Identifying the Capabilities of the Local Incident Management Team

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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

Incorporating an incident management team (IMT) is a vital component of the incident command system to support the management of a large-scale or complex incident. Without the support of an IMT, the incident commander can quickly become overwhelmed leading to mismanagement of personnel and resources. The problem was the chief officers of the Plainfield Fire Protection District (PFPD) are unaware of the capabilities of the local IMT potentially leading to the ineffective management of large-scale or complex incidents. The purpose of the research was to identify what the capabilities of the local incident management team are to better assist in the coordination and support of a large-scale or complex incident within the PFPD. Descriptive methodology guided three research questions: (a) What are the capabilities and functions of the local IMT? (b) What are the national, state, and local credentialing and training programs used to be selected as part of the local IMT? (c) How are local IMTs activated within the region? The data sources included personal communication and three questionnaires from five chief fire officers of the PFPD, 83 fire service leaders across the State of Illinois representing 47 percent of the 69 Mutual Aid Box Alarm System (MABAS) divisions across the state, and 37 fire service leaders across the United States representing 48 percent of the states within the U.S. Additional data was provided through the Western Will County Emergency Communications Center known as WESCOM, the fire district’s dispatch center who tracks responses for the local IMT. The results identified a lack of knowledge about IMTs by PFPD chief officers as the main contributing factor leading to ineffective use of the local IMT. Recommendations focused on: (a) training, (b) planning, and (c) preparing for high-risk low-frequency incidents to include large-scale or complex incidents in collaboration with the local IMT.
# Table of Contents

Certification Statement .............................................................................................................. 2

Abstract .................................................................................................................................... 3

Background and Significance ................................................................................................... 7

Literature Review ..................................................................................................................... 9

Procedure .................................................................................................................................. 31

Results ..................................................................................................................................... 35

Discussion ................................................................................................................................. 43

Recommendations ..................................................................................................................... 46

References ................................................................................................................................. 49

Appendix A: Petrakis Personal Communication ................................................................. 52

Appendix B: Plainfield Chief Officer Questionnaire ............................................................ 60

Appendix C: Plainfield Chief Officer Results ....................................................................... 62

Appendix D: State of Illinois Questionnaire ......................................................................... 66

Appendix E: State of Illinois Results ..................................................................................... 71

Appendix F: National Questionnaire ..................................................................................... 78

Appendix G: National Results ................................................................................................ 82
List of Figures

Figure 1: AHIMT Response Timeline................................................................. 18
Figure 2: AHIMT Structure.................................................................................. 22
Figure 3: International Insurance Company ICS.................................................. 26
Identifying the Capabilities of the Local Incident Management Team

The goal of the Executive Analysis of Fire Service Operations in Emergency Management (EAFSOEM) course was to provide the students with the knowledge and skills they need to effectively analyze fire service operations in emergency management to better prepare their communities for large-scale, multiagency, all-hazard incidents (United States Fire Administration [USFA]. 2016, August, SM p. vii). One of the pre-course requirements for the EAFSOEM course asked students to analyze how their town or city is organized to coordinate and support incident management of incidents and disasters (USFA 2016, August, SM p. xix).

The Plainfield Fire Protection District has experienced several large-scale and complex incidents over its history. The fire district has experienced: (a) an EF5 tornado, (b) record flooding, (c) blizzards, (d) large structural fires, (e) technical rescues, (f) mass casualty incidents, (g) train derailments, and (h) incidents lasting longer than eight hours. However, there has been little interaction with the local IMT in supporting those incidents.

The problem was the chief officers of the Plainfield Fire Protection District are unaware of the capabilities of the local incident management team potentially leading to the ineffective management of large-scale or complex incidents. The purpose of the research was to identify what the capabilities of the local IMT are to better assist in the coordination and support of a large-scale or complex incident within the Plainfield Fire Protection District. Descriptive methodology guided three research questions: (a) What are the capabilities and functions of the local IMT? (b) What are the national, state, and local credentialing and training programs used to be selected as part of the local IMT? (c) How are local IMTs activated within the region?
Background and Significance

The Plainfield Fire Protection District is comprised of 115 career, part-time, and third party contracted men and women who protect 55 square miles of urban and rural district. The Fire District provides: (a) fire, (b) advanced life support emergency medical service, (c) technical rescue, (d) hazardous materials, (e) fire prevention, and (f) fire investigation services out of four fire stations. The fire district protects more than 45,000 residents spanning Will and Kendall counties and is located 30 miles southwest of Chicago Illinois. The fire district is governed by an elected board of five trustees, an appointed commission board of three, pension board, and foreign fire tax board whose officers are elected by the membership. Predominantly serving the Village of Plainfield, the fire district also covers areas within the city of Crest Hill, unincorporated areas of Joliet, Naperville, and Plainfield (Plainfield Fire Protection District, Home, n.d.).

The Plainfield Fire Protection District has responded to several large-scale and complex events over the last 30 years. On August 28, 1990, at 3:15 p.m. the fire district experienced an EF5 tornado packing wind speeds exceeding 260 m.p.h. Described in the article titled Tornado Disaster – 1990, the one-mile wide tornado traveled 16.5 miles from northwest to southwest through the center of the Fire District. At the time, the tornado was the strongest reported tornado in the last 20 years in northern Illinois and caused 302 injuries in which 28 were fatal. In addition, the tornado destroyed three schools, 106 apartments, and 471 single family homes. Damage estimates were placed at $200,000,000 (Centers for Disease Control, 1991, p.1). Additionally, the Fire District experienced: (a) record flash flood events in 1996 and 2013 reported by Jim Angel (2016) of National Weather Service. (b) A blizzard event on January 14, 2015, dropping 15” of snow in a twelve-hour period. (c) On June 30, 2017, a train derailment
carrying 115 rail cars of crude oil. Alicia Fabbre (2017), a reporter for the Chicago Tribune reported the derailment spilled over 45,000 gallons of crude oil from two of the 19 derailed train cars (p.1).

These types of large-scale and complex incidents present unique challenges in the response and recovery of the community. Having plans and procedures to manage low-frequency high-risk incidents is imperative to effectively mitigate these types of incidents. The Plainfield Fire Protection District has planned for, developed policies and procedures, and has at its disposal a local incident management team (IMT) to assist in the management of large or complex incidents. However, the recent large-scale incidents over the past five years included the local IMT once according to data obtained from our dispatch center (WESCOM, 2019, IMT responses). The fire district responded to and the community recovered from these incidents, but scene management proved ineffective. Through the planning process, the development of policies and procedures guiding the coordination and response effort are vital. However, not identifying the capabilities of incident management resources locally available and incorporating them into response will cause continued ineffectiveness in the management of incidents and overwhelm incident commanders of the fire district.

This research has a direct relationship to the U.S. Fire Administrations 2014-2018 Strategic Plan (2017) goals one, two, and three. Goal one states: Reduce fire and life safety risk through preparedness, prevention, and mitigation. Goal two: promote response, local planning and preparedness for all hazards. Goal three: enhance the fire and emergency services’ capability for response to and recovery from all hazards (USFA 2017, SM p. ix). Furthermore, the USFA (2017) strategic plan provided the framework for communities through their listed goals and initiatives to help guide responders to develop, plan, and implement programs to better prepare
for large-scale or complex incidents (p. ix). The use of an IMT can be a key component to help achieve a successful outcome of any large-scale or complex incident. One of FEMA’s strategic imperatives calls for a whole community approach to emergency management (USFA 2017, SM p. ix). This research integrated this initiative through the assessment process of local IMTs by identifying areas where the responder community has been trained in emergency management processes and is prepared to handle the next large-scale or complex incident.

The EAFSOME course goal was to provide students with the knowledge and skills they need to effectively analyze fire service operations in emergency management to better prepare their communities for large-scale, multiagency, all hazard incidents. (USFA, 2016, August SM p. vii) This research project meets this goal by first assessing the capabilities of the local IMT.

Literature Review

Presidential Policy Directive 8 (PPD-8): National Preparedness was written to strengthen the security and resilience of the United States through preparations for threats that pose the greatest risk to the security of the nation (Tsai, 2013 p.5). One part of this directive was to create a goal to outline the key capabilities needed to build and sustain disaster resilience. Also, it identified the need for clearly defined and understood roles and responsibilities in developing national preparedness among the various federal government agencies (p. 5).

Furthermore, preparedness is highlighted in a RAND Health Quarterly periodical on Evaluating the Reliability of Emergency Response Systems for Large-Scale Incidents. Though difficult to know what the next large-scale disaster may be, their evaluation process identified what parts of the system might fail during a large-scale incident. Their research assessed the likelihood of each potential response failure and the severity of its effects on the overall response effort. The assessment utilized a four-step research approach using the following objectives: (a)
Define and map the system; (b) Identify failure modes; (c) Assess the probability of occurrence, and (d) Assess effects and severity (Jackson, Sullivan, & Willis, 2012, Fall, p.1). Jackson, Sullivan, and Willis (2012) also compared their results and analyze them to real-world responses through after-action reports. Through this analysis a key question was raised, “How do we know when we have invested enough?” (p.1)

Part of the investment process is preparedness in emergency planning. Fagel (2011) states emergency planning should be a continual cycle of planning, training, exercising, and revision (p. 150). This cycle should take place through the four phases of the emergency cycle: (a) mitigation, (b) preparedness, (c) response, and (d) recovery (p.150). It is particularly important that members of the local IMT participate in the preparedness process to continually evaluate response readiness to handle the next large-scale or complex incident.

The planning process is comprised of more than one person or entity. According to Fagel (2011), this should be a team effort because disaster response requires the coordination of several agencies, and organizations across several layers of government (p. 150). This ensures buy-in by all stakeholders and those with expertise in fields that can contribute as part of the planning process (p.150). Additionally, the expertise and knowledge that each participant brings of their organizations’ resources are crucial to developing an accurate plan that considers the entire community needs (p.150).

During emergency planning, collaborating agencies and organizations must address differences found during the planning process. Fagel (2011) identified the following: (a) Terminology – using common terminology; (b) Experience – past experiences lead them to respond differently in different situations; (c) Mission – each agency is operating towards achieving its specific mission, though that this may not be entirely consistent with that of the
emergency management agency, and (d) Culture – entails everything about a person and the agency they work for (p. 154). Fagel (2011) believes that using collaboration in the planning process can strengthen the overall response to a large-scale or complex incident. This can include: (a) elimination of duplicate services, (b) expand resource availability through sharing, (c) and enhance problem-solving (p. 154).

An additional assessment process to help prepare and identify areas of risk within the community is the Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR). This comprehensive preparedness guide helps to create a foundation and put the National Preparedness System into action (Federal Emergency Management Agency, 2018, May, p. 7). The assessment process is a community-wide process which includes public and private stakeholders within the community including fire and emergency medical services. The THIRA/SRA process according to Homeland Security (2018) informs all other preparedness activities through helping communities identify challenges, drive priorities, and close gaps in capabilities (p.7).

According to Federal Emergency Management Agency (FEMA) (2018) the THIRA/SPR document is a three-step risk assessment which is completed every three years to help understand the community’s risk and determine their level of capability to address those risks. This process guides communities to answer three questions (p. 10): (a) What threats and hazards can affect our community? (b) If they occurred, what impacts would those threats and hazards have on our community? (c) Based on those impacts, what capabilities should our community have? The development of or the expanded use of an IMT can be identified during this process to better plan, organize, and recover from hazards or threats that may affect a community.
While conducting the THIRA/SPR assessment, FEMA (2018) suggests agencies conduct a quantitative assessment of their current capabilities and capability changes. Communities must identify areas such as (a) planning, (b) organization, (c) equipment, (d) training, and (e) exercise to assess the capabilities of their community and identify areas where improvements need to be made (p. 29). During the assessment process the use of the National Incident Management System (NIMS) is strongly encouraged not only for common thermology but for common resource typing as well (p. 30).

