

The Phoenix Theorem: Navigating the Worcester Fire Department in the Aftermath of a Multiple

Line of Duty Death Incident

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

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Abstract

The fundamental problem which established the grounds for this research was a lack of concrete evidence as to whether the Worcester Fire Department was actually recuperating from its loss. This research was undertaken to establish if the organizational recovery efforts undertaken by the department following its multiple line-of-duty death incident were valid, so that a future evaluation of their effectiveness might take place. Three questions focused on; what were the issues faced, what role did leadership play, and what initiatives were instituted formed the basis for analysis. The descriptive research method utilized literature review, interviews and personal observations to establish the foundational material. Multiple fire service and private entities, having sustained similar events, were utilized for comparative analysis. As a result, the efforts of our organization were found to be substantially similar in scope and practice to the others. Utilizing open communications through strong positive leadership was critical to establishing trust and confidence. Focusing recovery efforts on personnel were found to vitally benefit the organization. Offering a variety of recovery initiatives was more likely to catch all members needs, than singular efforts. A number of recommendations were offered which included: educational efforts in the areas of crisis communication techniques, building trust and continued CISM training. Further recommendations included conducting a long-term analysis of the validated efforts, by our department and recommending the same for others departments having suffered similar losses.

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Introduction

Ignis natura renovator integra (entire nature is renovated by fire); destructive forces often are the catalyst for rebirth (Pike, 1871). Despite the historical rejuvenating effects of fire, most people and organizations do not expect to be challenged with such an event and are initially ill-prepared to cope with its consequences. According to statistics gathered by the United States Fire Administration (USFA), the United States fire service suffered 115 line-of-duty deaths in the year 2007 producing a direct injurious affect on 99 separate fire departments (USFA, 2008). Consequently, nearly one hundred fire service agencies were forced to undergo a process of organizational self examination in an effort to determine the root causes of their respective tragedies. In December 1999, the Worcester Fire Department (WFD) was thrust into the annals of American fire service history with the tragic loss of six members in a fire at a vacant cold storage warehouse facility. The unsuspecting WFD was not initially prepared to handle the ensuing events with regard to victim recovery efforts, memorials, funerals, media relations, investigations, family services, and ultimate organizational recovery that follow a firefighter line-of-duty-death (LODD).

This lack of preparation for the eventuality of an LODD strained the management personnel of the department, and created a tremendous leadership challenge in guiding the department through the process of healing and recovery. The problem is that the effectiveness of those collective WFD efforts is nebulous, and the long-term aftereffects of the incident are still unclear, and unresolved; affecting the organizational health of the department. The purpose of this research is to identify the leadership principles and organization processes used to revitalize organizations following critical events, in order to help establish a baseline to evaluate their effectiveness.

In an effort to accomplish the stated purpose, the following three research questions will be investigated. To establish the foundation for the topic, the first question investigates: What are some of the major organizational recovery issues organizations face following a critical incident such as a line-of-duty death? The next question is: What role(s) does the leadership team play in the organizational recovery process? Finally: What recovery/organizational health initiatives can be implemented following a critical incident?

The descriptive research method will be used to conduct this research project. The first research question will be investigated utilizing a literature review, personal observations and interviews. The second research question will be analyzed using a literature review, and interviews. The third research question will be considered using literature review, personal observations and interviews.

Background and Significance

Not unlike any other fire service entity, the Worcester Fire Department leadership team faces organizational challenges on a daily basis, both operationally and in the area of personnel administration. These issues are generally addressed utilizing tried and true resources such as departmental history and experience, contractual mandates, standard operating procedures, rules and regulations, laws, standards and an accumulation of other practiced assets. When smaller issues arise outside of the organizational norm, adaptation is generally smooth with the appropriate management personnel addressing immediate concerns and subsequently adjusting policy as needed. It is when a potentially devastating crisis impacts the core beliefs and values of an organization that the leadership team is often challenged beyond its training, education or experience. The immediate and long-term consequences of the leadership group's responses to

this type of crisis will, in large part, determine the lasting organizational effects of the major event.

Specifically, for the WFD and many other fire service organizations, a line-of-duty death event is an all too common type of catastrophic incident that can potentially destabilize an organization. A multiple casualty LODD event, like the one that occurred in Worcester, only serves to exponentially exacerbate the impact and further complicate the recovery process. The endemic problem is that most fire service organizations are not prepared for the eventuality of a LODD and the devastating consequences that event can have on the organization.

