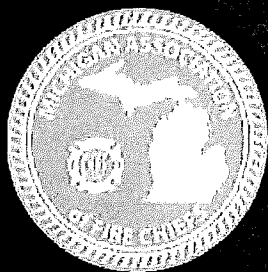
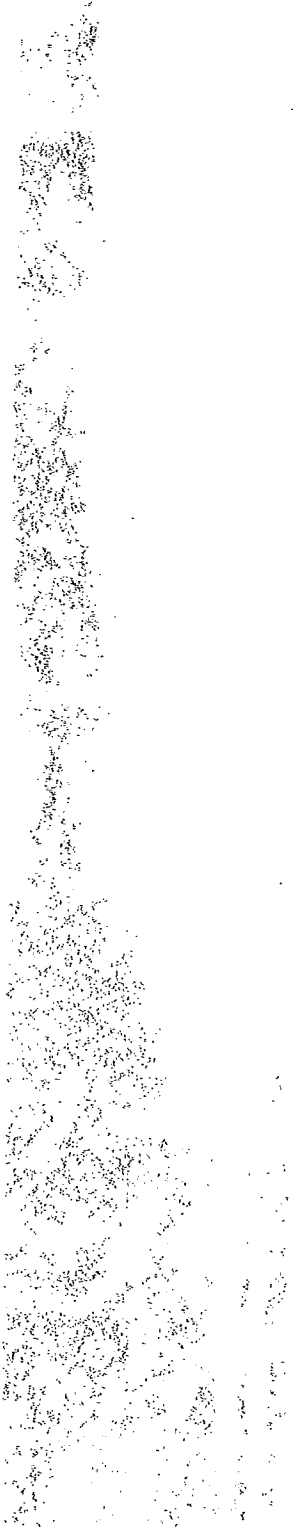
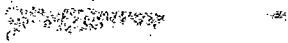
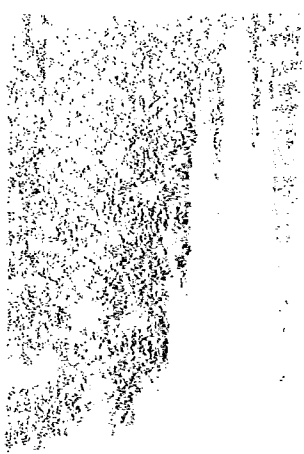


Michigan Association of Fire Chiefs



MICHIGAN'S FIRE SERVICE 2011





MICHIGAN ASSOCIATION OF FIRE CHIEFS

3315 S. Pennsylvania
Lansing, MI 48910

The Michigan Association of Fire Chiefs (MAFC) is pleased to present this introduction to the Michigan fire service and offer assistance as you address issues that will affect the services we provide for our residents and communities.

The MAFC represents all fire chiefs and public safety directors responsible for fire service operations in the State of Michigan. Its members participate in their community's management team, and work with the appointed and elected officials to establish and implement policies, programs and budgets in an effort to provide safe and effective service. The MAFC provides leadership and a voice for the fire service while working with the other public safety representatives and other organizations to protect and improve the safety of Michigan residents. The MAFC affiliates itself with many fire services groups. These groups include the Michigan Professional Fire Fighters Union, the Michigan State Firemen's Association, the Michigan Fire Inspectors Society, the Michigan Fire Instructors Association, the International Association of Arson Investigators (Michigan Chapter), as well as the International Association of Fire Chiefs.

The fire service in Michigan consists of more than 1,000 fire departments and over 31,000 fire fighters. These departments and personnel are the first responders to a wide variety of emergency and non-emergency calls for service in local communities. In addition to firefighting activities, today's fire departments have responsibilities in emergency medical service, fire prevention, arson investigation, public education, emergency management, terrorism response and training, hazardous materials response, technical rescue, wildland firefighting, aircraft fire fighting and rescue, as well as emerging public safety concerns and issues. Taxpayers expect government to be prepared and fire departments to provide a wide range of services, as a result call volumes are increasing. At the same time funds are decreasing for hiring or maintaining full-time personnel, and it is more difficult to recruit and retain volunteer or paid on call fire fighters to maintain a sufficient force to provide these services.

If the Michigan Association of Fire Chiefs can assist you in providing additional information or answering questions or concerns, please contact our Lansing office at 517-394-4398 or info@michiefs.org.

MICHIGAN'S FIRE SERVICE



Introduction

This document will provide clarity about why a fire department is necessary and what role the fire chief plays in successfully operating a fire department.

For over 250 years the fire service has responded to emergencies of every varying type imaginable. Either the fire service is the "black hole" of government, where large portions of the tax dollars go without return or, a savior of the residents capable of responding to any emergency day or night; these are the polar opposite opinions that are sometimes used to describe the fire service. Our communities have become more dependent on the fire service, requiring more fire fighters to train to cover the increased variety of threats and hazards to which they respond. The fire service has evolved from a community asset that was used only to fight fires; to one that is now involved in so many activities some suggest that the name fire department is a misnomer. The local fire department is the only agency that is staffed, trained and equipped to respond to all types of disasters. Communities utilize a variety of staffing methods to provide fire protection; from full time NFPA 1710 compliance to strictly volunteer departments.

