

**WORKING FOR A FIRE SAFE AMERICA:
EXAMINING UNITED STATES
FIRE ADMINISTRATION PRIORITIES**

HEARING
BEFORE THE
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION
COMMITTEE ON SCIENCE, SPACE, AND
TECHNOLOGY
HOUSE OF REPRESENTATIVES
ONE HUNDRED TWELFTH CONGRESS

SECOND SESSION

THURSDAY, MAY 17, 2012

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EXAMINING UNITED STATES
FIRE ADMINISTRATION PRIORITIES**

THURSDAY, MAY 17, 2012

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:01 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Benjamin Quayle [Chairman of the Subcommittee] presiding.

RALPH M. HALL, TEXAS
CHAIRMAN

EDDIE BERNICE JOHNSON, TEXAS
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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Subcommittee on Technology and Innovation Hearing

***Working for a Fire Safe America:
Examining United States Fire Administration Priorities***

Thursday, May 17, 2012
10:00 a.m. – 12:00 p.m.
2318 Rayburn House Office Building

Witnesses

Mr. Ernest Mitchell, Jr., Administrator, United States Fire Administration

Dr. John R. Hall, Jr., Division Director, Fire Analysis and Research, National Fire Protection Association

Chief Jim Critchley, Tucson Fire Department; President, Western Fire Chiefs Association

Mr. Kevin O'Connor, Assistant to the General President for Governmental Affairs, International Association of Fire Fighters

**U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION**

HEARING CHARTER

*Working for a Fire Safe America:
Examining United States Fire Administration Priorities*

**Thursday, May 17, 2012
10:00 a.m. – 12:00 p.m.
2318 Rayburn House Office Building**

I. Purpose

On Thursday, May 17, 2012, the Committee on Science, Space, and Technology Subcommittee on Technology and Innovation will hold a hearing to examine the priorities of the fire service community for the future of the United States Fire Administration (USFA). Witnesses will discuss the current effectiveness of the USFA; priorities for future research, development, and training activities; and the areas of greatest importance for the upcoming reauthorization.

II. Witnesses

Mr. Ernest Mitchell, Jr., Administrator, United States Fire Administration

Dr. John R. Hall, Jr., Division Director, Fire Analysis and Research, National Fire Protection Association

Chief Jim Critchley, Tucson Fire Department; President, Western Fire Chiefs Association

Mr. Kevin O'Connor, Assistant to the General President for Governmental Affairs, International Association of Fire Fighters

III. Background

The USFA was established following the 1973 report of the National Commission on Fire Prevention and Control, *America Burning*, which recommended the creation of a federal fire agency to provide support to state and local governments and private fire organizations in their efforts to reduce fire deaths, injuries, and property loss. *America Burning* found that over 12,000 citizens and 250 firefighters lost their lives to fires, and an additional 300,000 suffered fire related injuries on an annual basis. The Fire Prevention and Control Act of 1974 (P.L. 93-498) established the National Fire Prevention and Control Administration (NFPCA) at the Department of Commerce, whose stated goal was to reduce the number of fire-related fatalities in the Nation by half. The NFPCA was renamed the United States Fire Administration in 1978, and in 1979

the USFA was placed within the newly created Federal Emergency Management Agency (FEMA). The current structure of USFA is designed to ensure that the Administration is responsive to the Department of Homeland Security and FEMA, as well as the emerging needs of first responders.

The objective of the USFA is to significantly reduce the loss of life from fire, while also achieving reductions in property losses and non-fatal injuries due to fire. While the USFA has met its original reduction goal of bringing the number of fire-related fatalities below approximately six thousand per year, the fact remains that more Americans die from fire-related incidents in residential structures than in all other natural and manmade disasters. Although America's fire death rate continues to decline, it continues to be higher than more than half of the industrialized countries in the world. In 2010, firefighters responded to over 72,000 calls per day ranging from medical emergencies to residential fires. These fire responses are as diverse in scope as they are in size. USFA efforts continue to address the safety of residents and the Nation's estimated 1.2 million firefighters and emergency responders.

Fires and Fire Loss Estimates and Trends (2000-2009)

Year	Fires	Deaths	Injuries
2000	1,708,000	4,045	22,350
2001	1,734,500	3,745	20,300
2002	1,687,500	3,380	18,425
2003	1,584,500	3,925	18,125
2004	1,550,500	3,900	17,875
2005	1,602,000	3,675	17,925
2006	1,642,500	3,245	16,400
2007	1,557,500	3,430	17,675
2008	1,451,500	3,320	16,705
2009	1,348,500	3,010	17,050
10-Year Trend	(17.7%)	(19.7%)	(21.7%)

Figure 1. **Fires and Fire Loss Estimates and Trends (2000-2009).**

United States Fire Administration Report to Congress, Fiscal Year 2010.

http://www.usfa.fema.gov/downloads/pdf/annual_reports/fy10_usfa_annual_report.pdf

The USFA is responsible for leadership, coordination, best practices, and support for the nation's fire prevention and control, fire training and education, and emergency medical services activities. It prepares first responders and health care leaders to react to all hazard and terrorism emergencies. USFA programs include the following:

- **Research and Technology**

Through the USFA's research, testing, and evaluation programs, the USFA promotes and improves fire and life safety. Research is conducted on fire detection, prevention, suppression, notification, and health/safety issues. This research is published and available free of cost to the public through the USFA Publication Center.

FEMA utilizes USFA expertise in its administration of the Assistance to Firefighters Grant Program (AFG), the Staffing for Adequate Fire and Emergency Response Grant Program (SAFER), and the Fire Prevention and Safety Grant Program (FP&S). USFA assists with the planning and conduct of fire service outreach, the development of funding priorities, and the administration of the peer review process, including recruiting fire services representatives to participate on peer review panels.

- **Data Collection**

The USFA National Fire Data Center (NFDC) is a national system of collecting, analyzing, and disseminating data and information on fire and other emergency incidents to local governments and the fire community. The NFDC provides a national analysis of fire and emergency incidents in order to identify problem areas for which prevention and mitigation strategies are needed at the local level.

- **Public Education and Awareness**

USFA public information and information efforts are managed by the National Fire Programs Division (NFP). The NFP publishes and disseminates fire safety awareness and education programs, highlighting information related to the Nation's fire problem and USFA programs. Research efforts in fire detection, prevention, suppression, and first responder health, safety, and effectiveness are also managed by NFP.

- **Training**

The National Fire Academy (NFA) promotes the professional development of the career and volunteer fire and emergency response community and its allied professionals involved in fire prevention and life safety activities. NFA supports state and local training organizations by developing, delivering, and managing educational and training programs having a national focus, which supplement and support the state and local training mission.

Budget

The current authorization of the USFA (P.L. 110-376) expires on September 30, 2012. The table, below, shows recent appropriated funding for the USFA.

United States Fire Administration (USFA)

(dollars in millions)

	Authorization	Administration Request	Appropriation
FY 2008	\$68.8	\$43.3	\$43.3
FY 2009	\$70.0	\$43.3	\$45.0
FY 2010	\$72.1	\$45.6	\$45.6
FY 2011	\$74.3	\$45.9	\$45.6
FY 2012	\$76.5	\$42.5	\$44.0

Current Goals

The USFA has identified five goals in its Strategic Plan for FY2010-2014. The identified goals are as follows:

1. **Reduce risk at the local level through prevention and mitigation.** The USFA is working to establish national models for state and local risk reduction, prevention, mitigation, and safety strategies while encouraging code development, compliance, safe building design, and infrastructure resilience.
2. **Improve local planning and preparedness.** The effectiveness of an incident response handled at the local level is a direct result of the preparedness of the local responders. The USFA is working to set the standard for local fire and emergency services throughout the country.
3. **Improve the fire and emergency services' capability for response to and recovery from all hazards.** The USFA is working to ensure that best practices and training at the local level keep incidents from escalating to a state or national response.
4. **Improve the fire and emergency services' professional status.** The USFA is working to promote a nationally-accepted competency-based system of professional development that can be completed in conjunction with state and local partners.
5. **Lead the Nation's fire and emergency services by establishing and sustaining USFA as a dynamic organization.** The USFA is continuing work towards its vision of being recognized as "America's Fire and Emergency Services Leader".

IV. Issues for Examination

National Fire Incident Reporting System (NFIRS)

The USFA, through the National Fire Data Center, plays a significant role in collecting and distributing data concerning fire causes and consequences to fire departments and communities. Witnesses will assess the USFA's progress in providing current, relevant, and accessible data to departments nationwide to help the fire services make more effective decisions, plans, and justifications for fire department operations and administration. The modernization of the NFIRS is underway, but USFA faces a continuing challenge to find resources to maintain and enhance the system.

Training

Witnesses were asked to address how the USFA revises, improves, and expands curricula to meet DHS/FEMA/USFA and other national priorities, and provides education and training through both resident, off-campus, and distance deliveries. Witnesses have also been asked to discuss how the USFA effectively reaches both paid and volunteer fire departments, as well as metropolitan and rural departments.

Research

The USFA is undertaking the development of a focused and detailed fire service vulnerability assessment model applicable to fire departments of all sizes, which incorporates new technologies, plans, tactics, and training. The vulnerability assessment is being designed to assist fire departments across the country to evaluate risks and vulnerabilities and based on findings, implement and maintain occupational safety and health programs that will effectively reduce firefighter duty-related deaths and injuries. Witnesses have been asked to discuss the prioritization and identification of other areas of ongoing and future research at the USFA, including programs undertaken in partnership with other agencies and organizations that share the USFA's interest in reducing the Nation's fire loss.

Emergency Medical Services (EMS)

As part of the 2008 USFA Reauthorization Act (P.L. 110-376) USFA was tasked with coordinating EMS programs. The Subcommittee will examine how EMS is integrated in USFA's vision, mission, and goals, including how the USFA provides training and designs program activities to support fire-based EMS as an option for local community life safety strategies.

Chairman QUAYLE. The Subcommittee on Technology and Innovation will come to order.

Good morning. Welcome to today's hearing entitled "Working for a Fire-Safe America: Examining United States Fire Administration Priorities." In front of you are packets containing the written testimony, biographies and Truth in Testimony disclosures for today's witnesses. I now recognize myself for five minutes for an opening statement.

Today's hearing is being held to review the fire service community's priorities for the future of the United States Fire Administration, the USFA. The USFA was established following the 1973 report of the National Commission on Fire Prevention and Control, "America Burning," which recommended the creation of a federal fire agency to provide support to state and local governments and private fire organizations in their efforts to reduce fire deaths, injuries, and property loss.

The USFA has a substantial public safety mission. Although the country's fire death rate continues to decline, it is higher than more than half of the industrialized countries.

The USFA prepares first responders and health care leaders to react to hazard and terrorism emergencies. It supports the efforts of state and local governments by providing training for first responders, educational programs and targeted outreach for communities, and conducting and coordinating the research and development of technologies for the fire service. The USFA also assists with data collection, analysis, and the dissemination of best practices for the Nation's fire prevention and control, and emergency medical services activities.

In recent years, there has been an escalation of severe wildfires resulting in home and property loss. This can be attributed to expanding development in wildland areas, which include an abundance of burnable brush and trees. 2011 was an exceptional year for wildfires in the United States, and major blazes affected my home State of Arizona. In late May 2011, the Wallow Fire raced across eastern Arizona, forcing the evacuation of thousands of residents and burning more than 469,000 acres, making it the largest in Arizona's history. The fire is believed to have started after a campfire blew out of control and spread quickly due to dry weather and fierce winds. Over 4,000 firefighters were assigned to the Wallow Fire.

Currently, there are hundreds of firefighters working to contain at least four blazes in central and eastern Arizona. This represents just a fraction of the thousands of first responders and firefighters who risk their lives each and every day battling fires across the country. The USFA supports these individuals. They don't take their responsibilities lightly, and I as an authorizer of the USFA, neither do I.

The testimony of our witnesses this morning should help the members of the Subcommittee to understand the priorities of the USFA, in order to better enable the USFA's continued efforts to reduce fire deaths, injuries, and property loss. We thank our witnesses for being here today and we look forward to your testimony.

[The prepared statement of Mr. Quayle follows:]

PREPARED STATEMENT OF SUBCOMMITTEE CHAIRMAN DAN QUAYLE

Good Morning. I would like to welcome everyone to today's hearing reviewing the fire service community's priorities for the future of the United States Fire Administration (USFA).

The USFA was established following the 1973 report of the National Commission on Fire Prevention and Control, America Burning, which recommended the creation of a federal fire agency to provide support to state and local governments and private fire organizations in their efforts to reduce fire deaths, injuries, and property loss.

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Chairman QUAYLE. I now recognize the gentlelady from Maryland, the Ranking Member of the Subcommittee, Ms. Edwards, for her opening statement.

Ms. EDWARDS. Thank you, Mr. Chairman, and thank you for calling this morning's hearing to examine the activities and priorities of the United States Fire Administration. I am very pleased to welcome Chief Mitchell and our other witnesses here today so we can hear more about his vision for the Administration. I am particularly pleased to welcome my good friend Kevin O'Connor as well as our other witnesses, and I want to thank you for taking the time from your schedules to be with us.

The Fire Administration was created in 1974 with the goal of reducing the number of fire-related deaths by half from a staggering 12,000 per year. Through the good work of the Fire Administration and our first responders, we met this goal in 1988. The number of fire-related deaths continues to decline but, unfortunately, our country's fire-related death rate is still one of the highest in the industrialized world. And it is estimated that in 2009, fire cost the United States over \$331 billion in economic and human losses. Chairman Quayle just spoke about the loss in his own state.

The Fire Administration continues to play a central role in reducing the impacts of fire and making our communities safer. It is responsible for improving the ability of fire departments around the

country to respond to fires safely and effectively through research and firefighter training and for increasing fire prevention and preparedness through public education and awareness activities.

Certainly, fires are still a major problem in our country and the Fire Administration's continued leadership in the area is critical. However, we can't ignore the fact that our firefighters are not just fighting fires anymore. On any given day, our firefighters are rushing to the scene in response to over 72,000 calls that range in scope from a house fire to a car crash to a hazardous material spill to a medical emergency. The truth is that our firefighters are our first responders in all types of emergencies, including terrorist attacks and natural disasters, and the range of training and education they need to be successful must expand and evolve to reflect this reality.

As part of the Fire Administration's last reauthorization in 2008, we emphasized the need to advance training in, for example, emergency medical services and hazardous material response. I will be interested in hearing today about the status of those advances and learning from our witnesses whether the Fire Administration's training courses are in fact meeting the expanded all-hazards needs of today's fire service.

I am also interested in hearing about the current state of fire-related research, any emerging research areas or existing gaps, and how the Fire Administration is contributing to these efforts. I would also like to learn more about how the Fire Administration prioritizes its research investments and how it coordinates its research activities with other federal entities engaged in fire-related research, including the National Institute of Standards and Technology and the Science and Technology Directorate within the Department of Homeland Security.

Most importantly, however, I am interested in hearing recommendations or suggestions about what ought to be included in the next Fire Administration reauthorization bill. As you are aware, the current authorization for the Fire Administration expires in just over four months. I am pleased that we are holding this hearing today and think it is an important first step, and I sincerely hope that the decision to call this hearing is an indication that there are plans to draft and move a reauthorization bill through this Committee in the coming weeks. I hope the Chairman will be able to provide some insight into these plans this morning.

And as you may be aware, our colleagues in the Senate passed a Fire Administration reauthorization bill through the Committee on Homeland Security and Governmental Affairs just yesterday. I believe we also have an obligation and an opportunity to ensure that the Fire Administration's authority continues uninterrupted, and I look forward to working with the Chairman towards that end.

Again, Mr. Chairman, thank you for holding this important hearing. The Fire Administration plays an essential role in ensuring that our firefighters, who are so critical to the safety and resiliency of our Nation, have the tools they need to protect us and keep us out of harm's way. I am looking forward to hearing from our witnesses about the tools Congress can provide the Fire Administration that will allow them to effectively assist fire departments all across the country.

And I yield the balance of my time.
[The prepared statement of Ms. Edwards follows:]

PREPARED STATEMENT OF SUBCOMMITTEE RANKING MEMBER DONNA F. EDWARDS

Mr. Chairman, thank you for calling this morning's hearing to examine the activities and priorities of the United States Fire Administration. I'm very pleased to welcome Chief Mitchell here today so we can hear more about his vision for the Administration. The position of Administrator was vacant for far too long, and we're delighted to finally have you on board and at the helm. I'd also like to thank our other witnesses for taking time out of their schedules to be here today and share their critical insight with us.

The Fire Administration was created in 1974 with the goal of reducing the number of fire-related deaths by half from a staggering 12,000 per year. Through the good work of the Fire Administration and our first responders, we met this goal in 1988. The number of fire-related deaths continues to decline but, unfortunately, our country's fire-related death rate is still one of the highest in the industrialized world. And it is estimated that, in 2009, fire cost the United States over \$331 billion dollars in economic and human losses.

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I yield back the balance of my time.

Chairman QUAYLE. Thank you, Ms. Edwards.

If there are Members who wish to submit additional opening statements, your statements will be added to the record at this point.

At this time I would like to introduce our witnesses, and then we will proceed to hear from each of them in order.

