

**Developing an Incident Management Team**

**for**

**Tampa Fire Rescue**

**Nick Lo Cicero**

**City of Tampa Fire Rescue**

**Tampa, Florida**

**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, idea, expression, or writings of another.

Signed: \_\_\_\_\_

**Abstract**

The problem is that Tampa Fire Rescue (TFR) does not operate an all hazards Incident Management Team (IMT) for incidents of local significance. The purpose of the research was to identify requirements for the City of Tampa, and methods utilized by other organizations when responding to incidents requiring an expanded management structure. An action research methodology was utilized to answer the following research questions. How prevalent are Incident Management Teams with other public safety organizations? What are the advantages of establishing an Incident Management Team? How would Incident Management Teams be utilized by Tampa Fire Rescue? What efficiencies can be leveraged with regards to interaction within the city emergency operations center? Would any external city stakeholders benefit from the establishment of such a team?

The research, literature review and survey identified how other governmental public safety providers and the private sector contends with management command and control deployment when operational necessities requires incident management expansion to ensure efficiency and continuity of operations. Collated data revealed how other government agencies, fire departments and EMS and other vital intra agency department such as public works and transportation work to overcome the problematic issues relating to intra agency command and control. Recommendations for Tampa Fire Rescue included maintaining National Incident Management System (NIMS) training annually for all Tampa Fire Rescue stakeholders, and a recommendation to establish a Standard Operating Guideline for an Intra –agency Incident Management Team integrated into Tampa Fire Rescue’s operations plans for enhanced operational efficiency and safety for the City of Tampa.

**Table of Contents**

Abstract.....3

Introduction.....5

Background and Significance.....6

Literature Review.....9

Procedures.....20

Results.....23

Discussion.....25

Recommendations.....31

Reference List.....33

**Table of Figures**

Figure 1.....35

Figure 2.....36

**Appendices**

Appendix A.....37

Appendix B.....38

## **Introduction**

Efficient command, control and communication are uncompromising requirements for fire services today. There have been countless documented cases where those two components were missing or grossly inept initiating the unraveling of an incident. In many cases this unraveling, has led to increased inefficiencies and arguably increased damage, injury and even death. There are fire departments of all sizes across the country both large and small. When faced with local incidents of significance, not all departments have the resources and staffing to handle the varied circumstances and requirements to mitigate the situation they are facing. A significant challenge of the fire service is to protect the citizens they serve while understanding the obligation to provide the safest circumstances possible for their personnel, a challenge that Tampa Fire Rescue fully appreciates.

Many municipal governments faced with significant budget reductions finding operational efficiencies are a must. In many cases departments functioning with diminished staffing, and the potential of a significant expanding local incident, must pool resources within the municipality to cobble together an appropriate incident command staff. In some cases with the formation of an Incident Management Team (IMT) makes sense.

The problem is that Tampa Fire Rescue does not have an Incident Management Team to manage incidents of local consequence. The City of Tampa has experienced several instances in which significant local instances have impacted the city and the full use of an IMT would have been very beneficial and efficient in the mitigation of the respective incident. The purpose of this research is to establish an Incident Management Team for Tampa Fire Rescue. This research will utilize action research methods to answer the following research questions: How prevalent are

Incident Management Teams with other public safety organizations? What are the advantages of establishing an Incident Management Team? How would Incident Management Teams be utilized by Tampa Fire Rescue? What efficiencies can be leveraged with regards to interaction within the city emergency operations center? Would any external city stakeholders benefit from the establishment of such a team?

### **Background and Significance**

Tampa Fire Rescue provides fire and EMS service to approximately 348,882 citizens ranking only behind Miami and Jacksonville as the most populous cities in Florida. The transient population (population traveling into the city for work or other reasons but do not live there) for the city is 386,985. The Tampa Bay area comprises about 2,700,000 residents and is ranked as the 53<sup>rd</sup> largest city in the United States and the third largest city in the state following closely behind Miami and Jacksonville. The word "Tampa" is an American Indian word used to refer to the area when the first European explorers arrived in Florida. Its meaning, if any, has been lost to the ages, though it is sometimes claimed to mean "sticks of fire" in the language of the Calusa, a Native American tribe, relating to the high concentration of lightning strikes that Tampa Bay receives every year during the hot and wet summer months. Tampa's first organized volunteer fire department was founded in 1884. Seven "bucket brigades" were organized to serve the city. On May 10, 1895, the city council passed ordinance #307 authorizing Tampa's first professional, paid fire department. A. J. Harris was named chief to preside over twenty-two fire fighters in five stations at an annual budget of \$18,000. The nature of the fire service in Tampa was changed forever when paramedic-staffed station wagons officially began operating in July, 1973. The station wagons that began the era of fire/rescue have been replaced by a fleet of ultra modern advanced life support vehicles and fire engines. Current day, the area protected by the

department includes over 130 square miles and operates 22 fire stations strategically located throughout the community in 4 districts (TFR 2009). Of the 669 employees, 622 uniformed personnel are divided among three 24 hour shifts staffing 21 Engine Companies, 14 Rescue Companies (ALS Transport Units), 5 Truck Companies, 6 Aircraft Rescue and Fire Fighting (ARFF) units and a variety of support and specialty type equipment. The department utilizes a variety of resources to deliver a full range of core services as an all hazards department. The Fire Rescue Department provides essential service in the areas of fire prevention, fire protection and emergency medical care. The department is comprised of Administrative, Operations, Rescue, Communications, and Prevention Divisions. Prior to 2005 the Office of Emergency Management was aligned within the city's Public Works Department. In 2005 TFR assumed responsibility for the Office of Emergency Management for the City of Tampa. With that move, the fire chief became the emergency manager; additionally there is an emergency coordinator and one additional emergency planner rounding out the emergency management staff.

In 2011 TFR responded to approximately 70,000 calls for service within the city limits and the surrounding area. These responses include, but are not limited to, high-rise fires, residential fires, emergency medical calls (EMS), technical rescue calls (USAR), marine fire and rescue calls and aircraft fire and rescue calls (ARFF). Additionally, The Port of Tampa is heavily industrialized and provides an anchor and distribution point for Florida's fuel distribution across the state. The port has long been Florida's largest and most diversified port, and has expanded their role in the movement of containers, bulk and break-bulk cargos, enhancing the status as a major cruise homeport, while immersing as a major economic engine of West Central Florida.

