

# **Firefighter Life Safety Summit Initial Report**



**FEMA**



**April 14, 2004**

## **PART I**

An unprecedented gathering of the leadership of the American fire service occurred on March 10<sup>th</sup> and 11<sup>th</sup>, 2004, when more than 200 individuals assembled in Tampa to focus on the troubling question of how to prevent line-of-duty deaths. Every year approximately 100 firefighters lose their lives in the line of duty in the United States; about one every 80 hours. The first ever National Fire Fighter Life Safety Summit was convened to bring the leadership of the fire service together for two days to focus all of their attention on this one critical concern. Every identifiable segment of the fire service was represented and participated in the process.

The National Fallen Firefighters Foundation hosted the Summit as the first step in a major campaign. In cooperation with the United States Fire Administration, the Foundation has established the objectives of reducing the fatality rate by 25% within 5 years and by 50% within 10 years. The purpose of the Summit was to produce an agenda of initiatives that must be addressed to reach those milestones and to gain the commitment of the fire service leadership to support and work toward their accomplishment.

The Summit marks a significant milestone, because it is the first time that a major gathering has been organized to unite all segments of the fire service behind the common goal of reducing firefighter deaths. It provided an opportunity for all of the participants to focus on the problems, jointly identify the most important issues, agree upon a set of key initiatives, and develop the commitments and coalitions that are essential to move forward with their implementation.

Every individual who came to Tampa was already personally committed to the mission of keeping firefighters alive and all of the organizations that were represented were already on record as supporting the goal of reducing line-of-duty deaths. The Summit was designed to produce a single combined agenda for change that all of the participants, individuals and organizations could agree to support and promote. The product of their concentrated effort in Tampa will provide the foundation for a joint strategy and combined effort that will be essential to produce the desired results over the next ten years.

The Summit produced a set of initiatives that may well be regarded as radical today, however it is significant to recognize that nothing new was invented or discovered in Tampa. All of the initiatives that emerged were based on information and fundamental truths that were known long before the invitations to the Summit were issued. The gathering simply provided a forum at which those issues could be discussed openly and freely on their own merits. Some of the policies that were identified are likely to cause discomfort and controversy, however there is no arguing with the fact that the assembled leadership, who came from all segments of the fire service, concluded that these initiatives are essential to keep firefighters from dying unnecessarily.

This is the first step along a path that will require a huge commitment of energy and resources over several years. Some of the initiatives that were agreed upon will involve radical changes for the fire service. Any revolutionary movement requires committed and unwavering leadership to bring about this type of major change. The core of that leadership will come from the Summit participants who helped to shape the agenda and identify the strategies that will have to be implemented. The invited participants included key individuals who are widely recognized for their influence and leadership, some attending on their own and some as representatives of organizations that represent different sectors of the fire service. In the normal course of events these organizations often disagree on particular issues and priorities, however in Tampa the only issue on the agenda was how to keep firefighters alive and there was a very broad consensus on the efforts that are needed to accomplish that goal. As the initiatives are advanced over the next several years, the fire service will see an example of what committed leaders can accomplish when they agree to work together for an important cause.

## **Process**

The Summit opened with an immediate emphasis on the need to take bold action to change perceptions and expectations in the fire service. The strongest words of inspiration came from NFFF Board Member Vina Drennan, who clearly reminded everyone of the pain that is felt by surviving family members and shared throughout the fire service whenever a member is killed, particularly when a life is lost in circumstances that could have been prevented. A review of historical data and statistical trends in line-of-duty deaths was presented to help the participants appreciate the range of problems and issues that must be addressed to achieve a significant reduction in fatalities.

The majority of the effort during the Summit took place in six discussion groups that focused their attention on specific domains. Groups were assembled to address:

- Structural firefighting
- Wildland firefighting
- Training and research
- Vehicle operations
- Health-wellness-fitness
- Reduction of emergency incidents and risks.

The groups were asked to produce a set of initiatives that should be undertaken to reduce line-of-duty deaths within their assigned domains. Each group was assigned two co-facilitators to lead the discussions, as well as a staff assistant to fully document the discussions. Within each of the domains the participants were asked to consider:

- Education and awareness issues

- Standards and regulations
- Specific research and technology issues
- Psychological barriers
- Leadership and personal/professional responsibility issues

The groups reported their recommendations back to the full assembly, which then produced a single consolidated set of key initiatives and implementation strategies as the product of the Summit.