As a member of the leadership team of the WFD, this problem and its possible reconciliation has been a matter of personal experience, and thus the impetus for this research. This research paper strives to capture the processes and direction which the leadership team of the WFD, and other organizations with similar experiences undertook to right the ship, after our losses. By dissecting the process and looking at some of the resulting organizational changes that were made, in hopes to lay the groundwork for the process of evaluation, in order to measure the effectiveness of their efforts. By looking back over the past, coupled with an evaluation the present circumstances, an extrapolation can be made for the direction and potential impact in the future.

This research paper has a direct correlation with the USFA's (2007) stated Operational Objectives; to reduce the loss-of-life from fire related hazards particularly in the target group of firefighters. By evaluating the organizational responses to a LODD by other fire departments who have suffered devastating losses, fire service entities can plan for and potentially strategize a plan of risk-avoidance, thus reducing the likelihood of an event, or at the very least minimize the impact subsequent to the event. This paper is also in alignment with the Executive Leadership

course as it is generally focused on the evaluation of the individual and collective skills of the leadership team, and their aptitudes for decision-making, persuasion, influencing, handling multiple roles, and ultimately their ability to lead an organization through adversity. Even an inept leader can lead when the ship is essentially sailing itself, it is in stormy times that the Captain must bring forth all of his experiences and skill to keep the vessel from foundering. It is from effective and stable leadership that an organization gains its direction in times of organizational chaos and subsequently where it gains its resiliency.

The definitive result of research is to shed light on a particular problem, draw some conclusions from the data gathered, and then suggest resolution. In this case, the data may suggest how an LODD may be averted via proactive initiatives, and/or some avenues, programs, or ideas that other fire service organizations may utilize if confronted with a LODD in their community. Using the descriptive research method, this paper will attempt to explain how these events in relation to management initiatives vis-à-vis organizational recovery from a LODD have influenced and shaped the fire service of today and the Worcester Fire Department in particular.

Literature Review

The concept of organizational resilience is an evolving field of research and is expanding its scope from the business continuity, i.e. information technology infrastructure protection to leadership and human resources or “workforce continuity” (Lewis, 2008). Wastell, McMaster and Kawalek (2007, p 60) note, “Like the Phoenix, organizational entities may rise again from their metaphorical ashes to better meet the exigencies of a changing world.” Organizations, *may*, rise again. The WFD following our multiple LODD event have faced many of the same organizational recovery issues that other entities have faced during times of crisis and forced change. The first section of this literature review will attempt to identify commonalities with our

experiences from the realms of both public and private entities that were forced through a period of rapid and sometimes dramatic crisis/change management; the basis of research question #1.

A special technical report issued from the United States Fire Administration, Thiel (1998) identified several common problematic areas which organizations may encounter in a comparative study of firefighter fatality incidents between 1987 and 1995. Thiel lists the following impact areas which fire departments must confront; impact on operations, impact on safety consciousness, impact on equipment, impact on training, impact on morale and productivity, firefighter aggressiveness, under the looking glass (public scrutiny), crisis management/counseling, and taking care of our own. Heller (2007) reiterates many of the these same impact areas with regard to the Fire Department of New York (FDNY) following the September 11, 2001 loss of 343 firefighters in the terrorist attack on the World Trade Center complex.

In an interview with Chief Adam Thiel of the Alexandria Virginia Fire Department, he noted that when writing the special technical report for the USFA, his research examined seven specific LODD incidents; “The common areas which were highlighted in the report were just that, common to all seven of the incidents.” Thiel also stated that, in his study, he found that the personnel issues of morale and productivity had the most impact on the overall success or failure of the organizations moving forward (personal communication, September 12, 2008).

These broad themes transcend the fire service. Similar themes can be seen in the private sector as noted by Gabriele Ganswindt founder of the Global Resiliency Network, “Any organizations that sustains a crisis of this magnitude must be prepared to meet the challenges that will follow. Having redundant systems in place to continue business is certainly prudent, and will help maintain the flow of revenue, but without a system for insuring that the affected personnel

are cared for, the business model will often fail” (personal interview, September 30,2008). In the corporate world historically there are relatively few examples of tragic personnel deaths having such an organizational impact that would necessitate full organizational response and recovery. However, the World Trade Center event did produce such a need for many of the firms located therein. Some tangible examples include, Marsh & McLennan Co’s which lost 295 employees on that fateful day, (Thomas, 2004), and Fiduciary Trust Company International (FTCI), a division of Franklin Templeton, which lost 86 employees (FTCI, n.d.)