Over the last few years there have been several instances that have stretched the capacity to manage effectively incidents of consequence or the “incident” within the “event”. In particular there was a March 2007 three alarm fire; the buildings were of historic nature and multi-story. The city had also sustained many numerous storms, squall lines and tornados as well as other community issues of significance such as localized flooding and water main breaks. Additionally, due to the warm climate and typically a moderate winter and many days of sun the City of Tampa receives there are many opportunities for events of mass assembly which require a huge amount of intra-agency coordination. TFR has the responsibility for public safety by providing and directing resources and capabilities to support approved requests for mass assembly within the city’s jurisdiction. In 2009 TFR supported 601 special events which included Super Bowl XLIII. Special events manifest in many different forms including parades, marathons, firework shows as well as boat races. In 2011 the amount of supported special events continued to increase to nearly 700 for the calendar year. Between the normal everyday risks the city is exposed to as well as the annual coordination of the numerous special events an identified standard operating process for an incident management team is required. The city requires department managers as well as the Mayor and Chief of Staff to complete the basic training requirements of the National Incident Management System (NIMS). The training matrix includes the following modules; ICS 100, ICS 200, ICS 700, ICS 300, ICS 400, optional is the ICS 800 module of instruction.

There is a significant gap in the ability to manage efficiently and effectively the coordinated efforts of all city disciplines required to manage any type of incident or circumstance presented. Not having an established Incident Management Team to manage incidents of local consequence diminishes the department’s ability to effectively make tactical decisions which



require intra-agency cooperation and coordination which ultimately reduces operational effectiveness and can and will erode community confidence.

This applied research project will validate the need by Tampa Fire Rescue to establish a process for a Incident Management Team to manage incidents of local consequence. The analysis provided relates directly to the terminal objective in the Executive Development Course, Unit 7: Organizational culture and change which states, “Provide the support and reinforcement necessary to complement the changing and expanding mission and goals of most fire service organizations” (U.S. Department of Homeland Security 2006, p. SM7-23). By establishing a process for and established Incident Management Team and Standard Operating Guideline this applied research project also relates to goals of the United States Fire Administration’s Strategic Goals which are one, “Reduce risk at the local level through prevention and mitigation” two, “Improve local planning and preparedness” and three, “Improve the fire and emergency services’ capability for response and recovery from all hazards” (U.S. Department of Homeland Security, 2009).

### **Literature Review**

Literature review efforts were directed to gain an understanding, knowledge and best practices regarding the concepts surrounding the utilization of incident management teams. A literature review was undertaken as part of EFOP applied research projects (ARP’s). Existing standards, research, and outcomes, along with a general review of what others have done in the industry regarding this subject were identified.

There were many ARP’s found to support background information. Several specifically addressed the initiation and developmental Incident Management Teams across some

departmental applications. Many journal articles were revealed that addressed inefficiencies and disjointed response plans that led to poor tactical decisions leading to ineffective fire operations as well as increased potential for firefighter injury and death. Many texts discussed the benefits to organization's that utilized the effective principals of incident management teams. Following these established principals of the incident management team there are efficiencies gained and the potential reduction in the risk that face the public and firefighters alike.

### **The IMT and Organizational Considerations**

Effective and efficient deployment of resources is a paramount benchmark of the fire service as well as any public safety organization. Organizations must have an appropriate method for appropriate response no matter what the circumstance. In situations where communities are faced with a significant local issue, initially many times everything is focused on the initial "response" which is understandable. What is lost in translation is the fact there must be an appropriate level of command staff support to assist with the complexities and issues of an expanding incident. There are a number of federal documents that illustrate the basic plan for continuity of command, whether small town USA or a large metropolitan area the basic compact of the incident command system is the lynchpin that holds everything together. One common theme within the literature search was very prevalent, ensuring there are integrated plans and an established command and control element. Whether dealing with a local incident or an incident that has the potential to expand beyond the local capabilities of the local resources it is imperative the information is accessible and current for the situation at hand. The success or failure of an incident may lie with how well the incident commanders measure and manage the complexities of the incident. The National Response Framework (NRF) is a complete comprehensive national guidance document that addresses roles, responsibilities, activities, and

interdependencies for partners involved in response and short term recovery actions. The National Response Framework (FEMA 2008) Chapter II pg.15 states “It is essential that all levels of government develop a common operating picture and synchronize their response operations and resources.” The concept of management overhead plays a large part in an expanding incident as well, due to continuous monitoring of relevant sources of information regarding actual and developing incidents. The concept of incident management teams have been around for quite some time. Federal, state, local and tribal jurisdictions have the primary responsibility for preventing, responding to, and recovering from emergencies and disasters. When considering the linkage, cohesion and unity of command required to mitigate expanding incidents the NRF did provide much information and guidance for public safety agencies. For example by following the core elements established by the NRF organizations have a road map to build partnerships both operationally and organizationally for success. The Response Doctrine of the NRF clearly defines basic roles, responsibilities and operational concepts (FEMA 2008, p. 8). Another section speaks clearly and could be directly applied to the initiation of an IMT. Organizations should be scalable, flexible, and have adaptable operational capabilities, “as incidents change in size, scope and complexity, the response must adapt to meet the requirements” (FEMA, 2008, p. 10). The NRF also speaks directly to local response actions and the two core responsibilities of the respective community. Primarily, communities should follow the preparedness cycle to plan, organize, train, equip, exercise, and evaluate to strengthen the response capabilities. Secondly, to provide an informed response to incidents by deploying the right personnel and resources, with the right training, as part of a single incident management structure , while remaining flexible and adaptable in order tailor response to the particular needs of the incident ( FEMA 2008, p. 27).