One of the fundamental concepts of NIMS is the ability of multiple agencies to have an interoperable approach to sharing resources, coordinating and managing incidents, and communicating information. Using NIMS helps to ensure communities can prevent, protect against, mitigate, respond to, and recover from incidents (FEMA, 2017, p. 1). According to FEMA (2017), the NIMS guiding principles correlate to the mission of the fire service. Those are to save lives, stabilize incidents, and protect property and the environment. NIMS achieves these principles through (a) flexibility, (b) standardization, (c) and unity of effort (p. 3). Flexibility is achieved through NIMS’s ability to scale to the size and scope of the incident. Standardization is using common terminology and organizational structures. Lastly, the unity of effort through the coordination of activities to achieve common objectives (p. 3). Personnel apply these principles and implement NIMS components to achieve incident priorities.

Part of FEMA’s (2017) NIMS preparedness model is resource management preparedness. This process categories and type codes incident resources by their capabilities. As well as (a) qualifying, certifying, and credentialing personnel; (b) planning for resources; (c) and acquiring, storing, and inventorizing resources (p. 6). Using common definitions, resources are defined by minimum capabilities for personnel, teams, facilities, equipment, and supplies. This ensures
communities will receive what they request (p. 6). During the resource typing process, personnel must be vetted to ensure they are qualified, certified, and credentialed. This ensures they have the knowledge skills and ability to perform the duties of their assigned roles when deployed through mutual-aid agreements (p. 7).

The purpose of the credentialing process of personnel is to ensure personnel across the nation are prepared to perform their responsibilities through the standardization process nationally. The Federal Emergency Management Agency (2017) NIMS credentialing process is determined by the Authority Having Jurisdiction (AHJ), by the following terms:

- Qualification: the process through which personnel meet the minimum established criteria, training, experience, physical and medical fitness, and capability to fill specific positions (p.7)
- Certification and recertification is the recognition from the AHJ or third party stating that an individual has met and continues to meet established criteria and is qualified for a specific position (p.7).
- Credentialing occurs when an AHJ or third party provides documentation, typically an identification card or badge that identifies personnel and authenticates and verifies their qualifications for a particular position (p. 7).

Though FEMA (2017) recommends minimum qualifications to function as an IMT, AHJ’s across the nation can communicate and administer the qualification and credentialing process to best suit their IMT based on positional needs (p. 8). Additionally, AHJ can impose additional requirements outside of NIMS for local needs, especially if multiple disciplines that collaborate as part of a team are supported by an AHJ which include and IMT (p. 8).
The State of Illinois has authorized their own Type 3 IMT, as a State of Illinois asset, to respond to major incidents and natural disasters through the State of Illinois and other locations within the United States (Illinois Incident Management Team, 2015). According to their application credentialing process, applicants must meet the following training requirements (Illinois Incident Management Team, 2015):

- IS 700
- IS 800
- ICS 100
- ISC 200
- ICS 300,
- ICS 400
- Command and General Staff

In addition to the training requirements, applicants must also meet the following: (a) Be available to be deployed up to 16 days; (b) Deployable to incidents in Illinois or other United States locations; (c) Minimum of five years’ experience in their discipline; (d) Authorized by their agency and jurisdiction; and (e) Authorized by their Illinois Terrorism Task Force affiliate agency (Illinois Incident Management Team, 2015).

The Plainfield Fire Protection District provides and receives resources through the Mutual-Aid Box Alarm System (MABAS) - Illinois. The MABAS organization described its role as the coordination of personnel and resources within its mission and purpose statements which are:

Mission Statement (MABAS Home, 2016):
MABAS-Illinois serves local fire agencies, MABAS Divisions, State of Illinois departments, and Cook County UASI-DHSEM by providing a systems-based resource allocation and distribution network of robust traditional and nontraditional fire-EMS-rescue and special operations teams for emergency and sustained response within and outside of the State of Illinois. Accomplishment of the services requires cooperation, standardization, reliability, partnering, brokering and ongoing communication and compliance with customer specification and expectations. Customer trust and reliance on the MABAS system is built upon personal relationships, credibility, and ongoing customer support.

Purpose Statement (MABAS Home, 2016):

The Mutual-aid Box Alarm System provides emergency rapid response and sustained operations when a jurisdiction or region is stricken by an overwhelming event generated by manmade, technological, or environmental threats. In response, MABAS will mobilize and, deploy a sustained fire, emergency medical services (EMS), hazardous materials, technical rescue, water rescue, urban search & rescue, and incident management assistance team resources to prevent loss of life, human suffering and further damage to property.

One area in which MABAS coordinated responses within the State of Illinois was the development and response of local IMTs. According to MABAS – Illinois policy B-06-02 was adopted in 2009 for the use and development of a local IMT. The policy provided a framework for the (a) formation, (b) development, (c) function, and (d) maintenance of divisional/regional IMTs under the auspices of MABAS (MABAS – Local Incident Management Teams, 2009, p.1).
Though not a requirement, the policy recommended that each division within the state create and use local IMT for incidents involving multiple jurisdictions, extended beyond one operational period, or are complex (p. 1).

Policy B-06-02, MABAS (2009) established minimum training credentials for all formalized IMTs across the state of Illinois. To become a member of the local IMT, individuals need to complete the following:

- IS 100 or ICS 100 or comparable (p.1)
- IS 200 or ICS 200 or comparable (p.1)
- IS 700 (p.1)
- IS 800 (p.1)
- Command and General Staff for Local IMTs (p.1)

Other courses such as hazardous materials incident command, all-hazards incident management team, and specific position training are recommended but not mandated (p. 1). Additionally, rank is not considered a criterion for team membership, but a high degree of emergency incident experience is recommended (p. 1).

According to Chief John Petrakis (personal communications, January 16, 2019) (Appendix A), Fire Chief for the Channahon Fire Protection District and MABAS division 15 IMT team leader, MABAS - Illinois utilized MABAS Incident Support Team (MIST) to identify regional IMTs within the State. The initial thought prior to the adoption of policy B-06-02 in 2009 per Petrakis was, “to establish a team to provide senior level chiefs to an incident to fill holes required during the initial stages. The adoption of MIST was an attempt to create a team of trained management level members regionally” (J. Petrakis, personal communication, January 16, 2019) (Appendix A).
Each MABAS division can require additional qualifications in addition to what MABAS-Illinois has set forth. MABAS division 15 adopted the MABAS Incident Support Team (MIST) policy B-06-02. The MABAS Incident Support Team policy was adopted on July 15, 2009, by MABAS division 15. The membership section within MABAS division 15 policy 15-001 (2009) defines the requirements for applicants to function as part of the MIST. In line with the MABAS policy B-06-02 (2009), division 15 policy 15-001 (2009) requires the following credentials to qualify as part of the MIST:

- IS 100 (p. 2)
- IS 200 (p. 2)
- ICS 300 (p. 2)
- ICS 400 (p. 2)
- IS 700 (p. 2)
- IS 800 (p. 2)
- Command and General Staff for Local IMT (p. 2)
- Minimum of an Illinois Office of the State Fire Marshall Fire Officer I (p. 2)

In addition to the training criterion for membership acceptance, MIST applicants must: (a) Serve in the capacity of an incident management structure’s command and/or general staff position within division 15; (b) Documented Type IV incident management experience; and (c) Cover letter and ICS experience resume (MABAS Div. 15, 2009, p. 2).

The United States Fire Administration (USFA) (2016) provides an overview of IMTs and describes their function as playing an essential role in the management of, and response to local, regional, national disasters, and public events. The USFA (2016) further describes an all hazards incident management team (AHIMT) as a comprehensive resource (a team) to either enhance
ongoing operations through support when requested or to transition incident management functions to include command and general staff positions. Based on the level and complexity of the incident, a more robust AHIMT response may be required. Within the overview of IMTs by the USFA (2016) the following timeline was developed to showcase a timeline for response and operations based on the length of the incident, and the type of teams that may be required which is depicted in Figure 1.

![AHIMT timeline for response and operations](https://www.usfa.fema.gov/training/imt/imt_overview.html)


To better classify the capabilities of each type of IMT, FEMA has type coded each type of team from the national level to the local level. According to FEMA (n.d.) IMTs are resource typed to define the IMT’s operational response capabilities. The Federal Emergency Management Agency has created five types of codes for IMTs. Type one and Type two teams are federally or state certified teams. A Type one team is described by FEMA as the “most robust IMT with the most experience.” According to FEMA (n.d.), there are only sixteen of these teams operating within the United States and they operate through the U.S. Forest Service. A Type two
team has less staffing and experience as a Type one team and is typically used for smaller scale national or state incidents (FEMA, n.d.).

A Type three team is a state or metropolitan area level team designed to support incidents across the state. The team has trained personnel from different departments, organizations, agencies, and jurisdictions within the state or DHS Urban Security Initiative region. These teams are designed to support incidents lasting longer than one operations period (FEMA, n.d.). Type four teams are designed for fire, EMS, and possibly law enforcement officers from a larger and generally more populated area. These teams are usually activated on major or complex incidents as part of the first initial response and operate during the first six to twelve hours (Incident Management Teams, n.d.). A Type five team consists of local village and or township level personnel comprised of primarily fire officers from several neighboring departments trained to serve in Command and General Staff positions during the first six to twelve hours of a major incident (FEMA, n.d.).

The Illinois Incident Management Team (2015) has authorized its own IMT, as a State of Illinois asset (Illinois Incident Management Team, 2015). Created in 2005, the state IMT is comprised of fire, law enforcement, emergency management, public works, specialist and private sector communities around the state. The team is self-sufficient with its own supplies and equipment. The Illinois Incident Management Team website details the response capabilities of up to 16 days and can staff various positions within the Incident Command Structure (Illinois Incident Management Team, 2015). The Illinois IMT further details within their website highlighting their response capabilities by offering “crucial assistance” through:

- Providing a team that looks at your situation from an “All Hazard point-of-view” (Illinois Incident Management Team, 2015).
• Provide a team with the expertise to assist in managing the incident (Illinois Incident Management Team, 2015).

• Provide team members with ICS position-specific expertise and experience including “Red Card” certification (Illinois Incident Management Team, 2015).

• Perform specific staff and command functions for which you need assistance (Illinois Incident Management Team, 2015).

• Aid in the development of your Incident Action Plan (Illinois Incident Management Team, 2015).

Petrakis (personal communication, January 16, 2019) described the IEMA team as more of a type three team and that some individuals have trained and have been credentialed through specific positions to qualify members for the team.

The MABAS division 15 MIST is comprised of local fire, law enforcement, emergency management, and dispatch agencies. Petrakis explained that within the last five years the division has tried to make the team a defined component of an incident and believes the division 15 MIST functions as a Type four IMT. Prior to the inception of MIST concept, fire chiefs would just respond on their own with no defined position. Since then the responses within the division requiring the use of MIST have been better organized. Petrakis explained that chiefs on the MIST response now respond as part of a team concept on specific alarms and all specialty team responses (J. Petrakis, personal communications, January 16, 2019).

Petrakis highlighted a few responses within the division that the MIST team handled within the last five years involving multiple operational periods. Those included: (a) Plainfield train derailment, though there wasn’t an official call out for the MIST, (b) large industrial fire in Village of Mazon that involved a large fire response and a hazmat response, (c) two Coal City
tornados, and (d) special operations incidents involving dive and technical rescue. He believed the team operated at the level of a Type three team due to the duration in which the MIST operated along with the complexity of some of the incidents (J. Petrakis, personal communication, January 16, 2019) (Appendix A). The dispatch agency for the Plainfield Fire Protection District and MABAS division 15 WESCOM, recorded 31 structure fire responses and seven special operation responses since 2015 division-wide involving MIST. Of those responses, the Plainfield Fire Protection District utilized the team once for a fire in a commercial building on May 12, 2017 (WESCOM, 2019).