These companies suffered extensive organizational impacts including devastating financial losses, but continued to focus on providing support and benefits for the remaining employees and the families of those who were killed. Braverman (2006) describes this theory of Business Continuity Management (BCM) which is a related field to organizational resiliency. Specifically, Braverman (p. 3) focuses on a subset of BCM called human continuity; “Indeed, there is no business continuity without people who are assured enough of their safety to remain at work, or the acute danger having passed, to return to the workplace.” These human continuity factors, safety and security, are well documented, most prominently in the case of Maslow’s hierarchy of needs (Mosley, Pietri, and Megginson (1996).

Chief Gerard A. Dio of the Worcester Fire Department states, “After our tragedy, our organization was faced with rebuilding the foundation of our departments’ core values, our culture; those had been forever changed” (personal communications, August 22, 2008). Confidence and trust in the organization had been compromised on many levels; administrative, procedural, operational and personal. These two overriding organizational issues were the most fundamental principles that would have to be restored if any semblance of recovery was to be made. “We needed to assure our people that the members of this department would be able to

meet and transcend any obstacle, however heartbreaking they may be. We had to restore order from the chaos, first; then people would see that we were still functioning as an organization” stated District Chief Walter C. Giard (personal communication, August 16, 2008).

Along with the restoration of trust and confidence, was the issue of change. There was a very loud and determined call for organizational changes to be made so that nothing of this magnitude could ever happen again. The rank and file members of the department wanted to know how this type of catastrophe could have been avoided, that is, who bore the responsibility for the deaths, and how would the department “fix” the problem going forward. The Worcester Fire Department Board of Inquiry was tasked with that responsibility, and began the process immediately following the incident. The list of recommendations that came out of that report became the template for many of the changes that ensued (WFD, 2001). (Appendix A)

Another source for recognizing and implementing change following the incident was the National Institute for Occupational Safety and Health (NIOSH) Fire Fighter Fatality Investigation and Prevention Program report. This agency is tasked with investigating the factors that contributed to the LODD’s. The result of these investigations is the “Identification of causal and contributing factors (which) enable researchers and safety specialists to develop strategies for preventing future similar incidents” (NIOSH, 2000). (Appendix B) Chief Stan Gibson of the Coos Bay, Oregon Fire Department credits the investigative reports with helping to guide his department, “Even though we did not like what we saw in ourselves, we knew we needed to open to what the experts’ evaluation was telling us” (personal communication, September 22, 2008). These agency recommendations were also incorporated into the process of organizational change for the WFD. Organizational recovery and the ensuing issues are a

complex process; they are dependent upon many factors which will influence their success or failure.

The role of an organizational leader in a time of crisis or challenge is critical to the organization's long-term recovery (research question #2). The idea that an organization *can* recover from a crisis is dependent upon the leadership abilities of those who would navigate the organization forward (Heifetz, 1998). Weiss (2002, p.33) states that, "In the best and worst of times, the way in which a leader functions has an enormous influence on the company." Bardwick (1996) describes the leadership role as one that is pivotal for the future of an organization in adverse times and hinges on *trust*. Reciprocal trust between the employee and the leadership is a key factor in organizational performance (Holman, 2006). Mishra (1996) contends that trust in a leader is multidimensional encompassing such areas as competency, openness, concern and reliability. These themes are at the heart of research question #2.

The roles which leaders must employ vary with the challenge at hand. Leading under times of duress requires a rational approach and is summarized by Ward (2004) as; keeping your focus on a few important things, emphasizing human resources and needs, encouraging team building, start with a short-term plan and build from there, exercise a hands-on leadership style, and over-communicate within the organization. Weiss (2002, pp. 30-31), adds these "8 universal laws of crisis leadership; 1) maintain absolute integrity, 2) know your stuff, 3) declare your expectations, 4) show uncommon commitment, 5) expect positive results, 6) take care of your people, 7) put duty before self, and 8) get out in front".

Lewis extols the virtues of "blended communications"; that is communications lines that both "inbound and outbound". He further emphasizes that during times of crisis or extreme challenge, that it is imperative for organizations to "close the loop" of communications (2008,

p.12). A significant weight is placed on listening and processing feedback from constituents as well as communicating information outward. Bell (2002, p.3), states that the foundation for organizations resiliency is predicated on its communication systems and their “extensive enterprise connectivity and information robustness”. Mishra’s (1996, p.15) focus on the issue of “trust” in the realm of “undistorted communications” is also central to strong leadership.