The overwhelming majority of emergency incidents are handled on a daily basis by a single jurisdiction at the local level. It is critically important that all jurisdictions comply with the National Incident Management System (NIMS) because the challenges we face as a nation are far greater than the capabilities of any one jurisdiction; they are not, however, greater than the sum of all of us working together through mutual support (HSPD 5, 2003). The pure focus of HSPD 5 states “To enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system.” HSPD 8 applies an “all hazards” approach to preparedness, prevention and response. It also provides definition to a few aspects such as the first responder, which will ultimately be the incident commander. HSPD 8 further states the focus and support of this document is to support the efforts of the first responders and to ensure they are prepared to respond to major events up to and including terrorist events. Separately, but also an additional tool to assist the incident commanders is The Robert Stafford Act. The Stafford Act if enabled by the President is another tool that was enacted to provide communities “technical and financial assistance to states and local governments to assist them in hazard mitigation measures” (FEMA 2007).

Initiated back in the early 1970’s Firefighting Resources of California Organized for Potential Emergencies or “Firescope” as it came to be widely know was instrumental in the profession of firefighting truly appreciating both internal and external departmental coordination and coordination. Initiated out of necessity, Firescope was developed as the result of the tragic 1970 wildland fire season in Southern California in that case over 500,00 acres burned and a significant human toll was amassed with over 16 lives lost and approximately 700 homes destroyed in a 13 day period. The program's foundation revolved around several benchmarks (1)

improving fireground operations, (2) increasing the effectiveness of fire protection agencies, and (3) improving multi-agency coordination. The original partner agencies with the Forest Service were the California Department of Forestry and Fire Protection, California Office of Emergency Services, Los Angeles City Fire Department Los Angeles County Fire Department Ventura County Fire Department and Santa Barbara County Fire Department. It is important to note that the original cohort agencies initiated several additional modules to build upon which built upon coordinating multi-agency resources, while reducing the potential for fireground injury and increased property loss.

Initiated in 2003, the U.S Fire Administration (USFA) initiated a focus group with subject matter experts from across the country convened to best determine the core elements needed to develop All-Hazards Incident Management Teams (AHIMT'S) throughout the U.S. Specifically an IMT is made up from the Command and General Staff members in an ICS organization. Personnel considered for these types of teams and deployment would have the necessary training and experience to fulfill the various roles and responsibilities required of the Incident Command System (ICS).

The fire ground commander must choose how to carry out the plan of attack at the strategic and tactical level. Additionally, the fire ground commander is “responsible for the safety and survival of all personnel; protecting, removing, and providing care for all endangered occupants; stopping the fire where it is found; and conserving property during and after fire control operations” (Brunacini, 1988 p. 12). Effective utilization of IMT's will assist in accomplishing this goal. Organizations can utilize different types of IMT's

**Team Structure**

Just as the ICS system is flexible so is the IMT. With the concept of the IMT each organization must find the correct fit for their respective problems. Whether required in a regional application or in an intra-agency response the IMT can be scalable for the application required. The FEMA 2007 Technical Assistance Program, published the All-Hazard IMT Team Manual, the manual defines team structure that can be considered by municipalities:

- Local – a single or multiagency team for expanded events
- All-Hazards- State or Regional multiagency or multi jurisdictional team for more complex or extended operations
- Type 2 – National or State team for incidents of regional significance
- Type 1 – National or State team for incidents of national significance

Today's obligation for the fire service is to provide a process of orderly consistence. Those organizations that embrace and look to utilized to the fullest the capabilities of the ICS system will provide the best opportunity for injury reduction as well. In 2010, there were an estimated 139,064,000 civilian workers in the U.S. private and public sector employed labor force, according to the Bureau of Labor Statistics. In 2010, an estimated 3.9 million workers in private industry and state and local government had a nonfatal occupational injury or illness. The perils of the fire service are well know and documented. In 2011 The National Institute for Occupational Safety and Health (NIOSH) reported eight deaths , with an additional eight injuries suffered by firefighter while in the course of their duties. A recommendation from the Firefighter Fatality Investigation Prevention Program provided a key recommendation. The recommendation stated “ Implement the ICS for the management of all fires and establish an incident command post (ICP) as needed to facilitate command and control, especially on complex fire involving

multiple agencies ( NIOSH 2009 pg, 16). In review of many of the NIOSH Firefighter Fatality Investigation Reports, there are countless numbers of report recommendations with the same repetitive themes. These reports reveal commonalties that speaks directly to the incident command system and or the lack there of, ineffective or unappreciated size up by the first arriving officer, ineffective implementation of standard operating guidelines and disregard or unappreciated of firefighter risk management principals when engaged in a number of different scenario applications. Effective principals of personnel management and a keen application will reduce the potential for mishap. A data base review of firefighter near misses was also performed. A review of from 2009 thru June 2012 there were approximately (41) reports submitted centering on ineffective command structure on the fire ground. Specifically report topics centered on “command not in command, confusing orders and conflicting orders” (2012 firefighternearmiss.com). The IC’s role in incident operations is to manage the collective efforts of all the scene responders and resources under a single incident action plan. The incident action plan defines how the tactical priorities will be accomplished and should also describe the safety plan to ensure everyone remains safe throughout the incident. Bunacini (2003) states “well managed incidents produce better outcomes than poorly-managed incidents. Well managed incidents are safer and incur less damage from both the incident problem and our actions to solve the problem” (p. 528). For successful mitigation incident the incident command system must: be used at every incident, appropriately expand to meet the needs of particular incident and be designed to solve the incident problem. Regardless of the application, a basic application of the incident command system or an expanded capability with initiation of an incident management team, one common thread is effective communications throughout the incident. Just like a basic application of ICS the use of an IMT application keeps the incident commander true to the ethos

of effective command communications. To that end, focus must be centered on three of the following points which are strategic, tactical, and tasks. At the federal and state level there are examples of IMT applications. Based on a 1990 congressional mandate utilizing the example of urban search and rescue task force models that were already in place in parts of the country like Miami-Dade (Florida) Fire Rescue, the Fairfax County (Virginia) Fire and Rescue and the California Office of Emergency Services the Federal Emergency Management Agency (FEMA) embarked on a plan to develop 25 operationally functional 56- person multi- discipline. Many Urban Search and Rescue (US&R) task forces are based in major metropolitan fire departments around the U.S. with each consisting of specially trained firefighters and civilians. The US&R IMT's and task forces support the local needs of the IC, as well as providing specialized urban search and rescue capabilities that are not likely available locally in the time of a disaster or expanding local event. If the incident commander understands the capabilities and limitations of the US&R task force and if the IMT is allowed to work to organize and coordinate the task forces the incident commander is assured of getting the best bang for the buck (Collins, 2003, p 589).