Our first witness is Chief Ernest Mitchell, Jr., an Assistant Administrator at the Federal Emergency Management Agency and the United States Fire Administrator in charge of the United States Fire Administration at the Department of Homeland Security. Next, we will hear from Dr. John Hall, Jr., who is the Division Director of Fire Analysis and Research at the National Fire Protection Association. Dr. Hall has been active in fire analysis and fire research for nearly 35 years. Our third witness is Chief Jim Critchley. Chief Critchley represents the Tucson Fire Department in my home State of Arizona and also currently serves as the President of the Western Fire Chiefs Association. Our final witness is Mr. Kevin O'Connor, Assistant to the General President for the International Association of Fire Fighters.

Thank you again to our witnesses for being here today. As our witnesses should know, spoken testimony is limited to five minutes each. After all witnesses have spoken, members of the Committee will have five minutes each to ask questions.

I now recognize our first witness, the United States Fire Administrator, Ernest Mitchell.

**STATEMENT OF MR. ERNEST MITCHELL, JR., ADMINISTRATOR,
UNITED STATES FIRE ADMINISTRATION**

Chief MITCHELL. Good morning, Chairman Quayle, Ranking Member Edwards and distinguished members of the Committee. My name is Ernest Mitchell, Jr. I am an Assistant Administrator at the Federal Emergency Management Agency and the United States Fire Administrator in charge of the United States Fire Administration at the Department of Homeland Security. It is indeed an honor to appear before you today to discuss the U.S. Fire Administration.

The Fire Administration is committed to providing national leadership to foster a solid foundation for our fire and emergency services stakeholders and prevention, preparedness and response. In my testimony today, I will share an overview of the Fire Administration's core functions, major priorities and present activities and goals.

Despite making progress over time, fire losses in the United States have been higher than in most of the industrialized world. This has held true in both fire deaths and dollar loss rates. Thousands of Americans die each year, and thousands more are injured. Property losses reach billions of dollars. Average annual fire losses in the United States greatly exceed those from floods, hurricanes, tornadoes, earthquakes and other natural disasters combined in our country.

The Fire Administration is a national leader in providing fire safety and prevention programs to help decrease tragic losses. We also lead the way in preparing communities to respond to fires and other hazards in line with FEMA's whole community approach to emergency management. We are supporting the efforts of local

communities to reduce the number of fires and fire deaths, and champion federal fire prevention and control efforts and coordinates information about fire programs throughout the country.

There are four traditional stars of the Fire Administration and one relatively new or budding star that we have initiated more recently. One is data collection. The National Fire Data Center administers a national system for collecting, analyzing and disseminating data and information on fire and other emergency incidents to state and local governments and the fire communities.

Two is through public education and awareness. Through partnerships and special initiatives, the Fire Administration involves the fire service, the media, other federal agencies and safety interest groups, and the development and delivery of fire safety awareness and education programs.

Three is training. The National Fire Academy offers educational opportunities for the advanced professional development of the midlevel and senior fire and emergency medical services officers and allied professionals involved in fire prevention and life safety activities.

Four is research and technology. Through research, testing and evaluation, the Fire Administration works with public and private entities to promote and improve fire and life safety. Research and special studies are conducted on fire detection, suppression and notification systems as well as issues related to firefighter and emergency responder health and safety.

Five, and the more recent, is technical assistance and response. It is a recent initiative for the Fire Administration in developing a national firefighters deployment strategy. The mission's purpose is to establish an overall multidisciplinary response and recovery support mechanism for FEMA by establishing a structured approach to engaging and enhancing access to the Nation's structural fire and emergency medical services skill sets, thereby expanding the capacity for responding and providing faster, coordinated efforts to contain and minimize losses of life and property during disasters.

Within the scope of these efforts, it is essential that we work on multiple levels and with a wide variety of partners. We engage governmental and private stakeholders and partners in evaluating programs that will address the emerging fire, emergency medical, and disaster response needs.

One example is our collaboration with the National Fire Protection Association on the Home Fire Sprinkler Coalition and the mission of that coalition is to inform consumers about lifesaving benefits of installing home fire sprinkler systems.

The more recent or emerging star has been utilized already at this point to respond to disasters and has resulted in some success. We provided technical expertise and assistance during the development of all-hazard management teams across the country. We have responded to and demonstrated effectiveness in the 2011 flooding in Colorado, Alabama, Georgia, and during this April's tornadoes in Texas. Graduates of our highly sought after programs have contributed to and participated in these events.

Given the dynamics of our times, the Fire Administration has identified five broad goals as a framework to provide national lead-

ership on fire safety issues. We will continue to pursue these goals through the existing programs while evaluating issues and instituting new initiatives relevant to our current and future operating climate.

Thank you, Mr. Chairman, for giving me this opportunity to appear before you today. Your continued support is greatly appreciated. I will be glad to answer any questions you might have.

[The prepared statement of Chief Mitchell follows:]

Testimony of
Chief Ernest Mitchell, Jr., Assistant Administrator
United States Fire Administration
Federal Emergency Management Agency
U.S. Department of Homeland Security
Before
House Committee on Science, Space, and Technology
Subcommittee on Technology and Innovation
May 17, 2012

Introduction

Good morning, Mr. Chairman and Members of the Committee. My name is Ernest Mitchell, Jr. and I am an Assistant Administrator at the Federal Emergency Management Agency (FEMA) and the United States Fire Administrator in charge of the United States Fire Administration (USFA) at the Department of Homeland Security (DHS). I appreciate the opportunity to discuss the USFA.

In 1974, Congress passed the Federal Fire Prevention and Control Act which established the USFA and the National Fire Academy (NFA) to help decrease tragic losses and to promote professional development of the fire and emergency response community. The U.S. Fire Administrator oversees, coordinates, directs, and sets policy for these efforts; serves as the fire protection and emergency response community expert to the FEMA Administrator; and acts as an advocate at the Federal level to address challenges facing the Nation's fire service.

In concert with FEMA's *Whole Community Approach to Emergency Management*, it is essential that USFA engage government and private stakeholders in exploring research, development, testing and evaluation of programs that will address emerging fire, emergency medical and disaster response needs of the fire service. USFA develops and delivers education to the public, Federal, State, local, tribal, and non-governmental organizations that lead to the control of the evolving fire hazards, such as the expanding wildland/urban interface zones, and addressing the needs of an aging population requiring greater support from the fire and fire-based emergency medical services community.

The combined efforts of USFA and fire service stakeholders have contributed to a decline in fire-related deaths through public safety education, fire prevention inspections, fire code initiatives, and installation of smoke alarms and residential sprinkler systems. In the general population, fire related deaths declined by 18.6 percent from 2001-2010. In addition, the number of on-duty firefighter fatalities, excluding the events of September 11, 2001, and the Hometown Heroes' fatalities, decreased 26 percent. The Nation has also seen recent progress in further reducing

firefighter-line-of-duty deaths. For the last three successive years, we have experienced firefighter death totals below 100. USFA has played a major role in promoting a culture of safety within the fire service across the Nation.

Despite making progress over time, USFA analysis of international and domestic fire statistics show that the United States fire problem remains among the worst in the industrial world. Thousands of Americans die each year, tens of thousands of people are injured, and property losses reach billions of dollars. There are huge indirect costs of fire as well, such as temporary lodging, lost business, medical expenses, psychological damage, and others. The National Fire Protection Association has estimated that the total economic cost of fire loss in the United States reached over \$300 billion in 2008. These indirect costs may be as much as 8 to 10 times higher than the direct costs of fire. The annual losses from floods, hurricane, tornadoes, earthquakes, and other natural disasters combined in the United States by comparison averages just a fraction of those from fires. The public, media, and local governments are generally unaware of the magnitude and severity of the fire problem to individuals and their families, to communities, and to the Nation. USFA is committed to providing national leadership to foster a solid foundation in prevention, preparedness, and response.

Current Programs and Initiatives

The USFA is a national leader in providing fire safety and prevention programs. We also lead the way in preparing communities to respond to fires and other hazards. USFA is supporting the efforts of local communities to reduce the number of fires and fire deaths, and it champions Federal fire protection issues and coordinates information about fire programs.

National Fire Academy

In terms of our preparedness programs, we recognize the importance of education as a vital step toward a first responder community prepared to respond to any kind of emergency, ranging from a small fire to a terrorist attack involving a large number of victims or extensive infrastructure damage. We continue to administer educational programs for community leaders and first responders to help them prepare for and respond to emergencies regardless of cause or magnitude, consistent with the concept of building and sustaining core capabilities laid out in Presidential Policy Directive 8: National Preparedness (PPD-8). USFA also strongly advocates for local fire departments to be the center of preparedness within their jurisdictions.

NFA offers a wide variety of training and educational programs to promote the professional development of command level fire officers, emergency managers, emergency responders, technical staff, and allied professionals such as architects and engineers.

In FY2011, NFA provided 3,409 course offerings, reaching 110,112 students, which is an increase of 22% over 2007. This was achieved through campus offerings at the National Emergency Training Center (NETC) in Emmitsburg, Maryland, off-campus offerings by State training academies, and online courses. While the campus completions fell by 16%, there was an increase of 89% in online course completions. This was accomplished through delivery of NFA-sponsored courses, State and local partner sponsored courses, technology-based self-study programs, and higher education courses. Courses are delivered at NETC and throughout the United States in cooperation with State and local fire training agencies, colleges and universities, and online technology.

Students and their supervisors who have attended NFA courses have reported that Academy courses have improved their job performance and increased their professional development. Through feedback from its long-term, follow-on evaluation survey, 96.9 percent of students reported that what they learned in their NFA course work helped them do their jobs better and 89.6 percent of supervisors of students who attended NFA training indicated the information gained from the NFA training course helped improve the performance of their departments.

NFA continues to face the challenge of reaching America's estimated 1.2 million firefighters with meaningful education and performance-improvement training. Consequently, NFA has begun exploring significant curriculum enhancements that include mobile computing, webinars, podcasts, online training, and other adjuncts to classroom delivery.

Public Education and Awareness

In support of FEMA's *Whole Community Approach to Emergency Management*, USFA continues to deliver fire safety messages, develop national campaigns targeting high risk populations (e.g. children, seniors), and leverage our distribution/impact by working with a wide range of public/private partners (e.g. Federal agencies, Ready.gov, fire service organizations, and special interest organizations like AARP and Safe Kids). USFA serves as a conduit to the national firefighting and first responder community, allowing distribution of information about important cross cutting issues such as human trafficking with the DHS Blue Campaign.

Data Collection and Analysis

USFA assists State and local entities in collecting, analyzing and disseminating data and special reports on the occurrence, control, and consequences of all types of fires, emergency medical incidents, and other emergency activities through the efforts of the National Fire Data Center (NFDC). The NFDC tracks firefighter fatalities and conducts an analysis of the fatalities that occur each year. Through the collection of information on the causes of firefighter deaths, the USFA is able to focus on specific problems and direct efforts towards finding solutions to reduce the number of firefighter fatalities in the future. This information is also used to measure the effectiveness of current efforts directed toward firefighter health and safety.

In recent years, the USFA has developed the National Fire Incident Reporting System web application that facilitates participation by smaller departments. The application is almost finished with a data warehouse initiative that will provide better system performance and greater functionality for users (e.g. improved ability to access, share, and compare incident data among departments, States, and outside agencies). It is anticipated that wide access to detailed incident data will assist USFA and the Nation's fire service in identifying trends, developing focused prevention, and mitigating programs and measures.

Research and Technology

Within the DHS Science & Technology Directorate (S&T), USFA staff serve as subject matter experts for first responder needs as they relate to fire safety, and advocate for current S&T projects such as GLANSER (Geospatial Location Accountability and Navigation System for Emergency Responders), a firefighter locator technology and firefighter physiological monitoring equipment. Working in collaboration with public and private partners, USFA provides technical expertise and serves as a liaison to the fire community for projects of mutual interest such as emergency vehicle and roadway safety, emergency medical services issues, firefighter safety and health, and residential fire sprinklers and detectors. Partners include Federal agencies such as the U.S. Department of Justice, National Institute of Justice, U.S. Consumer Products Safety Commission, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, and the National Institute of Standards and Technology, as well as non-governmental partners such as the National Fire Protection Association (NFPA), International Association of Fire Chiefs (IAFC), International Association of Fire Fighters, and the National Fallen Firefighters Foundation.

One example of this collaboration is the USFA partnership with NFPA to administer the Home Fire Sprinkler Coalition (HFSC) initiative to promote better knowledge, understanding, and use of automatic fire sprinkler technology in residential dwellings. The mission of HFSC is to inform consumers about the life-saving benefits of installing home fire sprinkler systems.

Emergency Response Support

USFA provided technical expertise and assistance during the development of All Hazard Incident Management Teams (AHIMTs). Teams today are representative of local, State, tribal, and Urban Area Security Initiative regions. USFA Type 3 AHIMTs are currently located in 9 of the 10 FEMA regions. AHIMTs have been deployed in response to local/State requests, through the Emergency Management Assistance Compact (EMAC) for State-to-State assistance, and mobilized nationally through efforts coordinated by USFA. USFA can also assist with the coordination of other forms of State-level collaboration.

USFA, in conjunction with the U.S. Department of Agriculture (USDA), U.S. Forest Service, and the U.S. Department of the Interior through their cooperative agreement with the IAFC, developed an initiative titled "Ready, Set, Go!" This program is designed to assist fire departments in at-risk communities to develop pre-fire strategies and actions aimed at reducing risks within the wildland/urban interface (WUI). National rollout of the program occurred in March 2011 at the IAFC Wildland Interface Conference resulting in an increase in fire department participation.

Trends/Challenges

There are a number of trends and challenges that will affect the future of the fire service, and further increase the importance of a coordinated, national approach to fire prevention and mitigation.

Changing Nature of the Fire Threat

A number of factors have led to a significant increase in the intensity and severity of residential fires, including changes in home design, furnishing materials, and building construction. The amount of time that residents have to safely evacuate has decreased, causing greater danger to residents and firefighters. Tactics to effectively fight residential fires must be adjusted over time to meet the evolving threat. USFA works with partners to constantly update and revise curriculum in response to changes in the fire environment, and this further highlights the importance of training for first responders. The use of residential sprinklers and smoke detectors together are a highly effective way to mitigate this increased risk. In particular, residential fire sprinklers are underutilized and increasing their installation has the potential to make the public and fire fighters significantly safer.

Wildland Urban Interface Fires (WUI)

WUI fires are becoming a more significant threat and will continue to be a high priority. The past two decades have seen a rapid escalation of severe fire behavior, and home and property loss resulting from drought conditions combined with expanded interface area developments. For the firefighting community, this translates into a greater need for response to WUI fire incidents. We must continue to assist communities in reducing risk and mitigating the impact of WUI fires.

In response to this increasing threat, the USFA plays an active role in several intergovernmental and coordinating bodies. The USFA serves as a member of the Wildland Fire Leadership Council, an intergovernmental council of Federal, State, tribal, and local government officials, and leaders in non-governmental organizations. The USFA also serves on the Wildland Fire Executive Council, a Federal Advisory Committee Act (FACA) committee. In addition, USFA currently chairs the National Wildfire Coordinating Group, actively participated in drafting the

first two phases of the National Cohesive Wildland Fire Management Strategy, and will continue to participate in the drafting of the third phase to address the threat posed by WUI fires.

Demographic Changes

The demographic profile of the United States is expected to change dramatically as the large “baby boomer” generation enters retirement age. Over the coming decades, there is a risk that fire deaths and injuries among older adults will increase, based upon the projected increase in that segment of the population. Given historical data identifying high rates of illnesses and injuries among the elderly, the Nation may also experience an increase in emergency medical calls for service. Monitoring and preparing for these trends will influence USFA's out-year program planning in order to educate and prepare the fire and emergency services community for the changing work environment.

Budgetary Realities

The question of how to maximize resources is ever more important than ever. The improvement and development of data collection, particularly tools that can leverage geospatial technology, may help local officials more effectively stretch resources by helping to identify the location of at-risk populations and identify local trends.

Increasing Fire Service Role in Disaster Response

In concert with FEMA's *Whole Community Approach to Emergency Management*, USFA has and must continue to work with fire service stakeholders and partners to expand local fire service participation in emergency preparedness. These initiatives need to include an enhanced development of fire service deployment strategies to address floods, hurricanes, terrorism, and other disasters.

Moving Forward

The USFA has identified five goals as a framework to provide national leadership to foster a solid foundation for our fire and emergency services stakeholders in prevention, preparedness and response. The Goals, which provide support to FEMA's mission and are consistent with the core capabilities as outlined in PPD-8, are the foundation for USFA strategic planning. These five broad Goals are supported by detailed strategic and operational initiatives.

1. Reduce Risk at the Local Level through Prevention and Mitigation
2. Improve Local Planning and Preparedness
3. Improve the Fire and Emergency Services' Capability for Response to and Recovery from All Hazards
4. Improve the Fire and Emergency Services Professional Status

5. Lead the Nation's Fire and Emergency Services by Establishing and Sustaining USFA as a Dynamic Organization

The USFA will continue to pursue these goals, through effective existing programs, while evaluating and instituting new initiatives relevant to our current and future operating climate and the challenges the Nation's fire and emergency services face.

Conclusion

Thank you, Mr. Chairman, for giving me this opportunity to appear before you today. Your continued support is greatly appreciated. I will be glad to answer any questions you or other Members of the Committee may have.

Chairman QUAYLE. Thank you very much, Administrator Mitchell.

I now recognize Dr. Hall to present his testimony.

**STATEMENT OF DR. JOHN R. HALL, JR., DIVISION DIRECTOR,
FIRE ANALYSIS AND RESEARCH,
NATIONAL FIRE PROTECTION ASSOCIATION**

Dr. HALL. Mr. Chairman, Members of Congress, my name is John Hall and I am here on behalf of the National Fire Protection Association to communicate our very strong support for the reauthorization of the U.S. Fire Administration.