**The consolidated list included 16 individual initiatives:**

1. Define and advocate the need for a cultural change within the fire service relating to safety, incorporating leadership, management, supervision, accountability and personal responsibility.
2. Enhance the personal and organizational accountability for health and safety throughout the fire service.
3. Focus greater attention on the integration of risk management with incident management at all levels, including strategic, tactical, and planning responsibilities.
4. Empower all firefighters to stop unsafe practices.
5. Develop and implement national standards for training, qualifications, and certification (including regular recertification) that are equally applicable to all firefighters, based on the duties they are expected to perform.
6. Develop and implement national medical and physical fitness standards that are equally applicable to all firefighters, based on the duties they are expected to perform.
7. Create a national research agenda and data collection system that relates to the initiatives.
8. Utilize available technology wherever it can produce higher levels of health and safety.
9. Thoroughly investigate all firefighter fatalities, injuries, and near misses.
10. Ensure grant programs support the implementation of safe practices and/or mandate safe practices as an eligibility requirement.

11. Develop and champion national standards for emergency response policies and procedures.
12. Develop and champion national protocols for response to violent incidents.
13. Provide firefighters and their families access to counseling and psychological support.
14. Provide public education more resources and champion it as a critical fire and life safety program.
15. Strengthen advocacy for the enforcement of codes and the installation of home fire sprinklers.
16. Make safety be a primary consideration in the design of apparatus and equipment.

### **Suggested Role for the National Fallen Firefighters Foundation**

While developing the agenda of initiatives to reduce firefighter fatalities, the delegates were also asked to define an appropriate role for the National Fallen Firefighters Foundation in working toward the implementation of the Summit recommendations. The Foundation is committed to this mission and to taking on roles and responsibilities that it can perform more effectively than any other group. The suggestions included a list of potential approaches that could be adopted by the Foundation:

- Coalition building
- Provide advocacy for the issues
- Activism in the standards-making process
- Political and apolitical activism
- Partnerships and fundraising
- Catalyst for change
- Serve as a clearinghouse for information and data
- Develop model programs and demonstration projects
- Provide technical assistance
- Work with NIOSH on investigations
- Timely assistance to local jurisdictions
- Provide recognition for achievements and contributions
- Review performance and provide progress reports
- Public awareness and communications

The Foundation's Board of Directors will consider all of the suggested roles in the coming months and determine the ability of the Foundation to undertake each

activity or project. The Board has already committed the Foundation to assume a set of responsibilities, beginning with organizing the Summit and serving as the key communicator and advocacy group for the initiatives that were developed.

In the immediate future the Foundation will join forces with the United States Fire Administration to document, publish and distribute the initiatives. The Foundation will also work with USFA to report on the progress that is achieved in implementing each of the initiatives. The Foundation has already begun to seek partners and ambassadors to move the initiatives forward and scheduled a strategy meeting to establish the immediate, mid-range and long-range priorities for a 10-year campaign. That effort should be extremely visible in the coming months.

## **PART II**

Background discussion related to the initiatives, summarized from the Summit

### **Cultural Change**

The most fundamental issue that was agreed upon by the Summit participants is the need for the fire service in the United States to change the culture of accepting the loss of firefighters as a normal way of doing business. This concept was reflected in several different statements that were produced by the individual discussion groups. The Summit participants unanimously declared that the time has come to change our culture and our expectations.

Within the fire service we all feel the pain with the loss of each individual firefighter, but we have come to accept the loss of more than 100 firefighters each year as a standard expectation. As long as we continue to accept this loss, we can avoid or delay making the radical and uncomfortable adjustments that will be necessary to change the outcomes. We have to convince everyone in the fire service that a line of duty death is not a standard expectation or an acceptable outcome.