The state of Iowa utilizes IMT's; the state defines the team and parameters as a cadre of multi-agency, multi-jurisdictional professionals, activated to support incident management at large or complex incidents, disasters or special events. The IMT has been developed at the state level to provide support to local officials who become overwhelmed during a long-lasting disaster event (Iowa, 2012). Geographically, the state of Florida is uniquely positioned to benefit from many days of sunshine, but with that commodity comes the potential of violent storms and hurricanes that threaten the state with every hurricane season. The hurricane season runs from June 1<sup>st</sup> to November 30. To assist in managing that threat the state utilizes IMT's. Response activities are



actions taken just before, during, and immediately after the impact of a disaster to protect public safety and minimize physical damage. Response activities begin with disaster detection and end with the stabilization of the situation, when the risk to life and property has returned to normal levels. The Urban Search and Rescue Florida Incident Management Team identifies and reports to the local Incident Command Post/Incident Commander of the Authority Having Jurisdiction. Unless otherwise directed, the Urban Search and Rescue Florida Incident Management Team and Task Force(s) will usually integrate into or establish an Urban Search and Rescue Branch under the Operations Section of the established Incident Command System structure (State of Florida, 2009). In the aftermath of 9/11, the state of Pennsylvania initiated a multijurisdictional task force to assist the state with incidents which have the potential to or are expanding beyond the capabilities of the local jurisdiction's capability to respond and or mitigate. Since the inception there have been multiple incidents of consequence in which the functionality of the IMT was beneficial. In 2009, the Pennsylvania Incident Management Team (IMT), which is typed as a Type 4 IMT under the NIMS resource typing standard. The team responded and deployed to provide support for the Northeastern Pennsylvania June floods, to a major hazardous materials train derailment in Hershey, Pennsylvania, to the Nickel Mines Amish School shooting in October, and in January worked with the Pennsylvania Type 3 IMT to provide support for the Pennsylvania Farm Show Exposition (Noll, 2009).

### **Business Considerations and Decision Making**

The complexities of dealing with an incident of consequence is happens in the business world as well. Not all leaders can handle the inundation of information, tactical planning and media interaction complexities required to succeed. Over time there has been much debate over

the complexities of leadership. There have been thousands of studies done on leadership, traditionally these leadership traits center on behavioral as well as situational or contingency theories (Schermerhorn 2000). “Wise executives tailor their approach to fit the complexity of the circumstances they face” (Snowden 2007, pg.1). Leadership and the ability to handle the extremely unique tasks do not just happen, and no one can assume that a single leader will get it, or put it together when the time comes. To that end, more and more businesses are applying the concepts of organizational theory to help with the complexities business leaders face. Leaders and their teams must be flexible but must realize that as circumstances change issues can become more complex and there will be failures in the system. To help these leaders some are delving into the complexities of managing such issues. To better grasp the progression and complexities some are turning to the *Cynefine* framework. The Cynefin framework allows executives to approach issues from a different perspective assimilate complex concepts to address the significant challenges facing their organization. *Cynefin*, pronounced ku-*nev*-in derived from the Welsh, is a word that signifies the multiple factors in our environment and the experiences that will influence the actions of leaders. The framework allows the leaders to define and consider action options utilizing past experiences and examples from their respective organizations. Over the past few years, this approach has been applied to counter terrorism and homeland security. The Cynefin framework helps leaders determine the prevailing operative context so that they can make appropriate choices. Each domain requires different actions. *Simple* and *complicated* contexts assume an ordered universe, where cause-and-effect relationships are perceptible, and right answers can be determined based on the facts. *Complex* and *chaotic* contexts are unordered—there is no immediately apparent relationship between cause and effect, and the way forward is determined based on emerging patterns. The

ordered world is the world of fact-based management; the unordered world represents pattern based management. The very nature of the fifth context *disorder* —makes it particularly difficult to recognize when one is in it. Here, multiple perspectives jostle for prominence, factional leaders argue with one another, and cacophony rules. “The way out of this realm is to break down the situation into constituent parts and assign each to one of the other four realms. Leaders can then make decisions and intervene in contextually appropriate ways” (Snowden 2007, P. 5).

Specifically, the concept of incident management teams is not fire centric this concept is prevalent in the business world as well. With such incidents as the British Petroleum (BP) oil spill and West Virginia’s Upper Big Branch mine explosion businesses must find efficient ways to manage their disaster. In the case of BP, with the operational tempo that was set and the scrutiny high, the establishment of the IMT was imperative. Throughout the incident the use of IMT’s were utilized, in a review of the operational efficiency of the event spoke directly to the use of regional response teams and IMT’s as these groups “consist of representatives from federal, state, and local governments. They conduct pre-response planning and preparedness activities, as well as coordinate and provide advice during response actions. The two principal components of the teams, which provide region wide support on communications, planning, coordination, training, evaluation, and preparedness; and incident-specific teams for which participation depends on the technical nature and location of the incident” (EPA, 2011 p. 1) . In 2009 at the height of the Avian Flu outbreak, many organizations took action by forming IMT’s. One such organization was the Microsoft Corporation. Early on the organization considered the detrimental effect a wide spread outbreak within the organization. “We’re a global company and so we have operations just about everywhere, and along with that we have employees and their families just about everywhere and we care deeply about their health and safety” (Kurtz 2009).

Microsoft's team was made up of fewer than 100 people were tasked with monitoring information internally, as well as keeping in touch with local and governmental agencies. Microsoft had team members based around the globe. The incident management team falls within Microsoft's business continuity group, which forms strike teams to handle any incident that can affect business. Former teams have been formed to deal with flooding in Fargo, N.D., the Chinese earthquake in previous years.

### **Summary**

The literature review identified many important considerations that will assist Tampa Fire Rescue in the implementation of an IMT. With the information gained from the literature review Tampa Fire Rescue can utilize to their advantage a means to institute a process to improve organizational efficiency while engaging internal city partners as well as regional partners increasing the overall safety of civilians and firefighters. Ultimately, the culmination of information did prove the validity and need to institute an IMT for the City of Tampa and Tampa Fire Rescue.