The universality of these themes is evident in the fire service as well. Salisbury, North Carolina Fire Chief Robert Parnell was unwittingly thrust into this same predicament on March 7, 2008, when two of his firefighters were lost in a millworks fire. One day after the tragic loss, Chief Parnell succinctly stated that the focus of the Salisbury Fire Department and its leadership team was “on family and facts. Our leadership team is playing an important role in this recovery. Our chiefs and company officers are a vital linkage between the administration and the line in this process, and open communication is the key” (R. Parnell, personal communication, September 29, 2008). Thiel (1998) lists open and accurate internal communications channels as a consensus recommendation for all fire departments faced with an LODD event. Battalion Chief Robert O’Donald of the Charleston, South Carolina fire department expressed similar concepts regarding his role as a member of their leadership team. “It is so important to be honest and open. Our folks needed to be included in the healing process, both personally and for our department. We have tried very hard to implement all of the commission’s recommendations as well as many from within our ranks, to improve ourselves and move forward” (R. O’Donald, personal communications, April 25, 2008).

The Worcester Fire Department leadership team was confronted with similar obstacles as their counterparts in the fire service. Communications became a central theme, and District Chief Giard initiated a series of departmental newsletters to insure free flow of information. “In

response to the demand for change, we knew that the best way to keep the rumors and the tension minimized was to provide a lot of information about what was going on in the department” stated Giard. “We didn’t do as good a job as we should have in receiving information up the chain however; the flow was really only one way” (personal communication, August 16, 2008).

Fire Chief Gerard A. Dio took over the reigns as chief of department in October 2000, less than one year after the incident. “I saw my role as the chief as being the guide to the future. I knew where I wanted to bring the department, but I wasn’t sure how I was going to get everybody to go there with me” (personal communication, August 22, 2008). Chief Dio initiated a department reorganization plan in 2001 which included the attrition of two deputy chief officers, replacing those positions with much needed administrative infrastructure. Three divisions, headed by District Chief’s were created, Safety, Information Services and Special Operations. Each of these new areas was designed to support the departmental vision as represented in the investigative reports. Dio states, “I initiated these changes not only to meet the mandates, but to build confidence and trust in the leadership and in the departments’ commitment to change”.

Leadership roles are often job specific. The cumulative efforts of the leadership team in the organizational recovery process are a determining factor in the departments’ ability to maintain its focus and direction as it moves through the mine fields of salvaging its mission.

The nature and type of recovery initiatives which are undertaken following a tragic event are also significant to long-term organizational health. Research question #3 is an exploration of what recovery initiatives organizations have utilized following a crisis. In the private sector, there are similar factors to consider as in the public arena. Braverman (2006) and Lewis (2008)

point out a current shift in Business Continuity Management (BCM) from strict business-process based efforts, to an increased emphasis on human continuity components within the established framework of BCM. The conventional BCM phases of: I) Planning for Prevention and Mitigation, II) Emergency Response Procedures, III) Crisis Management, Restoration and Recovery, and, IV) Program Maintenance (Braverman, 2008, pgs.3-7) are similar to those contained within the National Incident Management System (NIMS) for first responders established by the Department of Homeland Security (2004).

This systematic approach to recovery of organization following a crisis situation including components that address BCM and human continuity are ultimately interdependent. Lewis (2008) says that emphasizing the human or workforce continuity component of disaster recovery is both the right thing to do, and good for business. Industry experts employ programs such as the National Fire Protection Association's (NFPA) 1600 which outlines a program for emergency and disaster recovery in the context of business continuity (NFPA, 2007). DHS's *Ready America* program refers businesses to NFPA 1600 as a primary tool for planning and preparedness (DHS, 2008). The NFPA standard outlines the following program elements: 1) laws and authorities, 2) risk assessment, 3) incident prevention, 4) mitigation, 5) resource management and logistics, 6) mutual aid/assistance, 7) planning, 8) incident management, 9) communications and warning, 10) operational procedures, 11) facilities, 12) training, 13) exercises, evaluations and corrective actions, 14) crisis communications and public information, and 14) finance and administration (NFPA, 2007).