Next year marks the 40th anniversary of "America Burning." Of the 90 recommendations in that report, the first was for establishment of a U.S. Fire Administration "to provide a national focus for the Nation's fire problem." The report also identified tasks appropriate to the federal role in what would continue to be primarily a local responsibility: "technical and educational assistance to state and local governments, collecting and analyzing fire information, conducting research and development in certain areas, and providing financial assistance when adequate fire protection lies beyond a community's means." The USFA has maintained this mandated focus throughout its existence.

The report also set out ambitious goals saying "a reduction of 50 percent in deaths, injuries and property losses is quite possible within the next generation." How has America done on this goal? Civilian fire deaths declined by about 60 percent. Firefighter on-duty fatalities declined by half, civilian fire injuries by about 40 percent, firefighters injuries by about a third, and direct property damage adjusted for inflation by about one-quarter. Even so, we still have some of the highest fire loss rates in the developed world. We know how far we have come but we also know how much better we can do because we see greater safety in countries like us. And thanks to the National Fire Incident Reporting System, NFIRS, used within the NFPA survey, we have a greater ability to target problems and to design and evaluate programs than any other country in the world.

In the years since the USFA was founded, the fire service has transformed itself into an all-hazard emergency response force. Reported fires have declined by more than half since 1980. However, hazardous material responses have more than doubled, and medical aid calls have more than tripled.

Imagine a gasoline tank truck rolling over on a highway in a small community. The truck was built and loaded in other states and crashed on an interstate built and maintained by the Federal Government. The fire department will be expected to contain the spill and clean up in accordance with state and national environmental regulations using training and personal equipment in compliance with national consensus standards. It is far from easy to find a local responsibility in such an incident. Now add in natural disasters, terrorist attacks, and fire scenarios unheard of two decades ago such as a burning building with a roof covered with photovoltaic solar power cells.

We have asked our fire service to perform more varied tasks at more varied emergencies with more rules whenever something goes

wrong. They have responded to every challenge and everything we have asked of them, but it takes a nation to save a village. They need our help. For nearly 40 years, the USFA has been there.

Recent surveys of fire service needs conducted by NFPA in cooperation with the USFA have found the following. By comparison with national standards, the fire service has extensive needs for every type of resource. Fire departments serving the smallest communities are most likely to have needs. Although the needs are still great, there has been great progress. The Assistance to Firefighters and SAFER grant programs have been well targeted to real needs and collectively effective in reducing the needs they targeted.

“America Burning” identified research as a priority. The USFA has filled research gaps and complemented research partners when appropriate. Some major current or recent projects the USFA has led or supported include the following: the next generation of home fire alarms, the next generation of firefighters personal protective clothing, safety in the wildland-urban interface, and decision support tools for dealing with unwanted alarms.

NFPA salutes Chief Ernie Mitchell, newly confirmed Fire Administrator and latest in a distinguished line of leaders who have headed the USFA. We look forward to working with him.

So to sum up, NFPA urges you to reauthorize the USFA. We urge you to provide requested funding for the USFA, its research program, the academy’s training program, the grants programs, and NFIRS. The USFA does great work. They have made a great difference and they can and will do more, all in keeping with the original vision of an agency that would provide a national focus on fire through effective actions appropriate to a federal role.

Thank you very much for the opportunity to speak with on behalf of NFPA, and like Chief Mitchell, I will be happy to answer your questions.

[The prepared statement of Dr. Hall follows:]

**Testimony of Dr. John Hall
Director, Fire Analysis and Research Division
National Fire Protection Association
House Committee on Science, Space, and Technology
Subcommittee on Technology and Innovation
May 17, 2012**

Mr. Chairman, members of the Committee, my name is John Hall and I am here on behalf of the National Fire Protection Association to communicate our very strong support for the reauthorization of the U.S. Fire Administration.

The USFA from the Beginning

I can best describe the relationship between NFPA and the USFA and our reasons for supporting their reauthorization by going back to the beginning. Next year will mark the 40th anniversary of *America Burning*, the final report of the National Commission on Fire Prevention and Control. Of the 90 recommendations contained within that report, the very first one was for the establishment of a U.S. Fire Administration “to provide a national focus for the Nation’s fire problem and to promote a comprehensive program with adequate funding to reduce life and property loss from fire.”

The Commission also said what tasks they believed were appropriate in the Federal government role of what would continue to be primarily a local responsibility:

- “technical and educational assistance to state and local governments,
- “collecting and analyzing fire information,
- “conducting research and development in certain areas, and
- “providing financial assistance when adequate fire protection lies beyond a community’s means.”

President Nixon created the Commission, and the proposed U.S. Fire Administration was created in 1975. President Nixon’s praise for the work of the Commission has been echoed by the seven U.S. presidents who followed, Democrats and Republicans alike, who continued to see the importance of a national focus on America’s fire problem and a national center of support for the people and programs that seek to reduce that problem. The last House vote on USFA reauthorization, in the 110th Congress, was 418 to 2 in favor, further proof of the breadth of support for the mission and accomplishments of the U.S. Fire Administration.

Progress in Reducing America’s Fire Risk and Loss

In addition to setting out clear guidance on what the USFA should do, the Commission set out ambitious goals for what the new USFA should accomplish. The most widely and repeatedly cited such goal was this: “This Commission believes that a reduction of 50 percent in deaths, injuries, and property losses is quite possible within the next generation.” How has America done on this goal?

Since the late 1970s, the answers to questions like these have been answered through the combined use of the USFA's National Fire Incident Reporting System (NFIRS) and the NFPA annual fire experience survey of fire departments. Each of these two data bases provides more useful, valid national fire experience data than can be found in any other country in the world, but it is the combination of these two databases, using statistical methods developed and standardized by the USFA, NFPA and our data partners, that provide the world's most powerful tools for diagnosis of characteristics and trends of the national fire problem.

These databases provided their earliest results in the late 1970s. Using those years as a baseline, we find that civilian fire deaths were indeed reduced by half in a generation and have declined by roughly 60% in roughly 30 years. Over the same period of about 30 years, firefighter on-duty fatalities have also declined by half, civilian fire injuries by about 40%, firefighter injuries by about a third, and direct property damage adjusted for inflation by about one-quarter. I invite anyone to search the archives of the Federal government for goals so ambitious that have been achieved so well with so little expended in the effort.

While our accomplishments have been great, the remaining challenge is still great. Although America has been getting safer – and faster than other countries – we still have one of the highest rates of fire deaths relative to population and property damage relative to GDP in the developed world. We know how far we have come, but we also know how much better we can do, because we see greater safety in countries like us.

NFPA was one of the many national organizations that actively participated in the Commission's work, and like those many organizations, NFPA's relationship with the USFA goes back to the founding of the USFA. Our long-running successful partnership on data and analysis is matched by similar cooperative efforts in the training and research goals set out by the Commission. Time and space do not permit me to provide a comprehensive description of our work together over the past third of a century, but I will mention some specific examples in major areas.

Helping the Fire Service to Do More and Do Better

A recurring theme in the Commission's report was the need to do more on fire prevention in general and public fire safety education in particular. As in the case of fire data and analysis, the US Fire Administration has been both an effective agent in service of this goal and a valued partner in joint efforts.

Over the years, the USFA has sponsored a number of defining research projects to flesh out the fact base for effective, targeted safety messages in the areas of cooking fires, heating fires, arson, smoke alarms, and sprinklers. The USFA has been an active partner in NFPA's ongoing efforts to develop consensus safety messages, and both the USFA and NFPA have participated in joint efforts to harmonize our messages for greater

impact. And the USFA has been a leader in helping local fire departments to deal with their public information responsibilities to the media and the public in the aftermath of a major fire.

Just as the Commission envisioned, the USFA has consistently used its resources to leverage the impact of existing private, volunteer, and state and local government programs. They avoid reinventing wheels in favor of helping more Americans to obtain the wheels they need and to understand how to use them.

The Expanding and Evolving Role of the Fire Service

In the years since the USFA was founded, the fire service has transformed itself into an all-hazard emergency response force. Reported fires have declined by more than half since 1980 and now constitute only one of every 20 fire department emergency responses. However, hazardous material responses have more than doubled and medical aid calls have more than tripled.

Imagine a gasoline tank truck rolling over on the highway in a small community. The truck was built in another state, was loaded in another state, and crashed on an interstate highway that was built and is maintained by the Federal government. The responding fire department will be expected to contain the spill and clean up in accordance with state and national environmental regulations, while using training and personal equipment in compliance with national consensus standards. It is far from easy to find the local responsibility in such an incident or to expect a local fire department to perform safely and effectively at such an incident with only its own community resources.

Now add in planning, prevention, mitigation, and response for natural disasters and for terrorist attacks. Local fire departments have always been a community's first line of defense in the face of an emergency, even nationally significant emergencies like the September 11 attacks and the Hurricane Katrina. President Obama's Presidential Policy Directive 8 on National Preparedness makes the goal of community preparedness explicit and emphatic. Thus, it is a national priority to ensure first responders have the training, equipment, and capabilities to play their part in handling any hazard—from terrorist attacks to natural disasters.

Now add in fire scenarios that were unheard of two decades ago, such as a multi-county wildfire burning through whole communities or a burning traffic pile-up deep inside a tunnel of unprecedented size or a burning building with a roof covered with photovoltaic solar power cells. As our technology takes on ever more varied forms and our lives and economies become ever more globally interconnected, we have asked our fire service to perform more varied tasks in more constrained ways, whenever something goes wrong. And they are heroes following a calling. They have responded to every challenge and everything we have asked of them. But it takes a nation to save a village. They need our

help. And for nearly 40 years, the USFA has been there to raise their capabilities and help address their needs.

The National Fire Academy

From the beginning, the National Fire Academy has been one of the cornerstones of the USFA's mission as the Commission defined it. They provide the training and education for the fire service that the Commission identified as the first appropriate role of a Federal agency leading in fire.

NFPA's priorities going forward for the Academy are the same as the Academy's own priorities and consistent with both the Commission's original vision and the recent changes in the role of the fire service.

- The Executive Fire Officers program has been an outstanding success in its goal of training the next generation of America's chief fire officers for sustained high performance. The Academy needs to continue that strong support and continue enhancing the related academic processes.
- With the extraordinary diversity of emergencies they must handle, the American Fire Service needs a curriculum built around an all-hazards safety and response, with on-site risk assessment skills, medical organization management courses and a general incorporation of non-fire incidents into integrated deployment methodology.
- The recent economic downturn has hit local fire department prevention programs especially hard. That makes it all the more important that the Academy continue support for fire prevention and code enforcement classes. If the American Fire Service knows the best methods, knows the importance of prevention, and knows how to involve the entire department – and the entire community – in the vital work of prevention, they may be able to accomplish important goals despite reduced resources.

Needs Assessments of the U.S. Fire Service

Three times in the past decade, NFPA has conducted a national survey of the needs of the fire service, each time in response to a Congressional mandate, the first two such surveys under the sponsorship and with the extensive cooperation and guidance of the USFA. NFPA has provided your offices with the national and state results of the last such survey, and I have attached a fact sheet of the principal findings to this testimony. I can save you time, however, by presenting the headlines:

- By comparison with applicable national standards and other guidance, the fire service has extensive needs for every type of resource. Fire departments serving

the smallest communities are most likely to have needs, no matter the type of resource.

- Although the needs are still great, there has been great progress in reducing needs between the first and third needs assessment surveys. The reduction in needs has been most dramatic in those areas that have received the most attention from the Assistance to Firefighters and SAFER grant programs, which our research show to have been well targeted to real needs and collectively effective in reducing the needs they target.

Research at the USFA

The Commission identified research as a priority, and the USFA has been an important collaborator in this work. The epicenter of fire research in the federal government, though, is the fire program at NIST, which provides a critical concentration of needed expertise to take the lead on technology research for fire safety.

As in every other area I have described, the USFA has filled research gaps when they existed and complemented capable research partners when those partners were the natural leaders. In nearly every major research project of recent years, NFPA, the USFA and NIST have been substantively involved. Sometimes, the USFA has been the sponsor, sometimes the lead researcher, sometimes a contributor or advisor. But in every case, it is fair to say, the work would not have been completed so successfully without the contributions of each of the participants.

Among the major current or recent research projects are these:

- *The next generation of home fire alarms.* Partnering with NFPA, NIST, Underwriters Laboratories, and other national laboratories, the USFA has made great progress in identifying and qualifying the sensor and interpretation technologies that will provide the big jump in performance for home detection and alarm systems, reliably and at an affordable price.
- *The next generation of firefighter personal protective clothing.* Partnering with NFPA, the USFA, and others, NIST has given priority to improved measurement of the thermal capacity of firefighter personal protective clothing.
- *Safety in the wildland/urban interface.* Wildfires of the past couple decades constitute a large fraction of the costliest fires of all time in the U.S. Led by NIST, many agencies and organizations are conducting research on this problem, while NFPA, the USFA, and others take lead on translating that research into better guidance for communities and individuals on safe practices.
- *Dealing with unwanted alarms.* In an era of tight resources, fire departments find it especially wasteful to respond to alarms where they are not needed, because there was no fire or the fire was quickly controlled by occupants. Under

sponsorship of the Fire Protection Research Foundation, NFPA worked with the USFA, the International Association of Fire Chiefs, and others to assemble stakeholders to define and scope the situation and the options. The same parties are working with NFPA to develop a decision support tool for local fire departments to weigh the costs, benefits and risks of alternative response and other strategies.

- *Refining the design of fire prevention programs.* Under USFA sponsorship, the NFPA and the Fire Protection Research Foundation developed a new generation of effectiveness measures for fire code inspection and enforcement efforts so that fire departments can innovate successfully and measure the results of their actions.

Priorities and Recommendations

I will close by talking about NFPA's priorities for the USFA, including your staff's request for any comments we might have on concerns, needed changes, or recommended efficiency or other improvements.

First, NFPA would like to salute Chief Ernie Mitchell, the newly confirmed Fire Administrator. Chief Mitchell continues the remarkable run of talented, energetic, focused individuals who have stepped up to lead the USFA. We know he will do a great job and NFPA looks forward to working with him. Turnover has been too rapid and delays in filling vacancies have been too long at USFA for many years.

Second, we urge you to provide requested funding for the USFA, for its research program, the Academy's training program, the grants programs, and NFIRS. The taxpayers get more value from a dollar spent with the USFA than at many other agencies and, if truth be known, many private organizations as well.

USFA does a good job of identifying stakeholder needs and aligning agency priorities with those needs and the fundamental mission and goals of the agency. For example, NFPA is a regular participant in USFA's Fire Service Partners teleconference calls for the National Fire Academy. Also, the new leadership team for the Fire Grant Program Office has made the program more transparent than ever and redoubled their outreach and communication efforts. It is a dramatic and welcome improvement to years past.

In addition, the USFA serves a critical role in helping to identify information needed by the fire service from the intelligence community to protect first responders. Their seat at the National Operations Center should be expanded to a 24/7 operation. During emergencies, the USFA provides the essential interface and expertise necessary to get actionable information to the fire service.

Of course, there are ways the USFA could be more efficient, but I know of no such ways that are not already known to the USFA staff. Their insight and will are not lacking, but

resources and the surrounding organization, such as the DHS infrastructure, sometimes are. If I wanted to improve efficiency at the USFA, I would ask Chief Mitchell to talk to his predecessors, his managers, and his staff. NFPA has conducted similar exercises after a changeover at the top. It has worked well for us, and I am sure it would work well for the USFA – if it isn't already happening as we speak.

So to sum up, NFPA urges you to reauthorize the USFA and to support its appropriations. They do great work, they have made a great difference, and they can and will do more, all in keeping with the original vision of the National Commission on Fire Prevention and Control for an agency that would provide a national focus on fire through effective actions appropriate to the federal role. Thank you for the opportunity to speak with you on behalf of NFPA.

Fact Sheet

U.S. Fire Service Needs Assessment

There has been substantial progress in reducing many U.S. fire department needs, particularly needs for **personal protective and firefighting equipment**. The 2010 percentage of departments without enough equipment to equip all personnel (or all personnel on a shift, as appropriate) was:

- 52% for **self-contained breathing apparatus** (SCBA), down from 70% in 2001 and 60% in 2005;
- 39% for **personal alert safety system devices** (PASS), down from 62% in 2001 and 48% in 2005;
- 9% for **personal protective clothing**, down from 15% in 2001 and 11% in 2005; and
- 51% for **portable radios**, down from 77% in 2001 and 65% in 2005.

The progress in reducing needs for equipment may in part reflect the influence of the equipment portions of the **Assistance to Firefighters Grants** program. For grants during 2001-2004, grants to purchase firefighting or personal protective equipment accounted for an estimated 71% of total grants and 64% of total dollars granted for all grant recipient departments.¹

In most U.S. fire departments, **not all involved personnel have been formally trained** in their emergency response duties. The 2010 percentage of departments in which not all involved personnel have been formally trained was:

- 46% for **structural firefighting**, down from 55% in 2001 and 53% in 2005;
- 48% for **emergency medical service** (EMS), down from 54% in 2001 and 53% in 2005;
- 65% for **hazardous material response**, down from 73% in 2001 and 71% in 2005;
- 68% for **wildland firefighting**, down from 75% in 2001 and 74% in 2005; and
- 85% for **technical rescue**, down from 88% in 2001 and 2005.