### **Procedures**

The first part of the research was initiated in January 2012 through the Learning Resource Center, while attending the course Executive Analysis of Fire Service Operations in Emergency Management at the National Fire Academy, in Emmitsburg, MD. Search techniques centered on incident management teams and data collection. Research included a review of past Executive Fire Officer Research papers as well as a card catalog search.

The research was continued via the internet during several research sessions between February 2012 and May 2012. The research was conducted utilizing the Google search engine with terms such as: incident command, incident management teams, task force, firefighter injuries and support teams as examples. Many journal articles revealed the scale of issues dealing with appropriate and inappropriate implementation of the incident command system. Additional informative information and materials were obtained from internet searches. The purpose of this literature research was to answer the following research questions:

- How prevalent are Incident Management Teams with other public safety organizations?
- What are the advantages of establishing an Incident Management Team?
- How would Incident Management Teams be utilized by Tampa Fire Rescue?
- What efficiencies can be leveraged with regards to interaction within the city emergency operations center?
- Would any external city stakeholders benefit from the establishment of such a team?

The second part of this research project involved an electronic survey (Appendix A) regarding instituting an Incident Management Team. The survey request was sent to Florida Fire Chief's Association "List Server" in June 2012. This "list serv" is available and open to all public safety agencies, and provides representation from the fire service and EMS agencies alike. The survey was also sent to agencies that are in or adjoin City of Tampa, Hillsborough County Florida and Pinellas County Florida. The survey asked the following questions.

The survey was designed to better understand the complexities of the depth and scope of organizations utilizing IMT's as well as identifying any common issues among public safety

agencies in the region. Information made available may also provide opportunity to improve individual areas of the pre-incident process and operations with the hopes of improving response and increasing safety. With knowledge gained regarding the practices and procedures of others TFR may determine to include appropriate standards for adoption. This author followed the standards set by the NFA and the Executive Fire Officer Program as written in the Operational Policies and Procedures I-2. This survey does not exclusively represent students attending the NFA concurrently with the author, nor was the survey respondents based solely on EFOP affiliation.

A review of Tampa Fire Rescue Standard Operating Guidelines was conducted on June 4, 2012. This review consisted of analyzing the process by which Tampa Fire Rescue applies the methodology for appropriate initiation and integration of the incident command system, as well as searching for any additional internal memorandums and relevant documentation.

Next a retrospective review of structure fire incident information as well as regional mutual aid data was conducted to establish the opportunities that may have existed if the TFR had an IMT over the past two years. Data was obtained from Tampa Fire Rescue's records management system (RMS) DocuMed Systems, Emergency Pro Software. Utilizing DocuMed Systems, Software, searches were performed employing the software's quality assurance module for "Fire Incidents" a date range of January 1, 2011 thru December 31, 2011 was utilized. Each structure fire mutual aid incident was then reviewed. To accurately evaluate and compare these incidents, this researcher utilized National Fire Incident Reporting System (NFIRS) to compare and further analyze Tampa Fire Rescue's data. Utilizing NFIRS data reports, codes and specific criterion were reviewed. The reports included information on property type, residential,

mercantile and industry structures. These data points were compared to show the types of structures involved, as the frequency of mutual aid responses with multiple alarms.

Limitations were encountered during the research. There were some leadership changes with the various agencies making contact and exchange of information difficult. Some email and phone numbers were also inaccurate. Some agencies initially responded to the request for information and stated they would provide the requested information and either never responded or stated they were mistaken and they did not have the appropriate records in place for analysis. One last and important limitation noted was the accuracy of the data and the reliance of valid appropriate documentation. In five instances fire report data was not recorded appropriately in TFR's RMS. As identified, a documentation oversight can limit the evaluation and analysis potential for improvement overall departmental analysis.

### **Results**

Information obtained through the IMT survey (Appendix A) was used to provide additional information for the five research questions. The survey questions provided respondent information pertaining to demographic information as well as the respective department's background, training, application and implementation of an IMT. Information gained through an Action Research method, combined with the survey provided significant insights and data for each of the research questions posed. There were approximately 67 responses to the survey. The survey was presented in a multiple choice format as well as an open text field for further clarification as warranted by the respondent. The data retrieved from the survey provided some insight as to departmental demographics and organizational capabilities of the respondents as comparable to TFR.

- Approximately 62% of the respondent organizations utilized an IMT.
- Approximately 74% of the respondent's utilized formal training as identified by FEMA.
- Approximately 79 % of the respondents utilize an executed mutual aid agreement for the facilitation of IMT in their region.
- When asked about their respective population size, the following demographics were obtained.
  - Communities with 10,000-50,000 people 31%
  - Communities that had populations over 50,000-100,000 26 %
  - Communities that had populations of over 100,000 32%
  - Only 10% had population less than 10,000.

As identified by the survey respondents (62%) utilize in some way, the use of an IMT. While IMT's were utilized in law enforcement and emergency medical services applications, they are represented minimally, at less than 10 % compared to the fire service. Interestingly of the respondents that did not utilize an IMT (38%) issues centering on staffing, or lack there of (59%) and obtaining initial training (40%) were major contributing factors preventing start up of a team. Of the respondents that utilized an IMT, notably some of the more problematic issues in maintaining the team were; training issues (54%), staffing issues (51%) and budget issues (11%). Within the budget category, many departments noted issues overtime considerations as required by some collective bargaining agreements. The majority of the respondents had instituted a standard operating guideline for their respective IMT (73%) compared to (26%) that had not initiated a standard operating guideline. Approximately (62%) of the respondents stated they utilize their teams in mutual aid incidents as well as collaborating in large scale planning for special events as required.



Additional information was provided by those departments that chose not to establish an IMT. In many instances it was directly noted that the fire chief and or the command staff was not in favor of mutual aid agreements or the IMT philosophy and as such would not support such an initiative.

### **Discussion**

Research and literature supports the concept of establishing an Incident Management Team for Tampa Fire Rescue. When initiated, the process will create an efficient and safe working standard for our department to better coordinate expanding local incidence of consequence while improving the safety to our community and enhancing the overall safety of personnel.