The International Association of Fire Fighters (IAFF) provides its members with a job aid for behavioral health and wellness that includes a section on reactions to traumatic stress. The IAFF identifies disaster post-traumatic-stress-disorder as an inevitable by-product of a first

responder's exposure beyond the normal population. The IAFF recommends Employee Assistance Programs (EAP's) as a primary source of help for its members, along with peer intervention and private counseling (IAFF, 2008). A similar approach is offered in NFPA 1500, Standard on Fire Department Occupational Safety and Health Program which requires that all fire departments address the areas of members' assistance and wellness as well as establish a Critical Incident Stress Management (CISM) program (NFPA, 2007a).

The CISM concept is commonly ascribed to Jeffery Mitchell and George Everly, co-founders of the International Critical Incident Stress Foundation. Mitchell and Everly identified critical incident stress as a multi-component systemic problem, which would require a multifaceted approach to mitigation (Mitchell & Everly, 1998). The CISM core components described by Mitchell and Everly include seven interventions: 1) pre-incident preparation, 2) demobilizations or group informational briefings, 3) defusing, 4) critical incident stress debriefing, 5) individual intervention (1:1), 6) Family CISM, and 7) Follow-up/referral. The majority of these CISM interventions were utilized for individuals and families of the FDNY following the September 11, 2001 terrorist attack (National Fallen Firefighter's Foundation [NFFF], 2002).

The Worcester Cold Storage and Warehouse fire provided a unique set of circumstances for the clinicians involved in the CISM process. Dr. Hayden Duggan of the On-Site Academy in Westminister, Massachusetts was the lead clinician of the CISM team which deployed to the scene of our tragedy that evening. Dr. Duggan explains the unique requirements of the Worcester experience, as "...of a magnitude which we had never experienced prior to this event." An International Association of Fire Fighters (1999) guide for developing CISM programs list 16 incident types that could lead to development of stress related problems by responders. The

Worcester incident involved at least nine of these risk factors. Duggan further states that, “Worcester had so many of the critical factors for post traumatic stress all in one incident, along with the sheer number of members affected; it made for a very challenging initial deployment” (personal communication, September 30, 2008).

The team in Worcester employed many of the basic CISM techniques as described by Everly and Mitchell (2000), using a combination of 1:1 individual crisis interventions, large-group demobilizations and staff consults, defusings, critical incident stress debriefings, family CISM and follow-up referrals. Dr. Duggan explains that these efforts were augmented with some newer techniques which proved successful in Worcester, and later in New York City following the 9/11 terrorist attacks. These new efforts included, station visits, utilization of the grief debriefing format, in-patient back-up residential programs and eye movement desensitization & reprocessing (EMDR) (personal communication, September 30, 2008).

Members of the Worcester and New York City fire departments were given access to these recovery initiatives, as were many of the departments cited in this study. Follow-up by the National Fallen Firefighters Foundation with the families and the affected organizations continues to this day (personal observation).

Procedures

This investigation was conducted using the descriptive research method in an attempt to illustrate the conditions and experience as it currently exist with regard to the subject of organizational recovery. The methods used to gather the requisite information came from a variety of sources including personal interviews, personal observations and of course a thorough literature review.

The various individuals chosen to participate in the interview process were carefully selected for their subject matter expertise and/or their proximity to events in the areas under discussion. Subject matter expert Gabrielle Ganswindt of the Global Resiliency Network was identified through the literature review process, and provided a more inclusive perspective of organizational recovery outside the fire service. The interview was conducted by phone and took place in late September, 2008. Ms. Ganswindt was asked to comment on the research questions as stated with emphasis given to the private sector. Dr. Hayden Duggan is a subject matter expert in personal and organizational recovery in the area of public safety. His background includes providing direct services to both the Worcester incident and NYFD following 9/11, which made him an excellent source for this subject. Dr. Duggan was asked questions specifically related to research question #3, what initiatives were instituted by he and his colleagues for the fire service following those particular events. The interviews were conducted in-person at the On-Site Academy in September of 2008.

A number of personal interviews were conducted with fire service personnel outside the city of Worcester. Battalion Chief Robert O'Donald of the Charleston, South Carolina Fire Department was interviewed in April and October, 2008. Chief O'Donald was chosen for his close ties to a LODD incident in Charleston which saw the loss of nine firefighters in June, 2007. He was asked to give specific details of his departments' experience on all three research questions. The same format was used for interviews with Fire Chief Robert Parnell of the Salisbury, North Carolina Fire Department. Two personal interviews were conducted in September and November 2008. Chief Parnell was chosen following his department's tragic loss of two firefighters in a millworks fire in March, 2008. Lastly, a telephone interview was conducted with Fire Chief Stan Gibson of Coos Bay, Oregon in September 2008. The Coos Bay

Fire and Rescue Department lost three firefighters in the line-of-duty in November 2002 when a roof collapsed at a fire in an auto repair shop. Chief Gibson answered the same questions as the other fire personnel involved with this process.