The Insurance Services Office (ISO), an organization that provides information to insurance companies, says this about the value of a municipality's fire department: "A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Insurance companies use Public Protection Class (PPC) information to help establish fair premiums for fire insurance; generally offering lower premiums in communities with better protection. By offering economic benefits for communities that invest in their firefighting services, the program provides a real incentive for improving and maintaining public fire protection. Statistical data on insurance losses bears out the relationship between excellent fire protection, as measured by the PPC program, and low fire losses. By helping communities prepare to fight fires effectively, ISO's PPC program saves lives.

A community committed to saving lives and property needs trained firefighters, proper equipment, and adequate supplies of water. A well-trained staff with proper equipment can save a community significant dollars from fire losses. However, there are additional benefits to having a competent fire service serving your community.

Social/Psychological

Fire is the largest single cause of property loss in the United States over the past ten years. It has caused losses of more than \$120,000,000,000. The indirect cost of fires contributes additional billions of dollars in lost revenue and recovery expenses. The dollar loss is insignificant when compared to the fact that fire injures more than 20,000 Americans and more than 3,000 die in building fires annually.

Communities that invest in adequate fire protection are where people want to raise their families and business and industry want to locate. Psychologist Abraham Maslow introduced his concept of a hierarchy of needs in 1943 and it has been taught in management schools since. This hierarchy suggests that people are motivated to fulfill basic needs before moving on to other needs. The second need that Maslow identifies is the need for security. A safe neighborhood is a primary example of what people need to achieve this security. Having an adequate fire department is a requirement for a safe neighborhood.

Financial

What does a fire department do to raise revenue? The community may charge for services such as auto accidents, illegal acts or other services. This typically amounts to less than 5% of a department's budget. The fire department's contribution to the municipality does not show up in the revenue side of the budget. Another way to put the question is "How does someone justify the expense of providing this service?" The real benefit derived from having a fire department is the cost savings on homeowners and business insurance.

Many people do not understand or appreciate the savings that a well-equipped, well trained, and appropriately staffed fire department creates. All fire departments are rated according to a national standard developed by the ISO. This agency reviews the coverage, response and capabilities of a fire department and will rate them on a scale 1-10 (1 being the best rating). Let's assume the fictional Ajax fire department meets the standards for the ISO rating of 5. The insurance premiums paid by each homeowner or business in Ajax are directly related to that rating.

Currently, the average annual insurance premium for residents with a home valued at \$100,000 in Ajax is \$642. Using this company's estimates for comparison, the premiums paid in Ajax for homeowners would total \$6,095,020.

- If the department was rated at ISO 7, the premium would be \$686, totaling \$6,512, 747 for the Municipality (a difference of \$417,727).
- If the department was rated at ISO 8, the premium would be \$724, totaling \$6,873,511 for the Municipality (a difference of \$778,491).
- If the department was rated at ISO 9, the premium would be \$885, totaling \$8,402,013 for the Municipality (a difference of \$2,307, 997).
- If the department was rated at ISO 10, the premium would be \$895, totaling \$8,496, 951 for the Municipality (a difference of \$2,401,931).

The substantial savings for homeowners would be similar for business and industry since the ISO rating affects all insurance costs. The value of business and industry property combined is \$207,300,800. The premiums for the businesses in Ajax total \$1,330,871. The premiums for businesses if the fire department rating were ISO 9 would total \$1,831,950 (a difference of \$501,079). Businesses and residents of Ajax easily save over \$2,900,000 due to the department's 5 rating. The numbers used to develop this article are based on one insurance company's rates in a community of approximately 30,000 people.

Call Volume

In addition to expecting a wider range of services from the fire department, residents have grown to rely more heavily on the fire department for non-traditional requests. Greater reliance equates to more calls. People often call for assistance today for an injury or ailment that they would have simply gone to the hospital or med center for in the past. The public has become aware of the greater knowledge and professionalism of firefighters; they may call the fire department to check an electrical concern or they may call about an odor that they think is a gas leak. This greater reliance on the fire department contributes to the increased call volume.

Long-time members say that the fire service "just isn't what it used to be." The fire service has gone through significant changes to adapt to improved requirements and increased demands. Emergency service providers are required to take more training, and the public is calling more and demanding a broader range of services. This combination has made it more difficult for fire departments. Full time departments are spending more to maintain their budgets and Volunteer/Paid on Call departments are having a difficult time recruiting and retaining members. According to the National Volunteer Fire Council "Many fire departments across the Nation today are experiencing more difficulty with recruiting and retaining members than ever before. Although there has been a decline in the number of active volunteer firefighters nationally from a high of 897,750 in 1984, the trend has changed in the last few years. The number of volunteers dipped to a low of 770,100 volunteers in 1989. While the number has increased since then, the problem of recruitment and retention is still serious in many areas."