The first research question centered on the prevalence of IMT's with other public safety organizations. Both the literature review and the survey results showed many local communities have embraced the concept of the IMT. Having the capabilities to put together a cohesive response team is extremely helpful. As a core part of any public safety organization is to assess the community for risk and then provide a strategy to reduce that risk, utilizing a community risk reduction model will help (FEMA 2011). The recent past has validated on many large scale incidents that the establishment of an IMT significantly increased in popularity. This is punctuated by the creation of the All Hazards Incident Management Teams Association, incorporated in December 2010 (Emergency Management Magazine 2012). There are many teams in the Southwest, and Texas. These teams were integral in managing 2011 Texas wildfires, as well as tornados in Alabama and severe storms that caused major destruction in Indiana. Incident Management Teams have gained popularity because they bring with them both tangible

and intangible properties to the local responders and incident, which, in many cases departments with limited infrastructure and staffing capabilities could really use. These teams provide assistance for orderly, manageable incident progression, building upon the need for personnel overhead and span of control. They also provide assistance to ensure safety is not compromised as well as providing the capability and expertise required for detailed planning and forecasting for the incident as it progresses.

The second research question asked about advantages of establishing an incident management team. As for TFR the advantages would be these. It would be very reasonable to expect the department would utilize an asset like an IMT. One of the main points obtained from the survey and a significant item that was identified was the number of departments utilizing an IMT in mutual aid circumstances with positive result. Like many other municipalities, TFR is not immune to the economic downturn. Having the coordination to add operational overhead would be a plus. The respondents stated they utilize their teams in mutual aid incidents as well as collaborating in large scale planning for special events as required. As an IC he or she must maintain situational awareness and have the ability to expand and control functional positions of all assigned assets. To achieve that goal he or she must have the capability and resources to “right size” their command team. As for TFR in most cases, the IC would only need to utilize “Divisions” to facilitate mitigation of an incident. In some cases due to the sheer size and or complexity of the incident, the IC may need to expand the operational command capability. It is during this transition time when things can go wrong. In these situations the incident expands or gets compounded by some additional component, i.e., a rescue or a rapid intervention crew (RIC) need. If the capability of instituting an IMT exists the IC can intervene by matching the incident with the appropriate management overhead to maintain a safe operation until it is mitigated.

The National Response Framework (FEMA 2008) Chapter II “It is essential that all levels of government develop a common operating picture and synchronize their response operations and resources.” And as Chief Alan Brunacini stated “The fire ground commander must choose how to carry out the plan of attack at the strategic and tactical level. Additionally, the fire ground commander is “responsible for the safety and survival of all personnel; protecting, removing, and providing care for all endangered occupants; stopping the fire where it is found; and conserving property during and after fire control operations” (Brunacini 1988 p. 12). If capabilities for establishing a better system for fire ground commanders to execute their tactical plans are not considered the potential for increased firefighter injuries, civilian injuries and increased property loss will remain high.

The National Fire Protection Association (NFPA) reported more than 500,000 structure fires each year between 1999 and 2007 with direct dollar loss in 2007 alone totaling more than 10 billion dollars. The NFPA also reported approximately 30,000 fires each year from 2002 through 2005 in vacant buildings. Between January 1998 and December 2008 118 firefighters died and 126 were injured, combined with the previous data base information from [firefighternearmiss.com](http://firefighternearmiss.com) provides a compelling perspective illustration about the application of command staff or the shortcomings thereof. There is no way to quantify with absolute fact that added management overhead or deployment of an IMT would have had any effect on the overall line of duty death numbers, but it is plausible to assume, in some rural communities if the IMT concept was implemented and utilized it would provide an added level of oversight and protection for incident commanders and chief officers as they prepare and execute their tactical plans.

The third research question addressed how an IMT would be utilized by Tampa Fire Rescue. If IMT's were utilized for TFR there would be ample opportunity for use and application. There are many special events supported by the city each year. In some cases these special events require a significant amount of intra-city coordination and response to which an application would be appropriate. Additionally, TFR's application of an IMT should remain flexible to allow for those local expanding events of consequence and would include multi-alarm fires, technical rescues, hazardous materials mitigation, mass casualty incidents and wildland fire applications to name a few. TFR provides a significant amount of mutual aid support to surrounding departments within our county. Two reports generated from National Fire Incident Reporting System (NFIRS) in a 2004 extract show an overall commitment of mutual aid provided at 16.1% (Figure 1). Comparably and notable, a NFIRS response breakdown extract for 2010 reveals a significant amount of mutual aid provided by all NFIRS reporting departments an overall % of change of +8.3 (Figure 2). With respect to both data sets it should give pause and consideration to the potential enhanced capabilities for the on- scene commanders with respect to the formation of an IMT.

The fourth research question asked what efficiencies can be leveraged with regards to interaction within the city operations center. The research has identified the increased opportunities gained within an emergency operations center. As with any incident of significance mitigation comes from more than just fire and police. Many time and unappreciated are the behind the scenes work of other intra-city departments such as Parks and Recreation, Traffic, and Storm Water that play a big part in overall mitigation. A prime example for ensuring leverage and capability of an emergency operations center can be learned from TFR itself. Tampa Bay is prone to spring squall lines when cold fronts come across the Gulf of Mexico and the bay.

On March 31, 2011 one of these squall lines moved across city and adjoining counties. The city was preparing for the new Mayor to take office and the next day. That squall line produced 9 tornadoes, destroying dozens of homes and leaving as many as 18,000 residents without power (Fox News 2011). All emergency plans were activated and appropriate actions were taken even with the mayoral transition. The lesson learned was clear. While tasks were accomplished these storms while presenting as multiple bands, were relatively minor to moderate in strength, but they left in their wake a significant work processes. Immediately after the storms passed and the life safety issues were vetted, there were damage assessments to complete, cleaning of debris and streets enabling the recovery process to begin. This incident was an expanding incident of local consequence that touched all aspect of our municipality in order to fully recover. Subsequent after action meetings revealed that a better appreciation of command and control elements along with a better understanding of command transition and demobilization would have helped greatly. It cannot be stressed enough collaborative work environments are becoming more and more prevalent, and in some case a necessity of operations. Regardless of the application, whether intra-government or reaching out to an external partner, in many parts of the country mutual aid agreements are very common and in place to improve the response measurement of the jurisdiction affected. The survey validated that collaboration and the use of mutual aid agreements help significantly.