Senior members of the Worcester Fire Department Board of Engineers were interviewed at various opportunities over the course of four months in the summer and fall of 2008. These chief officers, Fire Chief Gerard A. Dio, District Chief Walter C. Giard, District Chief James Callery, Deputy Chief Timothy Gray, District Chief Michael O. McNamee and District Chief Randy Chavoor were chosen because of their intimate connection with the Worcester incident. Chief's Dio, Gray, Giard and Callery served on the Board of Inquiry (BOI) team which conducted the internal investigation following the tragedy. Chief's McNamee and Chavoor were chosen based on their involvement as fire ground commanders that fateful night. The BOI team members were asked to comment on the organizational recovery issues specific to research question #1, and their perceptions with regard to their leadership roles in research question #2. The group was also asked to give specific examples of initiatives which they were involved in implementing with regard to research question #3. The incident management chief's were asked similar questions; however their perspective was limited to a more incident specific realm.

In the area of personal observations, the author's personal connection with the Worcester incident, its aftermath and recovery, are the basis for those annotations. The author was also fortunate to have served on the ground in New York City for eleven days with the NFFF as a peer liaison following the September 11, 2001 terrorist attack on this nation. That role included personal contact with FDNY personnel and their families during the difficult days following the attacks. Other personal observations have been made during consultations with the NFFF and

departments like, Charleston, S.C. and Salisbury, N.C. in which the author serves as a subject matter expert in LODD recovery.

The literature review was conducted using both traditional print sources, as well as various internet sources. The information gathered was chosen for its relevance to the topic as well as its ease of accessibility for research replication. All of these sources were vetted by the author for authenticity and reliability.

Results

The first research question asks; “What are some of the major organizational recovery issues organizations face following a critical incident such as a line-of-duty death? This research found that when an organization suffers a catastrophic impact such as this, in order to maintain business continuity it is imperative to address the needs of the company’s personnel immediately. Workforce continuity, a growing field of operations in both the private and public sector, addresses the foundational principles of personal security and trust.

Another central premise which emerged from the research of question #1 is the demand for change. The organizational impact of this type of event calls for intense scrutiny of the organization, its policies and procedures, and contributory circumstances leading up to the event. The intense desire to find a root cause spurs investigation. Each entity undergoes a period of self-evaluation, sometimes formal and other times informal, usually in parallel to an outside agency investigation such as USFA, NIOSH or OSHA (Occupational Safety and Health Association). In all cases, these investigative reports, and their subsequent findings and recommendations become the basis for change.

Each of the respondents interviewed for this investigation were asked to answer the research question as written, and subsequently which issues they believed were most important in their experience.

Research question #2 is; “What role(s) does the leadership team play in the organizational recovery process?” The leadership team of an organization in crisis most important role is establishing and maintaining open and abundant information and communications. The teams’ ability to establish bilateral free flow of information is a priority role which must be developed. This principle function is an integral component in establishing the trust factor identified in question #1.

Another key role that was identified for the leadership team was instituting the necessary organizational changes identified in the evaluation process. The leadership team must show commitment through action. Rhetorical change is hollow and easily unmasked when emotions are high; therefore positive actions are necessary to the theme of restoration of confidence and showing continuity of purpose.

The final question asks; “What recovery/organizational health initiatives can be implemented following a critical incident?” The nature and type of organizational recovery initiatives is also event driven. Most of the fire service experiences are in the CISM discipline, with various adaptations implemented. Post 9/11 and Hurricane Katrina, more emphasis in both public and private sector recovery has been directed toward utilization of the recommended practices found in NFPA 1600.

Pre-planning and pre-incident education are seen as vital to the successful execution of the programs. Both systems employ organizational and personal recovery tools in their implementation.

Discussion

This research found similar characteristics were displayed in the majority of organizations studied in regard to how they handled crises; whether they were public or private entities. This author's personal experience in the realm of public safety, specifically the fire service, has led to multiple opportunities to observe fire departments first-hand following a LODD event. These observations along with a review of the research findings herein will establish the intent for the discussion section.

The emergent field of workforce or human continuity is an eagerly accepted practice today among business continuity experts (Braverman 2006). Sometimes referred to as resiliency, Ganswindt notes that continuity managers have come to realize that the historic approach to systems resiliency is chiefly dependent on the well-being of the workforce that drives that system (personal communication, September 30, 2008). Thus, "the bedrock of organizational resilience is the enterprise workforce" (Bell, 2002 pg. 3).