Service Levels

Fire suppression

Fire suppression is viewed as the tradition role of the fire service. Statewide firefighters are sent to residential, industrial, commercial and wildland fires. These different types of fires require specialized training, equipment, and resources. Departments are staffed and equipped to respond to these incidents at varying levels, from departments that can handle most fires with on duty personnel to departments that need to rely on mutual aid for any fire involving more than one room. The number of fire stations and their locations also play a significant part in the response to a fire. Of course, the quicker a department arrives on-scene and start suppression activities the more likely they are to save trapped residents and curtail loss. "Response times" are a critical factor in the fire department's ability to protect life, property and the environment. Response time is defined as the time from the receipt of the call until arrival at the emergency scene. NFPA 1710/1720 requires a minimum of 4 fire fighters to arrive at a fire scene within 5 minutes 90% of the time. Because fighting fire is labor intensive NFPA standards also call for a minimum of 10 firefighters within 10 minutes for a room and contents fire.

While local government has the power, privilege and authority to maintain and operate a fire department providing fire protection, fire suppression, emergency medical services, technical rescue, hazardous incident response, and other emergency response services; no local entity can afford to purchase, hire or maintain all the personnel, equipment and other resources that would be necessary to respond to every possible disaster or emergency. Mutual Aid is how government is able to respond to those large emergencies to which they are unable to respond. It is intended to be used for those occasional incidents that the local department can't handle. There is a second kind of cooperative agreement used called initial or automatic aid. Typically, Initial Aid addresses a known deficiency in staffing, equipment, or station location. The agencies involved in this type of aid develop a contractual agreement that provides for an immediate response in a specified area or requiring specialized equipment.

The stage a fire has achieved significantly effects personnel and equipment needs. These needs can be reasonably predicted for different risk levels and fire stages. One way of measuring a department's capabilities to handle an emergency is to measure its ability to put sufficient personnel and equipment on the scene of an emergency to limit fire growth.

The fire suppression tasks that are required at a typical fire scene vary a great deal depending upon the level of risk. What the fire companies must do, if they are to save lives and limit property damage, is to arrive as soon as possible, with adequate resources to do the job. Matching the arrival of resources with a specific point of fire growth or a patient's illness/injury is one of the greatest challenges to fire managers. Putting an adequate number of personnel on the fire ground or EMS incident is not difficult if money is abundant; to do so within budget constraints presents a struggle.

The answer for controlling the variation in fire dynamics lies in finding a common reference point; something that is common to all fires, regardless of the structure's risk level, contents, or the time the fire has burned. Such a reference point exists; regardless of the speed or length of burn time, all fires go through the same stages of growth. One particular stage, flashover, emerges as very significant because it marks a critical change in conditions. It is the point at or before which it is desirable to have fire companies arrive on scene. When flashover occurs, everything in the room instantaneously erupts into flame. This eruption into flame generates a tremendous amount of heat, smoke, and pressure, resulting in enough force to extend the fire beyond the room of origin through doors and windows or breaches in walls. The combustion process then speeds up because it has an even greater amount of heat to transfer to unburned objects through convection, radiation, direct flame contact, and conduction. With temperatures over 1000°F, occupants and/or fire fighters will not survive.

Below, you will find descriptions of critical tasks that must be accomplished by the initial response force in order for the fire service to meet its mission, goals, and objectives:

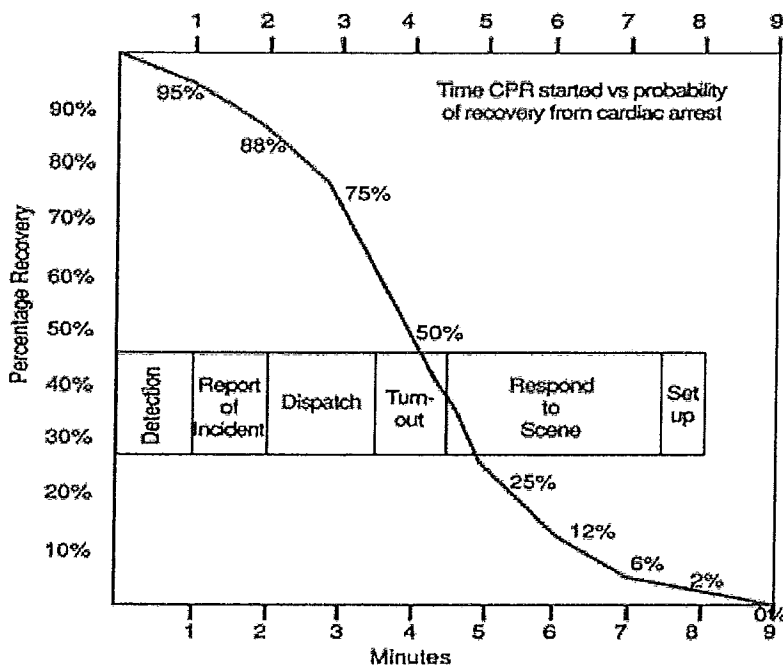
- *Attack Line* — a 1 ¾ inch hose that produces 150 GPM and is handled by a minimum of two firefighters, or a 2 ½ inch hose that produces 250 GPM and is handled by two or three firefighters. Each engine company carries a set of attack lines that are either pre-connected to the pump, folded on the hose bed, or in a special pack for carrying into high-rise buildings. The selection of which attack line to use depends on the type of structure, the distance to the seat of the fire, and the stage of the fire. The pre-connected lines are the fastest to use but are limited to fires within 200 feet of the pumper. When attack lines are needed beyond this limit, the hose bed lines or high-rise lines are used. A 2 ½ inch attack line will be used when the fire is already beyond the flashover stage and threatens unburned portions of a structure.
- *Search and Rescue* — a minimum of two firefighters are assigned to search for living victims and remove them from danger while the attack crew moves between the victims and the fire to stop it from advancing. A two-person crew is normally sufficient for most moderate risk structures, but more crews are required in multistory buildings or structures with people who are not capable of self-preservation.
- *Ventilation Crew* — a minimum of two firefighters to open horizontal or vertical ventilation channels when the attack crew is ready to enter the building. Ventilation removes superheated gases and smoke, prevents flashover allowing attack crews to see and work closer to the seat of the fire. It also gives the fire an exit route so the attack crew can “push” the fire out the opening they choose and keep it away from endangered people or unburned property. Ventilation must be closely timed with the fire attack. If it is performed too soon, the fire will get additional oxygen and grow. If performed too late, the attack crew cannot push the fire in the direction they want. Instead, the gases and smoke will be forced back toward the firefighters and their entry point, which endangers them, any victims they are protecting, and unburned property. Vertical ventilation or ventilation of a multistory building can require more than two firefighters.
- *Backup Line* — a hose line that is equal to or greater than the attack line in size and length that is taken in behind the attack crew to cover them in case the fire overwhelms them or a problem develops with the attack line. The 1 ¾ or 2 ½ inch backup line needs a minimum of two firefighters
- *Rapid Intervention Crew* — a minimum of two firefighters equipped with self-contained breathing apparatus (SCBA) and available to enter the structure, to perform search and rescue, or to rescue the attack crew if something goes wrong. This particular requirement is a MIOSHA rule.
- *Exposure Line* — a 1 ¾ inch attack line staffed by two firefighters to prevent fire expansion; they are used externally to protect nearby structures from igniting from radiant heat and taken above the fire in multistory buildings. In situations where the fire volume is significant, or structures are built close together, a 2 ½ inch line or deluge gun would be used. If 2 ½ inch lines are used, it doubles the staffing requirement.
- *Pump Operator* — one firefighter assigned to deliver water under the correct pressure to the attack, backup, and exposure lines. This pump operator will also monitor the pressure changes caused by changing flows on each line and ensure that water hammer doesn’t endanger any of the hose line crews. This firefighter also completes the hose hookups to the correct discharges and completes the water supply hookup to the correct intake. The pump operator can sometimes make the hydrant hookup alone if the engine is near a hydrant, but the hydrant spacing for moderate risk fires normally precludes this.
- *Water Supply* — a crew of one or two firefighters who must pull the large diameter hose between the pumper and the nearest hydrants, hook up at the hydrant, and deliver a water supply to the pumper before the pumper’s water tank runs dry. An engine has about four minutes of water if one 1 ¾ inch line is flowing.
- *Incident Command* — an officer assigned to remain outside of the structure to coordinate the attack, evaluates results and redirects the attack, arrange for more resources, and monitor conditions that might jeopardize crew safety.
- *Ladder Operations* — when operations are being done above the ground floor or if vertical ventilation is performed, at least two firefighters, are needed to set up the aerial platform and a ground ladder to provide access to the roof of the structure.
- *EMS/Rehabilitation* — at least one firefighter to establish a treatment and rehabilitation sector to prepare for any victims found and any firefighters who are injured or physically drained (EMS provider may be used).
- *Safety Officer* — one officer dedicated to the exterior of structure with the sole responsibility of firefighter and scene safety.

Task	Firefighters
Attack Line	2
Backup Line	2
Safety Officer	1
Search and Rescue	2
Ventilation	2
RIT Team	2
Pump Operator	1
Exposure Control/Water Supply	2
Command	1
Total	15

Minimum Fire Scene Staffing Requirements

Emergency Medical Service (EMS)

Most fire departments offer some level of EMS, from Medical First Responder to Advanced Life Support (ALS). This allows fire departments to provide basic life-saving procedures such as CPR and patient stabilization and/or advanced procedures i.e. cardiac care or administration of drugs. Typically this is done to provide a faster response than can be provided by an ambulance company. In some instances the fire department is the ambulance provider. In the past two decades, EMS calls have outpaced fire suppression calls for many fire departments. It is not uncommon for EMS calls to account for 60 percent of the annual call volume.



National protocols for emergency medical services (EMS) require 2 basic life support providers (first responders or emergency medical technicians) to arrive at an emergency medical incident within 5 minutes 90% of the time and advanced life support providers (paramedics) within 9 minutes 90% of the time. Because brain (clinical) death occurs approximately 4 minutes after breathing stops, rapid medical intervention is essential. The graph indicates the relationship between response time and survivability in cardiac arrest.

Hazardous Materials

Hazardous materials response requires specially trained hazmat technicians with the knowledge of a chemist in addition to firefighting skills. These hazardous materials technicians train for weapons of mass destruction (WMD) preparedness and response as well. Hazardous materials incidents can range from a small incident, such as an incident where incompatible chemicals are mixed in a private pool house, to a large train derailment that spills anhydrous ammonia, gasoline or some other hazardous substance. As trains and trucks carrying the potentially lethal cargo traverse the nation with nearly one million shipments a day and storage and use has become common place, the potential for a hazardous materials incident is found in every community.