The fifth research question asked would any external city stakeholders benefit from the establishment of such a team. There are significant opportunities for efficiencies and coordination. Several issues were noted with this question. The many of the respondents elaborated in the survey stated there would be many opportunities to benefit with the interaction of an IMT. As in any discipline of craft having the opportunity to speak a “counterpart” in the

same field, naturally lessens the anxiety surrounding the event. If given the opportunity, having the capability to place “specialist” as point person/subject matter expert can make all the difference in managing and bringing order to chaos. Just like the fire service appreciates speaking to a fire service counterpart, so will the water department when the incident is in the seventh operational period, and the issue is clearly transitioning away from a life safety issue to the recovery phase. Additionally, having and maintaining the capabilities to conduct NIMS training consistently, and not just an annual basis will also solidify external stakeholder benefits.

In summary and from a Tampa Fire Rescue viewpoint, the information and discussion provided lends a unique perspective in the ordinal process of managing the chaos of an expanding event and the effects it has on the command and decision process. Good leadership skills exhibited by truly adept individuals have a common thread. They have the ability to remain flexible while also maintaining the ability to change their behavior and decision making process. If organizational leaders and their organizations utilize and understand the aforementioned concepts they truly have a much better opportunity to navigate treacherous circumstances they might face.

### **Recommendations**

Based on the literature review, original research and data analysis the results of these finding will help to create a standard operating guideline for initiation and use for an Incident Management Team to enhance the operational capability, safety, effectiveness and efficiency of Tampa Fire Rescue responding fire suppression forces.

The following recommendations are made to Tampa Fire Rescue:

- A presentation given at a staff meeting to introduce and discuss the rationale and changes with respect to implementation of a Standard Operating Guideline for an Incident Management Team.
- Publish a Directive communicating the initiation of the Incident Management Team.
- The department should establish an informational program outlining the rationale why the Directive is implemented.
  - The department will maintain administrative oversight process for the new IMT ensuring Fire Communications initiates the appropriate notifications.

### **Timeline**

- By August 15, 2012, TFR Administration will meet and discuss with command staff the implemented the IMT Standard Operating Guideline for Tampa Fire Rescue
- By September 14, 2012, TFR completed and implemented the IMT Standard Operating Guideline for Tampa Fire Rescue
- By September 20, 2012, discuss changes with communications emergency management divisions for appropriate notifications for IMT deployment

- By October 1, 2012 Tampa Fire Rescue will be operational with Tampa Fire Rescue IMT deployment

Future readers and organizational members alike must find to identify the most effective way to implement a specific plan for IMT implementation, as all departments are not the same. Also future readers must find a way to ensure consistent NIMS training. NIMS training must be integrated into all facets of governmental employees and not just a silo within the fire department. Periodically, NIMS integrated training needs to be availed to all potential IMT operators, from Parks and Recreation to Storm Water and Traffic Maintenance, NIMS must be placed as the foundation if the local government wants an efficient organization that has the capability for prevention, preparedness, response and recovery for the community they serve.



### Reference List

- Bunacini, A. (1985). *Fire Command*. National Fire Protection Association.
- Colemen, R. (2003). *Fire Chief's Handbook 6<sup>th</sup> Ed.* (pp-528). Tulsa, Oklahoma: PennWell Corporation
- Day, S., Mitchell, R. (2012 May). Crews aiming to restore New Tampa's water service in phases, city official says. *Tampa Bay Times*. Retrieved from <http://www.tampabay.com>
- Department of Homeland Security. (2011). *Fire- Related Firefighter Injuries Reported to NFIRS*.
- Donahue, A. (2009). *Perspectives on Success: Issues and Priorities for All- Hazard Incident Management Teams*. University of Connecticut Department of Public Policy; ICF International.
- Environmental Protection. (2011). *EPA Actively Evaluating Effectiveness of its BP and Enbridge Oil Spill Response Communication*. Author.
- Fahy, R.F, LeBlanc, P.R., & Molis, J.L. (2011) *Firefighter Fatalities in the United States -2010*: National Fire Protection Association.
- Federal Emergency Management Agency. (2011). *Executive Analysis of Fire Service Operations in Emergency Management*. Federal Emergency Management Agency.
- McDaniel, J. (2009 Fall). *The Emergence and Potential of New Wildfire Risk Assessment Tools*. Retrieved from <http://www.wildfirelesson.net/Printable.aspx?Page=Additional285>
- McKay, J., (2012). All Hazards Type 3 Incident Management Teams Are Catching On. Retrieved from <http://www.emergencymgmt.com/disaster/All-Hazards-Type-3-Incident -Management Teams.html>
- National Fire Protection Association. (2010). *Recommended Practice for Pre-incident Planning* (NFPA 1620).Quincy, MA: Author.
- Noll, G. (2009). Regional Response to All-Hazards Events: A Commonwealth Perspective. *A Journal of Political Science*, Volume 15-3.
- Schermerhorn, J., Hunt, J., Osborn,R., (2000). *Organizational Behavior*<sup>7<sup>th</sup></sup> Ed. New York, NY: Wiley.
- Snowden, D. Boone, M., (2007). *A Leader's Framework for Decision Making*. Harvard Business Review. Retrieved from <http://www.hbrreprints.org>.
- State of Florida. (2009). *Florida Catastrophic Planning Project Annex*. Author.

State of Florida. (2012). *Florida Wildfire Air Operations Plan*. Author.

Storm official say 9 tornadoes raked Tampa Bay. (2011, April). Associated Press. Retrieved from <http://www.foxnews.com>

Tamp Fire Rescue. (2009). *Standard of Cover*. Author.

The Microsoft Blog. (2009 May). Microsoft's incident management team monitors swine flu. Retrieved from <http://www.seattlepi.com>

U.S. Department of Homeland Security, (2009). *Executive Fire Officer Program Operational Policies and Procedures*. Federal Emergency Management Agency.

U.S. Department of Homeland Security, (2011). *National Incident Support Manual*. Retrieved from [Retrieved from http://www.fema.gov](http://www.fema.gov)

U.S. Department of Homeland Security, (2012). *National Incident Reporting System 2004 Mutual Aid Data*. Retrieved from <https://reporting.nfirs.fema.gov/NFIRSReportsSI/jsp/author>

U.S. Department of Homeland Security, (2012). *About Incident Management Teams*. Retrieved from <http://www.fema.gov>

U.S. Department of Homeland Security, (2012). *Type 3 Incident Management Team (IMT) Program Overview*. Retrieved from <http://www.fema.gov>

U.S. Department of Homeland Security. (2007). *Fire Department Overall Run Profile*. Federal Emergency Management Agency.