The Federal Emergency Management Agency defines an all hazards incident management team (AHIMT) as “a comprehensive resource (a team) to either enhance ongoing operations through provisions of infrastructure support or when requested, the transition to an incident management function to include all components/functions of a Command and General Staff” (United States Fire Administration, 2016, p. 1). According to FEMA (2017), the incident command structure is modular and expand to incorporate the elements required based on the size, type, scope, and complexity of the incident (p.81). The initial incident commander will determine which command and general staff positions are required to maintain a manageable span of control and to ensure appropriate attention to the necessary incident management functions (p.81). The functional structure consists of five major areas which include: (a) command, (b) operations, (c) planning, (d) logistics, and (e) finance/administration (p. 81). Figure 2 depicts the formal structure of an All Hazards Incident Management Team.

The Federal Emergency Management Agency (2017) identified that within the command structure organization, incident command consists of the Incident Commander and various Command Staff positions who report directly to the Incident Commander (p. 82). Those positions are: (a) public information officer (PIO), (b) liaison officer, and (c) safety officer (p. 82). According to FEMA (2017) these positions as responsible for key activities that are not part of functional General Staff elements (p. 82).

Each position within the command staff is responsible for specific elements to help support the incident commander. Per FEMA (2017) the PIO is the person responsible for interfacing with the public, the media, and with other jurisdictions/organizations with incident-related informational needs (p. 82). The Safety Officer is responsible for monitoring incident operations and advises the Incident Commander on all matters relating to the operational safety, including health and safety of the incident personnel (p. 83). FEMA (2017) describes the liaison
as a “conduit” of information and assistance between incident personnel and organizations supporting the response (p. 83).

As identified by FEMA (2017) the general staff positions are a functional component of ICS. Positions within the general staff include: (a) operations section, (b) logistics section, (c) finance/administration section, and a (d) planning section (p. 87). The operations section, per FEMA (2017) is responsible for the tactical activities that typically focus on saving lives, reducing the immediate hazard, protecting property and the environment, establishing situational control, and restoring normal operations (p. 86). An operations section chief is responsible for the management of the tactical incident activities of the incident and implementation of the incident action plan (IAP) (p. 86).

To maintain a manageable span of control for the incident, the operations section chief can assign supervisory personnel to further divide the incident. According to FEMA (2017), NIMS Branches can be used in two ways. Branches can be used to divide an incident into geographical areas or used to help break down the incident into functional areas i.e. fire, hazmat, and EMS (p.87). Branches are inserted between the operations section chief and divisions and/or groups. NIMS further manages span or control through the development of divisions and groups. Divisions are defined as a separate physical or geographic area of operations within the incident area (p. 88). Functional groups are described as areas of similar activities i.e. rescue, evacuation, law enforcement, or medical treatment of triage (p. 88).

The planning section as defined by FEMA (2017) is responsible for the collection, evaluation, and disseminating operation information pertaining to the incident. Those assigned to this position maintain information on the current and forecasted situation as well as the status of resources assigned to the incident (p. 91). The planning section prepare IAPs and incident maps
and disseminate important information to the incident (p. 91). A planning section chief is responsible for overseeing the incident related data gathering. Furthermore, the planning section chief analyzes incident operations, assigned resources, facilitates IAP planning meetings, and prepares the IAP for each operational period (p. 91).

Logistics section staff provide for all the incident support needs, such as ordering resources and providing facilities, transportation supplies, equipment maintenance and fuel, communications, and food and medical services for incident personnel (FEMA 2017, p. 94). As explained by FEMA (2017) the size and scope of the incident determines the need for assistants or deputies to assist the logistics section chief. The need for assistance is based on if multiple facilities are required or the incident is very large. This helps to maintain effective supervision of the incident and ensure all the support services are available to those operating at the incident (p. 94).

Lastly, the FEMA (2017) ICS structure establishes a finance/administration section when on-site financial and/or administrative services are needed to support the incident management activities (p. 97). Large or evolving scenarios could involve the need for funding from multiple sources or the need to monitor multiple source funds. Also, the finance/administration section tracks, and reports accrued costs as the incident progresses. This allow the incident commander the ability to forecast the need for future funding before it negatively impacting the incident (p. 97). When a Finance/Administration Section Chief is established, As defined by FEMA (2017) their responsibilities are to monitor expenditures to ensuring compliance with applicable laws, policies, and procedures (p. 97). FEMA (2017) emphasized the coordination of finance/administration, planning, and logistics to ensure operational records can be reconciled with financial documents (p. 97).
The operational scope of MABAS Division 15 MIST stated within policy 15-001 is to function as a regional incident management support team designed to support Type V and Type IV level incidents (MABAS Division 15 Incident Support Team, 2009, July, p. 15-001). Policy 15-001 (2009) identified the creation of the team was to support incidents typically contained within one operational period. However, the team can be deployed for longer-term operations so long as those responding have met the training requirements as established by MABAS and the division. Following the AHIMT ICS structure, the MIST responsibility is to serve as the management assistance team for the stricken incident commander.

Incident management and the use of IMTs can be used in multiple applications and within any type of management structure. In an article written by Cherwell Software and Anthony Orr (n.d.), a consultant in the IT industry, defined Incident Management in the IT service industry as a management process intended to restore “normal” service operations as quickly as possible, minimizing any adverse impact on business operations or the user. Like the mission of the fire service, some private industries manage as stated by Cherwell Software and Orr (n.d.), “major incidents” using an IMT. Though the terminology doesn’t follow the NIMS structure, defined incident management roles and responsibilities are assigned to execute effective incident management.

Phelps (2010) of Emergency Management & Safety Solutions is responsible for educating private sector corporations in Incident Management. Within Phelps (2010) presentation of the ICS system to private corporation Peoples Gas &Electric, she emphasized three key things to at the beginning of an incident to ensure a successful outcome: (a) need to have a clearly defined assessment process, team, and triggers; (b) clearly defined roles and responsibilities; (c) able to develop a succinct action plan with clearly written strategic
objectives, assignments, and working period before reconvening (p. 3). Further defining the organizational structure of an ICS, Phelps (2010) reviews the ICS system, National Response Plan, and NIMS for the private sector team members (p. 5). Phelps (2010) identified the use of span of control and the effective number of personnel to manage during an incident along with the use of common terminology (p. 9). Additionally, Phelps (2010) reviewed the use of unified command structures and consolidated action plans to better plan and manage an incident (p. 14-15).

Like the public sector, Phelps (2010) depicted the types of response teams available in the private sector (p. 26). Phelps (2010) stated that previous response teams were titled “Crisis Management Teams.” Instead of insinuating that this team only responds during times of crisis, which Phelps implied, as a “time where you are overwhelmed and that the situation has gotten ahead of you.” Teams are now being referred to as corporate incident response teams (p. 26). In her presentation, Phelps (2010) utilizes the command and general staff functions to depict how the ICS structure is set up by the International Insurance Company depicted (p. 27).
At the local level, MIST policy 15-001 (MABAS division 15, 2009) helps to direct agencies in the activation of the local Type 4 team. Under the response section of policy 15-001 (2009) the MIST will be automatically dispatched for all incidents elevated to the box alarm assignment. The philosophy of the MIST function is to reinforce and support the needs of the incident commander. As noted in policy 15-001 (2009) arriving MIST members may be required to fill operational roles if necessary but should work with the incident commander to request additional MIST members to fill support roles.

If the incident requires additional Type four teams based on the complexity or scope of the incident, a request through the MABAS can be made activating additional pre-defined Type four local response teams according to 15-001 (2009). Once the incident exceeds the capabilities of the local response the county will declare a disaster emergency. In doing so, the State of Illinois Type three IMT can be requested.

The Illinois IMT (2015) has the authority to operate as a state asset through the Illinois Terrorism Task Force and the Illinois Emergency Management Agency. The team is defined as a Mobile Support Team that has a Memorandum of Understanding with IEAM which receives their funding through state and federal grants. According to the Illinois IMT (2015) once the
event has gone through the escalation process of local response, local mutual aid, and County Emergency Management Agency, there are two options are available to receive resources.

The Illinois IMT (2015) has two teams available: (a) Type three IMT for Incident Command, and (b) Emergency Management Assistance Team (EMAT). Notification is made to EM-COMM, the communication center for IEMA. The requesting agency needs to define whether it requires the use of an IMT to help fulfill incident support functions or an EMAT used to support and help manage local emergency operations center (EOC). Once approved by IEMA for the response, resources can be deployed to the jurisdiction requiring assistance.

The second option according to Illinois IMT (2015) is available using the state disaster process which also requires the escalation of resources through the local response, local mutual aid, County EMA, but resources can be requested through EM-Comm or the IEMA response commission. If requesting state assets both require activation approval through IEMA. Once approved state assets can be distributed. According to the Illinois General Assembly complied statute the state disaster process is activated once the Governor of the State of Illinois has declared a proclamation of a disaster and activates the State Emergency Operations Plan (Illinois General Assembly, 2018, ch.127, par.1057).

If the incident requires further resources to respond and recover from a disaster, the governor of Illinois can request for federal assistance. According to the USFA (2016) EFSOME course the federal government must evaluate a request for a major disaster declaration. Federal law provides that a finding must be made that an incident is of such severity and magnitude that effective response beyond the state and local capabilities and that Federal assistance is necessary (p. SM 2-61). If the findings of the Federal government are substantiated and assistance is required, the Stafford Act will be authorized. According to the USFA (2016), the Stafford Act
authorizes the president to aid state, local, and tribal governments along with certain private non-profits and individuals (p. SM 2-3). Additionally, the Act provides support response recovery and mitigation efforts following presidentially declared major disasters and emergencies (p. SM 2-4). Based on the scope, complexity, and scale of the incident Federal Type one, two, or three AHIMTs are available as resources to assist in supporting the incident.

The use of IMTs varies across the State of Illinois and nationally. Within MABAS division 15, MIST is established but underutilized. Petrakis (personal communications, January 16, 2019) (Appendix A) felt the capabilities of MIST are not clearly explained to all officers within the region. He believed that some officers are under the impression that the MIST is there to run their incident. He further felt that the ICS system, use of IMTs, and NIMS is a cultural change that hasn’t been fully embraced leading to the hesitation in activating MIST (J. Petrakis, personal communications, January 16, 2019). Petrakis’s message was the MIST is there to “support” the incident, not to run it. He further stated, “You tell us what you need, and we are there to only help make your situation better” (J. Petrakis, personal communication, January 16, 2019).

An important aspect of any incident is to review lessons learned. This can assist in identifying areas in need of improvement and highlight what performed as it should. One lesson learned from the PFPD train derailment in 2017 according to Petrakis (personal communications, January 16, 2019) (Appendix A) said was, “We did a disservice to the battalion chief running that incident by not planning appropriately.” He further stated,

About four hours into the incident someone leaned over and asked me if we should create an IAP, mind you the MIST was not activated. Not only did you have rail cars piled on top of each other filled with crude oil, but directly involved was a large natural gas main
exposed underneath the train. We had several agencies involving local, state, federal, and private entities. We had a lot of stuff going on with a lot of potential with an extended operational period. What a perfect opportunity to activate MIST. I had to call back a MIST member that was returning from the incident to assist in creating an IAP. It wasn’t pretty but looking back at it I think it was an incorrect application of how we should develop and IAP (J. Petrakis, personal communication, January 16, 2019) (Appendix A).

Even large-scale events like Hurricane Sandy, which made landfall in southern New Jersey on October 29, 2012, identified areas for improvement directly related to incident management. Within FEMA’s Hurricane Sandy After-Action Report (2013) report the federally declared disaster pre-staged and deployed over 900 personnel ahead of Sandy’s landfall which included 13 incident management assistance teams (p. 3). The magnitude of the disaster revealed several strengths and areas in need of improvement related to the integration and coordination of federal operations. (FEMA, 2013, p. iii). Those areas identified directly related to the incident management and the coordination of operations. According to FEMA (2013) those areas include: (a) integrating federal senior leader coordination and communications into response and recovery operations, (b) refining the mission assignment process, (c) implementing incident management structures, (d) using planning and analysis to drive operational decision-making, and (e) ensuring continuous improvement of disaster doctrine, policies, and plans. (p. iv).

