

## **Line of Duty Death in the American Fire Service:**

### **Components of a better outcome**

#### **TRAINING & DISCIPLINE**

By: Mike Lombardo

The loss of firefighters in America is staggering, intolerable and most of all tragic for families and peers. The loss of 115 firefighters in 2007 is an increase of 9 from the 106 deaths in 2006. According to the US Fire Administration 10% to 20% of these fatalities are defined under the Hometown Heroes Act. Signed in 2003, the Hometown Heroes Act establishes a statutory presumption that public safety officers who die from a heart attack or stroke following a non-routine stressful or strenuous physical public safety activity or training, died in the line of duty for benefit purposes. The adoption of this Bill has increased our LODD's and should be taken into account in our efforts to stem this terrible tide. This is obviously a multi-faceted problem that needs attention from all involved to arrive at a better outcome. We strive to reach a goal of zero firefighter deaths, but this goal, however, is unattainable in the foreseeable future. There always has been and always will be an element of danger in firefighting. There are incidents that involve firefighters being sent into very dangerous circumstances involving great possibility of injury or death. These instances are rare but are vital to save life, at times many lives. Every year in this country firefighters die in the process of saving life; we should never minimize this sacrifice.

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The City of Buffalo (NY) Fire Department has a proud history dating back to 1880 as a fully career fire department. Buffalo is a poor city; in fact according to the US Census in 2006 Buffalo was the 2<sup>nd</sup> poorest large city in America. This level of poverty brings with it a high demand for service from the fire department. There are over 10,000 vacant buildings in Buffalo, New York, and these are often the target of arsonists and vandals. In 2006 the Buffalo Fire Department responded to 1,543 serious working structural fires. The following year was not much better at 1,298. The Buffalo Fire Department has suffered the loss of 111 firefighters since its establishment as a fully career fire department more than 125 years ago. Sixteen of those firefighters have died since I was appointed to the department in 1983; I, myself, worked at fires where 8 of those men were killed, 5 firefighters at a warehouse explosion, plus 3 single LODD incidents. These were a warehouse fire where a wall collapsed killing a Lieutenant, a house fire where an acting Battalion Chief died from smoke inhalation, and a house fire where a young firefighter burned to death. Having operated at the scene where 8 of those men died has really driven me to be safer and to create a safer environment for my crews so we can all go home.

We in Buffalo have gotten better. The Buffalo Fire Department has not lost a firefighter on the fire ground since 1997. However, three deaths have occurred since then. In 2005 we lost a member fighting in Iraq, and his death was a tremendous loss to our department, although technically not LODD. A Truck Co. Lieutenant succumbed to cancer that was duty related in 2005. In February 2006 a firefighter who had been injured in 1995, and who had remained in a coma for 10 years, passed away. This

firefighter “woke up” after ten years and spent some 36 hours communicating with his family and friends. He then slowly slipped back into unconsciousness and died in a coma 10 months later.

The implementation of numerous measures, such as the assigning of accountability officers, radios for all assigned positions, and increased training in all aspects of the job are some of the reasons we have a safer department. The reason I mention all of these issues dealing with my department and myself is to provide some insight into the human side of this issue and some personal perspective. Many people are involved in writing and dealing with the LODD problem in the American Fire Service, but we don't want to create a cottage industry based on LODD. As I stated earlier, we cannot forget the tremendous sacrifice that these firefighters and their families have made for us all.

There are two major areas that I think can have the most impact on firefighter survivability and safety. Those are discipline and training.

## ***DISCIPLINE***

We often talk about the “love for the job”, dedication, commitment, etc. These are very important assets to strive for across a department. It is good to have a solid discipline program in a department, in case any of these attributes are missing in any member.

We look at the causes of death for firefighters and see that fully 25% involve vehicle

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response. Having a mandatory seatbelt use rule and mandatory procedures for backing up apparatus can dramatically reduce these numbers. When I started my career I was one of the guys that did not wear a seatbelt. Now, I always do. Disciplined firefighters who operate within these procedures are going to be much safer than those who will “love” to wear seatbelts.

Many of the reasons firefighters die involve things we can do something about. We can avert those risks; we can avert them all the time. It does not matter what the incident that we are responding to or operating at involves but rather the fact that we are not going to expose ourselves to controllable risk. This is not “risk benefit analysis” but rather “risk aversion.” I am going to wear my seatbelt when I am responding to an automatic alarm and when I am responding to a well involved fully occupied orphanage fire.