In addition, the 2010 percentage of departments in which there was **no program to maintain basic firefighter fitness and health** was:

- 70%, down from 80% in 2001 and 76% in 2005.

The slight progress in reducing needs for training may in part reflect the influence of the training portions of the Assistance to Firefighters Grants program.

¹ *Matching Assistance to Firefighters Grants to the Reported Needs of the U.S. Fire Service*, FA-304, U.S. Fire Administration, October 2006.

There has been little or no progress in increasing the ability of U.S. fire departments to handle **various unusually challenging incidents** with local trained personnel and specialized equipment alone:

- Provide technical rescue and EMS at a **structural collapse** involving 50 occupants; and
- Provide hazardous material response and EMS at an incident involving **chemical or biological agents** and with 10 injuries.
- **Wildland/urban interface (WUI) fire** affecting 500 acres; and
- Mitigation of a **major developing flood**.

However, there has been progress in the percentage of departments having written agreements for working with others. The 2010 percentage of departments with *no* such written agreement was:

- 55% for structural collapse, down from 67% in 2001 and 60% in 2005;
- 51% for chem/bio incident, down from 64% in 2001 and 57% in 2005;
- 39% for wildland/urban interface fires, down from 53% in 2001 and 45% in 2005; and
- 50% for developing major flood, down from 72% in 2001 and 62% in 2005.

It is clear that success lies in the direction of more complete development and implementation of regional and national written agreements, in which each participating department and community knows its role, provides the resources required to play its role, and participates in rehearsals and simulations designed to test the plan.

Nearly half (46%) of fire department engines and pumpers are at least 30 years old, very slightly down from 51% in 2001 and 50% in 2005. This represents holding the line on **aging apparatus**.

Needs related to stations are of several types:

- **Some stations lack specific features**, which are required by current standards but were not required when stations were constructed. Nearly half (44%) of all fire departments do not have backup power for their fire stations, down from 57% in 2001 and 54% in 2005. Two-thirds (66%) of all fire departments do not have exhaust emission control for their fire stations, down from 78% in 2001 and 72% in 2005.
- Most communities (63-82% of departments, depending on size of community protected) need **more stations** – and the companies to staff them – in order to comply with Insurance Service Office guidance on response times.
- Some stations are old enough that a variety of persistent or recurring problems are to be expected and replacement might be better and even cheaper.

The percentage of U.S. fire departments *lacking* various fire prevention or code enforcement programs has declined or remained essentially steady.

- The largest decline was in need for **programs to distribute free smoke alarms to needy households**, down from 69% of departments in 2001 to 52% of departments in 2010.
- Second was need for **plans review**, down from 62% of departments in 2001 to 49% of departments in 2010.
- Third was need for **school programs**, down from 47% of departments in 2001 to 35% in 2010.

One-quarter of fire departments (24%) *do not have anyone* conducting **fire code inspections** in the community, almost unchanged from 27% in 2001 and 25% in 2005.

Chairman QUAYLE. Thank you, Dr. Hall.
I now recognize Chief Critchley for five minutes to present his testimony.

**STATEMENT OF CHIEF JIM CRITCHLEY,
TUCSON FIRE DEPARTMENT, AND PRESIDENT,
WESTERN FIRE CHIEFS ASSOCIATION**

Chief CRITCHLEY. Good morning, Chairman Quayle and Ranking Member Edwards. I am Chief Critchley of the Tucson Fire Department and the President of the Western Fire Chiefs Association. I am also a member of the International Association of Fire Chiefs. I thank the Committee for the opportunity to testify about the vital work that the U.S. Fire Administration does for America's fire and emergency medical service.

It is important to recognize the major accomplishments that have taken place since the USFA was created in the 1970s. In 1978, 172 firefighters died in the line of duty. In 2011, we had 83 firefighters, a decline of more than 50 percent. In 1978, we have seen the number of civilian fire deaths also drop over 50 percent to a little over 3,000 in 2010. The United States Fire Administration has played a major role in these accomplishments through fire service training, public education, and research.

As a local chief, I would like to especially emphasize the importance of the National Fire Academy, which used online learning, train-the-trainer programs, on-campus classes, and other educational tools to train more than half a million responders in 2007 through 2011. I am proud to be one of the more than 6,000 Arizonans who have completed the NFA classes during this time period.

A highlight of NFA's curriculum is the executive fire officer program. This program is a gold standard for developing transformative fire officers ready to deal with the Nation's future challenges. As a local fire service instructor, the NFA provides educational material based on national best practices to help me train the next generation of fire service leaders. This common training provides interoperability at the incident scene of many national disasters.

The USFA also provides excellent data through the National Fire Data Center and the National Fire Incident Reporting System. The NFIRS allows local fire departments to report incidents in their area and identify national trends. For example, I used the USFA report to compare their statistical data in the incidents that I have in Tucson. This capability allows me to prepare for the future threats to my citizens.

The USFA's budget already has been reduced 25 percent over the past decade. The fiscal year 2013 Department of Homeland Security appropriations bill would cut the USFA budget by an additional 3.5 percent. These proposed cuts will reduce classes at the NFA, eliminate many important prevention programs. It will also cancel the final stages of the NFIRS modernization effort.

My organizations urge Congress to restore the funding to USFA. The fiscal year 2011 budget of only \$45 million is not a large federal spending program. However, the agency plays an effective role in the inherently governmental function of protecting the American public.

We also would like to express the support for the efforts to clarify that the USFA should be the lead agency of non-wildland fire incidents in the Emergency Support Function #4, the firefighting annex. USFA and the U.S. Forest Service currently have a memorandum of understanding which allows the USFA to act as a support agency for ESF 4. Local fire departments work well with the Forest Service in coordinating ESF 4 for wildland fires. However, based on its relationship with the Nation's fire and emergency services, we think that the MoU should continue with the USFA playing a stronger and primary role in structural events, terrorist attacks and non-wildland fire incidents.

In addition, we support the establishment of teams of firefighters that can quickly deploy in the event of a major all-hazards disaster. As we witnessed in Arizona last year, local fire departments are the first on scene and the last to leave the incident. These support teams can provide a major benefit to the fire chiefs by helping the incident management recovery activities and working with state, tribal, and local agencies.

The current authorization for the USFA expires on September 30th. In the Senate, Senators Joe Lieberman and Susan Collins have introduced markup S. 2218. This bill would authorize funding for the USFA through fiscal year 2017. On behalf of the leadership of the Nation's fire and EMS service, I ask the Committee to consider companion legislation this year.

I would like to thank this Committee for being a continued supporter of the Nation's fire service over the years. We have made major progress in reducing the tragedy of fire loss in the past 30 years. However, we have much work to do.

Thank you for holding this hearing and I look forward to answering any of your questions. Thank you.

[The prepared statement of Chief Critchley follows:]



**Working for a Fire Safe America:
Examining United States Fire Administration
Priorities**

Statement of

Chief Jim Critchley

President, Western Fire Chiefs Association

presented to the

**SUBCOMMITTEE ON
TECHNOLOGY AND INNOVATION**

OF THE

**COMMITTEE ON SCIENCE, SPACE, AND
TECHNOLOGY**

U.S. House of Representatives

May 17, 2012

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS
4025 FAIR RIDGE DRIVE • FAIRFAX, VA 22033-2868

Good morning, Chairman Quayle and Ranking Member Edwards. I am Chief Jim Critchley of the Tucson Fire Department and the President of the Western Fire Chiefs Association (WFCA). The Western Fire Chiefs Association is a division of the International Association of Fire Chiefs (IAFC). I thank the committee for the opportunity to discuss the important role that the U.S. Fire Administration (USFA) plays in fostering and supporting the leadership of America's fire and emergency medical service (EMS).

The USFA plays a vital role in preparing America's local fire departments for all hazards. It uses training, education, and research to fulfill its mission of reducing civilian and fire service injuries, deaths and property loss from fires and other hazards. Despite its relatively small size, the USFA has a reputation for getting results. For example, the education efforts of the USFA have helped to reduce the number of firefighter deaths each year to less than 100 in the past three years.

One of the most important missions of the U.S. Fire Administration is its educational efforts through the National Fire Academy (NFA). The NFA is the premier fire training academy in the United States, and is influential in shaping the future leaders of America's fire service and EMS. Through online coursework, distance learning, "train-the-trainer" programs, and classes at the NFA's campus in Emmitsburg, Maryland, the NFA trains members of the emergency services in a variety of subjects, including response to terrorist incidents, wildland fires and hazardous materials incidents; arson prevention; and leadership of EMS systems. For example, the NFA plays a large role in educating the fire service about incident command and the adoption of the National Incident Management System. More than half a million students have completed courses at the National Fire Academy from Fiscal Year (FY) 2007 through FY 2011. I am proud to have been one of the 6,145 Arizonans who took NFA classes during that time period.

As part of my department's professional development program, I teach classes to captains and other officers in my department using educational material prepared by the NFA. The NFA provides course material based on national best practices that provide common training and a common frame of reference throughout the fire service. This common training provides interoperability at the incident scene for major disasters, where many fire departments from around the nation are working together.

I also would like to recognize the importance of the NFA's Executive Fire Officer (EFO) program. This four-year program is aimed at fostering transformative and proactive leaders of the fire service that are prepared to deal with tomorrow's challenges. Many fire departments around the nation now require graduation from the EFO program as a requirement for advancement to the position of chief of the department.

The USFA also provides important data through the National Fire Data Center and the National Fire Incident Reporting System (NFIRS). Good data is an imperative for good decision-making. The NFIRS represents the world's largest, national, annual database of fire incident information, and it includes 75 percent of all reported fires that occur annually. The NFIRS helps fire chiefs analyze and understand national trends in fire service data. For example, I used the recent USFA report on "Civilian Fire Injuries in Residential Buildings" to compare the national trends and data with those in Tucson. I also would like to recognize that the USFA recently launched a new

web-based interface for NFIRS that should make it easier for departments to add data to the system.

The USFA also provides the voice of America's fire service within the federal government. On issues such as human trafficking and the sharing of information about terrorist threats to local fire departments, the USFA has taken a leading role in ensuring that federal policies meet the needs of local fire departments. The USFA also works with federal agencies and national, state and local stakeholders like the IAFC and the WFOA to improve communities' preparedness for wildland fire and improve training and operations during these incidents. In addition, the agency supports programs and creates training to help local communities develop fire prevention programs, especially among "at-risk" communities.

Today, America's fire and EMS leaders are concerned by the proposed cuts to the USFA. The USFA's budget has been cut by 25 percent already over the past decade. In FY 2010 and FY 2011, Congress funded the agency at \$45.588 million. For FY 2012, Congress appropriated \$44.038 million – a reduction of more than \$1.5 million. For FY 2013, the Administration proposes cutting the USFA to \$42.52 million and the House Appropriations Committee proposes cutting the USFA to \$42.46 million. The proposed House funding level would cut the USFA by almost 7 percent from FY 2010 level.

These cuts would cancel the final stages of the NFIRS modernization plan and eliminate the ability of local fire departments to get real-time information from the system. In addition, the cuts would force the USFA to reduce funding for its wildland fire programs, including its efforts to help communities in the wildland-urban interface. They also would eliminate courses at the NFA, discontinue programs to promote fire prevention for children, and end programs that support the use of fire sprinklers in residential homes.

Since 1978, we have seen the number of civilian deaths from fires drop from over 7,700 to 3,120 in 2010. This is a decrease of more than 50 percent. In addition, the direct property damage from fires has dropped from \$15 billion to \$11.6 billion in 2010 (in 2010 dollars).¹ The IAFC and the WFOA are concerned that these cuts to the USFA's programs might slow the progress that we have made.

With the proposed cuts to USFA's budget, it is hard to recommend giving more responsibilities to the agency. However, I would like to express support for two initiatives that will expand USFA's role in disaster response.

The IAFC and the WFOA support efforts to clarify that the USFA is the lead agency in Emergency Support Function (ESF) #4 for incidents that do not involve wildland fires. The ESF #4, "Firefighting Annex," manages the fire service response to all hazards, including wildland fires, hurricanes, tornadoes, and acts of terrorism. Specifically, it coordinates firefighting activities and provides personnel, supplies, and equipment to assist state, tribal, and local

¹ "The U.S. Fire Problem: Overview of fires by year," National Fire Protection Association, <http://www.nfpa.org/itemDetail.asp?categoryID=953&itemID=23033&URL=Research/Fire%20statistics/The%20U.S.%20fire%20problem>.

jurisdictions that are involved in firefighting operations as part of a federal response effort. The ESF #4 was developed prior to the events of September 11, 2001, and lists the U.S. Department of Agriculture's U.S. Forest Service (USFS) as the ESF Coordinator and Primary Agency. In 2006, the USFS and the USFA signed a Memorandum of Understanding in which the USFA would perform roles and responsibilities as a Support Agency for ESF #4.

The IAFC and the WFCFA recommend that the Secretary of Homeland Security make permanent the existing MOU between the USFS and the USFA. We also request that she direct the USFA to be the ESF Coordinator and Primary Agency for incidents that do not involve wildland fires. The local fire departments work well with the USFS in coordinating the ESF #4 function for wildland fires. However, we believe that the USFA will play a better role in coordinating non-wildland fire incidents. As a co-coordinator of ESF #4, the USFA could play a greater role in engaging America's fire and EMS departments in the response and recovery to future major national disasters.

In addition, the IAFC and the WFCFA support the establishment of teams of firefighters that can quickly deploy in the event of a major disaster or incident of national significance. These teams would aid local fire departments besieged by either a natural disaster or act of terrorism. They could perform tasks such as incident management, oversight of salvage and damage control efforts, community relations, and liaison to state, tribal and local emergency support services. As we witnessed in Arizona last year during the Wallow and Monument Fires, local fire departments need help in dealing with major incidents. The federal government and state and local agencies can provide mutual aid resources during an incident. However, after the incident is over, the local fire department has to handle the recovery operations with minimal assistance.

The current authorization for the USFA expires on September 30. The IAFC and the WFCFA recommend that Congress reauthorize this agency until FY 2017. Senators Joseph Lieberman (I-CT) and Susan Collins (R-ME) have introduced a bill in the Senate, S. 2218, to authorize \$76.49 million each year for the USFA through FY 2017. The IAFC endorsed this legislation, because it sets out a clear funding path for the USFA for the next five years. We urge the House to introduce and pass similar legislation this year.

On behalf of the leadership of America's fire and EMS departments, I would like to thank you for the opportunity to testify at today's hearing. We have seen great progress in addressing the nation's fire problem since the creation of the USFA in the 1970s. The number of fires has been reduced and civilian and firefighter fatalities have both declined. The USFA has played a major role in this success. We urge Congress to continue its leadership in protecting both the American public and America's fire and EMS personnel by passing legislation to reauthorize this important agency.

I look forward to answering any questions you may have.

Chairman QUAYLE. Thank you, Chief Critchley.
I now recognize Mr. O'Connor for his testimony.

**STATEMENT OF MR. KEVIN O'CONNOR,
ASSISTANT TO THE GENERAL PRESIDENT FOR
GOVERNMENTAL AFFAIRS, INTERNATIONAL ASSOCIATION OF
FIRE FIGHTERS**

Mr. O'CONNOR. Thank you, Chairman Quayle, Ranking Member Edwards, Representative Bonamici. I am Kevin O'Connor representing the International Association of Firefighters, whose 300,000 members proudly serve communities in each of the Nation's 435 Congressional districts.

I am especially pleased to be before this Subcommittee because I am currently a constituent of Member John Sarbanes and after the November elections will be a very proud new constituent of the Ranking Member.

As firefighters have taken on additional responsibilities and expanded our capabilities to meet total response needs of our communities, so too must the Fire Administration evolve to meet the needs of the 21st century fire service. The days of firefighters whose primary function was to simply put out fires are long gone. Today's firefighters are well-educated, highly trained and skilled, all-purpose emergency responders with broad responsibilities ranging from EMS, hazmat response, WMD and all-hazards response. Most significantly, your firefighters are always the first boots on the ground for any manmade or natural disaster.

The prevalence of fire-based EMS delivery systems requires the agency to fully integrate EMS training and preparedness into its mission. Although USFA is beginning to move in that direction, we want to ensure that EMS be afforded its appropriate recognition and attention. While the Fire Administration continues to integrate all-hazards training and preparedness into all of its programs, it must work to change the perception that its primary focus is simply on fire.

One way that perception problem may be solved is to simply change the agency's name to reflect its current mission. The U.S. Fire, EMS and All-Hazards Administration or similar branding would better describe the expanded role of both the modern fire service and the agency.

After the well-publicized problems stemming from Hurricane Katrina, Congress rightly took steps to revamp our Nation's approach to emergency response. USFA is currently working to develop a better means of coordinating existing state and local response for disaster deployment. Currently, the agency is considering organizing firefighters and other responders to support FEMA disaster response and recovery efforts. The IAFF fully supports this endeavor, but we must ensure that firefighters are appropriately utilized and deployed during any disaster.

During the delayed response to Hurricane Katrina, FEMA called up 1,000 firefighters to serve as community relations officers, tasking them with the distribution of flyers instead of deploying these well-trained responders to the front line where their presence was desperately needed. Frankly, it was a tragic waste of resources and capabilities.