Insuring that personnel have an opportunity (time) to evaluate their personal security needs, including physical, emotional and psychological is an important first step in workforce continuity. Thiel (1998, p. 15) summarizes, "Fire department managers need to pay close attention to their employees after a fatality and give them the flexibility to grieve and cope in their own way". A common axiom within the realm of CISM called the one-third, one-third, one-third rule establishes that approximately one-third of individuals involved in a critical incident will be profoundly affected, one-third will be moderately affected and one-third will have no long-term ill effects. This imprecise grouping means that all members must be evaluated signs of stress reaction.

Organizations must then provide resources to help personnel through this period of uncertainty. Many of the fire service entities included in this study utilized the CISM approach. CISM allows for some tailoring of its methods in order to fit a given situation, as was the case in Worcester as described by Dr Hayden Duggan in his description of the special circumstances seen first at this incident and again in the World Trade incident (personal communication, September 30, 2008). Individual attention is not always plausible, especially as the incident is unfolding, therefore a group defusing may serve as a stop-gap until a more personalized program of stress resolution can be established. Mitchell & Everly (1998, pg. 8) characterize the CISM approach as “multicomponential and combinatorial”.

A practical approach in the area of personal security is also a confidence booster and helps develop a higher level of employees trust in the organizations ability to respond after a crisis. Together with strong, positive leadership (question #2), this humanistic approach to business continuity is the heart of restoring confidence and trust in the organization. Chief Robert Parnell described trust as, “The one thing we needed desperately, and didn’t really have. We had thought we had trust in our department prior to our loss, and discovered that it had vanished in a heartbeat” (personal communication, September 29, 2008). Chief Parnell credited the open communications approach to his departments’ ability to restore some of that trust. “One key aspect of working relationships between managers and their subordinates is that of trust, where trust is defined in terms of perceptions of openness and honesty” (Mishra, 1996 pg.6).

The organizations communications policy is one avenue to an openness and honesty exchange of information. Lewis (2008) describes information as the “lifeblood” during a crisis, where the organization is dependent of that flow to continue, unimpeded and forceful throughout. The conduit for information in most organizations is through its leadership team, principally its middle and upper management. The Worcester Fire Department utilized its company officers and

battalion chiefs as the principle pathway for information dissemination following its LODD event. The system had a definitive flaw however; that is, most of the information flow was one-way, top-down. Little effort was made to actively solicit communications up the ladder (personal observation).

Chief Stan Gibson and Chief Robert Parnell were able to withstand the immediate onslaught of personal attacks and finger-pointing by providing strong transparent leadership. Their ability to maintain open communications with their departments, the media, and the investigative committees was a key factor in their ability to persevere. Chief Gibson describes the experience as, “a true test of your faith in God, faith in family, and faith in your own abilities” (personal communication, September 30, 2008). Weiss described this concept in terms of integrity, “Integrity is the basis of leadership. Leaders need to tell the truth, and they need to keep everyone informed” (2002, pg. 33).

The purpose of this research study was to describe what types of issues, leadership roles and organizational recovery initiatives are used by organizations both public and private following a crisis event. From such an examination, the WFD can then gauge its efforts through comparative analysis. Having substantially found that the WFD’s collective efforts are on par with the collective norm, a baseline can then be established to determine whether those efforts, and potentially those of other organizations, have had a positive or negative effect on overall organizational health. The general implications of this research are, that the WFD was within the standard scope of practice at the time for both personal and organizational health/recovery efforts, and as such is well suited to further study of the initiatives long-term effectiveness.

Recommendations

As a result of this analysis, certain recommendations can be extruded from the data which may prove beneficial to the Worcester Fire Department as it continues to rise from the ashes, literally and figuratively, like the proverbial Phoenix. The following recommendations are offered:

- The WFD should benefit from this research by having established the validity of its previous efforts.
- The Worcester Fire Department should undertake a comprehensive analysis of the long-term successes or failures of the organizational health initiatives initiated after its tragic loss of six brothers.
- The WFD should add an educational component to its officer development leadership skills curriculum in the areas of building and maintaining trust.
- The WFD should add an educational component to its departmental core curriculum on crisis communication.
- The WFD should re-establish its pre-crisis educational efforts with regard to CISM training for all of its members.
- Additional research should be undertaken by other fire service organizations to establish the long and short-term effectiveness of the organizational health efforts initiated in the departments.
- Researchers who may seek to replicate this or similar explorations should seek to establish a more narrow range of study, based on organizational type, rather than study similar events.