Code Enforcement

In many jurisdictions, the fire department is charged with enforcing building, occupancy and fire prevention codes. This involves enforcing the laws that prohibit the existence of conditions deemed to be a hazard to public health, safety and welfare. Code enforcement officials conduct inspections to ensure that a building is in compliance with local and state ordinances. If the responsibility for enforcement of the Building Code has not been assigned to the fire department they are responsible for Fire Code enforcement. Enforcement of the Fire Code is a proven method to decrease the number and size of fires in business and industrial properties.

Technical Rescue

Technical rescue covers most of the unimaginable emergencies: victims caught in a flash flood (swift water rescue), employees caught on a water or cell tower (high angle rescue), motorists trapped in crushed cars and trucks (vehicle extrication), and people trapped in collapsed buildings (collapse rescue). Technical rescue also may include trench rescue, confined space rescue, scuba diving, open water operations and air rescue. Training and equipping personnel to be able to perform these duties is a necessary expense that sometimes can be shared regionally by structuring local emergency services personnel into integrated disaster response task forces. These task forces have proven to be effective in a variety of emergencies and disasters, including earthquakes, hurricanes, typhoons, storms and tornadoes, floods, dam failures, technological accidents, terrorist activities and hazardous materials releases.

Wildland Fire

Most of the large wildland fires that make the news occur in national forests, parks and other federal lands. Many fire fighters who are active in wildland firefighting are employees (some contract employees) of the federal government—U.S. Forest Service, Bureau of Land Management, National Park Service and the Bureau of Indian Affairs. However, the use of local structural fire agencies to supplement federal deployment is common and without their response, the federal and state resources would, in many cases, not be sufficient to control the incident. In 2002, the National Interagency Fire Center reported that fire fighters were successful in protecting 98 percent of all threatened structures in the wildland/urban interface. While hundreds of communities were evacuated, thousands of residents forced from their homes and more than 100,000 structures threatened by large fires, fire fighters are credited with protecting homes, businesses, recreational structures and other outbuildings.

Although the images of national forests burning by the millions of acres in the western states is the most common perception of the wildland fire problem, a large number of jurisdictions in the United States faces some sort of wildland fire threat. As people continue to build in wilderness areas, the threat of the wildland/urban interface grows. Also adding to the risk are communities located in forested areas. Fire departments that traditionally train and fight structural fires are now required to train and respond to wildland/urban interface fires. In some jurisdictions, structural departments are the first available responders for wildland fires—arriving on scene 24-48 hours before the U.S. Forest Service is able to bring in wildland fire teams.

Fire Prevention and Education

Most fire departments have some type of fire prevention and education program. These outreach programs allow the fire department to educate the public regarding fire prevention and life safety issues. While it is nearly impossible to prove a negative, it is a commonly held position within the fire service that these programs do work. Testimonials from the parents of school children who reacted appropriately during a home fire lend credence to this belief. Programs include smoke alarm campaigns, fire safety for school children, CPR and first aid training for citizens and citizen fire academies are examples of the many creative public education programs provided today.

Aircraft Rescue and Fire Fighting

Airport fire departments are responsible for aircraft rescue firefighting, emergency medical response, hazardous materials response, fire prevention inspections, pre-emergency surveys, fire extinguisher inspections, cardiopulmonary resuscitation (CPR) training, automatic external defibrillation (AED) training and more. The Federal Aviation Administration (FAA) requires fire fighters to be in place on the runway for a declared aircraft emergency within three minutes of notification. These fire fighters must have knowledge regarding the types of aircraft arriving/departing, maximum number of passengers possibly inside, location of emergency exits on the aircraft, and location of critical systems on the aircraft that could increase the danger to passengers exiting the aircraft if it was on fire.

Arson Investigation

In many jurisdictions, the fire department is charged with conducting arson investigations. This investigation may include fire marshals who are specially trained fire officials or law enforcement officers with the power to arrest suspects. A strong investigation program can serve as a deterrent to intentionally set fires. Preventing these types of fires can result in reductions in not only economic fire losses but more importantly in fire deaths and injuries.

Explosive Response and Investigation

Fire departments may deploy or assist bomb squads which are traditionally housed under law enforcement agencies. Whether under the command of the fire department or law enforcement, the bomb squad technicians and investigators work closely with both public safety entities. Bomb squads respond to all incidents involving explosive materials, incendiary devices, improvised explosive devices, accidental explosions, bombings and related matters. When the fire department is assisting these squads it is typically in a support role standing by to assist if there is an accidental detonation.

Water Rescue

Much of Michigan's tourism depends upon the many lake, rivers and streams found across our great state. Fire departments are often charged with protecting those who use these valuable resources in both summer and winter months. Open water rescue, ice rescue and dive recovery services are important to state residents and visitors alike. These specialized responses require yet additional training regiments and equipment needs.

Fire Chief's Role

The mission of the fire department once was quite simple; fight fire and save lives; as was previously indicated, that mission has become much more involved. It is imperative communities have experienced, well trained, and educated individuals who are accountable for the success or failure of the fire department. The fire chief plays an important role in providing the services determined necessary by a community without exceeding the budget.