The IAFF hopes to partner with USFA and FEMA to ensure that personnel resources are properly identified and utilized during emergencies. The best way to accomplish that goal would be to establish a national firefighter credentialing system. In the past, too, well-meaning firefighters have self-dispatched to an emergency, but many of those firefighters have lacked the requisite training and experience to operate effectively. A national credentialing system will alleviate that uncertainty by typing responders and departments based on training and certification levels. This will enable incident commanders to make the most appropriate use of their most valuable resource—personnel. The establishment of a credentialing system has been in development at FEMA since 2006. There is simply no excuse for this long delay. The project needs to be completed.

Most importantly, USFA serves as the voice of the fire service within Federal Government. Unfortunately, the Fire Administration's ability to represent the fire service at the federal level is compromised by a lack of adequate funding. USFA has long struggled to function with insufficient and sadly diminishing resources. The current authorization level of \$76.5 million must be maintained for the agency to carry out its mission, and I urge this Subcommittee to retain or even increase the current authorization level. Rest assured, we will be making the same case to your colleagues in appropriations.

Lastly, I would like to address a prior Congressional recommendation that in our view, USFA has been slow to implement. The U.S. Fire Academy has successfully furthered professional development of fire service through training and education. Today the academy offers distant learning training locally sponsored centers throughout the states, to expand its ability to serve individuals who are unable to attend training at Emmitsburg. To expand the academy's reach, Congress authorized USFA to partner with nationally recognized organizations that have established fire service training programs to deliver a portion of the agency's training. Organizations such as the IAFF provide excellent partners to conduct this real-world training that few institutions can match. Through such partnerships, USFA could easily and cost-effectively increase the number of firefighters that benefit from its training programs. We look forward to working with Chief Mitchell in his role and hopefully implementing this program.

This concludes my testimony. I thank you for the opportunity to speak before you today, and like my colleagues, I am ready to answer any questions.

[The prepared statement of Mr. O'Connor follows:]

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS



STATEMENT OF

KEVIN B. O'CONNOR

ASSISTANT TO THE GENERAL PRESIDENT

BEFORE THE

HOUSE SUBCOMMITTEE ON

TECHNOLOGY AND INNOVATION

ON

**WORKING FOR A FIRE SAFE AMERICA: EXAMINING
UNITED STATES FIRE ADMINISTRATION PRIORITIES**

MAY 17, 2012

Good morning Chairman Quayle, Ranking Member Edwards and distinguished members of the Subcommittee. Thank you for the opportunity to testify before you today. My name is Kevin O'Connor, and I serve as Assistant to the General President for the International Association of Fire Fighters (IAFF). I offer our testimony on behalf of IAFF General President Harold Schaitberger and the 300,000 professional fire fighters and emergency medical personnel who comprise our organization. On a personal note, as a resident of Crownsville, Maryland, I am a new constituent of Congresswoman Edwards, as well as a former constituent of Congressman Sarbanes, so I am particularly delighted to appear before you today.

Mr. Chairman, I testify today not only as a representative of the IAFF, but as a former fire fighter who fully appreciates the critical role the U.S. Fire Administration serves as the voice of the fire service within the federal government. I spent my entire life in the fire service, starting out as a volunteer fire fighter and serving for over fifteen years as a professional fire fighter and emergency medical technician in the Baltimore County, Maryland Fire Department.

Protecting over 85% of the nation's population, America's professional fire fighters and emergency medical personnel are on the front lines every day working tirelessly to save lives and protect the public safety. Whether responding to everyday emergencies or large-scale disasters, be it massive flooding, a terrorist attack, vehicle crash, hazardous chemical release, or even a residential fire, the men and women of the IAFF are the first to arrive on the scene and the last to leave.

It is from this unique perspective as America's domestic defenders that we view the mission, activities and services of the United States Fire Administration (USFA).

New Roles, New Responsibilities

Originally created to ensure a federal focus on the national fire problem described in the original *America Burning* report, Congress tasked USFA with reducing the incidence of death, injury and property loss from fire through public education, data collection, research and training. But as fire fighters have expanded their duties, responsibilities and capabilities to meet the needs of their communities and their citizens, so too must USFA evolve to meet the needs of the 21st Century fire service.

The days of fire fighters whose primary function was to "put the wet on the red" are long gone. The men and women of the 21st Century fire service have evolved into highly-trained, highly skilled all-purpose emergency responders with broad responsibilities. Today's professional fire fighter is trained in such specialized disciplines as hazardous/WMD materials response and high-angle, confined space and water rescue.

Perhaps most significantly, today's fire service has evolved such that today, it has become the nation's primary first medical responder for critical illness and injury. According to a recent survey of the 200 largest cities in the United States, 97 percent of such cities deliver pre-hospital 9-1-1 emergency medical response through the fire service. Additionally, the fire service provides advanced life support response and care in 90 percent of the thirty most populous U.S. jurisdictions.

The prevalence of fire-based EMS throughout the United States requires that the Fire Administration fully integrate EMS training and preparedness into its mission. While USFA is beginning to move in this

direction, we are concerned that EMS remains an afterthought within the agency. EMS is an integral function of today's fire service, and should be recognized and treated as such within the agency.

The USFA of the 21st century must reflect the all-hazards role and mission of the 21st century fire service. While USFA must continue to integrate all-hazards training and preparedness into its programs and policies, it must also work to change the perception that it is solely focused on fire. The unfortunate reality is that USFA's all-hazards role is not widely recognized. For example, organizations and policy-makers have long bemoaned the lack of a "home" in the federal government for EMS, and have advocated the creation of a new entity modeled on USFA but devoted to EMS issues – a proposal which we believe to be duplicative and counterproductive. One way Congress can help rectify USFA's perception problem may be to simply change the Agency's name. The "U.S. Fire, EMS and All-Hazards Administration" or the like would better represent the reality of the modern fire service and the role USFA should undertake today.

Disaster Response

After the botched federal response to Hurricane Katrina, Congress rightly took steps to revamp our nation's approach to emergency response, passing the Post-Katrina Emergency Management Reform Act to ensure a coordinated response to future large-scale disasters. We are therefore pleased that USFA is currently working to develop a better means of coordinating existing state and local response for disaster deployment. To that end, we believe it is imperative to first and foremost amend the National Response Framework to better coordinate the federal response to wildland, rural and urban fires resulting from or occurring coincidentally with a large-scale disaster requiring a federal response. Emergency Support Function (ESF) #4, Firefighting, establishes the U.S. Forest Service as the lead agency in such occurrences. While this makes sense in the case of a wildfire response, the U.S. Forest Service is neither experienced nor equipped to best coordinate the response to structural fires, such as those which occurred on 9/11. Although USFA currently serves as a support agency to the Forest Service, we believe establishing USFA as co-lead to the Forest Service on ESF-4 would ensure a more effective response.

We understand that USFA is also considering organizing structural firefighters and deployable cadres in support of FEMA disaster response and recovery efforts. While we support the goals behind such a proposal, we wish to ensure that professional fire fighters are appropriately utilized and deployed during any disaster.

Our fears are predicated by our experience. During the delayed response to Hurricane Katrina, as New Orleans fire fighters worked around the clock, exhausted and in desperate need of relief, FEMA called up 1000 fire fighters to serve as "community relations officers," tasking them with the distribution of flyers. Ostensibly, FEMA utilized fire fighters for this task because they believed fire fighters would be trusted by members of the community, but it was nevertheless a tragic waste of talents and resources during a critical time.

We hope that USFA and FEMA are not pursuing this route again. Unfortunately, neither USFA nor FEMA has, to date, consulted with the IAFF regarding their proposal. As the representative organization of the nation's professional fire fighters, we hope to work in conjunction with USFA to coordinate the deployment of professional fire fighters during a disaster. We simply ask that such personnel be used effectively, recognizing their unique skills and training.

One way to help ensure that fire fighters are used effectively during the federal response to a disaster would be to establish a fire fighter credentialing system. Under such a system, the qualifications, experience, and training of fire fighters would be used to establish a pool of personnel who are credentialed to respond to various incidents. Incident commanders could better identify fire fighters who possess the skills and training needed for a particular scenario. Establishing such a system is imperative – in the past, too many well-meaning fire fighters have self-dispatched to the scene of an emergency, and too many such fire fighters have lacked the requisite training and experience to be of the most use. A national credentialing system will alleviate this uncertainty and allow incident commanders to make the most appropriate use of their most valuable resource.

The establishment of just such a system has been in development at FEMA since 2006. Given the threat of a natural or man-made disaster, there is simply no excuse for this long delay. USFA can do much to advance the institution of a national credentialing system for fire fighters, and we pledge to work closely with them to this end.

Voice of the Fire Service

In addition to its work in support of the fire service, USFA has an important role to play in representing and promoting the fire service throughout the federal government. There are literally dozens of federal agencies that administer programs and provide funding that impact the fire service. USFA serves as an effective advocate for the fire service and resource for its sister federal agencies, especially within the Department of Homeland Security. Further, USFA provides a direct link to the federal government for local fire fighters through activities such as providing technical assistance and information related to federal grants.

Unfortunately, USFA's ability to well-represent the fire service at the federal level is compromised by a lack of adequate funding. The disparity between the agency's authorization and appropriation is wide and growing. For Fiscal Year 2012, USFA was authorized to receive approximately \$76.5 million, but received only slightly more than \$44 million. Further, USFA's budget has been reduced by twenty-five percent over the past decade. This trend must stop. As the voice of the fire service within the federal government, and with the myriad duties that befall the agency as a result, we must ensure that USFA is properly resourced. We believe that USFA is extremely underfunded, and believe the current authorization level of \$76.5 million is more appropriate to enable USFA to carry out its mission. We therefore urge the Subcommittee to retain or increase the current authorization level for the coming years.

Enhanced Education Delivery

Lastly, we'd like to comment on a Congressional recommendation from the last reauthorization that USFA has been slow to implement. As the Subcommittee is aware, USFA and the U.S. Fire Academy have successfully and effectively helped to further the professional development of the fire service through training and education programs. As many fire fighters and emergency medical personnel are unable to attend on-campus programs in Emmitsburg, the Academy has rightly moved to offer distance learning and locally-sponsored delivery through various state fire training programs.

To expand the Academy's reach and help achieve the goal of professional development among America's fire fighters, Congress authorized USFA to partner with nationally-recognized organizations that have established fire service training programs to deliver a portion of the agency's training. Organizations such as the IAFF provide an excellent example for the sort of training USFA could deliver through this model. Using a cadre of instructors who are both certified fire service instructors and certified hazmat responders, the IAFF offers real-world training in hazardous materials response few institutions can match. We are able to take training into communities and tailor presentations to address the unique concerns of each fire department. Furthermore, a recent analysis by the National Institute of Environmental Health Sciences found that the IAFF program is the most cost-effective method of live training.

By partnering with organizations and institutions that have established effective local delivery systems, such as the IAFF, to offer Fire Academy courses to those fire fighters for whom traveling to Emmitsburg is impractical or impossible, USFA could easily and cost-effectively increase the number of fire fighters to benefit from its training programs. Unfortunately, USFA has yet to take advantage of such training opportunities. We hope that under the new leadership of Chief Mitchell, the agency will move swiftly to implement Congress's recommendations to enhance its training delivery.

Conclusion

On behalf of the IAFF, I appreciate the opportunity to offer you our perspective on the U.S. Fire Administration. As you begin work on the agency's reauthorization, we urge you to consider the expanded role of the modern fire service and how USFA can best serve and represent local fire fighters. To the extent the IAFF can assist the Subcommittee in its efforts I am happy to offer our expertise and pledge to work closely with you and your staff.

This concludes my testimony. Again, I thank the Subcommittee for its attention and am happy to answer any questions you may have.

Chairman QUAYLE. Thank you, Mr. O'Connor, and I want to thank all of the witnesses for their testimony and also for being right at the five minute button. That is a rarity on Capitol Hill, and I thank you for your punctuality. Now I want to remind Members that Committee rules limit questioning to five minutes. The Chair at this point will open the round of questions. I recognize myself for five minutes.

Chief Mitchell, as we are examining the USFA, we are interested in what changes should be made to the USFA's authorities. Currently, it serves as the support agency for the U.S. Forest Service and the Federal Emergency Management Agency, Emergency Support Function #4, firefighting annex. These responsibilities are assigned at the discretion of the Homeland Security Secretary. Some in the fire service community have recommended that the USFA should be elevated to co-leader with the U.S. Forest Service to ensure a more effective state and local response. Would the USFA be able to handle this responsibility, and to your knowledge, has the Department explored the possibility of making this change with the Forest Service.

Chief MITCHELL. Thank you, Mr. Chairman. Yes. The short answer is yes, we have explored it. In fact, we have come up with a couple of initiatives that would allow us to participate more in response. We are meeting with FEMA response leadership at this time, this very week, and also meeting with the U.S. Forest Service to discuss how we would coordinate being dual coordinators within ESF 4. We have a lot of ideas on how we could do that and partnering with the other fire service non-governmental organizations and state and regional agencies to provide some level of coordination to disaster response across the country through some of the existing mutual aid agreements and contracts, and so there was a point where we wondered if we had that authority. We have talked with our legal folks and we do find that the FEMA Administrator has the authority to write us into that program. And so right now we are just trying to coordinate that effort with the Forest Service and do it in a way that is acceptable to all the parties involved.

Chairman QUAYLE. Okay. Great. Thank you.

Chief Critchley, how would having the USFA serve as the co-leader to the U.S. Forest Service under ESF 4 strengthen and complement the fire service response to all hazards?

Chief CRITCHLEY. At this time, we are learning the same incident management type that the Forest Service uses yet we have some specific entities, some specific duties that we do in an event that the Forest Service model doesn't address in the hazmat, the technical rescue during a big fire scene. I think this just would build up the strength of it if we are both part of that decision-making instead of just one and then coming to a support agency. If we are both there with our voices saying this is the best way to go, I think that is a much better end product than having to wait for support.

Chairman QUAYLE. Okay. Thank you.

Chief Mitchell, we are always interested in leveraging R&D underway in different agencies. There is ongoing research at DHS S&T Directorate and NIST Fire Safety Research is looking at fire-retardant materials to protect firefighters. How does the USFA co-

ordinate its research with NIST along with other fire safety research going on with the Departments of Homeland Security and Defense?

Chief MITCHELL. We meet with them regularly, both DHS S&T. We just had a meeting, an onsite meeting, last week at NIST. We partner with NFPA. We partner with the Underwriters Laboratories. We are talking right now, or recently, with Oak Ridge Laboratories about new smoke detector technologies. Essentially, we continually have communications through our team that works on technology and research at the USFA and just stay in constant communication. We gather input from our fire service stakeholders and the other non-governmental organizations across the country in the fire service as to needs. We communicate those with the technology agencies and laboratories and partners and try to see that our needs are being met by the research community.

Chairman QUAYLE. Have you seen—have you experienced any sort of problems with actually getting the level of cooperation between the different agencies? You know, sometimes we hear that it is hard to get information from one agency if you are working with another agency.

Chief MITCHELL. I have only recently come in to the Federal Government and so the level of bureaucracy—is that the right word?

Chairman QUAYLE. You can say it. Go ahead.

Chief MITCHELL. That you maybe need to go through to go from one step to the next is a little different than local government. But no, the people engaged are very cooperative. I think, though, that sometimes the process and our level of resource that supports us being engaged in the research process probably limits our ability to move forward faster. But we work with them to the extent that we can.

Chairman QUAYLE. Okay. Thank you very much.

I now recognize the Ranking Member, Ms. Edwards, for five minutes.

Ms. EDWARDS. Thank you, Mr. Chairman, and thank you to our witnesses.

My staff actually just recently had a chance to spend a day at our fire training academy, and I have to say, for the work of firefighters and our chiefs, Chief Critchley, you know, on the ground, that is not for the faint of heart. So I really appreciate what you do for all of communities.

In your testimony, Mr. O'Connor and Chief Critchley, both of you—and we will allow you to answer this question out of respect for Administrator Mitchell, and I will share you with. You both expressed concerns over the Administration's current level of funding and you describe the impact this declining budget is having on the Fire Administration's activities, and specifically, Chief Critchley, you mentioned that the Fire Administration won't be able to complete modernization of the Fire Incident Reporting System, the National Fire Incident Reporting System, and that a number of courses offered at the Fire Academy will be eliminated and new courses will not be developed. I wonder if you can comment on the ability of the Fire Administration to fulfill its mission, especially as you know what the needs are, both for the Western States but at the most local level, and I wonder if the two of you could comment

on what these budget constraints mean and what level of authorized funding do you think ought to be included in a reauthorizing bill as we move forward through Congress? Chief?

Chief CRITCHLEY. So to the first point about the losses that we have seen in the U.S. Fire Administration, specifically at the National Fire Academy, we have seen a reduction in the number of courses, wide-ranging courses from hazardous material to prevention to deployment for command and control. Lots of those have been reduced. We have seen a wonderful program called the Trade Program that is also looking at a reduction in funding. The Trade Program is where I met Fire Chief Garrett Olson for the very first time as training officers, which builds a network across the Nation about doing the right thing with our training. I am worried that that may be lost. The Executive Officer program, what an outstanding way to educate a continuum of leaders in the fire service so that we are thinking forward instead of staying the way we are because we are all going to have to change. Those are issues that I would be concerned about with being cut.

On the modernization of the NFIRS, right now we get reports, lots of reports for how it relates to the NFPA data, wonderful things for us to do, but I am wondering if there is a way that we can do real-time numbers and we can get to finish this so that we can have numbers—that we can compare our organization to—for example, we have got L.A. Fire Department and then Fire Department New York having questions about what their times mean. Well, if we had a data spot that we could get real-time numbers from, I believe that it is an incredible value.