Analyzing performance during training exercises helps to reveal strengths and weaknesses while preparing for an incident. Identified by the Alaska Department of Environmental Conservation (2017) during their training exercise, lessons learned were used to provide specifics on why something worked or didn’t work. It assisted them in identifying
specific things or actions that made the difference and provide considerations for improvements (p. 4). Their after-action review of their simulated oil spill in 2016 revealed some improvements that should be made to their IMT. Identified as the responders of the team need to better understand the responsibilities of each ICS position. The lack of knowledge identified ineffectiveness in the position of Incident Command, Section Chiefs, and Unit Leaders. Additionally, they identified a key component was those operating within ICS were unfamiliar with whom they are to communicate with (p. 4).

In summary, the literature influenced the research by reinforcing the need to plan for an event before it occurs. This includes credentialing and training IMT personnel to ensure they meet specific requirements to fulfill support positions. Additionally, educating local agencies on the capabilities of what a local IMT can provide during the initial critical phases of an incident. This includes understanding the process of how to access those resources as the incident expands.

The use of an IMT or MIST is only a small portion of a complex or large-scale response, but a key component in the success of the response and recovery efforts. As indicated by Petrakis (personal communications, January 16, 2019) (Appendix A) during the PFPD train derailment of 2017, the lack of a formalized call out for MIST led to what he stated as a “disservice” to the Incident Commander running the incident which further influenced the need for this research.

**Procedure**

Descriptive methodology was utilized to assess the capabilities of local IMTs to be utilized during complex or large-scale incidents. The study consisted of a review of, information found through Internet sources, information garnered from internal and external questionnaires and an interview with the local IMT team leader. Internal and external questionnaires were used
to gather information from PFPD chief officers (see Appendix B), chief fire officers within the State of Illinois (see Appendix D), and nationally (see Appendix F) on their knowledge and use of local IMTs and their experiences using them.

Several internet searches using the Google.com search engine were used from December 2018 and March 2019 using keywords as incident management, incident command, and incident management teams to obtain information. Several sites were used to gather information to support this study. Internet searches were also conducted to identify incident management teams within the State of Illinois and nationally.

Additional research information was gathered through an interview with John Petrakis, (personal communications, January 16, 2019) (Appendix A) Fire Chief of Channahon Fire District on January 16, 2019, at the Plainfield Fire Protection District Headquarters. Chief Petrakis is the team leader of the MABAS division 15 MIST and has a wealth of knowledge on the use of IMTs for a local response and the use of ICS. He has also responded as part of local IMT response for incidents within the MABAS division.

The interview consisted of eight questions and provided information on (a) The capabilities of the local IMT; (b) The credentialing process to become a member of the team: (c) Improvements that can be made to MIST; (d) Identifying additional IMT resources available for a large or complex incident. Information used in the literature review from the interview can be found in Appendix A.

One of the main objectives of this research was to assess if the chief officers of the PFPD are familiar with the capabilities of the local IMT. To measure this, an internal questionnaire (Appendix B) was developed using the Likert Scale instrument by the author using Google.com/Forms and distributed to the five chief officers of the fire district which included the
ranks of Fire Chief, Assistant Fire Chief, and three Battalion Chiefs (see Appendix B). The link
to the questionnaire was emailed to each member for completion. The anonymity of each
respondent was built into the structure of the questionnaire. A total of eleven questions were
presented to the respondents to help determine their knowledge of the capabilities, function, and
use of the local IMT.

Google.com/Forms collected the respondent data and analyzed the respondents’ answers
with the results uploaded to the author’s computer. Any additional comments pertaining to the
questionnaire were placed in an open text box within the questionnaire and were also recorded
and analyzed. The responses from the questionnaire are available in Appendix C. Of the five
questionnaires distributed, all five were answered and submitted indicating a return rate of 100
percent.

Part of the research was to analyze and compare data collected through the PFPD chief
officers on chief fire officers across the State of Illinois (see Appendix D) and the United States
(see Appendix F). An email was sent to the Illinois Fire Chiefs Association with the link to the
questionnaire which was distributed to 1029 fire chiefs across the State of Illinois and 69
MABAS divisions. Of the 1029 respondents emailed the questionnaire, 83 were submitted (see
Appendix E) with a rate of return of eight percent. However, of the 69 MABAS divisions within
the State of Illinois, at least one Chief Officer from 32 different divisions submitted a completed
questionnaire which represents 46 percent of the MABAS divisions across the state.

Nationally, an email with the link to the questionnaire was sent to members of the
Executive Fire Officer program reaching 146 respondents. Of the 146 respondents emailed, 36
were submitted (see Appendix G) indicating a return rate of 25 percent. Additionally, of the 50
states within the United States, respondents from 24 states submitted questionnaires representing 48 percent of the country.

The external questionnaire was developed by the author using internet-based Google.com/Forms. The state questionnaire found in Appendix D consisted of 16 questions inquiring about the credentialing of IMT members, use of, and capabilities of local IMTs within their region. The national questionnaire found in Appendix F followed the same procedures and consisted of 11 questions inquiring similar information asked in the State of Illinois (see Appendix D) questionnaire. Both questionnaires utilized the Likert Scale instrument as well to measure the respondent’s answers.

The answers from both respondents were collected, categorized and analyzed by Google.com/Forms and the results downloaded into the authors’ computer. Comments were also recorded for analysis. The results of the State of Illinois questionnaire are available in Appendix E and the National questionnaire found in Appendix G. The interview and questionnaires all provided the information needed to answer the research questions and allowed for a thorough assessment of the local IMT.

It is assumed that those who answered the questionnaire responded factually and understood the questions that were asked. Also, each organization may have policies or procedures that conflict with other agencies fire ground operations and command structures. It is assumed that all IMT functions and capabilities within the State of Illinois follow MABAS policy B-06-02 are adhered too. It is also assumed that all respondents answered the questions without bias or influence of others.

A limiting factor of this project was the need to ensure the anonymity of the respondents. The final question of both the state and national questionnaires asked for experiences functioning
as an IMT. Several respondents were involved in large-scale or complex incidents, but with the anonymity requirement, the author was unable to conduct further follow up interviews. This would have provided more valuable information and enhanced this research project.

Further limiting factors were a demographic component within the questionnaires was not included. Had this information been available, the author could have utilized this information to decipher they type and size of the organization the respondent was affiliated with and compared that to the PFPD. Additionally, when drafting the state and national questionnaires, the question pertaining to the training requirements for the local IMT was not written the same. This made it difficult to compare data between the two.

The research is limited by the low return rate of questionnaires sent to fire chiefs within the State of Illinois. The questionnaires were sent to all 1029 fire chiefs within the State of Illinois registered with the Illinois Fire Chiefs Association. With only 83 completions submitted, the low response rate may not truly reflect the full perspective of IMT capabilities within the state.

Results

Three research questions guided the study. The first research question asked: (a) What are the capabilities and functions of the local incident management team? To better identify the respondent’s knowledge of the local IMT, the results for this research question first required basic demographic information to determine what regions of the state of Illinois or national respondents were from. Obtaining this information’s allowed for comparison of PFPD chief fire officer knowledge of the capabilities and uses of the local IMT to others within the State of Illinois and across the United States.
Of the chief fire officers within the PFPD (see Appendix C), all five of the respondents answered the questionnaire. Across the State of Illinois (see Appendix E) 83 respondents completed the questionnaire. Of the 83 respondent’s, 47 percent of the MABAS divisions across the State of Illinois’s 69 MABAS divisions were represented. Nationally (see Appendix G), of the 36 respondent’s 48 percent of the states within the United States were represented.

To first identify knowledge of the local IMT, a question was posed to the chief fire officers of the PFPD (see Appendix C) if they operate as part of the IMT response for MABAS division 15? Of the respondent’s 60 percent answered yes, and 40 percent answered no. PFPD chief officers were further asked if they have commanded an incident with the support of the local IMT (see Appendix C)? Of the respondent’s 60 percent answered yes and 40 percent answered no. To measure the effectiveness of the IMT response, a subsequent question within Appendix C asked PFPD chief officers if they did command an incident with the support of an IMT did it improve the organization and control of the incident? Of the respondent’s 40 percent answered yes while 20 percent answered no. The remaining 40 percent responded they’ve never operated at an incident with an IMT.

To compare the experience and use of IMTs with PFPD chief officers to the State of Illinois (see Appendix E) and National (see Appendix G) respondents, a question was posed within Appendix E and F if respondents have operated as part of an IMT? Of the respondents in Appendix E – State of Illinois 39.8 percent responded yes, and 60.2 percent responded no. Of the respondents in Appendix G – National 33.3 percent responded yes, and 66.7 responded no.

The next questions asked within Appendix E - State of Illinois and Appendix G – National was if there was a local IMT available to them within their region? Within the State of Illinois, 62.7 percent responded yes, 31.3 percent responded no, and 6 percent did not know if
they had an IMT regionally. Nationally 77.8 percent of the respondents responded yes while 22.2 percent responded no.

Respondents within Appendix C – PFPD chief officers, and Appendix E – State of Illinois were asked if respondents are familiar with the functions and capabilities of an IMT? Of the PFPD chief officers 40 percent strongly agreed, 20 percent agreed, 20 percent disagreed, and 20 percent strongly disagreed. Of the respondents within the State of Illinois 34.9 percent strongly agreed, 54.2 percent agreed, and 10.8 percent disagreed. Additionally, PLAINFIELD FIRE PROTECTION DISTRICT Chief officers (see Appendix C) were asked if they were familiar with the functions and capabilities of the local MABAS division 15 IMT specifically? Of the respondent’s 40 percent strongly agreed, 20 percent agreed, and 40 percent disagreed.

A question was posed to PFPD chief officers (see Appendix C) if they were familiar with the roles and responsibilities of all command and general staff positions of an IMT. This question was posed to identify the retention of ICS training of PFPD chief officers. Of the respondent’s 40 percent strongly agreed, 20 percent agreed, and 40 percent disagreed. An additional question further assesses PFPD chief fire officer (see Appendix C) and State of Illinois (see Appendix E) perceptions of how capable their local IMT is in filling command and general staff positions for large-scale or complex incidents lasting more than one operational period. Of the PFPD chief fire officer respondents, 40 percent strongly agreed that all positions can be staffed with MIST personnel, 40 percent agree that most positions can be filled but would require additional outside assistance, and 20 percent disagree and that some position could be filled but would require additional assistance.

Of the respondents from Appendix E – State of Illinois 22.9 percent believe their IMT can staff all positions without outside assistance, 42.2 percent believe they can staff most
positions within the IMT but would require outside assistance, 27.2 percent disagree and that some positions could be staffed but would require outside assistance, and 7.2 percent believed they can’t staff any positions within the IMT and require all outside assistance.

The second research question asked: (b) What are the national, state, and local credentialing and training programs used to be selected as part of the local incident management team? To garner the information needed to answer the research question, PFPD chief fire officers (see Appendix C), State of Illinois (see Appendix E), and National (see Appendix G) respondents were asked a series of questions to best identify their knowledge of the credentialing and training requirements to be part of their local IMT.

To first identify the credentialing process the PFPD chief officers (see Appendix C) were asked if they know the credentialing and/or the requirements to operate as part of the MABAS division 15 IMT? Of the respondents, 40 percent answered yes, and 60 percent added no.