Whether on an incident scene, on the apparatus floor or in front of the elected officials it is the fire chief's job to represent the values and mission of the fire department. On the incident scene the fire chief must be able to use their education, experience and training to make critical decisions quickly. Decisions that will affect the individuals involved for years to come. Of all emergency responders the fire chief probably has the most varied experience; they are called on to respond on a regular basis to incidents of varying type and magnitude. This experience has prepared them to be placed in a position of command at disasters around the country. When FEMA sends a team to assist in the management of a large incident the team is more often than not led by a fire chief.

Actually, the decisions made by the fire chief under many circumstances, emergency and non-emergency, will have a lasting effect on people's lives. The fire chief has to be able to navigate through the bureaucracy of government regulations, lead the personnel in their department, manage a budget as well as respond to emergencies to take command. Let's look at some of the responsibilities of the fire chief's position.

Leadership

Harry Truman said "A leader is a man who has the ability to get other people to do what they don't want to do, and like it." The fire chief must be capable of managing the department; regardless of how big or small the organization is the person in charge must be capable of inspiring the department members to work together as a team. The fire department needs someone who can manage a budget and develop policies and procedures, but if that person does not have the confidence of the members and the conflict resolution and facilitation qualities frequently necessary to lead them, the department will struggle to reach its full potential.

The position of fire chief is described by Ron Graner in his book *The Fire Chief's Toolbox*;

There are few positions in the world that require the immediate flexibility of management that the position of fire chief does. A fire chief certainly must be oriented to successfully complete a wide variety of tasks under extreme pressure of life or death. The chief must be able to deal authoritatively with a worker whose use of drugs or alcohol has risked the lives of his coworkers and the public. A fire chief must be able to build long-term relationships and mutual trust up and down the line in the department, as well as with the government and the public. He or she also must be able to focus on the task of cutting the victim out of the wreck, comforting the victim, and reducing the stress at an accident scene. He or she must be able to comfort and support the spouse and children of one of any staff members killed in the performance of their duty and must understand the needs of the people he serves and the needs of those who work under his management, and be able to balance all. A fire chief must have flexibility and be comfortable in a wide variety of situations and conditions in order to achieve long-term career success.

The reference to success here is not measured by awards or bonuses given to a chief. The measure of the success of the fire chief is directly related to the quality of service and protection that is provided to the community by the fire department.

Planning

Lewis Carroll said, "If you don't know where you are going any road will take you there." It is the responsibility of the fire chief to work with the elected officials and department members to choose the department's destination and then plot the best route to arrive there. Planning is a necessity that requires a person with training, education and experience to assure that the outcome is realistic and attainable. Here are three examples of how the fire chief must plan.

Strategic Plan –The fire service has functioned successfully for many years by planning for future events. These plans were developed based on capital needs, anticipated growth, identified weaknesses, new laws or other pressures and opportunities that occurred over the course of a department's operation. The fire service has typically not done a complete review of how emergency services are provided. Given the growth and financial climate in Michigan an in-depth review of fire department operations and future needs should be done in each community; with the development of a master plan determining future program and service delivery models being the goal. In many communities the fire department is the largest recipient of General Fund dollars. Many departments have developed plans for capital purchases; a strategic plan goes beyond this and examines expenditures within the General Fund budget including programs, personnel, facilities and equipment.

Pre Incident Plan – It is important, and in some instances required by law, that response plans be developed for certain high risk occupancies. These plans are intended to protect the occupancies employees, the residents of the community and the responders from unnecessary risk.

Succession Plan – Succession planning is a process for identifying and developing the potential for internal people to fill key leadership positions. Such a plan increases the experienced and capable employees prepared to assume critical roles in the future. The leadership's underlying philosophy should encourage employees to grow and become capable of leading the organization for the organization to be truly effective.

Staffing

There are many different staffing configurations. Fire departments use fulltime, part-time, Paid-on-Call (POC) and volunteer personnel to staff the departments. All of these staffing models have advantages and disadvantages. Fulltime employees are predictable. You have considerable control over when and where they will be available. They are easier to assign duties and train. Part-time employees are less of a burden on the budget but may not be as well trained or as easy to schedule. POC personnel are only paid when they are working. They are not paid unless the fire chief feels they should respond to an emergency, do maintenance work, or attend training; they are relatively inexpensive emergency responders. Volunteers are not compensated making them the least expense for a community. POC and volunteers present a significant disadvantage because of their not being paid; they cannot be depended on to respond. Because of this the ISO counts POC and volunteer as one third of a position when determining staff strength.

Another disadvantage for POC and volunteer staff is they have been harder to recruit and retain. Recent research indicates there is no single reason for the decline in volunteers in most departments. However, there is a universal consensus that skilled department leadership is a key to resolving the problems. Retention and recruitment problems usually can be traced to several underlying factors: more demands on people's time in a hectic modern society; more stringent training requirements; population shifts from smaller towns to urban centers; changes in the nature of small town industry and farming; internal leadership problems; and a decline in the sense of civic responsibility, among other factors. Although some regions are more affected than others, and the problems and solutions vary across regions, even within states and counties, volunteer retention and recruitment is a problem nationwide.