Ms. EDWARDS. So what you are sharing with us is that a reduction in the budget has—because it is a fairly lean agency—has real impact locally.

Mr. O'Connor, do you have a comment about that?

Mr. O'CONNOR. Yeah, just to piggyback on what the Chief referenced, we all recognize that the fire service is inherently a local operation but the Chairman referenced the landmark "America Burning" in 1973, and frankly, Congress recognized and the Federal Government that there needs to be an agency that is the voice of the fire service, and you described it as being very lean, and that is correct. Some of my testimony was predicated on EMS, other issues such as credentialing. I don't offer that as a criticism. With the limited resources that are consistently diminishing, USFA is having a hard time doing its job and the simple reality is, the authorization level is great, it needs to be at least at the current level, but it certainly needs to be appropriated. This is a lean agency. There is not a lot of fat there. And it is supporting over 300,000 professional firefighters and probably twice and a half as many volunteers across the country in every community, and we just really encourage Congress to recognize that this is an efficient use of federal funds that is protecting communities and that really in our view is government's most basic responsibility.

Ms. EDWARDS. And Administrator Mitchell, if I could just ask you, in terms of what firefighters need and departments need all across the country, some of the things, credentialing and others, you would like the capacity to be able to deliver those things. Is that correct?

Chief MITCHELL. Yes. I would like to expand our capacity and really, since I have been at the Fire Administration, I have found that we have excellent people working there. They have a plan that is outstanding. We do not really have the resources to carry all elements through expeditiously so the reductions have limited and retarded our ability to move forward with some of the newer programs that we need to move forward.

Ms. EDWARDS. Thank you, and I yield.

Chairman QUAYLE. I now recognize the Chairman of the full Committee, the gentleman from Texas, Mr. Hall, for five minutes.

Chairman HALL. Mr. Chairman, I do thank you, and I thank this panel. You have such an important job and it is important to the smallest group of firefighters to the big cities. Thank you for your testimony and giving your time to prepare and the services you render really ought to be appreciated by this Committee, and I think we do.

Along the lines of Ms. Edwards' questions, she and I kind of work as a team a lot of times, and I want to enlarge a little bit on her questions and some of the answers that you have given.

My dad was a firefighter in the smallest county in the State of Texas. Two hundred and fifty-four counties, they were the smallest, and they had a fire department, one truck. The siren would go off at night and everybody could hear it. I could hear it too and it would wake me up. My dad would get up and run all the way to the fire station because they wanted to be there before lightning bridges got there because the first one there got to drive the one truck they had, and it was always a race for them, and when it was all over and they would come home, I would ask Dad, well, how did it go. He said well, we saved a lot was usually his answer.

It means a lot, and I have to rely on you. I guess, Administrator Mitchell, I will ask you, how does the United States Fire Administration, how do you support the rural departments? I have a lot of them in my 4th Congressional District there. How do you support those? I guess the fundamental difference is in the nature of the rural fire problems compared to the U.S. fire problem as a whole, and I say this. It is sad that we have to have a 9/11 to really get people to appreciate you all the way they should. A lot of communities are protected by volunteer fire departments and face very unique challenges—agricultural fires, fires on wildland and urban interface. Does the USFA offer training especially tailored to volunteer firefighters and what type of resources have you developed to assist fire departments operating in rural communities? I guess, do you want me to repeat that, Mr. Mitchell?

Chief MITCHELL. I think I get it. Thank you, Congressman.

Chairman HALL. I didn't think you would want me to repeat it.

Chief MITCHELL. Okay. Yes, we have courses specifically tailored for volunteers. Largely what we have are offerings of those courses. We work with the volunteers to try to make them more available, recognizing the difficulties in having the time to get additional training, so we work more to expand the online offerings and the in-the-field courses that go out through the states, state fire training. Much of the basic training is done locally and so those are handled outside. What we do try to do or do on a larger basis is a lot of that online.

With respect to rural areas and wildland, we have courses in development right now for wildland-urban interface fires to protect those structures close to the wildland, and we have some wildland courses that are being offered through the National Wildland Coordinating Group. So I guess the overall answer is that we are reaching out trying to make the courses more available to the volunteers and working with the volunteer associations also to help that to happen.

Chairman HALL. I thank you for that, and I think it is very important.

I yield back my time, Mr. Chairman.

Chairman QUAYLE. Thank you very much, Mr. Chairman.

And I now recognize Ms. Bonamici for five minutes.

Ms. BONAMICI. Thank you very much, Mr. Chairman. I want to join the other members of the Committee in thanking you all for the work that you do to keep our communities safe.

Administrator Mitchell, in your testimony, you talked about the indirect costs of fire, and estimate that according to your testimony here, the indirect costs, which include things like lost business, medical expenses, temporary lodging, psychological damage maybe as much as eight to ten times higher than the direct costs of fire, and that just emphasizes the importance of training and education and prevention. And I know that right now many communities, not only in my district and State, but across this country are struggling and don't have the resources they need at the local level to do all the work that they need to do, and so what I would like you to do, maybe Dr. Hall, because you mentioned this in your testimony, can you talk about the progress that has been made with the areas that are targeted, for example, with the Assistance to Firefighters and the SAFER grant programs? Can you comment about how these programs have really contributed to addressing the challenges that are faced by our local fire service districts?

Dr. HALL. Yes, I would be glad to. Thank you. We have conducted three needs assessment surveys of the fire service, and the second and third we accompanied with a matching analysis looking at how the needs had been affected by the grants that people have gotten in the years before the survey was conducted. What we found was that the particular types of needs that were especially targeted by the AFG and SAFER grants tended to show the biggest improvements over the ten years between the first and the last needs assessment survey. These improvements were seen in all sizes of communities from the big cities to the small rural volunteer fire department areas that Mr. Hall was talking about. So it was—what we got was, the programs are—the grants are very well targeted, they are very effective. The only limit on the degree of improvement and need that we have seen is that there is limited funding. They have accomplished as much as could have been expected given the amounts of the grants that were out there. And so to us, the roadmap was fairly clear. If you want to get these needs really far down, you need to, as the other speakers have said, maintain the funding and, if possible, increase the funding for these grants.

Now, another thing that we looked at in the grants—in the needs assessment—was training do they have the training, do they have

the certification for various different tasks. And here again, we saw improvements in need but still very great needs, and this ties back to the outreach programs that are being conducted from the academy.

Ms. BONAMICI. Thank you.

Now, in my State of Oregon, we pride ourselves in sustainability and green buildings, so when somebody mentioned the rooftop covered with photovoltaic cells, that sounded like back home, so would you talk a little bit about the work that is being done to make sure that new methods and tactics are developed for fighting fires in green buildings?

Dr. HALL. I think that was my statement that you are reacting to Congresswoman. Thank you.

There is an active project at NFPA that is in cooperation with the Fire Administration and with other key entities to try to develop best practices, how should you adjust your way of fighting a fire in order to identify that this particular hazard is there when you show up and then to decide how you avoid shock hazards and other sorts of things in the course of fighting the fire. It is not only going very well in terms of producing results but I think it is something of a role model project for how new hazards can be incorporated into the best practices of the fire service in general.

Ms. BONAMICI. Thank you very much, and I yield back. Thank you, Mr. Chairman.

Chairman QUAYLE. Thank you.

I now recognize the gentleman from Illinois, Mr. Lipinski, for five minutes.

Mr. LIPINSKI. Thank you, Mr. Chairman.

I thank all the witnesses for their testimony, obviously very critical issue here we are talking about, about fire safety.

In the written testimony of both Mr. O'Connor and Mr. Mitchell, you both highlight one area in which you think the USFA can do more as in training, and Mr. O'Connor, you specifically mentioned that USFA has been slow to implement Congress's recommendations that the USFA partner with organizations that have established fire training programs. So I want to ask Mr. O'Connor, can you tell me—tell us more about IAFF training programs and how they can help the U.S. Fire Academy expand the reach of its classes.

Mr. O'CONNOR. Well, I think that in all fairness to the academy, part of the issue is resources as we have talked previously, but in our view, the National Fire Academy is a wonderful resource. For people that are actually able to be in residence there and actually travel to Emmitsburg, it is wonderful training, and the outreach of the state training academies has been magnificent. But I think this Committee and Congress in the previous authorization recognized that there are other opportunities, and while we are very proud of the IAFF, I wouldn't limit it to simply our organization. There are a lot of folks throughout the fire service organizations representing firefighters of all types that have very vibrant training programs.

For example, the one I know best, obviously, is the IAFF. We have several grant programs funded through the Department of Energy, Department of Homeland Security and Department of Transportation that are predicated on peer-to-peer training. Essen-

tially, we have training programs that are certified to meet the standards and the approval of the Fire Academy and other sources through the fire service but they are delivered very economically on the local level, meaning if there is a need for a training course in hypothetically a town in Oregon, we would find instructors who were also trained and certified in Portland. Their day job may be being a firefighter in Portland or Medford or somewhere else but they would be dispatched to this area that needs training and basically only be compensated for the period that they are actually training. They are spread geographically across the Nation so it is a very efficient and economical way of delivering the training. That cadre of instructors currently exists, and if we were contracted or through some mechanism be allowed that opportunity to put these programs in the field, and again, I don't limit this simply to the IAFF but it is certainly a very good model of training.

It is especially effective because it is not just an academic setting, it is an actual firefighter who may be an expert in hazmat response training other firefighters in that discipline, so there is that natural respect and camaraderie. And it is just a very good way of expanding training profiles and getting a curriculum in the field that you avoid travel costs and residency and things of that nature.

Mr. LIPINSKI. Thank you.

I want to turn the rest of my time over to the issue of fire grants. In 2009 and again in 2011, I helped introduce legislation to reauthorize the fire grant program. Unfortunately, neither of these initiatives have been passed into law. The reauthorization legislation would make these grants more accessible to fire departments across the country and bring stability to a crucial source of funds for local fire authorities.

Dr. Hall, in your testimony, you speak to the importance of these grant programs and the effects they have had in our communities. Can you comment on the importance of reauthorizing these programs and your thoughts on proposed changes in the reauthorizing language?

Dr. HALL. Thank you, Congressman. Yes, we have considerable analysis, which was done in association with our needs assessment surveys, to demonstrate the good targeting and the effectiveness and the cost-effectiveness of the grants programs in all kinds of different resource areas. We have made the results of those studies available to every Member of Congress and their staff and would be happy to discuss these things in detail at your discretion.

I do not honestly have any suggestions or thoughts on the reauthorizing language. I know our Washington, D.C., office would be more than happy to discuss that kind of detail with any of you and your staffs as you go forward.

Mr. LIPINSKI. I thank you. I appreciate that and hopefully—I certainly will continue to take advantage of that opportunity and I hope my colleagues do also, and with that, I will yield back the remainder of my time.

Chairman QUAYLE. Thank you, Mr. Lipinski.

I am now going to open it up to a second round for those who would like to ask additional questions. I now recognize myself for five minutes.

There has been a lot of discussion about resources, and I understand that over the course of a number of different years that the authorization level has been up to \$70 million for the USFA and then the appropriations actually came in much lower than that, and I think in the 2013 House funding bill basically it provides \$42.46 million, which is right about the same level that the request from the President in his budget. I know that that is not the level that you would like, but I do think that this hearing has been very informative to see what the priorities are of the USFA and how we can support your endeavors in very tough budgetary times. I think that providing an authorization level that is much higher than really we can afford, I think is a little bit irresponsible, but I do want to continue to go down and see what priorities and what we can do to make sure that we are giving the support that is necessary even though we might not be getting to the levels that you would like. So I do appreciate everybody's testimony.

I want to go to Chief Critchley. Chief Mitchell was talking about how wildfires are becoming a more significant threat. As you know, Arizona is currently battling four wildfires in the central and eastern part of the state, and we had the Wallow Fire last year and we continue to see this. Can you kind of give me some insight on why are wildfires becoming a more significant threat? Is it forest management policy such as ensuring that we are keeping fuel loads low and trees thinned to a healthy level or patterns of development because people are moving closer to forests, or is it a combination of both?

Chief CRITCHLEY. Thank you. I would say it is a combination of both. I am not as well versed on the Fuels Management Program that they have but I can promise you that as we grow as a community, we are reaching out into areas that were never designed for fire trucks to get in to take care of. So as we expand the size of our cities or the movement out into the urban interface area, we just increase the number of buildings that are going to be hurt during a wildland fire. So I believe it is both but primarily it is the way that we are managing our growth.

Chairman QUAYLE. Okay. Thanks.

And Chief Mitchell, do you have any thoughts on why they are becoming more significant?

Chief MITCHELL. Again, I am not as familiar with the fuel management part of it, although, you know, we are engaged with other agencies now in studying fuel management and how fuel management versus bioresponse and prevention all interact. But coming up in the fire service in southern California, I know a large part of the problem was based upon more building and living in the interface zones, the lack of fire-resistive construction in those areas, and some of the other preventative and mitigation measures that could and should be enacted to prevent loss.

Chairman QUAYLE. Okay. Thank you.

And Dr. Hall, it has been described that one of USFA's training challenges is reaching out to all firefighters across the country and increasing online classes and distance training. Has the NFPA performed any research to try to quantify the impact of training programs and has the NFPA specifically measured the effectiveness of remote training?

Dr. HALL. Thank you, Mr. Chairman. The analysis that we have conducted is not at that level of detail. We have results that indicate that the training situation for the fire service has improved to a limited degree between the first of our needs assessment surveys and the more recent survey but we have not been in a position to look at specific data about people reached or the efficiency of particular methods of delivery.

Chairman QUAYLE. Okay. Thank you very much.

I now recognize the Ranking Member, Ms. Edwards.

Ms. EDWARDS. Thank you, Mr. Chairman, and thank you for this second round of questions. I want to go back to the issue of credentialing because I recognize that, you know, we have a lot of local fire departments. Firefighting is essentially a local activity. But we also have a number of circumstances, particular in major disasters, where we are calling on, you know, one jurisdiction to support another jurisdiction, and for me, this is where the question of credentialing comes forward because I think it is really important for us to make sure that whomever is responding in whatever jurisdiction has the same capacities so that they kind of fit right into the program and are able to respond appropriately.

So Mr. O'Connor, can you elaborate on the recommendation for credentialing and explain why you think it is important? And then if Chief Mitchell could comment on the status because I think, Mr. O'Connor, in your testimony you indicated that there is some, you know, lagging because it has kind of been in the hopper since 2006.

Mr. O'CONNOR. Yes. I mean, this was something that was brought forth after 9/11 and certainly Katrina, and you have actually articulated it very well. I don't think anyone on the federal level or even the fire service wants to suggest to local communities what their level of fire training should be or ought to be. That is up to the local community. We recognize that. We don't want to try to intervene with that. However, on those larger-scale instances, whether it is flooding in the plains, a hurricane coming ashore, a wildfire, whatever the incident is, you need an appropriately trained and skilled responder to actually handle that type of a crisis, and throughout very many fire departments—as you know, I was a firefighter, structural firefighter, in Baltimore County. I don't have the training in wildland firefighting. So it would be useless to have me dispatched to that type of an incident.

So the point of this is to make sure that incident commanders and there is some type of, if you will, clearinghouse or databasing that firefighters and departments are actually typecast so that you know what training, to what level a responder is trained. It simply makes common sense, and I think everyone recognize that. I also recognize that this was not specifically tasked to the U.S. Fire Administration, to the NICC, but it is something that frankly is a responsibility of the incident commander and the people responding and it is why it is so important that it is followed through.

Ms. EDWARDS. Administrator Mitchell, then, if you could comment about what the status is and sort of where we are moving on that, I mean, if this is something we have been considering since 2006, and my recollection is that in the 9/11 disaster where you had people who understandably departments that wanted to respond but in a very unique fire situation you could see how making

sure that you have got the right people responding could be life-saving.

Chief MITCHELL. Yes. I worked in a very active mutual aid system myself for many years, and we do recognize how important it is that people are able to work together at the essential levels for their own safety and in order to be effective. I have been advised that the Fire Administration and the Fire Academy did a credentialing review and took input from the fire service and made a recommendation internal to FEMA to the NICC. I would have to—back in 2005 or 2006. I would have to get back to you on what that status is since our recommendation went forward.

Ms. EDWARDS. That would be extremely helpful, I mean, because it is 2012 and, you know, it would seem to me that if a recommendation has been made from the experts, then there should be some way that that gets expedited for consideration. You know, six years is a good way to expedite things. Thank you.

And then lastly, Chief Mitchell, in the authorizing bill, there is a requirement for the Secretary of Homeland Security, in consultation with the Fire Administration to establish a fire service position at the National Operations Center, and I have been given to understand that that is not a full-time position with full-time status. Can you update us on that requirement and how it is being fulfilled by the Fire Administration?

Chief MITCHELL. That is correct. It was not approved as 24/7 in terms of full time, but as a full-time position for a person to deal with the transfer of data and information. That position has been approved and is presently being advertised for, so we are in the process of filling that position.

Ms. EDWARDS. And is it important that there be, you know, sort of a concerted person designated from the Fire Administration representing the fire services at the National Operations Center?

Chief MITCHELL. Yes. We believe that would be extremely helpful as far as when you say full time, if we are talking about around the clock. Given the resource demands, that is probably not our most efficient way. If the threat level were raised to a point, we would handle it as we do other positions at that time and then staff up around the clock based on conditions, but on a day-to-day basis, it would be a full-time equivalent position.

Ms. EDWARDS. Thank you very much, and thanks to all the witnesses.