To assist in comparing the MABAS division 15 MIST requirements to the other State of Illinois (see Appendix E) and National (see Appendix G) local IMTs, respondents were asked what the minimum national and state certifications required to become a member of the local IMT? Within the State of Illinois respondents provided the following: ICS 100 - 56.6 percent; ICS 200 - 56.6 percent; ICS 300 - 55.4 percent; ICS 400 - 55.4 percent; IS 700.A. – 54.2 percent; IS 800.C – 54.2 percent; Fire Officer 1 certification – 15.7 percent; Fire Officer 2 certification – 13.3 percent; Length of service as a chief officer – 45.8 percent; Length of service as a company officer 10.8 percent; No national certification requirements – six percent; No state certification requirements – five percent. Selections added by respondents included: No IMT within the MABAS division – 15.6; Unknown – 4.8 percent; N/A – 2.4%; Rank of Chief – 1.2 percent,
Command and General Staff – 1.2 percent; Position within the IMT specific courses – 1.2 percent.

National (see Appendix G) respondents selected: ICS 100 – 66.7 percent; ICS 200 – 66.7 percent; ICS 300 – 63.9 percent, ICS 400 – 61.1 percent; IS 700.A – 66.7 percent; IS 800.C – 61.1 percent; State Company Fire Officer certification – 16.7 percent; State chief officer certifications – 5.6 percent; Rank – 11.1 percent; No minimum state certifications – 2.8 percent.

Selections added by respondents include: No local IMT – 22.2 percent; Specific CICCS/NWCG qualification course – 2.8 percent; State IMT certification – 1.2 percent; Type 3 qualifications – 2.8 percent; AH305 – 2.8 percent; Unknown – 2.8 percent; All IMTs are upper management – 2.8 percent.

An additional question was posed to respondents within the State of Illinois (see Appendix E) and Nationally (see Appendix G) if the local IMT required additional training to specific positions within the command and general staff. Of the respondents from the State of Illinois, 25.3 percent selected yes, 28.9 percent answered no, 15.7 percent selected unknown, and 30.1 percent selected do not have an IMT within their MABAS division. Of the respondents nationally, 66.7 percent selected yes, 11.1 percent selected no, and 22.2 percent selected no local IMT.

An additional question was posed to both the State of Illinois (see Appendix E) and National (see Appendix G) asking if their local IMT trains on large-scale and complex incidents? The State of Illinois respondents were asked if they trained annually for such incidents. Of the respondents, 39.8 percent selected yes, 31.3 percent selected no, and 28.9 percent of the respondents do not have an IMT within their MABAS division. Nationally, respondents local IMTs were asked on what basis does your team train on the large-scale or complex incident. Of
the respondent’s, 2.8 percent selected quarterly, 8.3 percent selected bi-annually, 27.8 percent selected annually, 36.1 percent selected unknown, 2.8 percent added their IMT does not conduct IMT training, and 22.2 percent do not have a local IMT.

The third research question asked: (c) How are local incident management teams activated within the region? The information obtained to answer the research questions was obtained through questionnaire responses from PFPD chief fire officers (see Appendix C), State of Illinois respondents (see Appendix E), and National respondents (see Appendix G). Questions posed were used to assess and identify: (a) The knowledge of the process to active local IMTs; (b) The type of calls IMTs are requested from the different agencies, and (c) The level of alarm the IMT is requested.

Plainfield Fire Protection District chief fire officers (see Appendix C) were asked if they are familiar with the activation procedure for requesting local, regional, and state IMT(s) for assistance. Of the respondents, 20 percent selected strongly agreed, 60 percent selected agreed, and 20 percent selected disagreed. The respondents across the State of Illinois (see Appendix E) were asked the same question. Of the respondents, 31.3% selected strongly agree, 55.4 percent selected agree, 10.8 percent selected disagree, and 2.4 percent selected strongly disagree. Nationally (see Appendix G) respondents selected the following, 27.8 percent strongly agree, 30.6 percent agree, 16.7 disagree, 8.3 percent strongly disagree, and 16.7 percent identified no local IMT.

Respondents at the State (see Appendix E) and National (see Appendix G) level were asked which type of incidents they would consider using or use a local IMT response. Of the State of Illinois respondent’s 7.2 percent selected residential structure fire or incident not escalating to extra alarms; 67.5 percent selected multiple alarm fires, mass casualty incidents,
fires involving special hazards i.e. wildland brush fires, RIT deployments, or a complex incident overwhelming the capabilities of the Incident Commander; 71.1 percent selected incident involving the use of special teams; i.e. technical rescue, hazardous materials, or dive incidents; 65.1 percent selected large scale events such as: concerts, parades, sporting events, or protests; 92.8 percent selected large scale incident involving a natural or man-made disaster; and 1.2 percent added natural disaster.

National respondents were asked the same questions (see Appendix G). Of the respondent’s 2.8 percent selected residential structure fire or incident not escalating to extra alarms; 30.6 percent selected multiple alarm fire, mass casualty incident, fire involving special hazards i.e. wildland brush fires, RIT deployment, or a complex incident overwhelming the Incident Commander; 36.1 percent selected an incident involving the use of special teams; i.e. technical rescue, hazardous materials, or dive incidents; 69.4 percent selected large scale events such as concerts, parades, sporting events, or protests; 88.9 percent selected large-scale incidents involving a natural or man-made disaster; Two respondents added no IMT, and one respondent added, “this is a hard question to answer;” and one respondent added we don’t plan to use an IMT.

To compare activation alarm assignments within MABAS division 15 MIST to other IMTs across the State of Illinois, a question was posed to the State of Illinois (see Appendix E) respondents asking what level of alarm is your local MABAS IMT is requested to the incident within your MABAS division? Of the respondent’s 34.9 percent selected no IMTS are requested, 22.9 percent selected box alarm, 16.9 percent selected second alarm, 10.8 percent selected third alarm, 4.8 percent selected full-still alarm, 3.6 percent selected forth alarm, 3.6
percent selected extra alarms past the fifth alarm, 1.2 percent selected fifth alarm, and 1.2 percent
selected general alarm.

Understanding how many personnel responds as part of the IMT was also a component of
assessing local IMTs. Fire District chief fire officers (see Appendix C) were asked if they are
familiar with how many personnel respond as part of the MABAS IMT response. Of the
respondent’s 40 percent strongly agree, and 60 percent disagree.

Respondents from the State of Illinois (see Appendix E), and National (see Appendix G)
respondents were asked if they knew how many personnel respond as part of their MABAS or
local IMT? Of the State of Illinois respondents 39.8 selected five or less, 36.1 selected no IMT
within the MABAS division, 16.9 percent selected five – 10, 4.8 percent selected 10 – 15, and
2.4 percent selected 15 – 20. Of the respondents nationally (see Appendix G), 36.1 percent
selected five – 10, 25 percent selected no local IMT, 11.1 percent selected 15 – 20, 11.1 percent
selected 20+, 8.2 percent selected 10 – 15, and 8.3 percent selected five or less.

Plainfield Fire Protection District chief fire officers (see Appendix C) were asked if they
felt the MABAS division 15 IMT was trained, equipped, and prepared to effectively assist in
managing an incident lasting longer than one operational period? Of the respondent’s 40 percent
strongly agree and 60 percent agree. In order to compare the opinions of the PFPD chief officers
about the MABAS division 15 MIST versus the other MABAS divisions represented within the
questionnaire, the same question was posed to the State of Illinois (see Appendix E) respondents.
Of the respondents, 18.1 percent selected strongly agree, 37.3 percent selected agree, 13.3
percent selected disagree, 2.4 percent selected strongly disagree, and 28.9 percent selected no
IMT within the MABAS division.
Respondents from the State of Illinois (see Appendix E) and National (see Appendix G) were asked if they felt there are enough regional and state IMT(s) trained, equipped, and prepared to effectively assist in managing an incident lasting several operational periods. Of the State of Illinois respondents, 10.8 percent selected strongly agree, 50.6 percent selected agree, 37.3 percent selected disagree, and 1.2 percent selected strongly disagree. Of the national respondent’s 11.1 percent selected strongly agree, 30.6 percent selected agree, 36.1 selected disagree, 5.6 percent selected strongly disagree, and 16.7 percent selected no local IMT.

Discussion

In 2009 the MABAS – Illinois took steps to better strengthen the management of large-scale or complex incidents with the development of policy B-06-002. Mutual Aid Box Alarm System policy B-06-002 (2009) provided a template for the: (a) formation, (b) deployment, (c) and maintenance of divisional/regional IMTs under the auspices of MABAS – Illinois. According to MABAS (2009), local IMTs are developed and function following the standards as determined by the US Fire Administration (2016) and NIMS (FEMA, 2017, October). One of the fundamental concepts of NIMS is the ability of multiple agencies to have an interoperable approach to sharing resources, coordinating and managing incidents and communicating information. Using NIMS helps to ensure communities can prevent, protect against, mitigate, respond to, and recover from incidents (FEMA, 2017, p. 1).

On July 15, 2009, MABAS division 15 established MIST to function as the MABAS division 15 local IMT. Policy 15-001 was developed guiding the administration of the MIST within the division. However, the PFPD chief fire officers are unaware of the capabilities of the team which has led to ineffective management of large-scale and complex incidents. According to the data provided by the chief officers of the fire district (see Appendix C), 40 percent of the
respondents are not familiar with the functions and capabilities of an IMT. The lack of knowledge of the local IMT was evident when comparing PFPD chief officers to fire chiefs across the State of Illinois (see Appendix E). Of the State of Illinois respondents, only 10.8 felt they were unaware of the capabilities of local IMTs.

Through the research process, it was identified that MABAS division 15 has developed a comprehensive operational and administrative plan for the use of MIST within policy 15-001. With 40 percent of chief officers of the PFPD unaware of MIST and its capabilities, the potential for them to become overwhelmed as incident commanders on complex or large-scale incident has been identified. In comparison to state (see Appendix E) and national (see Appendix G) respondents, MABAS division 15 surpasses the State of Illinois with 62.7 percent of the state supporting a local IMT and 77.8 percent nationally. Additionally, the credentialing process to become a member of the MABAS division 15 MIST is equivalent if not more comprehensive when compared to other MABAS (see Appendix E) and national IMTs (see Appendix G).

The credentialing process ensures only qualified applicants who have attained proper certifications and have met the listed credentials can functions as part of the MABAS division 15 MIST. In an analysis of the respondent data from within the State of Illinois (see Appendix E) and nationally (see appendix G) the MABAS MIST credentialing process is consistent with other IMTs. Within the State of Illinois (see Appendix E) over 50 percent of the respondents IMTs required NIMS certifications along with a minimum fire officer certification. Of the national respondents (see Appendix G), over 60 percent identified NIMS (FEMA, 2017, October) certifications as a requirement but less than 17 percent required fire officer requirements to function as part of their IMT.
The PFPD is fortunate to have a local IMT at its disposal in comparison to other regions within the State of Illinois and nationally. Within the State of Illinois (see Appendix E) 31.3 percent of the respondents do not have an IMT within their region. Nationally (see Appendix G), 22.2 percent do not have an IMT available to them to help support an incident. However, the disconnect between PFPD and the MABAS MIST was the lack of training and involvement of with the team on incidents that have occurred within the fire district that would qualify for MIST activation. Only 40 percent of PFPD chief officers have operated at an incident utilizing the MABAS MIST.

According to MIST response data provided by WESCOM (2019), PFPD has formally requested MIST to one incident within recent years. The limited number of responses within the fire district to incorporate MIST has impacted the exposure of PFPD chief officers to the functions and capabilities of the local IMT. Further highlighting the confusion about the local IMT, MABAS division 15 MIST policy 15-001 (2009) roster only lists two PFPD chief officers who currently credentialed and capable to respond and operate as part of the MIST deployment. However, three chief officers of the PFPD (see Appendix C) selected they operate as part of the MIST response.