Standards

The NFPA publishes over 300 codes and standards relative to the prevention and minimization of the effects of fire. The fire chief must be familiar with these standards in order to fully understand the scope of their responsibility. These standards shape the policies, procedures and labor agreements used to manage the department.

- Providing emergency services to the public (1201)
- Organization, staffing and deployment of personnel (1710/1720)
- Building and maintaining fire apparatus (1901)
- Medical and fitness requirements for fire fighters (1582/1583)
- Safe operation of the department (1500)

Legislation

In the past the fire service may have been guilty of not fully educating the elected officials of the support necessary to adequately provide protection to communities. It is with that in mind that the following issues are delineated:

- **Mutual Aid Box Alarm System (MABAS)** –The International Association of Fire Chiefs initiated a program to support the development of comprehensive and functional mutual aid plans for the fire service in all states and, eventually, tribal nations and U.S. territories. The program, Intrastate Mutual Aid System (IMAS), provided technical and staff support to states with the intention of all states having a mutual aid plan in place that would support the state in the event of a disaster by allowing the closest resources to respond in the least amount of time as possible. Michigan selected to join MABAS. MABAS is a mutual aid system, which has been in existence since the late 1960s originally developed as a regional mutual aid system in northern Illinois. Since September 11th, MABAS has rapidly grown throughout Illinois and surrounding states.

Day-to-day MABAS extra alarms are systematically designed to provide speed of response of emergency resources to the stricken community during an ongoing emergency. A Declaration of Disasters is not required for routine, MABAS system activation's. As a MABAS member agency, every community has the same agreement as the signatories, agreeing to send predetermined resources to assist a stricken community. Without a formal written mutual aid agreement a request for mutual aid assistance becomes a voluntary act, putting the Fire Chief and the employing community sending the resource, at great risk should equipment be damaged, or if a firefighter is injured or killed in the line of duty. MABAS improves disaster response capabilities, reduces impact of disaster on a community, strengthens interstate mobilization, brings fire service stakeholders together and costs little to implement. It fills the operational gap to respond resources to an event before a state declaration of disaster, provides a template for resource procurement in a pre-planned effective means and provides a template for Inter-State or EMAC requests.

The Wisconsin State Legislature passed SB 642 and it was signed by Governor Jim Doyle in April of 2006. This law makes it mandatory for municipalities to join MABAS or opt out. Two weeks after the Wisconsin State Fire Chiefs Association approved their newly developed plan, it was put to the test and encountered great success. The City of Cudahy (pop. 18,000) Fire Department, a suburban community south of Milwaukee, battled a large industrial facility fire at the Patrick Cudahy Meat Processing Plant for more than three days. The size of the facility and the intensity of the fire required the first activation of the recently approved Wisconsin MABAS.

The Cudahy Fire Department is a participating member of the Mutual Aid Box Alarm System of Wisconsin. The 25 member career department responded to the fire at 10 pm on July 5, 2009 and immediately elevated the response to a box and second alarm through their local MABAS agreement. Three additional subsequent alarms were requested resulting in 16 engines, 9 ladders and 10 Chiefs on the scene. In total the WFSERP sent to the scene and/or held on deck for relief assignments: 25 Engines, 15 Ladders, 5 Heavy Rescues, 23 Chiefs, and 6 Tenders. There were about 150 firefighters on the scene at the peak of the firefight. Fire crews remained on the scene for about a week.

The MAFC feels strongly that the Michigan Legislature should enact a law that would provide the same level of cooperation among communities that exists as a result of Wisconsin's efforts with SB 642 of 2006.

Laws

The fire chief is responsible for assuring that the department is in compliance with the myriad of laws that pertain to the provision of emergency services and employment. Some examples are; Right to trespass, Code enforcement, drafting persons to assist at emergency scene, emergency driving, right to search and seizure, etc.. Additional employment laws include; Employee Right to Know, FLSA, ADA, Civil Rights Act, etc. A fire chief also must be familiar with the Federal and State rules that have the effect of law as they pertain to the fire service. Those rules are enforced by MIOSHA, MDCH, DOT, MFFTC and MDNR to name a few. There are also local ordinances, such as zoning and subdivision regulations, that affect fire departments.

The State of Michigan has adopted laws and regulations that guide/restrict the fire service. Among those are:

- Fire prevention code (P.A. 207 of 1941)
- State construction code (mini-max)
- Fire inspections and inspector certification
- Fire fighter training (P.A. 291 of 1966)
- The Urban Cooperation Act (P.A. 7 of 1967)
- Public safety collective bargaining requirements (P.A. 312 of 1969)
- Michigan Occupational Health and Safety (MIOSHA)
 - Part 74, Fire Fighting
 - Two in/Two out requirements for fire suppression
 - Respiratory protection
 - Fire Fighter Right to Know

Training

The effectiveness of a fire department is significantly influenced by the training program that is developed and/or approved by the Fire Chief. The Volunteer and Combination Officers Section of the International Association of Fire Chiefs has noted that over the past several decades training for firefighters has been formalized and become increasingly comprehensive. Consensus standards developed by National Fire Protection Association (NFPA) committees comprised of experts in their fields have dictated both classroom and practical requirements be increased. The goal of this additional study being increased safety, identification of job performance requirements and the establishment of minimum competencies. When investigating the cause of accidents involving firefighters MIOSHA and the National Institute for Occupational Safety and Health (NIOSH) utilizes these standards as a guideline. Additionally, the U.S. Department of Transportation (DOT) develops and regulates standards for emergency medical training. Departments must insure that employees receive proficiency training in order to be licensed and respond to any incident requiring medical treatment.