Chairman QUAYLE. Thank you, Ms. Edwards.

I would like to thank all the witnesses for their valuable testimony and the Members for their questions. The Members of the Subcommittee may have additional questions for the witnesses, and we will ask you to respond to these in writing. The record will remain open for two weeks for additional comments and statements from members.

The witnesses are excused. Thank you all for coming. This hearing is now adjourned.

[Whereupon, at 11:06 a.m., the Subcommittee was adjourned.]

Appendix I

ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

Responses by Mr. Ernest Mitchell, Jr.

Questions from The Honorable Ben Qualey

Question 1: In FY2011 the National Fire Academy (NFA) provided 3,409 course offerings and reached 110,112 students. In your testimony, you state that there has been an increase of 89% in online course completions. How else is the United States Fire Administration addressing the challenge of reaching out to and engaging America's estimated 1.2 million firefighters? The United States Fire Administration (USFA) trains significantly more people through state and local partnerships than through the facilities at Emmitsburg. How does the National Fire Academy (NFA) design courses for presentation outside of Emmitsburg? What requirements does USFA place on groups seeking to provide NFA-approved courses?

Response: The United States Fire Administration's (USFA) National Fire Academy (NFA) develops and delivers the kinds of curriculum unavailable at the State or local level. NFA closely coordinates with State and local training agencies to ensure that there is no duplication of effort or resources. The NFA offers training from 10 minutes to 10 days in length, on-line and in classrooms, on campus and off-campus through partnerships with accredited State and local training agencies. NFA works with over 100 two and four-year degree programs to standardize associate and bachelor degree programs with common syllabi and competency-based curriculum that comports with nationally recognized professional standards and recommendations.

Staff employs the ADDIE model (Assessment, Design, Development, Instruction and Evaluation) to develop and maintain courses that meet national training needs. Once developed, courses are reviewed every three years and fully evaluated every five years to assure that they fulfill target audience needs and contain current topical information. They are reviewed by the American Council on Education for college credit recommendation at the two-year, four-year and graduate level.

Off-campus courses are intended to be – to the greatest extent possible – identical to those delivered on the NFA campus. Courses are developed in modules that can be segmented into three-hour-per evening classes that can be delivered over a period of months or that can be combined into a six or ten day class at a local facility. NFA's menu of two-day classes, frequently taught on weekends, is very popular, especially with the volunteer fire service. Off-campus courses are designed so that they can be delivered successfully by any accredited training agency using certified State or local fire service instructors who bring an in-depth knowledge of the subject area.

NFA staff is developing more blended learning solutions – combining classroom training supplemented by on-line training – to reach a more diverse and technologically-savvy student population.

The NFA works with and through the 50 accredited State fire service training agencies. These agencies are located in a State government, a State university or community college. All are accredited by one of the two fire service accrediting bodies. They employ certified instructors, teach to national standards and are structured to assure that

the classes they deliver are consistent with the highest principles of adult education. Because of each agency's accreditation, successful students are eligible for certification upon successful completion of the training. These training agencies maintain training records in accordance with privacy act requirements, and provide those records to the NFA in order to encourage national reciprocity and to account for the support they receive from the NFA. In addition to the classes delivered by the NFA, these accredited agencies trained 51,000 firefighters and officers in FY 2011 using NFA curriculum.

Question 2: What is the current status of the National Fire Incident Reporting System (NFIRS)? How much does it cost annually to maintain this system? Does the United States Fire Administration track who uses the data collected by the NFIRS? How many other agencies count on this data?

Response: Currently, NFIRS is operating primarily in sustainment mode. The existing NFIRS modernization plan, approved in 2009, outlined five key system enhancements. The first enhancement, the NFIRS Web-based Data Entry Tool, was completed in July, 2010. Work on the second enhancement, the NFIRS Data Warehouse, has also been completed. The Data Warehouse is now in the testing stage, and is expected to be available to state-level NFIRS users by mid to late summer, 2012. The last three enhancements – Enhanced User Interface, New NFIRS Web Portal, and the Revision of the NFIRS Data Entry Application – remain to be implemented.

Recent increases in sustainment costs, in the form of new DHS data center hosting costs and new Enterprise system documentation requirements, have put the remaining NFIRS enhancement phases on hold until additional resources are available. In the meantime, the program office has been reanalyzing the remaining phases in the existing enhancement plan, updating it with additional detail, prioritizing, consolidating where possible, and breaking the enhancements into even smaller prioritized tasks that might be easier to complete in an environment of reduced resources. The detailed priority subset of the previously planned NFIRS enhancements that would provide the most immediate benefit to NFIRS users and the data collection system includes the following: GIS capabilities; Client Tool decommission and enhancement of web tools usability; improvement in audit tracking capabilities; incident validation web service and error reporting; and implementation of a single sign-on across NFIRS tools.

It currently costs \$2.7 million annually for USFA to maintain the NFIRS.

The USFA does not track everyone who uses NFIRS data. NFIRS data is distributed not only by the USFA, but also by each state office that collects NFIRS data and local fire departments. It is not currently possible to track everyone that uses NFIRS data, due to the multiple layers of distribution.

The primary federal agencies that utilize NFIRS data include the Department of Defense, Consumer Product Safety Commission, Bureau of Alcohol Tobacco, Firearms and Explosives, National Highway Transportation Safety Administration, and the Department of Transportation. Additionally, state, local and non-governmental organizations use reports based upon NFIRS data.

Question 3: The fire problem in the United States remains among the worst in the industrialized world. Total economic cost of fire losses in the United States reached over \$300 billion in 2009. Yet the public, media, and local governments are generally unaware of the magnitude and severity of the fire problem to individuals and their families, to communities, and to the Nation. How is the effectiveness of the United States Fire Administration's various prevention and public education programs currently measured? How do you ensure that today's programs are reaching target populations and persuading them to improve their safety measures?

Response: A critical measure of the effectiveness of the United States Fire Administration's prevention and public education efforts is the trend in fire loss. Using the fire loss data from NFIRS and other fire and life safety organizations, USFA has identified and is monitoring the decrease in fire loss (lives and property) and injuries. We also use the data to identify and track trends among at-risk groups and the primary causes of fire loss, as well as to develop targeted fire prevention and public education messages.

USFA is able to track the increasing interest in and need for prevention and public education materials by the increasing number ordered from the publications center, downloaded from the website, subscriptions to our educational distribution lists, followers to our Twitter account, and requested by individuals or organizations at meetings or conferences.

Questions from the Honorable Lamar Smith

Question 1: Last September, the wildfires in Bastrop, Texas, just south of Austin, killed two people and consumed more than 1,600 homes and 34,000 acres resulting in \$325 million of insured property damage with over 5,000 people evacuated from their homes. The Texas Air National Guard dumped 1.4 million gallons of water on the flames. The Forest Service described the fire's behavior as "unprecedented" and "no one on the face of this Earth has ever fought fires in these extreme conditions." Does the Fire Administration coordinate fire training exercises and emergency responses with the National Guard?

Response: FEMA's primary engagement of the National Guard in exercises is through the Governors in the various states since the Adjutants General report to the Governors and the Guard is in state service, e.g. Title 32 status, when the Guard participates.

In addition, where there have been exercises organized by the National Guard, FEMA has supported the Guard by making appropriate connections to other exercise efforts. For example, the Vigilant Guard exercise program is sponsored by US Northern Command (USNORTHCOM) in conjunction with the National Guard Bureau (NGB) and involved units from Alabama, Arkansas, Kentucky, Illinois, Indiana, Mississippi, Missouri, Tennessee and Wisconsin. The Vigilant Guard exercise and participating units were incorporated into National Level Exercise (NLE) 11.

However, the Fire Administration does not directly coordinate fire training exercises with the National Guard. For most emergencies, National Guard resources are used in State duty and as such are activated by governors. Wildfire preseason plans and subsequent exercises are typically coordinated through State agencies or the Office of Emergency Management depending on how the state agencies are organized. During a National or Regional Level Exercise, however, the Fire Administration and the Department of Defense's National Guard Bureau (NGB) and other agencies may collaborate and coordinate with each other and the States to meet the mission needs of the exercise scenario.

Also, the NGB and the National Fire Academy (NFA) have a signed Memorandum of Agreement that the NFA provides its curriculum to the NGB. The NGB delivers the training and sends the NFA the applications for students that they have trained. In addition, some National Guard Joint Force Headquarters-State send their personnel to resident training at the NFA and many members of the National Guard take NFA on-line training.

Our records indicate that in FY 2012, 119 members of the National Guard took classroom training at the NFA, 1,659 members have completed on-line courses and the NG trained 3,368 members using NFA curriculum. An 'unknowable' is that many members of the NG are also career and volunteer municipal firefighters. We can only report out according to the registration information the student provides. If a firefighter who is a member of a National Guard registers for a NFA course as a firefighter that is how the

individual is counted. Similarly, if a municipal firefighter registers as a member of the National Guard, they are counted as a member of their State's National Guard.

Question 2: One of the concerns addressed in the Defense Authorization bill agreed to by the House of Representatives is that it preserves military aircraft like the C-130 Hercules and C-23 Sherpas aircraft that the National Guard used to drop flame retardant chemicals over the Bastrop wild fires. Unfortunately, the Obama Administration slated those aircraft for early retirement or redeployment to other states.

- Did the Pentagon ever ask the Fire Administration (which is part of FEMA) if you had any concerns with these National Guard aircraft being prematurely retired?

Response: No. The U.S. Forest Service (USFS), through established arrangements with the Department of Defense (DOD), is the primary Federal agency representing the wildland fire community regarding surge capacity utilizing C-130 aircraft. Specifically, C-130H and C-130J models are utilized under current arrangements as airtanker support for wildfires. U.S. Fire Administration is unaware of the wildfire support role for C-23 Sherpas. This specific question should be redirected to the USFS.

Question: Does the US Fire Administration have a say in how National Guard aircraft are deployed around the country, especially when these aircraft are used to respond to state and regional disasters like forest fires?

Response: No. The Federal laws that govern re-location of National Guard units, and the aircraft used by the National Guard, do not include a role for the U.S. Fire Administration. When there is a Federal requirement for activation of C-130 air tanker support, it is coordinated under the existing interagency arrangements referenced above.

Question: Are you concerned about FEMA's and the Fire Administration's ability to provide federal assistance to state and local communities in emergency situations without these National Guard cargo aircraft to drop chemicals and water or transport firefighters and equipment to the scene of a wildfire?

Response: No. The current arrangements that exist between the U.S. Forest Service and DOD provide the mechanism for surge capacity of firefighting air tankers utilizing the Modular Airborne Fire Fighting System (MAFFS). When activated these resources provide support to State and local communities as well. Additionally, other Federal departments and agencies may provide transportation support during emergency response and recovery operations as provided through the National Response Framework and Annexes.

Question 3: Dr. John Hall of the National Fire Protection Association states in his testimony that the best fire safety research in the Federal government is at the National Institute of Standards and Technology (NIST). The kinds of research performed involve fire-retardant materials to protect firefighters and chemicals to mix with water to fight fires. How does the United States Fire Administration coordinate its research with NIST along with other fire safety research going on with the Departments of Homeland Security and Defense?

Response: The USFA provides federal agency coordination and information exchange pursuant to Sections 8(e) and 21(e) of Public Law No. 93-498 of the Federal Fire Prevention and Control Act. The USFA coordinates the Federal Fire Working Group, which brings together researchers and fire safety professionals from all federal agencies to share information and ideas.

USFA has taken a leadership role in identifying and prioritizing research issues to improve the safety and effectiveness of fire fighters. In partnership with NIST, DHS, and other Federal agencies, USFA hosted two National Fire Research Symposia (2005 and 2011) to identify and prioritize research needs for the fire service. These National Fire Research Agenda Symposia were attended by over 50 organizations, including the fire service, manufacturers, the International Association of Fire Chiefs, International Association of Fire Fighters, National Volunteer Fire Council, DHS, NIST, NIOSH, and other Federal agencies. NIST, NIOSH, and DHS integrate the issues identified by USFA into their research programs.

USFA personnel regularly meet with NIST and other federal agencies involved in fire related research, including the Department of Defense, Department of Justice, Department of Transportation, and others. Wherever possible, USFA partners with these agencies on initiatives of common interest. Examples of these partnerships include:

- USFA, NIST, and NFPA collaborated on characterizing the high temperature performance of fire fighter protective equipment including Self-Contained Breathing Apparatus (SCBA) Lenses, Personal Alert Safety Systems (PASS), thermal imaging, and turnout gear. In each case, research collaboration provided science-based understanding of the performance problem and both agencies worked to improve existing equipment to provide better protection for the nation's 1.25 million fire fighters.
- USFA works closely with NIST to identify new fire fighting technology, evaluate the performance, and develop new standards to continuously provide the fire service with cutting edge technologies including structural integrity monitors and locating/tracking systems. As these technologies are put into place in the future, each of the over 32,000 fire departments across the U.S. will have access to state-of-the-art systems.
- USFA and NIST have partnered to improve fire ground operations involving structure ventilation and suppression. Through a series of live fire burns, NIST and USFA have demonstrated how positive pressure and vertical ventilation and transitional attack techniques can more effectively reduce the exposure of fire fighters to high

temperature fire conditions. Enhanced tactics will improve the fire ground effectiveness and help reduce the 44,000 fireground injuries that the fire service currently experiences each year.

- USFA coordinates with the DHS Science and Technology (S&T) Directorate in its fire safety and first responder initiatives including the Geospatial Location Accountability and Navigation System for Emergency Responders (GLANSER) to track firefighters at emergency scenes, and the Physiological Health Assessment System for Emergency Responders (PHASER) to monitor the vital signs and wellness of firefighters. USFA regularly suggests topics for additional research to S&T. NIST provides technology transfer to the USFA for fire fighter education and training including presentations at the Fire and Emergency Services Higher Education (FESHE) Conference held annually, participation in USFA's Training Resources and Data Exchange (TRADE) and Prevention Resources and Data Exchange (PARADE) programs, staff lectures at the National Fire Academy (NFA) on recent NIST research results, curriculum development at the NFA in the areas of fire prevention, fire investigation and performance based design. NIST often teams with USFA at the Fire Department Instructors Conference (FDIC) and Fire Rescue International to transfer technology to the fire service community. NIST produces technical reports in a user-friendly format via the web, and on CD and DVD for incorporation into national, state and local training programs, which are distributed by USFA.
- USFA has partnered with the DHS Office of Health Affairs (OHA) on several Emergency Medical Services (EMS) related research studies including an EMS responder health and safety study and a project examining grant and alternative funding for EMS and fire departments.
- USFA works with the Department of Justice on projects in emergency vehicle and responder roadway operations safety which benefit both the fire service and law enforcement.
- USFA further coordinates its research efforts with the Federal wildland firefighting agencies on the National Wildfire Coordinating Group (NWCG), especially its firefighter health and wellness project efforts via its membership in the NWCG Risk Management Committee.
- The USFA serves as a member of the Wildland Fire Leadership Council, an intergovernmental council of Federal, State, tribal, and local government officials, and leaders in non-governmental organizations. The USFA also serves on the Wildland Fire Executive Council, a Federal Advisory Committee Act (FACA) committee. In addition, USFA currently chairs the National Wildlife Coordinating Group and actively participates in drafting the National Cohesive Wildland Fire Management Strategy to address the threat posed by WUI fires.
- USFA has recently teamed with the Consumer Product Safety Commission (CPSC) and the US Department of Energy's Oak Ridge National Laboratory in a coordinated research effort to improve residential smoke alarm technology.

Questions from The Honorable Frederica Wilson

Question 1: Administrator Mitchell, during your confirmation hearing before the Senate Homeland Security and Governmental Affairs Committee you committed to investigate the means and standards which go into promulgating state and local fire codes. As you know, many localities rely on standards and testing from privately funded, for-profit entities to set the standards for these codes. While it may be necessary for localities to rely on privately funded standards when promulgating their local codes, I too am concerned about the transparency in this process and the fact that industry stakeholders have to pay tens of thousands of dollars to be certified by these private entities in order to comply with state and local laws and ordinances. Have you followed up on your commitment to look more closely into this system and the level of involvement of the USFA into determining that our citizens and first responders are fully protected? If so, could you briefly summarize your actions to date? Is there adequate oversight in place to make sure that the methods employed do not become ineffective or corrupted?

Response: I have followed up by conducting fact-finding discussions with USFA staff regarding the USFA's roles and responsibilities in codes and standards making processes. In summary, USFA does not have a regulatory role in those processes and serves as a Federal liaison. USFA's staff, serving in a liaison capacity, may not vote and are to provide technical advice, opinions, and information that is publicly available. My actions have been to remind USFA staff of the appropriate role in which they serve as Federal liaisons, under the Department of Homeland Security and FEMA. Additional information is included below to give a more complete overview of the consensus processes in which the USFS is involved.

United States Federal agencies, following the direction of OMB Circular A-119 and the National Technology Transfer and Advancement Act (P.L. 104 -113), are committed to working with non-governmental voluntary consensus standards bodies rather than developing government unique standards. With regard to fire safety codes and standards, the United States Fire Administration (USFA) does participate in some Standards Development Organization (SDO) activities as a non-regulatory agency. USFA does not adopt or reject standards, nor does it have authority to compel or prevent usage by Federal, State, Tribal or local government agencies. Multiple SDOs in the U.S. provide the infrastructure for the development of standards, and many government personnel participate, presenting their perspectives, along with representatives from industry, academia and other organizations and consumers.