Much has been discussed regarding new generation firefighters, in both their training and motivation. We try today to explain the reason for rules and regulations. This is good, as our new firefighters are intelligent and willing to learn. However, this does not release us from having rules, regulations, and procedures. Many departments have replaced operating procedures with operating guidelines. I fully understand the rationale for this. There are segments of our operations, though, which do need clear-cut direction. Standard Operating Procedures are used in our department, as are Department Orders. More importantly we need a system in place to instill discipline

(starting in recruit school) and to have a known set of consequences when rules, regulations, and procedures are not met.

Earlier I mentioned risk aversion and risk benefit analysis. For much of what we do in the fire service, risk aversion works. If we wear seatbelts every time, if we wear SCBA during any exposure to smoke, if we practice good communication on the fireground with our partners and our commanders, we will lower our risk of injury and death. We will do this regardless of the incident that we are responding/operating at. There are times that we truly have to weigh the outcome of what we are going to do (risk-benefit). As Incident Commander, we may have to order people into situations that are extremely critical and may result in injury or death of a firefighter, but this hopefully would be an extremely rare event. A company officer or firefighter may be in a situation where operating a hose line in very dangerous conditions to hold a position is for a much larger benefit, i.e. holding a stairwell door in a hi-rise fire so hundreds of civilians can escape. These heroic and courageous examples involve discipline as much as the mundane do. Instilling discipline early in a career and throughout the organization are vital to the success and overall safety of a fire department.

## ***TRAINING***

The area that I feel has the most impact on firefighter safety and survivability is training. I am going to make a statement that will rankle many firefighters. Firefighters individually do not perform structural firefighting duties very often. Even in very busy

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departments the average individual firefighter does not engage in structural firefighting typically more than once a week. Much has been made of our business regarding how technical it has become. It has, and we are involved in many areas of emergency response today that require large amounts of higher-level training. However, the vast majority of firefighter deaths still involve common fire ground incidents, medical issues and events related to response. This simplicity extends beyond firefighters; 81% of all civilian fire fatalities involve residential fires. In other words people die in ones and twos in their own home. In my belief we cannot emphasize, nor do we practice, basic fire training enough.

I like to use the analogy with my troops of sports teams. Buffalo is home to the almost 4 time Super Bowl Champion Buffalo Bills and the Buffalo Sabres of the NHL. If we look at a professional football player's career we see the training and practice that has brought that individual to this pinnacle. How many tackles has a defensive linebacker made before ever stepping out onto the field of an NFL stadium? How much conditioning has taken place to get that individual to the NFL? I am not saying that we can or should demand this level of activity from firefighters but we can look at it in a simpler way. The Buffalo Sabres play 82 hockey games in the regular season, what do they do in between games? They practice playing hockey. As firefighters we need to practice our most basic skills and constantly learn and update our knowledge.

As I stated earlier, an individual firefighter may not be engaged in actual combat firefighting very often. I think the Buffalo Fire Department is quite busy and yet few of our firefighters fight more than a serious fire every two every week. I am sure there are

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departments where a firefighter could go for months and not engage in fire combat. My solution is training everyday, and learning everyday. I am not talking about only “new” or mandated subjects (is it odd that things like blood borne pathogen training is mandated each year but hose line training is not) but rather the basics. If every time an engine company works a 24 hour shift they practice stretching a line 10 times a number of things will happen: 1 - they will be good at stretching a hose line, 2 - they will not be fat (guilty, I sit behind a desk). If the ladder company crew practices multiple times laddering by raising a 35’ and 16’ ladder to a roof and opening the roof (if they are fortunate enough to have a facility) we will see the same results. On our next shift if those crews switch apparatus and assignment for training, think of the benefits. Fully 50% of firefighter fatalities are medical in nature - this physical activity will strengthen the heart and produce a safer firefighter. In Buffalo since 2001 we have provided extensive workout equipment along with peer fitness trainers. Training as we fight will always be better than simple workouts if for no other reason than the motor muscle and task repetition will increase our effectiveness.

Our training must mirror our fire environment. Training firefighters in fire behavior awareness and basic building construction and layout is a huge step towards keeping them safe. Fatality after fatality in the fire service involves firefighters who become lost and disoriented inside buildings. More often than not this involves firefighters caught in changing fire conditions. Many firefighters have fought their way into a building with heavy fire but the situation that is much more dangerous is the building with few signs of fire showing, but after firefighters have entered conditions rapidly deteriorate. We see

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many times over examples of this situation killing firefighters. The firefighter fatalities in Worcester MA, Keokuk IA, Charleston SC, and here in Buffalo have all involved rapidly changing fire conditions.