U.S. Department of Homeland Security. (2008). *Overview: ESF ESF and Support Annexes Coordinating Federal Assistance In Support of the National Response Framework*. Federal Emergency Management Agency.

U.S. Department of Homeland Security. (2010). *Community Hazards Response –Capability Assurance Process*. Federal Emergency Management Agency. Retrieved from [http://www.fema.gov/plan/prepare/cher\\_capfs.shtm](http://www.fema.gov/plan/prepare/cher_capfs.shtm)

U.S. Department of Homeland Security. (2010). *Local Government Partner Guide*. Retrieved from [Retrieved from http://www.fema.gov](http://www.fema.gov)

U.S. Department of Homeland Security. (2010). *National Incident Management System- Emergency Responder Field Operations*. Retrieved from <http://www.fema.gov>

U.S. Forestry Service. (2003). *Searching for and Recovering The Space Shuttle Columbia, Documenting the Forest Service role in this Unprecedented 'All-Risk' Incident*. Author.

Figure 1

**Table 1. Fire Department Fire Runs by  
General Type of Aid  
(percent of incidents, 2004)**

Incident Type	Aid			No Aid	Total
	Aid Received	Aid Given	Total		
Structure	14.4%	24.4%	38.8%	61.2%	100.0%
Outside	6.5%	10.0%	16.5%	83.5%	100.0%
Vehicle	5.6%	7.5%	13.1%	86.9%	100.0%
Other	8.1%	18.5%	26.6%	73.4%	100.0%
OVERALL	9.8%	16.1%	25.9%	74.1%	100.0%

Source: 2004 NFIRS 5.0 data

Figure 2

Response Breakdown (2010)

Response	Number	% Change from 2008
Fires	1,331,500	-1.3
Medical Aid	18,522,000	+8.3
False Alarms	2,187,000	+0.5
Mutual Aid/Assistance	1,189,500	-8.2
Hazmat	402,000	+1.3
Other Hazardous (Arcing wires, bomb removal, etc.)	660,000	+5.5
All Other (Smoke scares, lock-outs, etc.)	3,913,000	+9.1
TOTAL	28,205,000	+6.3

## Appendix A

### Developing and Incident Management Team Research Questions

- How prevalent are Incident Management Teams with other public safety organizations?
- What are the advantages of establishing an Incident Management Team?
- How would Incident Management Teams be utilized by Tampa Fire Rescue?
- What efficiencies can be leveraged with regards to interaction within the city emergency operations center?
- Would any external city stakeholders benefit from the establishment of such a team?

### Incident Management Team Questionnaire

1. What is your public safety discipline Fire  EMS  Law Enforcement
2. What is the estimated population of your community? <10,000  10,000-50,000   
50,000-100,000  >100,000
3. Does your organization utilize the concept of Incident Management Teams (An Incident Management Team (IMT) is a comprehensive resource (a team) to either augment ongoing operations through provision of infrastructure support, or when requested to assist with a local or regional incident, transition to an incident management function to include all components/functions of a Command and General Staff). Yes  No  Other  \_\_\_\_\_
4. If answered “No” to item three, what is the contributing factor for not utilizing such a team?  
Staffing  Training  No organizational need for such a team  Other  \_\_\_\_\_
5. If answered “Yes” to item three, what has been the most problematic circumstance with initiating and maintaining the team?  
Staffing  Training  Other  \_\_\_\_\_
6. If your organization has implemented an IMT, has training the team been a formal process following a FEMA educational recommendations or informal, meaning the information and training has been intradepartmental.  
Formal  Informal  N/A
7. If your organization utilizes an incident management team has your organization established a Standard Operating Guideline?  
Yes  No  Other  \_\_\_\_\_
8. If your organization utilizes an incident management team, how is the team utilized?  
Within the organizational jurisdiction only  Within the jurisdiction, as well as mutual aid requests
9. If your organization utilizes an incident management team is the team utilized in support of mutual aid, has your organization established a formal mutual aid agreement. Yes  No  Other   
\_\_\_\_\_

Appendix B

<b>Tampa Fire Rescue</b>				
<b>Suppression Directive</b> 01-12	<b>Rev</b>	<b>All Hazards Intra- agency Incident Management Team</b>	<b>ISSUE DATE</b> Aug 2012	<b>APPROVED</b> Tom Forward Fire Chief

**Policy:**

This directive establishes the parameters in which Tampa Fire Rescue will initiate the activation of an Incident Management Team (IMT) for expanding incidents or incidents of local consequence.

**Purpose:**

Any incident that occurs within the jurisdiction of Tampa Fire Rescue or any incident of local consequence has the potential to affect many of the city’s various departments often called upon for support. In an effort to manage incidents more effectively Tampa Fire Rescue and the Office of Emergency Management is forming an All Hazards Incident Management Team (IMT) to manage events/incidents such as planned special events, large no warning incidents (NWI) and events of natural disaster that may elapse several operational periods.

**Procedure:**

For those events/incidents that require additional substantial city infrastructure support (i.e., Parks and Recreation, Storm Water, Public Works) or for those events/incidents that will encompass several operational periods, an IMT approach will be utilized to manage the incident. The team cadre will be comprised of positions following the National Incident Management System (NIMS) guidelines, such as Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, Safety Officer and Finance/Administration Section Chief. Other Command Staff functions of Public Information Officer and Liaison Officer will be implemented at the discretion of the Incident Commander.

Personnel utilized will be pre- authorized by Tampa Fire Rescue and the Office of Emergency Management (OEM). The OEM will ensure and validate all personnel have the appropriate training required to support the various positions as required. Each city department will plan to ensure appropriate coverage required. All departments will follow Tampa Fire Rescue’s levels of Operating Conditions (OPCON) to ensure adequate coverage. When OPCON is increased assigned personnel will maintain operations for at least two 12- hour operational periods. Training on an annual basis will be required to ensure coverage for all supporting departments.