Federal Requirements --The Federal government has enacted training requirements for volunteers through the EPA applying to all volunteers. The EPA mandates that all volunteers take annual hazardous materials training. In addition, State EPAs have limited the burning of old structures in certain areas of the country that further restricts the opportunity for live burn training.

Broader Range of Services --The consensus of fire chiefs from across the country is that the public's expectations of the fire department are greater today than in years past. The public expects the fire department to provide assistance for emergencies that include fires, fire alarms, carbon monoxide alarms, broken water pipes, natural gas leaks, medical emergencies, vehicle accidents, hazardous materials spills, mysterious odors, structural collapse, extrications, water rescue, and even bomb threats or terrorist incidents. When the public calls for assistance in any of these situations, the fire department must be ready to respond. To respond to the public's expectations, firefighters must attend a wider variety of training courses.

Recertification Demands --Recertification requirements vary among the States, but generally range from annually to every 5 years. Time requirements for recertification usually are approximately one-quarter the length of the original class. Michigan has medical recertification requirements ranging from 5 CEUs for MFR per year to 45 CEUs for a Paramedic.

- **Insurance rating equity** – As previously mentioned the ISO classifies a community's ability to suppress fires according to nationally accepted standards; they have developed the Fire Suppression Rating Schedule (FSRS). The FSRS incorporates nationally accepted standards developed by organizations such as the National Fire Protection Association (NFPA) and the American Water Works Association (AWWA). When those organizations update their standards, the ISO evaluation changes as well. So, the PPC program always provides a useful benchmark that helps fire departments and other public officials measure the effectiveness of their efforts — and plan for improvements. The schedule measures the major elements of a community's fire-suppression system and develops a numerical grading — ISO's Public Protection Classification (PPCTM). Insurance companies in 49 states use this classification to set fire insurance premiums. As a result a property owner in a community with a better rating, 1 is the best, pays lower premiums for insurance. That is not the case in Michigan. In Michigan the rates decrease from a 10 rating to a 5 or 4, it varies by company, and then becomes higher as the rating goes down. The predecessors of the Michigan Office of Financial and Insurance Regulation modified the national model in a manner which deviates from the way the other states utilize the ISO PPC system. This has caused insurance rates to **increase** when a community achieves a better PPC rating because the state insurance authorities created a policy which required insurers to develop rates based on losses in similarly rated communities. For example, properties in all PPC rated class 3 communities are rated on the aggregate losses in all class 3 communities. This practice subverts the basic principle of the PPC system which is that as a community's PPC grade improves, the insurance premium rates should decrease. Communities are in effect punished because they have invested tax dollars and effort for a high quality fire service.

The MAFC believes that insurance premiums should reflect the service potential and experience provided by each community individually rather than an aggregate of like rated communities.

- **Funding** – As more and more mandates are passed to the States and down to local government it becomes an increasing challenge for fire departments to provide adequate emergency response. Impediments from State law inhibit cooperation amongst communities making it less desirable to consolidate duties. Elimination of tax revenue through decreased Revenue Sharing and potential elimination of other tax revenues such as the personal property tax will only make it more difficult to operate at current levels. Creating departments with fewer personnel who will be expected to provide the same service is unrealistic. Police officers responding to fires may be an option in communities with low run volumes in either department, but provides decreased service levels in any community other than a bedroom community. The theory that a community can rely on mutual aid rather than providing an adequate fire department is flawed. Mutual aid agreements are based on the philosophy that when a community has an incident that exceeds the normal requirements for resources it can ask its neighbors for help. Think of it like borrowing a wrench from your neighbor rather than going out and buying one that you will only use once a year. If you borrow the neighbor's lawnmower every time you cut the grass that will eventually cause problems. It is the same way with mutual aid fire departments should have the resources to handle the normal activities.

The MAFC believes that funding streams should not be eliminated until the service that it provides is determined to be non essential or a replacement funding method is in place.

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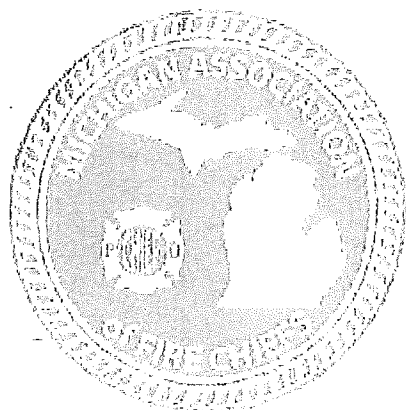
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The Michigan Association of Fire Chiefs wishes to thank you for taking the time to review this information. We would also like to invite you to complete a simple four question survey. You may access the survey by visiting the MAFC web site at www.michiefs.org.