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Appendix A

Worcester Fire Department – Board of Inquiry

Summary of Recommendations

The BOI formulated the following recommendations through a process of open discussion and exchange. The recommendations are not presented in any particular order.

The City of Worcester has hundreds of abandoned and vacant buildings, and the Fire Department has a policy of identifying them. However, an expanded formal policy for preventing fire in vacant buildings should exist.

- ***Formalize the policy for the prevention of fire in abandoned and vacant buildings.***

An Incident Commander must utilize the concept of risk management. According to NFPA 1500, Standard on Fire Department Occupational Safety and Health Program: the Incident Commander shall evaluate the risk to members with respect to the purpose and the potential results of their actions in each situation.

- ***Develop a procedure whereby dangerous vacant and abandoned buildings can be identified prior to the occurrence of fire, and provide this information to the incident commander for use during the risk/benefit aspect of the fire size-up process.***

The Fire Department ICS guideline instructs Rescue 1 to initiate a primary and secondary search of a fire building. It is standard practice for these searches to be conducted by crews of two fire fighters.

- ***Investigate and implement the resources, techniques, and training***

required for Rescue 1 to conduct searches in large commercial buildings.

The Incident Commander must be able to conduct a complete size-up of a fire incident.

- *Provide an Incident Commander with necessary building information that is available for the initial fire size-up process.*

Current fire fighter protective equipment provides excellent defense from the physical barriers of heat and smoke. However, the advantage of looking through smoke with a thermal-imager will remove another barrier to fire fighters.

- *Continue with the integration thermal-imager technology and training.*

Although the Rapid-Intervention-Team is a relatively new concept in the fire service, the Department must complete the implementation process.

- *Complete the development of the Rapid-Intervention-Team (RIT).*

The ability for the incident commander to know the exact location of fire fighters on the fireground would benefit fire fighter safety. Currently, there is no system available to provide such information.

- *Express willingness to industry for Worcester to participate in the development of a Three-Dimensional Fire Fighter Tracking System.*

The Worcester Fire Department uses a 30-minute air bottle. The Board believes this bottle provides an appropriate duration for structural firefighting.

Nevertheless, there are strong arguments both for and against the 30-minute bottle.

- *Investigate extended use bottles for fire fighter SCBA.*

Communication on the fireground is at best difficult. Although face-to-face communication is best and encouraged, radios are often the only practical means of

communicating vital information.

- *Improve the methods and resources by which fireground information is communicated..*

Appendix B

National Institute for Occupational Safety and Health

Summary of Recommendations

NIOSH investigators concluded that to minimize the risk of similar occurrences, fire departments should

- **ensure that inspections of vacant buildings and pre-fire planning are conducted which cover all potential hazards, structural building materials (type and age), and renovations that may be encountered during a fire, so that the Incident Commander will have the necessary structural information to make informed decisions and implement an appropriate plan of attack**
- **ensure that the incident command system is fully implemented at the fire scene**
- **ensure that a separate Incident Safety Officer, independent from the Incident Commander, is appointed when activities, size of fire, or need occurs, such as during multiple alarm fires, or responds automatically to pre-designated fires**
- **ensure that standard operating procedures (SOPs) and equipment are adequate and sufficient to support the volume of radio traffic at multiple-alarm fires**
- **ensure that Incident Command always maintains close accountability for all personnel at the fire scene**
- **use guide ropes/tag lines securely attached to permanent objects at entry portals and place high-intensity floodlights at entry portals to assist lost or disoriented fire fighters in emergency escape**
- **ensure that a Rapid Intervention Team is established and in position upon their arrival at the fire scene**

- **implement an overall health and safety program such as the one recommended in NFPA 1500, Standard on Fire Department Occupational Safety and Health Program**
- **consider using a marking system when conducting searches**
- **identify dangerous vacant buildings by affixing warning placards to entrance doorways or other openings where fire fighters may enter**
- **ensure that officers enforce and fire fighters follow the mandatory mask rule per administrative guidelines established by the department**
- **explore the use of thermal imaging cameras to locate lost or downed fire fighters and civilians in fire environments**

In addition,

- **Manufacturers and research organizations should conduct research into refining existing and developing new technology to track the movement of fire fighters on the fireground.**