As defined within the scope of MABAS division 15 policy 15-001 (2009), the MABAS MIST is activated to supplement overhead needs for an incident of varying size and magnitude within the division. However, if the capabilities of the team are not taught to all command level staff within PFPD, incorporating the IMT into an incident can lead to the ineffective management of the incident and use of resources. To provide more effective incident management on large-scale or complex incidents, the fire district needs to first orientate all chief officers on the functions of an IMT as identified by FEMA (2017, October).
Policy 15-001 (2009) lays out a formalized plan to incorporate MIST as a support function of an incident. However, the lack of knowledge by PFPD chief officers in their use and capabilities can lead to hesitation or delay to activate the team. Additionally, PFPD chief officers’ failure to recognize escalation triggers can delay notification of MIST. As large-scale or complex incidents escalate the need to activate additional resources to support the incident may be required. Understanding how to activate and utilize additional resources such as the MABAS MIST is key in managing incidents of a complex nature. Additional training on incident management can maximize the effectiveness of PFPD chief officers in managing large-scale and complex incidents with the support of MIST and other resources (MABAS Div. 15, 2009).

MABAS division 15 has experienced several large-scale and complex incidents over the years including natural disasters, large fires, train derailments, and special operations (WESCOM, 2009). All these experiences have led to changes in responses and the inclusion of MIST as part of a standardized response within the division and the fire district (MABAS Div. 15, 2009). However, re-educating chief officers on the use of the incident command system and incorporating the use of an incident management team will better prepare chief officers of the PFPD when confronted with the next large-scale or complex incident.

Recommndations

The results of this research project identified several factors leading to the ineffective use of the local IMT for large-scale or complex incidents within the PFPD. The results also revealed the local MIST has a comprehensive credentialing process to become a member of the local MIST response. Additionally, the training program for MIST members is equivalent to or better compared to other State of Illinois MABAS IMTs or national Type four or five teams. According to the research, PFPD chief officers need to re-orientate themselves on the planning and
preparedness process of the emergency preparedness cycle identified by Fagel (2011) to more effectively manage large-scale or complex incidents.

- The first recommendation was to re-educate Chief officers and personnel of the PFPD on the use of the NIMS framework. Programs should include a review of NIMS terminology, the incident command systems, and types of incident management teams.

- The second recommendation was to invite members of the MABAS division MIST to perform an orientation of MIST to the chief officers and personnel of the PFPD. This program should include at a minimum: (a) the role of MIST on an incident, (b) the capabilities of the team (c) the escalation triggers which lead to activation of the MIST, and (d) the resources and support that the MIST can provide to an incident.

- The third recommendation was to provide PFPD personnel with a minimum of one annual training exercise incorporating MIST. The training should include a table-top scenario of a large-scale or complex incident within the fire district.

- The fourth recommendation was to provide PFPD chief officers with a list of other local public, private, MABAS, and State of Illinois IMTs are available for an incident lasting longer than one operational period. The list should include the location and type of team and list what resources are available and the size of each team.

- The fifth recommendation was to provide PFPD personnel with more training with other local public and private agencies outside of the fire service who will be involved in an all-hazards response. The training should include more than just fire and rescue incident management. This would expose fire district chief officers and personnel along with MABAS division 15 MIST members to an all-hazard type response working with others who are more specialized within in particular subject matter.
• The sixth recommendation was to credential all chief fire officers of the PFPD to become a member of MABAS division 15 MIST. Training programs should meet the minimum requirements of MABAS division 15 policy 15-001.

• The seventh recommendation was to prepare a disaster plan to incorporate the management of large-scale or complex incidents. The plan should include sample ICS structures, communications, and resource lists.

• The eighth recommendation was to add NIMS 300 and NIMS 400 to the minimum requirements for the promotional process of becoming a battalion chief for the fire district.

The research and recommendations will not stop the ineffective management of large-scale or complex incidents within the fire district. On-going research will still be needed to monitor and evaluate incidents as they occur within the fire district’s jurisdiction as well as agencies within MABAS division 15 to ensure data garnered are current and accurate. Added research will also be needed to design and develop programs that meet the needs of the PFPD and MABAS division 15 to educate personnel on the uses and capabilities of MIST.

Recommendations for future readers includes further exploration into the use of IMTs nationally. FEMA lays out specific guidelines for the training and the development of an IMT. However, the AHJ has the ultimate authority to determine the credentialing, training, and response of the local IMT.
References


Mutual Aid Box Alarm System - Illinois MABAS Local Incident Management Teams, B-06-02, (October 14, 2009).

Divisional/Regional/ Interstate Responses for MABAS Local Incident Management Teams

Mutual Aid Box Alarm System division 15 Incident Support Team Administration and Operations, 15-001, (July 15, 2009).


Tsai, P. (2013). Launching a national conversation on disaster resilience in America. 5. doi:10.17226/18411


Appendix A: Petrakis Personal Communication

John Petrakis

Channahon Fire Protection District – Fire Chief

MABAS Division MIST Leader

January 16, 2019 @ 11:30 Plainfield FPD

Author question: Are there policies or procedures that dictate the credentialing process, training, and the functional operations of the MABAS 15 MIST?

Chief Petrakis: When I first took over the MABAS 15 MIST there was one guideline that covered both the administrative functions of the team as well as the operational aspect of the team. They inter-mingled the two together and in my opinion, there wasn’t a clear expectation of what the MIST function was to do on any given incident within an IMT response. I separated the two aspects and made more clear expectations of the minimum requirements to be on the team, who manages the team, the responsibilities of those that are on the team related to their job functions on the team. Operationally we set guidelines broke out the different functions and how we are to respond as a team, how will we communicate together, what’s the initial expectations of the first arriving IMT at an incident, getting a clear picture and plan for the arrival of the team, and set up of the van. Introducing positions and responsibilities of first arriving IMTs to an incident was captured in the revised operational guideline in 15-001.
Author question: What are the functions of MIST and why the change in terminology from IMT or IMAT?

Chief Petrakis: MABAS MIST acronym stands for MABAS Incident Support Team which came from statewide MABAS terminology. The initial thought seven years ago when this team was established was to provide senior level chiefs to an incident to fill holes required during the initial stages of an incident. Within the last 5 years, we’ve tried to make that a defined IMT function of an incident. Chiefs use to just respond to an incident in the past on their own with no defined role or position. We were trying to scale back this type of response and organize how we have chiefs respond as part of a team concept be it on a specific alarm level or a specialty team response. I would say especially on a specialty team response would require this type of IMT response. MIST function was initially created about 5 to 7 years ago at the state level and was an attempt to create a team of trained management level members regionally. Regional teams would respond around the state if required. Come February though the MIST function may dissolve after the February MABAS summit. We will continue to use this terminology and my intention to continue to support incidents through this function.

Author question: What type of FEMA IMT would you say our MABAS 15 MIST models?

Chief Petrakis: I would say our team is a type 4 team. Even though we have been thrown into some scenarios that would qualify as a type 3 response based on multiple operational periods. The Plainfield train-derailment, even though it wasn’t an official MIST call out, the two Coal City tornados, as well as others, being special operations incidents and larger operations such as the large industrial fire in Mazon that involved not only fire responses but a HAZMAT component as well. That incident required multiple operations periods to mitigate. It doesn’t get
used often but 2018 responses averaged about one per month. Most of our support functions really carry into special operations.

Author question: Can you describe the function of the IEMA State IMT?
Chief Petrakis: The IEMA team is more of a type three team that some individuals have trained and have been credentialed through specific positions to qualify for the team. Some have responded on a national level to complete their task books to achieve the state team level. When they are called upon, they fill specific roles. Here locally we have never pushed the implementation of a task book because working in that magnitude of an incident would probably take a career to complete the task book due to the lack of incidents on a local level. Locally we look at the 300 and 400 ICS concepts. We are talking about the intermediate positions within the command and general staff. For example, we don’t specifically look at what logistics functions are, we learn and teach about it, but we scale it to specific positions that are needed at our local level. Positions such as senior advisors, resource officers, support officer, communications officer, and place them in a designated area when we move into the communications van. I don’t think the task books would benefit us enough to as a requirement, but we would not discourage anyone from trying to increase their education and development as an IMT.

Author question: So MABAS 15 does not require position specific training requirements to be part of the MIST?
Chief Petrakis: If you want to take them and want to be part of the state IMT and if it’s a career goal we would certainly support it. We tried in 2014 to hold IC and plans section chief classes. We did them within close proximity to each other. Most who left that class said how they
probably would never use this local, but the information was great. My thought though is if I polled those who attended they would probably need a FOG book to remember what they learned and didn’t retain much information based on the lack of utilizing their skills.

Author questions: What improvements can be made to the MIST?
Chief Petrakis: I still think we have a great core group of personnel who are members of this team, but there are areas within the administration and operations of the team that can be improved. Administratively I think our preparedness prior to a call out needs to be improved. We never had training files maintained until recently. We have current rosters that now to track who is attending. Also, minimum training requirements have been enacted. I know some did not like that, but we needed to have the minimum 100, 200, 700, and 800 as well as 300 and 400 or Command and General Staff courses as a prerequisite as well as a minimum of OSFM Fire Officer I to be part of the team. I know if we deploy to an area outside our MABAS they are going to want someone with fundamental knowledge and a way to quantify that they can operate at some level of a chief officer. We don’t require an Incident Safety Officer as a minimum requirement. MABAS division 10 tracks who is operates as an RIT officer, Safety officer, and so on. We think that would be very difficult to do since most of our roster are Chiefs and Deputy Chiefs. If a chief was unable to respond, it would be very difficult to track who has what and who replaces who. I think if we are making progress enforcing personnel to train to the level of the NIMS standards, and requiring fire officer certification, and provide continued education I think it’s better than most teams. Operationally we don’t do a great job of how we integrate ourselves into a local incident. For example, if Plainfield required the assistance of a MIST, does that BC understand what he is requesting? Do they know what that team will do for them,
and what advantages that team provides to the incident? Even a company officer farther south
may be running a call and by a box card order or remembers to call us to help with the ICS
function, do they have any idea what’s going on? We tried last year to provide a workshop for
Division 15 to orientate agencies on the role of MIST. To date, only two agencies have taken us
up on our offer.

Author comment: At Plainfield, we were never made aware of the course offering.

Chief Petrakis: And that’s the point in which we are failing. Within the workshop our goal is to
orientate agencies on this is who we are, this is what we do, and here are some incidents you may
want to bring us in. It was a good course. We talked about escalation triggers to look for and
push people to call for the MIST. People get so tied up in the initial response and overwhelmed
with the incident, everything gets dumped on you at once. The farthest thing from some people’s
minds what going to happen four or eight hours from now. This is where I think we need to
continue to emphasize using the MIST to help assist with the forward planning of the incident.
In all my years of doing IC is people wait too long. The escalation triggers are there like a large
incident based on the initial size-up or potential, or rapid development is going to carry this
incident far beyond four to six hours. This is what I try and teach that if you are going to be here
for four to six hours or more, think about bringing in an incident support team so they can start
planning for you in the background. Other triggers such as a multi-jurisdictional incident or a
unified command post with different resources or objectives we would need to organize that with
an incident management team. The best way to do that is through the development of an
Incident Action Plan to make sure all the objectives are being met. The other part is we must
train. We are a specialty team, we need to train. Some chiefs are doing this probably because they must, but we need to train to help guide and plan during an incident. From what I can see of the 22 members of MIST within MABAS 15 have a passion for incident management. Just like water or tech rescue member, MIST members need to have specific training within their specialty. Not everyone understands or desires to become part of an IMT and learn how to fill out the proper documentation or have the forward thinking to plan for the next operational period. It is a specialty and I think we need to treat it as such. Another part of it is we don’t do incident action planning every day. Some ways to gain training are on an event in town or a smaller incident developing and using an IAP to help plan the incident so when we have a bigger event occurs, we are all familiar on how it comes together. When you can use it, use it. It may help get buy-in when you see the results of it.

Author question: What is the credentialing process to become a member of the team?