### **Personal and Organizational Accountability**

The essential cultural change has to begin with accepting personal and organizational accountability for health and safety. Every individual within the fire service has to accept a personal responsibility for health, wellness, fitness for duty, skills development, basic competencies and adherence to safe practices. The leaders and members of every fire department and every fire service organization must be accountable for the safety of their members, collectively and individually. In addition the members must be accountable to each other.

The most important and fundamental decisions relating to firefighter health and safety are made by individuals, from the top of the organizational chart to the bottom. Irresponsible behavior cannot be tolerated at any level and no external influence can overpower a failure to accept personal responsibility. The managers, supervisors and leaders within the fire service must instill and reinforce these values until they become an integral component of the culture.

### **Incident Management and Risk Management**

This initiative incorporates a range of components that relate to our ability to safely conduct emergency operations in a high-risk environment. There is no question that fire fighters are expected to work in an environment that is inherently dangerous, however the risks and most of the specific dangers are well known. The most common causes of firefighter deaths are widely

recognized, along with the situations where they are most likely to occur. We have to recognize and manage the risks that apply to each situation. The essence of professionalism in the fire service is the ability to function safely and effectively within that dangerous environment. We will never be able to eliminate all of the risks, but we can be very well prepared to face most of them.

Firefighters at every level must be properly trained, equipped, organized and directed to perform their duties safely and skillfully. There must be a comprehensive structured system in place to manage incidents and risks. Company officers must be trained to supervise operations and incident commanders must be trained to manage incidents according to standard principles and practices.

Firefighters must be prepared to function competently in a wide range of situations, including critical events that can involve unanticipated dangers and immediate risks to their own survival. Several areas were identified for special emphasis, including mayday and rapid intervention procedures, air management and preventing disorientation in zero-visibility conditions.

Risk management involves identifying the situations where predictable risks are likely to be encountered and making decisions that will reduce, eliminate or avoid them.

Realistic risk management applies at every level within the fire service, from the decisions made by individual firefighters and company officers to the actions of incident commanders and senior officers who have specific responsibilities for evaluating and managing risks. We fail to act professionally when we recognize a risk and choose to do nothing about it.

The willingness of firefighters to risk their own lives to save others must never be used as an excuse to take unnecessary risks. Firefighters are highly respected for being willing to risk their own lives to save others, but that cannot justify taking unnecessary risks in situations where there is no one to save and nothing to be gained. In too many cases firefighters lose their lives while trying to save property that is already lost or to rescue victims who are already dead. While these efforts are valiant, they are also futile. Individual firefighters who take unnecessary risks, or fail to follow standard safety practices, endanger their own lives as well as the lives of other fire fighters who are depending on them or who might have to try to rescue them.

### **Right to Stop Unsafe Procedures**

The Summit participants identified the fundamental right and responsibility of firefighters to stop unsafe procedures as a key issue. To many members of the



fire service, who have been indoctrinated with a traditional sense of unquestioning discipline, this could be an uncomfortable concept. The underlying principle is that an individual who recognizes an unsafe situation must take action to prevent an accident from occurring. Under this operational concept, any firefighter who believes that a situation is unsafe, or could be unsafe, has both the right and the responsibility to stop the action while an evaluation is made.

The justification for this policy in non-emergency activities, particularly training situations, is easily understood. The application of the same concept to emergency operations could be more difficult for some individuals to accept. In too many cases the investigation of a fatal accident determines that an unsafe situation was recognized, but no action was taken to change or reconsider the plan. There are very few situations, even during emergency operations, where a brief hesitation to re-evaluate a potentially dangerous plan of action would have serious negative consequences. On the contrary, experience has shown that many lives could have been saved by taking a few extra seconds to stop and think.

This policy does not mean that no action can be taken at an emergency scene that exceeds the comfort level of any individual. The obligation attached to the policy is to pause long enough to determine if it is reasonably safe to continue. In many cases an officer will have to make a very rapid assessment of the situation and decide whether to continue or change the plan.

During emergency incidents there is one key question that we need to ask ourselves at regular intervals: "Are the results we are trying to accomplish worth the risks we are taking with our people?" The answer to this question should dictate actions by commanders and firefighters.