In the past I have taught both in my department as well as across the US & Canada. I can not tell you the number of times where an interested, motivated firefighter could recite to me the hazard classes from the Emergency Response Guidebook but have no knowledge of the nuances of buildings in his or her district. I refer here not only to the basic construction features but also basic layouts of buildings by type in a district or response area or city. Again this is very basic training, but how often after recruit school do firefighters perform basic search and maneuvering drills under blackout conditions? What training does a firefighter have involving fire behavior and its effects on the building they operate in and more importantly the effect on that firefighter? The examples where I feel we fall short in training are numerous, and they are also systemic to a larger problem which is often at a level above the local fire department.

Many firefighters in this country are afforded little or no facilities for training. Large counties across the US do not have a training facility of any kind. Often at the state level the training is concentrated at the incident management or technical level that is judged to be unavailable in the local jurisdiction. Programs on “Rigging for Structural Collapse”, ICS 400, or “Underwater Dive Operations” are great, but do nothing to aid in the training of local firefighters in a rural county that has no training center. We cannot forget that a department’s prime mission is to save life and property, and we learn from

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the US Fire Administration that most likely that mission will involve fire in 1 & 2 family homes. This likely will be the biggest threat to department members as well as the citizens. As I stated before, we must guide our training by what we as departments face everyday.

For a number of years now NIOSH (National Institute for Occupational Safety and Health) has been conducting investigations into firefighter line of duty deaths. The reports that are generated are helpful for fire departments nationwide to see what areas come up in incidents repeatedly. The reports should also be looked at for information that may not be so evident. An example one report made passing mention of the first hose line being used at a fatal fire to be 400' of 1 ½" hose. This situation was not identified as a problem in the report, but the use of a 400' hose line of that diameter would require, depending on the flow, a minimum 150 to over 200 pounds pressure to overcome the friction loss. This coupled with a need for 100 pounds nozzle pressure would combine to require 250 to 300+ pounds pressure at the fire pump. This is a tremendous high pressure and was probably not supplied. This is a very basic action, the stretching and proper supply of the first hose line. Although not cited in the report this action could very well have contributed to the problem. Most actions in the NIOSH reports refer to items that can be tied directly to an OSHA/NFPA standard. This is why it is crucial to look at these reports and see if there are training issues that may not be featured.

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At the federal level we also have the National Fire Academy, certainly a welcome addition to fire training for America's firefighters. The training at the NFA is almost exclusively classroom training focused at upper level operational and management functions of the fire service. Again this is needed training but does not address the thousands of firefighters who have no access to good physical training facilities. If we contrast this to the United Kingdom's Fire Service College at Moreton-In-Marsh, England we see a facility that is overwhelmingly superior to almost anything that is provided by the US Government. At the Fire Service College there are physical facilities replicating everything from a private dwelling to hi-rise structures, wide body aircraft to ships and subways. Facilities like this are not available to most firefighters in America. The thought also comes up that with technology today we could train many more firefighters in NFA Programs in the virtual classroom rather than traveling from New Mexico, or Oregon etc. to Emmitsburg for a classroom presentation. Our NFA needs more support.

There needs to be a commitment from all levels of government to fire service training. I doubt that the FBI academy ever considered an old college as its full service campus. This commitment needs to include funding so firefighters can be trained locally with useful facilities. At the state level and federal level their needs to be advanced training involving both classroom and physical hands-on programs.

A strong discipline system as well as a focused, ongoing, and robust training program will contribute to a safer fire service. These elements of our profession need to be

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embraced by recruits, seasoned firefighters, company level officers, command officers, and fire chiefs to be successful. Nothing alone will solve the problem of firefighter fatalities, but training and discipline programs implemented and practiced will save lives.

### ***About the Author***

MIKE LOMBARDO is a 30-year veteran of the fire service and is the Commissioner/Chief of Department of the Buffalo Fire Department. He is a New York State fire instructor and was a member of the development team for New York State firefighter survival and rapid intervention programs. He has been an editorial advisor for *Fire Engineering* magazine, a member of the Advisory Board for FDIC and lead instructor for FDIC live fire training. He is a two time *Firehouse Magazine* Heroism Award recipient (1988 and 1994) and the recipient of the FDIC 1999 Training Achievement Award. He is an instructor on fire tactics, live fire attack, firefighter survival, and command throughout the United States.

### ***About the Symposium***

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