Chief Petrakis: The initial concept was to follow the MABAS policy 06-002 which specified what those requirements would be. We used those requirements to help build out our team. We needed to have some sort of requirements. The idea behind the MIST requirements was it provided minimum educational requirements and expectations but lacked the on-going training requirements to be part of the team. Unfortunately, when MABAS would come out and audit our MABAS team they would ask, is the MIST conducting training yes or no, but the actual proof of training was never reviewed with members of MABAS during the audit. Yes, we were conducting training but without guidance from MABAS, astandardize training model for IMT’s was never developed. In our hearts, we have always been doing the right thing knowing it would be terrible we couldn’t support an incident when we are called out due to lack of knowledge or
training. If you want to be a formalized team through MABAS you would have to follow the
MABAS credentialing process. That may change here soon, but we will have to wait and see.

Author question: Is it possible though to have an IMT not credentialed through MABAS?
Chief Petrakis: Sure, but that goes back to how each area or division wants to support their IMT.
If they chose to not be supported through MABAS that’s fine, they can create a team. It may
limit their response as part of the state-wide response, but I think from our perspective having
some sort of requirement and on-going credentialing shows everyone has met a minimum
standard. As part of the application process applicants not only have to meet the certification
requirements but compile a resume specific to your incident management experiences. I don’t
really care about budgets and if you passed a referendum. I’m more concerned with the
incidents you managed before we put you on the scene. We need to monitor this to make sure
we are putting people into the team that has some level of incident management experience. The
succession part of this is hoping that current chiefs spread the word of the MIST and encourage
their younger officers to attend training and participate in the drills. Another thing we fail to
impress upon our officers is incident management. We train on size up, building construction,
fire behavior, etc. but fail to train officers on incident management or incident action planning. I
think ICS or NIMS is a cultural change and most firefighters think it’s a chief officer thing and
doesn’t need to worry about it. If we can get more levels to think about incident management
and how it plays into every call the easier it will be for us to utilize the IMT concept. We need to
reinforce MIST and explain to officers that it’s not here to run your incident, we are here to
support your incident. You tell us what you need, and we are there to help make your situation
better. The Plainfield train derailment was a perfect example, there was a lot of stuff going on.
Not only did you have rail cars piled on top of each other, but you had a large natural gas line involved as well. The resources that were going to be needed for that incident like hazmat teams, foam, and the involvement of several responding agencies including fire, police, and several local, federal, private agencies. About 4 hours into the incident someone leaned over and asked me if we should develop an IAP. Mind you there was no formalized request for the MIST. I personally had to call a chief back that was returned for us to get this document going. Looking back at it, did we do a service to the battalion chief running that incident. We did it, it wasn’t pretty, but I think that was an incorrect application of the Incident Action Plan. If we know we are going to be here for an extended amount of time why not plan for it, so we can have the proper people hear and help manage the incident. On most occasions, the use of MIST is an afterthought. There are lots of applications for the use of the team. I say it’s simple, some incidents are just outside of the realm of what some agencies can handle so why not call for the help to make your incident more manageable.
Appendix B: Plainfield Chief Officer Questionnaire

Plainfield F.P.D. Chief Fire Officer

Please take a few moments to complete this questionnaire on Assessing the Capabilities of Local Incident Management Teams. Data from the questionnaire will be utilized in a research paper requiring the Executive Analysis of Fire Service Operations in Emergency Management courses at the National Fire Academy. Identifiers of the respondent will remain anonymous and email, and/or contact information will not be collected as part of the questionnaire. The closing date for submission of questionnaires will be January 15, 2019.

Thank you for your assistance.

Vito Ronomo

* Required

I am familiar with the function and capabilities of an Incident Management Team (IMT)? *

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I am familiar with the roles and responsibilities all the command and general staff positions of an IMT. *

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I am familiar with capabilities of the MABAS division 15 IMT? *

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I am familiar with how many IMT respond as part of the MABAS division 15 IMT? *

- Strongly agree
- Agree
- Disagree
- Strongly disagree

If affected by a large-scale or complex incident, beyond the capabilities of our MABAS division, I believe the Fire District and MABAS division 15 IMT can staff all Command Staff and General Staff ICS functions to include: (a) Incident Command, (b) Operations, (c) Planning, (d) Logistics, (e) Safety, (f) PIO, and (g) Liaison for more than one operational period (12 hours) without outside assistance.

- Strongly agree: Can staff all positions within the IMT without outside assistance.
- Agree: Can staff most positions within the IMT but require outside assistance.
- Disagree: Can staff some positions within the IMT but would require outside assistance.
- Strongly Disagree: Can’t staff positions within the IMT and require all outside assistance.

Do you know the credentials and/or requirements to operate as part of the MABAS division 15 IMT?

- Yes
- No

Do you operate as part of the IMT response for MABAS division 15?

- Yes
- No

Have you commanded an incident that involved to use of the MABAS 15 IMT?

- Yes
- No

If “yes” to the previous question, do you feel the use of the MABAS division 15 IMT improved the organization and coordination of the incident?

- Yes
- No
- Never operated an incident with an IMT
I am familiar with the activation procedure for requesting local, regional, and state IMT(s) for assistance?

- Strongly agree
- Agree
- Disagree
- Strongly disagree

I feel the MABAS division 15 IMT is trained, equipped, and prepared to effectively assist in managing an incident lasting longer than one operational period (12 hours).

- Strongly agree
- Agree
- Disagree
- Strongly Disagree
Appendix C: Plainfield Chief Officer Results

I am familiar with the function and capabilities of an Incident Management Team (IMT)?

5 responses

I am familiar with the roles and responsibilities all the command and general staff positions of an IMT.

5 responses

I am familiar with capabilities of the MABAS division 15 IMT?

5 responses
I am familiar with how many IMT respond as part of the MABAS division 15 IMT?

5 responses

If effected by a large-scale or complex incident, beyond the capabilities of our MABAS division, I believe the Fire District and MABAS division 15 IMT can staff all Command Staff and General Staff ICS functions to include: (a) Incident Command, (b) Operations, (c) Planning, (d) Logistics, (e) Safety, (f) PIO, and (g) Liaison for more then one operational period (12 hours) without outside assistance.

5 responses
Do you know the credentials and/or requirements to operate as part of the MABAS division 15 IMT?

5 responses

![Pie chart showing 60% Yes and 40% No]

Do you operate as part of the IMT response for MABAS division 15?

5 responses

![Bar chart showing 3 Yes (60%) and 2 No (40%)]

Have you commanded an incident that involved to use of the MABAS 15 IMT?

5 responses

![Pie chart showing 40% Yes and 60% No]
If "yes" to the previous question, do you feel the use of the MABAS division 15 IMT improved the organization and coordination of the incident?

5 responses

I am familiar with the activation procedure for requesting local, regional, and state IMT(s) for assistance?

5 responses

I feel the MABAS division 15 IMT is trained, equipped, and prepared to effectively assist in managing an incident lasting longer than one operational period (12 hours).

5 responses
What MABAS division is your agency in? *

Does your MABAS division have an Incident Management Team (IMT)? *

☐ Yes

☐ No

☐ Unknown

If not, do you believe your MABAS division would benefit from an IMT for large-scale or complex incidents?

☐ Yes

☐ No

☐ N/A if "yes" answered in question 2

How many personnel respond as part of your MABAS division IMT?

☐ 5 or less

☐ 5-10

☐ 10-15

☐ 15-20

☐ 20+

☐ No IMT within the MABAS division
I am familiar with the capabilities of other MABAS IMTs including the State IMT for incidents lasting longer than one operational period (12 hours)?

- Strongly agree
- Agree
- Disagree
- Strongly Disagree

If affected by a large-scale or complex incident, beyond the capabilities of your MABAS division, I believe my agency and local MABAS IMT can staff all Command Staff and General Staff ICS functions to include: (a) Incident Command, (b) Operations, (c) Planning, (d) Logistics, (e) Safety, (f) PIO, and (g) Liaison for more than one operational period (12 hours) without outside assistance.

- Strongly agree: Can staff all positions within the IMT without outside assistance.
- Agree: Can staff most positions within the IMT but require outside assistance.
- Disagree: Can staff some positions within the IMT but would require outside assistance.
- Strongly Disagree: Can't staff positions within the IMT and require all outside assistance.
Are there minimum national and state certifications along with local credentials required to become a member of your MABAS division IMT? (select all that apply)

- ICS 100
- ICS 200
- ICS 300
- ICS 400
- IS 700.A
- IS 800.C
- Fire Officer 1 certification
- Fire Officer 2 certification
- GSFM Chief Fire Officer certification
- Length of service
- Rank (Chief Officer)
- Rank (Company Officer)
- No minimum national certification requirements
- No minimum state certification requirements
- No minimum local credentialing requirements (i.e. rank or length of service)
- Other...
- Add option

Does your MABAS division IMT require training to specific positions within Command Staff and General Staff?

- Yes
- No
- Unknown
- No IMT within the MABAS division
Does your MABAS division IMT train on large-scale or complex incidents annually?

☐ Yes

☐ No

☐ No IMT within the MABAS division

Our agency uses or would consider using a local MABAS Incident Management Team for the following incidents: (select all that apply)

☐ Residential structure fire or incident not escalating to extra alarms.

☐ Multiple alarm fire, Mass Casualty Incident, Fire involving special hazards i.e. wildland brush fire, F

☐ Incident involving the use of special teams; i.e. technical rescue, hazardous materials, or dive incl

☐ Large scale events such as: concerts, parades, sporting events, or protests.

☐ Large scale incident involving natural or man-made disasters.

☐ Other...

☐ Add option

What level of alarm is your local MABAS IMT requested to incidents within your MABAS division? (select one)

☐ Still alarm

☐ Full still alarm

☐ General alarm

☐ Box alarm

☐ 2nd alarm

☐ 3rd alarm

☐ 4th alarm

☐ 5th alarm

☐ Extra alarms past 5th alarm

☐ No IMT(s) are requested
I feel the IMT within my MABAS division is trained, equipped, and prepared to effectively assist in managing an incident lasting longer than one operational period (12 hours).

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- No IMT within the MABAS division

I am familiar with the activation procedure for requesting local, regional, and state IMT(s) for assistance?

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- Add option or ADD "OTHER"

I feel there are enough regional and state IMT(s) trained, equipped, and prepared to effectively assist in managing an incident lasting several operational periods.

- Strongly agree
- Agree
- Disagree
- Strongly disagree

Have you used or been part of an IMT for a large-scale or complex incident lasting longer than one operational period (12 hours)?

- Yes
- No

If yes, briefly describe your incident and any lessons learned from your event utilizing an IMT.
Appendix E: State of Illinois Results

What MABAS division is your agency in?
83 responses

Does your MABAS division have an Incident Management Team (IMT)?
83 responses

If not, do you believe your MABAS division would benefit from an IMT for large-scale or complex incidents?
83 responses
How many personnel respond as part of your MABAS division IMT?
83 responses

I am familiar with the capabilities of other MABAS IMTs including the State IMT for incidents lasting longer then one operational period (12 hours)?
83 responses

If effected by a large-scale or complex incident, beyond the capabilities of your MABAS division, I believe my agency and local MABAS IMT can staff all Command Staff and General Staff ICS functions to include: (a) Incident Command, (b) Operations, (c) Planning, (d) Logistics, (e) Safety, (f) PIO, and (g) Liaison for more then one operational period (12 hours) without outside assistance.
83 responses
Are there minimum national and state certifications along with local credentials required to become a member of your MABAS division IMT? (select all that apply)

83 responses

Does your MABAS division IMT require training to specific positions within Command Staff and General Staff?

83 responses
Does your MABAS division IMT train on large-scale or complex incidents annually?

83 responses

- Yes: 31.3%
- No: 28.9%
- No IMT within the MABAS division: 39.8%

Our agency uses or would consider using a local MABAS Incident Management Team for the following incidents: (select all that apply)

83 responses

- Residential structure fire or incident: 6 (7.2%)
- Multiple alarm fire, Mass Casualty Incident: 56 (67.5%)
- Incident involving the use of special equipment: 59 (71.1%)
- Large scale events such as concerts, parades: 54 (65.1%)
- Large scale incident involving natural disasters: 77 (92.8%)

What level of alarm is your local MABAS IMT requested to incidents within your MABAS division? (select one)

83 responses

- 1st alarm: 34.9%
- 2nd alarm: 10.8%
- 3rd alarm: 22.9%
- 4th alarm: 16.9%
- 5th alarm: 22.9%
- General alarm: 10.8%
- Box alarm: 2.4%
- Full still alarm: 0.6%
- 2nd still alarm: 3.6%
I am familiar with the activation procedure for requesting local, regional, and state IMT(s) for assistance.