### **Mandatory National Standards for Training and Qualifications**

The Summit participants reached the conclusion that the time has come to apply a mandatory national uniform system of training and qualification standards for all firefighters. This system would establish mandatory training, education and performance requirements, based on the duties an individual is expected to perform, regardless of their status within the fire service or the type of organization. The roles and responsibilities of firefighters at different levels and in different operating environments would be clearly defined.

The basic system of professional qualifications standards already exists, however their current applicability depends on state and local jurisdictions, individual organizations, seniority, whether a firefighter is a career, part-time or volunteer member of the fire service, and many other factors. The summit delegates agreed that we must move toward a system where the same standards would be applied to anyone who performs a given role within the fire

service. The applicable standards must be appropriate and realistic for the functions the individual is expected to perform, however there should not be standards that apply to some individuals and not to others.

In reference to the existing professional qualification and certification systems, the need for periodic recertification was identified as a priority. Today, in many cases, an individual can be certified at a particular level and retain that certification for life, with no requirements for continuing education, refresher classes, performance testing or skills evaluation. The established systems for emergency medical practitioner certification were suggested as a model.

### **Mandatory Medical and Physical Fitness Standards**

Mandatory requirements for medical examinations and physical fitness standards should also be implemented for all firefighters, based on the duties and functions they are expected to perform. Medical surveillance should be increased before strenuous physical activity and during activities where firefighters are expected to operate at extreme levels of exertion and endurance.

An increased emphasis on health, wellness and fitness is essential to reduce the number of deaths resulting from heart attacks and other cardiovascular causes. Statistics suggest that the most significant reductions in line of duty deaths are likely to be achieved through increased medical surveillance and physical fitness programs. The need for improvements in this area is most pronounced in the volunteer fire service, where the rate of fatalities due to heart attacks and other cardiovascular causes is now much higher than within the career service. This is a reversal of the situation that existed twenty years ago, when there were more cardiovascular deaths among career firefighters than volunteers.

### **National Research Agenda and Data Collection**

The discussion of on-going research efforts as well as priorities for additional research projects pointed to the need for a national research agenda and budget for the fire service. Several different areas were listed as operational research priorities, from building construction to communications systems, leadership, management practices, and decision-making. A separate research agenda relating to the full spectrum of health, wellness and physical fitness issues was also identified, including psychological and physiological stress, cardiovascular function, oncology and biofeedback. The need for more comprehensive data collection and sharing to identify problem areas and support research was also recognized.

The researchers who were present described their current projects, as well as asking for guidance on the most pressing areas to explore. Several research

projects are being conducted by different organizations on a variety of subjects relating to health and safety, however most of their funding and support come from sources outside the fire service and the projects are often influenced by other priorities and agendas. The fire service needs a process to identify its own research priorities and coordinate efforts, as well as a dedicated source of funding that can be allocated to the most important research projects. The delegates also recognized the challenge of applying many of the current research findings to real world situations.

The fire service is benefiting from crossover adaptations of technologies that were developed for other purposes; however only limited funding is available to develop new technology specifically for fire service applications. The delegates emphasized the need to make the most use of technological advancements that are available to reduce the risks of emergency operations and training exercises. Cost is often mentioned as a barrier that keeps fire departments from adopting technological improvements that could improve the safety of operations. If a technological solution is available to eliminate a known risk, the cost must be considered in relation to the consequences of not making the investment to protect the lives of firefighters.

### **Fatality Investigations**

The need for more consistent and comprehensive investigations and data collection to analyze the causes of fire fighter fatalities was also identified as an important priority. The delegates noted that the existing NIOSH fatality investigation program needs to be expanded and that every fatality should be thoroughly investigated and documented by a team of investigators who are qualified to examine all of the pertinent factors. The same type of investigation should be conducted for serious injuries and near-miss incidents to focus on preventing future occurrences. The need for autopsy results based on a standard protocol for every line of duty death was reinforced.

### **Safety in Apparatus and Equipment Design**

Improvements in the design and construction of apparatus and equipment are needed to address a long list of concerns. The areas discussed ranged from breathing apparatus improvements to reducing the risk of rollover accidents involving tanker apparatus. Several on-going research and development projects were described and the manufacturers and suppliers who were present noted numerous suggestions for potential improvements.

