5 "NPS at the local level"	NPS local	Leadership Education
DM - 6 "Employees don't really need to be trained in other disciplines, how they can/should work with other disciplines in achieving their goals can be woven into all training. I have extensive experience and knowledge with fully cross trained public safety, with each employee trained and certified as a police officer, firefighter and EMT. Such training is unsustainable if you want a deep competency within each of those disciplines. Jack of all trades, master of none."	Don't need cross training in other disciplines Unsustainable in competency	Leadership Training - not
DM -6 "Education is a completely different story and NPS represents the best example on a graduate level."	NPS graduate level	Education

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APPENDIX D   DELPHI FIRST ROUND QUESTIONS

Phase One
Delphi - First Round of Questions

Future Role of Fire Service in Homeland Security

What changes might the fire service make in order to develop a long term strategic plan to enhance and support critical missions defined in the National Strategy for Homeland Security in the next five to ten years?

Emerging Issues Facing Fire Service (identify and develop strategy to emerging homeland security issues facing the fire service)

1. What are the emerging issues that could be shaping future fire service homeland security efforts?

2. How will Fire Services leaders build resilience and sustainability into their agencies for the next five to ten years (retirement, attrition, a more inexperienced workforce)

Manage Leadership and Cultural Challenges to Collaboration, Integration, interdependence and Community Partnerships

3. What strategy could fire service leaders develop to manage leadership and organizational challenges to future homeland security needs?

4. What actions would the fire industry need to take to build long lasting integrated, interdependent collaborative relationships with other homeland security agencies?

5. How can fire service leaders develop a strategy to engage and leverage community partnerships and support in homeland security protection and disaster preparedness?

Expand Fire Service Current Role in the National Strategy for Homeland Security (NSHS) to Adapt to Changing Threat Environment (*The goals of NSHS include prevention, protection, response and recovery; and the aspiration to continue to strengthen the foundation of homeland security in order to ensure long-term success.*)

6. How might leaders in the fire service anticipate and plan for strategic changes in order to support all of the NSHS goals including prevention, protection, response and recovery and endurance.

7. How could the role of the fire service be expanded to support future homeland security issues in a changing threat environment?

8. Expand its current role in the to adapt to a changing threat environment

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APPENDIX E   DELPHI SECOND ROUND QUESTIONS

Phase Two
Delphi - Second Round of Questions

Intelligence

1. If there is an intelligence role for the fire service, what would it look like?

2. If the fire service played a roll in the collection of terrorist information, how would this affect the privacy rights of citizens

3. How could intelligence information be shared with the fire department

Leadership

4. What are the leadership issues around homeland security?

5. What, if any, are the benefits to be gained by decentralizing the fire service?

6. If the fire service was decentralized what would the chain of command look like?

7. How could the fire service leverage private businesses to enhance homeland security capabilities? (Metro transit, cab companies, utility companies etc.)

Collaboration

8. How could fire service leaders be developed to prepare for new demands to the fire service mission

9. How could the fire service provide training designed to engage other disciplines?

10. What are the barriers to collaboration between first responders?

11. How could obstacles to interoperability be removed?

12. If a program was established to cross train public safety employees what would that program look like?

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