83 responses

I feel the IMT within my MABAS division is trained, equipped, and prepared to effectively assist in managing an incident lasting longer than one operational period (12 hours).

83 responses

I feel there are enough regional and state IMT(s) trained, equipped, and prepared to effectively assist in managing an incident lasting several operational periods.

83 responses
Have you used or been part of an IMT for a large-scale or complex incident lasting longer than one operational period (12 hours)?

83 responses

- Yes: 60.2%
- No: 39.8%

If yes, briefly describe your incident and any lessons learned from your event utilizing an IMT.

28 responses

- Chicago Cubs World Series event, Chicago Marathon, the Vandike verdict, Gay Pride Parade
- Katrina, many lessons learned including the response from FEMA. Lack of communication from top down to the boots on the ground was an issue. It seemed there were multiple departments doing their own thing instead of all departments coming together to work as one.
- Part of IMT at Katrina as part of IMERT response.
- Large flooding event and large special events. Planning for the use of IMTs is important. Not planning for them, let alone understanding how they work, will only exacerbate an already complex event. Large special events - plan, plan, plan.....QUESTION #3 REQUIRES AN ANSWER BUT SHOULDN'T. I ANSWERED NO, BUT THERE SHOULD BE AN N/A OPTION IF YOU ANSWERED YES TO #2.
- Multi-day water rescue/recover event. I feel we could have used some additional IMT support early on in the incident. Once organized for the next operational periods, I thought the incident management went well. We also have overlapped with operational chiefs on the box card with the IMT's coming in. Needs get filled by response time and skill level coming in.
- Major flooding in the area, extreme snow fall, fire in a senior citizen high-rise.
- Tornado - helped create Incident Action Plan for 3 days of operational periods.
- Ottawa-Naplate Tornadoes, Srarved Rock Marathon events. Conduct an after action debriefing, call team early, train together, stay in your lane, count on no comms
- Tornado
- Katrina
- Several major incidents - many of the IMTs I have seen are there for themselves more than the stricken agency.
- Three day power outage for a summer storm that affected a significant number of citizens in our community.
- Exercise Director - State of IL and USMC CBIRF
- 10,000 gallon gasoline leak into sanitary sewer with multiple fires and explosions. Lessons need for coordination across 100+ agencies, need interop comms, multiple command/comm vehicles needed, lack of NIMS/ICS training in some non-public safety agencies, benefits of well trained IMT.
- Community flooding.
- Tornado
- Coal City Tornado, Roanoke Tornado, Validation Exercises @ IFSI
Illinois Fire Service Response to Hurricane Katrina in 2005 - Value in IMT - value in sending IMT down before the rest of the responders.

Tornado response. Found no one really wanted to take the lead to organize needs as the period moved forward. Break down in communication between check in and forward command for needs as event progressed. Very ineffective use of resources in the end.

Tornado in 2/28/16 which impacted multiple local communities

flooding that included hospital evacuation, tornado disaster. IMT’s are needed in every region. IL MABAS needs to take regional MIST teams more seriously, promote their use, and include them in statewide drills, non-emergency coordination events, etc.

Planned Events and Chemical Plant Fire

The Washington, IL tornado on November 2013, the Extreme Home Make Over in Pekin IL in 2007. The Washington event was a natural disaster where we were using lots of resources and documentation was critical. The Pekin event was a planned event that we put the IMS in place to exercise it in a non-emergency situation and were able to involve many people in a real event that was a non-critical event. Both were great learning processes, although it was wonderful to be able to practice in the non-critical, yet somewhat stressful event before the big one hit.

Used for tornado response in February 2017, also participated in prairie dragon excersize and Chicago/ ifsi excersize in 2018

I am a member of the State All Hazards IMT team under IEMA

Tornado, Large Chemical Storage Distribution Warehouse Fire, Ethanol Train Derailment, Area Flooding. Water Recoveries; Lesson Learned: Failure to remain cognizant of escalating factors which warrant early integration of an incident support team to assist with the incident and routine mitigations required to serve the community's emergent and customary needs.

There were two. I was on one incident as Part of a MABAS Division local IMT deployed to a Haz-Mat Incident inside a building. We rotated a couple of positions as time went on not specifically due to changing the entire IMT at 12 hours, but due to personnel availability. Also on another serving a Haz-Mat role outside of overall IMT, for gasoline leaking from fuel station into combined sewer that created several explosions inside homes and apartments.

Lessons -
Make sure personnel are rotated through positions. People get tired and can make poor decisions due to such. Make sure responsibilities are clearly defined, not just by listing and filling a position in IMS ahead of time, but by individual tasks as they present themselves during the incident. This is especially true with multiple agencies working together on multiple tasks at the same time. Don't be afraid to double-check or question things during large incidents, to make sure people understand their tasks and what is needed. It's not good to have many assumptions when you are dealing with a wide-array of personnel you don't know who have various levels of capabilities.

I serve as a member of the Philips 66 corporate IMT and I have worked many incidents including hurricane responses, pipeline leaks, marine spills, and train derailments.
Appendix F: National Questionnaire

Assessing the Capabilities of Local Incident Management Teams (IMT)

Please take a few moments to complete this questionnaire on Assessing the Capabilities of Local Incident Management Teams. Data from the questionnaire will be utilized in a research paper requirement for the Executive Analysis of Fire Service Operations in Emergency Management course at the National Fire Academy. Identities of the respondent will remain anonymous and email, and/or contact information will not be collected as part of the questionnaire. If you have additional information that you can provide about Incident Management Teams that doesn't meet the criteria of this questionnaire please contact me at ybonomo@plainfieldfpd.com. The closing date for submission of questionnaires will be December 31, 2018.

Thank you for your assistance,

Vito Bonomo
Battalion Chief
Plainfield Fire Protection District
23748 W. 135th St.
Plainfield, IL 60544

Select your state. *

Does your region have a local IMT? *

☐ Yes

☐ No
Are there minimum national and state certifications along with local credentials required to become a member of your local IMT? (select all that apply)

- ICS 100
- ICS 200
- ICS 300
- ICS 400
- IS 700.A
- IS 800.C
- State Company Fire Officer certifications
- State Chief Fire Officer certifications
- Length of service
- Rank
- No minimum national certification requirement
- No minimum state certification requirements
- No minimum local credentialing requirements (i.e. rank or length of service)
- No local IMT
- Other...

Does your local IMT require training on specific positions within Command and General Staff.

- Yes
- No
- No local IMT
Our agency uses or would considering using a local IMT for the following incidents: (select all that apply) *

- Residential structure fire or incident not escalating to extra alarms
- Multiple alarm fire, Mass Casualty Incident, Fire involving special hazards i.e. wildland brush fire, RIT deployment, or a...
- Incident involving the use of special teams, i.e. technical rescue, hazardous materials, or dive incidents
- Large scale events such as: concerts, parades, sporting events, or protests
- Large scale incident involving natural or man-made disasters
- Other...

I am familiar with the activation process for requesting local, regional, and state IMT(s) for assistance. *

- Strongly agree
- Agree
- Disagree
- Strongly disagree
- No local IMT

I feel there are enough local, regional, and state IMT(s) trained, equipped, and prepared to effectively assist in managing an incident lasting several operational periods.

- Strongly agree
- Agree
- Disagree
- Strongly Disagree
- No local IMT
The local IMT conducts training on large-scale or complex incidents on a _____ basis?

- Quarterly
- Bi-annual
- Annual
- Unknown
- IMT does not conduct training
- No local IMT

How many personnel respond as part of your local IMT? *

- 5 or less
- 5-10
- 10-15
- 15-20
- 20+
- No local IMT

Have you used or been a part of an IMT for a large-scale or complex incident lasting longer than one operational period (12 hours)?

- Yes
- No

If yes, briefly describe your incident and any lessons learned from your event utilizing an IMT.
Appendix G: National Results

Select your state.
36 responses

Does your region have a local IMT?
36 responses
Are there minimum national and state certifications along with local credentials required to become a member of your local IMT? (select all that apply)

36 responses

- ICS 100: 24 (66.7%)
- ICS 200: 24 (66.7%)
- ICS 300: 23 (63.9%)
- ICS 400: 22 (61.1%)
- IS 700.A: 24 (66.7%)
- IS 800.C: 22 (61.1%)
- State Chief Fire Officer certifications: 2 (5.6%)
- Rank: 4 (11.1%)
- No minimum state certification required: 1 (2.8%)
- No local IMT: 8 (22.2%)
- State IMT certification: 1 (2.8%)
- NWCG - Type 3 qualifications: 1 (2.8%)
- AH-305: 1 (2.8%)
- Not sure what is required: 1 (2.8%)

Does your local IMT require training on specific positions within Command and General Staff.

36 responses

- Yes: 22.2%
- No: 11.1%
- No local IMT: 66.7%
Our agency uses or would considering using a local IMT for the following incidents: (select all that apply)

- Residential structure fire or incident ... 1 (2.8%)
- Incident involving the use of special t... 11 (30.6%)
- Large scale incident involving natural ... 13 (36.1%)
- 25 (69.4%)
- 32 (88.9%)
- We do not plan to use an IMT 1 (2.8%)
- No Local IMT 1 (2.8%)

I am familiar with the activation process for requesting local, regional, and state IMT(s) for assistance.

I feel there are enough local, regional, and state IMT(s) trained, equipped, and prepared to effectively assist in managing an incident lasting several operational periods.
The local IMT conducts training on large-scale or complex incidents on a _____ basis?
36 responses

How many personnel respond as part of your local IMT?
36 responses

Have you used or been a part of an IMT for a large-scale or complex incident lasting longer than one operational period (12 hours)?
36 responses
If yes, briefly describe your incident and any lessons learned from your event utilizing an IMT.

9 responses

Well structured, seamless transition from local IC to IMT. Excellent at handling large wildland incidents.

The Japan earth quake called Operation Tomodachi and stood up for APEC event in Honolulu. Lessons learned, we have much more to learn as we do not practice orills like real life. Drills are always held at convenient times (normal business hours) and rarely goes into a second operational period. If it does, it's a "skeleton crew" or just shuts down. During Tomodachi, everyone was activated with no thought of extended operations. The next morning all the oncoming staff was already up all night with no rest period. We had no more staffing and were useless as decision makers walked around without any sleep.

Hurricane and weather events

I have been a part of a Regional Type III IMT that has been used for large planned events, and have been the recipient of the State Type II team for several Hurricanes.

I work as Operations commander for a large wildfire, several years ago. The IMT was not well organized and did not work well with other jurisdictions.

Hurricane Irma. Large fire at recycling plant. Lessons learned was there is not a strong group of backups ready to move into positions. As involved individuals retire, succession planning is not in place. Taskbooks are difficult to complete.

Incident Commander for the IMT at the Scott Firefighter Challenge. The IMT was used as a prestaged asset in the event of a critical incident in support of the local fire Dept.

I am on a local type 3 all hazards IMT and one of the three Oregon state all hazards IMT teams. I am a Division/Group Sup and am I pursuing my Operations Section Chief qualification. I have been on several complex wildfires in the last several years which have used the Oregon State IMT unified with a Federal, National or State Forest Type 1 IMT. We have been utilized for local conferences, fatalities, and dignitary visits. Oregon States IMT (through the State Fire Marshall’s Office) has been requested to respond to other states to assist with flood and natural disaster assistance.

Wildland fire in the county. The IMT was in effect after first period and lasted almost two weeks. The feds took over the fire but the IMT was in place for all of the logistic needs.