Several safety issues relating to the danger of firefighters being struck by vehicles while operating on roadways were discussed. A comprehensive approach involving apparatus positioning, emergency lighting, warning signs and traffic control devices, high visibility protective clothing, coordination with police

agencies and public education was identified as a high priority for nationwide training and implementation.

### **Incentives and Grants Tied to Safe Practices**

Several discussion groups identified the need to create a direct link between reinforcing appropriate safety policies and practices and the availability of state and federal grant funds for fire departments. There was unanimous support for the basic concept of using grant funds to leverage improvements in health and safety programs. The suggestions ranged from making special incentive grants to fire departments in order to implement safe practices to making compliance with health and safety standards a condition for receiving funds under existing grant programs.

The Summit participants also supported the idea of officially recognizing achievements and significant improvements in health and safety. Several individual projects and organizations were suggested as already deserving recognition.

### **Response Policies**

Another need for cultural change was identified in relation to emergency vehicle operations and response policies. The group that examined this area noted that an average of 10 firefighters are killed each year in vehicle accidents while responding to emergency incidents and an even greater number of civilians die in collisions involving responding emergency vehicles.

Many of the emergency response deaths result from excessive speed and unsafe driving, which can be related to the perception that the urgency of the mission justifies an elevated level of risk to the emergency responders and everyone else on the streets. In too many cases the risks that are created en route are greater than the dangers of the situation itself. The cultural change must be based on recognizing that firefighters cannot save lives or property at the scene of an emergency incident unless they arrive safely and there is no justification for causing more harm en route than they can prevent when they arrive.

The need for standard policies governing emergency response was identified, possibly through the development of a new NFPA standard or by adding to the scope of an existing standard. These policies should determine when emergency response is and is not appropriate and include specific policies relating to responding in privately owned vehicles.

This cultural change has to begin with the enforcement of existing safe driving protocols by leaders and supervisors, as well as the mandatory use of seatbelts by all firefighters. The delegates noted that in many cases firefighters do not use

seatbelts that are provided in their vehicles, in spite of NFPA standards, departmental regulations and state laws. The failure to enforce and to follow these existing and basic safety procedures was highlighted as evidence of the urgent need for cultural change.

The delegates recommended the adoption of a special classification of driver's license for emergency vehicle operators, similar to the existing commercial driver's license program. Instead of providing special exemptions for emergency vehicle operators, regulatory authorities should establish strict training and testing requirements, including medical clearances and periodic review of driving records. The highest standards should be applied to emergency vehicle operators.

### **Protocol for Violent Incidents**

The Summit delegates identified the need for special protocols and policies in several areas, including a protocol for responding to violent incidents. This recognized the increasing exposure of firefighters to violent crimes and situations, up to and including terrorist attacks.

### **Counseling and Psychological Support**

Based largely on experiences related to 9-11 and FDNY, counseling and psychological support programs were identified as high priorities for increased attention. Some of the accepted concepts and programs have been found to be inadequate or counterproductive. A combination of research efforts and large-scale practical experience will be required to make the necessary changes and improvements to these programs.

### **Public Education**

The potential impact of public education on firefighter safety was addressed in a variety of contexts. Public fire and life safety education was identified as a strategy to reduce fires and the resulting level of risk to firefighters. In a similar manner, programs that are designed to prevent injuries and teach citizen CPR will reduce the risks encountered when responding to emergency medical and rescue incidents. Teaching drivers how to react appropriately when they encounter an emergency vehicle or when approaching an incident on a roadway will reduce another component of risk to firefighters.

### **Fire Prevention Codes and Residential Sprinklers**

One of the most productive strategies for reducing the risk of fire fighter fatalities is to reduce the frequency of fires and emergency incidents. A comprehensive effort to increase fire service activism in fire prevention, code development and

code enforcement should have a direct impact on reducing the exposure of fire fighters to dangerous situations. Efforts to promote the installation of automatic sprinkler systems in all new residential construction will have a profound impact on future fire rates. Addressing the problem of juvenile fire setters will have a positive impact on firefighter safety as well as general public safety. The delegates endorsed placing an increased emphasis on prevention as a long-term strategy to reduce fire fighter fatalities.