As for governmental agencies at the State, Tribal and local level, adoption of voluntary consensus standards is at their discretion unless imposed by a Federal regulation that has adopted one or more. Like the Federal Government, the other levels of government must evaluate the efficacy and suitability of voluntary consensus standards to address needs in their communities. Most fire and building codes are adopted with modifications at the state and local level and these adoption processes are subject to the timely review, due diligence and transparency that the various state and local administrative procedures

require. Costs may be associated with evaluation services that are intended to verify that designs, products and/or processes are deemed to comply with the performance requirements set forth in codes, especially in cases where innovative products or methods precede the development of measurement science and standards to support them.

While the Federal Government participates in and encourages the development and use of voluntary consensus standards, the process is not dominated by the Federal Government. However, in OMB Circular A-119, voluntary consensus standards bodies are defined by the following attributes:

- Openness.
- Balance of interest.
- Due process.
- An appeals process.
- Consensus, which is defined as general agreement, but not necessarily unanimity, and includes a process for attempting to resolve objections by interested parties, as long as all comments have been fairly considered, each objector is advised of the disposition of his or her objection(s) and the reasons why, and the consensus body members are given an opportunity to change their votes after reviewing the comments.

SDOs that want to demonstrate that they meet these attributes with the option of having their standards designated as American National Standards (ANS) must be accredited by the American National Standards Institute (ANSI). ANSI accredits the procedures used by participating SDOs according to the set of essential requirements for openness, balance, consensus and due process, which are based on the same principles as the attributes of OMB A-119. These requirements are articulated in the ANSI Essential Requirements: Due process requirements for American National Standards, January 2012. For interested parties that are concerned with a standard, they are afforded access to the SDO process through the ANSI definition of due process as "...any person (organization, company, governmental agency, individual, etc.) with a direct and material interest has a right to participate by: a) expressing a position and its basis, b) having that position considered, and c) having the right to appeal."

All ANSs must comply with the essential requirements of openness, lack of dominance, balance, coordination and harmonization, notification of standards development, consideration of views and objections, consensus vote, appeals, written procedures and compliance with normative American National Standards policies and administrative procedures. Examples of SDOs that are ANSI Accredited and produce ANS include the National Fire Protection Association and Underwriters Laboratory.

Briefly, the process of finalizing an ANS involves:

- ANS are drafted by a balanced consensus body composed of experts in the subject matter. Consensus bodies are required to include, at a minimum, a balance of interests representing producers, users and general interest.

- Each drafted ANS, whether new, revised, reaffirmed or pending adoption, goes through a development and review process including ample time for public comment, to ensure that the essential requirements were followed and that all materially affected parties have had an opportunity to have their views of the draft standard considered.
- Once the standards developer's process is completed, the draft standard is provided to ANSI for final review and designation.
- In addition to an internal review, ANSI retains a voluntary Board of Standards Review (BSR) composed of standards experts who critically examine draft standards that may have accrued unresolved negative votes from the consensus process, or exhibit out-of-the-ordinary procedures. The BSR will not allow a standard to be published as an ANS unless it fully complies with the essential requirements of ANSI as well as the standard body.
- ANSI's Appeals Board and Executive Standards Council provide a final appeals process when a situation warrants final arbitration.

This process has resulted in numerous voluntary consensus standards that have been adopted by Federal, State, Tribal and local governments for life safety, construction standards, electrical installations and firefighting. The ANSI accreditation requirements and process provides an oversight of voluntary consensus standards.

Question 2: As you may know, in recent years, there have been dozens of fires across America that have involved wooden shipping pallets. In 2010, fires in Glendale and Phoenix, Arizona, each required over 100 firefighters to extinguish. Major wood pallet fires also have occurred recently in Los Angeles, Salt Lake City, El Paso, Fort Worth, Reno, Buffalo, Providence, Ohio and Indiana. Given the extensive history of wood pallet fires, I was troubled to learn that wood pallets are “deemed to comply” with the Underwriters Laboratories fire standard for the storage of pallets, also known as UL 2335, rather than actually being tested. Do you agree that wood pallets should receive this exemption from fire safety standards? Wouldn't warehouses, storage yards and the neighborhoods in which they reside be safer if wood pallets were treated with flame-retardants?

Response: In light of the fact that plastic materials generally burn faster and hotter and produce more toxic smoke than wood, the UL 2335 test (and the similar Factory Mutual (FM) 4996 Approval Standard for Classification of Idle Plastic Pallets as Equivalent to Wood Pallets) was developed to evaluate the fire growth characteristics of plastic pallets in buildings protected by automatic sprinklers in order to provide a basis for fair comparison among the several pallet options on the market. The results of these tests have been used in a misleading manner in the competition between the wood pallet industry and the plastic pallet industry.

Wood pallets are generally considered to be safe, and effective measures have been devised to manage the potential fire hazards that they present. Plastic pallets that have been tested and certified to pass either the UL 2335 or the similar FM 4996 test are considered to be equally as safe as wood pallets, when used inside sprinkler protected buildings. In the absence of full-scale testing, and in light of years of experience with fire testing and actual fires, we expect that a fire in an outdoor array of plastic pallets would burn hotter and produce much denser, more toxic smoke than a fire in a similar size array of wood pallets.

USFA's position is that the potential fire hazards posed by wood pallets are effectively managed by compliance with the existing model fire prevention codes and does not believe that there is a need to treat wood pallets with flame retardants. USFA believes that the model codes developed by voluntary consensus standards bodies provide a fair and balanced approach to regulation of potential fire hazards. (ref: PL 104-113, the “National Technology Transfer and Advancement Act of 1995.”) Furthermore, the USFA does not recommend that any legislative or regulatory action be taken by the federal government on the potential fire hazard of pallets.

Wood pallets have been used for many years, and their performance in a fire is well-known and understood. Plastic pallets are increasingly being used in a number of industries, although wood continues to be the dominant material used in pallets. Plastics have much higher heat content than wood, and will burn with a more intense heat release rate than wood. Because of this, the fire growth characteristics of plastic pallets are a concern to fire officials who are well aware of the fire characteristics of wood pallets.

UL 2335, Fire Tests of Storage Pallets, evaluates the fire growth characteristics of plastic pallets in buildings protected by automatic sprinklers. In order to successfully pass the test, the test array of pallets must have fire growth characteristics similar to the fire growth characteristics of wood pallets. A fundamental premise of this test is that the potential hazards presented by wood pallets have been found to be acceptable by society since wood pallets have been widely used for many years. This is a philosophy that is common in the field of fire hazards evaluation. As part of the development of the UL test method, many wood pallets were burned to establish the “acceptable fire growth characteristics” of the test array in sprinkler protected buildings. (A check of UL’s Online Certifications Directory on June 6, 2012, showed that four manufacturers have earned listings for 27 different plastic pallet models. A similar search of the Factory Mutual Approvals Guide on the same date showed 5 manufacturers and 40 different models of plastic pallet.)

The UL test does not evaluate fire growth characteristics of plastic pallets stored in non-sprinkler protected buildings; neither does it evaluate the fire performance of large arrays of pallets in storage yards. Therefore, the test is not an indicator of the fire growth characteristics of plastic pallets in non-sprinkler protected buildings or in large arrays in storage yards. There is absolutely no basis in science to use results from the UL 2335 test to support assertions that passing the test is evidence that fires involving plastic pallet arrays would be less severe than a fire involving similarly sized arrays of wood pallets. In fact, there is ample evidence to suggest that a fire in a stack of plastic pallets would be more severe, by several standards of measurement, than a fire in a similar stack of wood pallets.

Fire is a very complex phenomenon, and material interactions in fire are even more so; the science is not fully understood. In light of the complexities, and in the spirit of assertive competition, we often see claims that do not stand up to scrutiny: UL 2335 test results have been compared to fires in non-sprinkler protected buildings or outside arrays of pallets; inappropriate test standards have been presented as evidence that a product is “equal to or better than wood,” and so forth. This misuse of standards and testing to support an assertion is by no means unique to the pallet industry. Standard fire test methods are complex, what they measure is complex, and how the results should be used is generally very narrowly defined in the test method and/or codes.

The fire retardant most commonly added to plastics used in pallets is deca bromine (DECA). This and other brominated flame retardants are being subjected to increasing scrutiny, both here in the US and abroad, due to concerns about their effects on human health (they have been banned in the EU). There is a growing body of evidence that these compounds may not be as benign as once hoped.

Most fire retardant chemicals act by making it more difficult to ignite the treated material or object. In time, ignition will occur, and once a fire develops, the fire retardants generally serve little value in slowing a fire. When objects or materials containing these chemicals are involved in fire, one result is that additional toxic compounds are released

in the smoke than would otherwise be present, with the accompanying hazards to human health and the environment.

In light of the known fire hazard of stacks of wood pallets, fire prevention codes include regulations that limit the size of piles of pallets, the separation between adjacent piles, and the separation between piles and buildings. Noncompliance with these regulations and/or unusual high winds have been identified as contributing factors in many of the 'spectacular' large fires in pallet storage yards.

Question 3: Knowing that one of the key missions of the USFA is collecting and distributing data concerning fire causes and consequences to fire departments and communities I would like to know the history and extent of and data or findings in the realm of warehouse or storage yard fires. Many times, these facilities are located in urban neighborhoods which are at risk whenever one of these big industrial fires break out. Could you please provide to me any data from the National Fire Incident Reporting System (NFIRS), which relate to warehouse or storage yard fires? If there is no current data in available, would you work with NFIRS and the National Fire Data Center to begin a serious effort to precisely quantify the occurrences of warehouse and storage yard fires in the last ten years as well as the costs associated with those fires?

Response: National estimates for warehouse fires in 2010, the most recent year data are available, are:

- Fires: 1,100
- Deaths: 10
- Injuries: 15
- Dollar Loss: \$118,480,000

Overall trends for warehouse fires for the 8-year-period of 2003 to 2010 show:

- A 12% decrease in fires.
- An 11% decrease in dollar loss (Note: This overall constant dollar loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2010 value.)
- Deaths from warehouse fires ranged from an estimated 0-10 per year during this period, with no meaningful trend.
- Injuries ranged from an estimated 15-35 from 2003-2008, with no meaningful trend.

National estimates for outside material storage fires in 2010, the most recent year data are available, are:

- Fires: 3,300
- Deaths: <5
- Injuries: 25
- Dollar Loss: \$30,590,000

Overall trends for outside material storage fires for the 8-year-period of 2003 to 2010 show:

- A 23% decrease in fires.
- A 47% decrease in dollar loss (Note: This overall constant dollar loss trend takes inflation into account by adjusting each year's dollar loss to its equivalent 2010 value.)
- Deaths from warehouse fires ranged from an estimated 0-4 during this period, with no meaningful trend.
- Injuries ranged from an estimated 15-60 from 2003-2008, with no meaningful trend.

Responses by Dr. John R. Hall, Jr., Division

Question for the Record from The Honorable Lamar Smith (R-TX): 1. In your testimony, you state that the best fire safety research in the Federal government is at the National Institute of Standards and Technology (NIST). The kinds of research performed involve fire-retardant materials to protect firefighters and chemicals to mix with water to fight fires. How would you grade the quality of research going on in fire safety and the level of coordination between federal government agencies as well as industry when it comes to fire safety research? Where do you think improvement is needed?

Answer: The short answer is that I would give highest marks to the quality of research going on in fire safety, and I know that NIST, the USFA, and other leading federal agencies involved in that research go to great lengths to achieve maximum coordination with industry and other important parties.

A longer answer might provide more context.

Any fire safety research project is trying to accomplish three goals:

- Provide the highest research quality so that the results can be trusted and used with confidence to inform decisions
- Provide significant improvements in fire safety, and
- Provide significant improvements in the cost-effectiveness of fire safety, covering everything from the cost of the research to the marketability of the resulting technologies.

Fire safety research is conducted through the cooperation of:

- Independent researchers (principally based at universities or similar academic institutions),
- Researchers affiliated with federal agencies and independent private entities such as NFPA's Fire Protection Research Foundation, and
- Researchers based in industries that will develop, produce and market new technologies.

A breakthrough in fire safety effectiveness and affordability is the end result of a string of research efforts that begin with fundamental research (a focus and strength of the independent researchers), proceeds through stages of successively more applied research, and concludes with development (with industry taking on a larger role at each successive stage). Take any one piece out of the puzzle, and you lose either the big improvements or the practical, useful results.

NIST is uniquely positioned to play a strong (leading? Central?) role in fire safety research. The agency has academic-quality researchers with academic-quality facilities, but it also operates within the Department of Commerce, which adds a responsibility to emphasize marketability in their research. In addition, as agents of U.S. taxpayers, the agency also has a responsibility to seek improvements in safety. More than any other entity, NIST has the statutory responsibility to address all the goals of fire safety research, as well as the resources to do so.

The USFA's scope is probably second only to NIST in breadth and it complements the NIST scope. The USFA provides leadership on many essential topics that are on the fringes of the NIST role, such as educational messaging and program effectiveness, tools for fire service management, and programs to expand uses of promising technologies where the technology's development, which is more the province of NIST, is largely complete.

All this is background for a statement about the kind of coordination we should seek between federal agencies and industry.

When a major sponsor of research – a NIST, a USFA, a Fire Protection Research Foundation – goes through a planning and prioritizing exercise, they are looking for projects with a high likelihood of success and a major contribution if successful to their part of the nation's safety and marketability goals. I have been part of such planning and prioritizing exercises at all three of these entities, and I know that they put considerable effort into weighing the likelihood of success (quick or eventual) and the impact of success on safety and cost-effectiveness, both for individual projects and for whole areas of emphasis.

They also devote considerable time to the question of who should lead the work on worthwhile projects and programs. Should they conduct the work, should they sponsor the work to be done by others, should they lead or participate in a partnership, or should they defer to, encourage and support another entity to take on work falling more naturally within the latter's areas of responsibility and distinctive expertise?

The coordination we seek occurs when this step of choosing the leader and the manner of cooperation is conducted regularly and in depth. I know that NIST and the USFA conduct these steps regularly and in detail.

The major entities also increasingly coordinate and cooperate on their planning. They do not assume that entity B would agree to defer to them on project X but also be willing to take lead on project Y. They hold joint conversations to find out. For example, if NIST is planning its fire research agenda, USFA should be asked to participate.

The only recommendation I could make for improvements, then, is to continue doing what these entities are doing, look for additional ways to integrate planning processes, and extend these good management practices to even more of the participant organizations and agencies.

I almost never see duplication of effort in fire safety research. Reinventing the wheel is rare. I do often see parallel, complementary research projects that are loosely coordinated but could be even stronger and more effective if they were more coordinated.

I also know that the managers of research at these agencies and organizations are constantly on the lookout for ways to improve their processes to achieve more coordination and more impact. Therefore, I do not believe we need to rebuild from scratch or launch a major overhaul. We should build on our strengths.

If you and the committee agree, you could express your support for such planning, prioritizing, partnering and coordination. You could invite federal agencies to suggest changes that would make their mutual coordination and cooperation easier and more successful, and you could invite industry to make their own suggestions.

Thank you for the opportunity to share my thinking on this important issue.

Responses by Chief Jim Critchley

Questions for the Record

**Questions by Representative Ben Quayle (R-AZ)
Subcommittee Chairman**

- 1) The fire problem in the United States remains among the worst in the industrialized world. Total economic cost of fire losses in the United States reached over \$300 billion in 2009. Yet the public, media, and local governments are generally unaware of the magnitude and severity of the fire problem to individuals and their families, to communities, and to the Nation. How is the effectiveness of the United States Fire Administration's (USFA) various prevention and public education programs currently measured? How do you ensure that today's programs are reaching target populations and persuading them to improve their safety measures?**

Answer: The IAFC believes that the fire prevention programs at the USFA are very effective. For example, the USFA's Prevention Advocacy Resources and Data Exchange (PARADE) program fosters the sharing of information and training between federal, state, and local levels of government. The PARADE network includes fire marshals from the nation's metropolitan fire departments, the state fire marshals, and one representative from each of the 10 federal regions appointed by the International Fire Marshals Association. For example, the city of Tucson sends a fire marshal to the PARADE meetings to share both data and effective practices for training communities about fire prevention. After the meeting, the Tucson representative meets with many of the fire departments in southern Arizona to share the effective practices and other information that was discussed at the PARADE meeting. Without PARADE, fire departments around the nation would not be aware of what each other are doing to train the public about fire prevention and especially how to prevent life and property loss among at-risk communities.

In addition, the USFA provides training both at the National Fire Academy and online to help fire departments implement effective fire prevention programs. USFA classes include how to work with families to educate them about fire safety and prevention; teaching volunteer departments about how to run effective community safety programs; and how communities can use education, engineering and code enforcement to change behaviors and prevent injuries, fires and burns. The USFA also has excellent "hand off" courses that trainers can download and then use to educate their communities about fire prevention and safety.

It is important to point out that most fire departments were forced to cut fire prevention budgets as one of the early results of the continuing economic downturn. The training provided by the USFA has provided a vital resource for fire departments as they strive to keep their communities safe in the face of declining local resources.

- 2) As you state in your testimony, good data is an imperative for good decision-making. The National Fire Incident Reporting System (NFIRS) helps chiefs analyze and understand national trends in fire service data. From your experience with NFIRS, who at a fire station enters the data? Is there consistency within departments and training on how to enter the data?**

In the Tucson Fire Department, a trained fire officer completes the NFIRS report. This report is reviewed by a chief officer in the department for accuracy. The report is then entered into a software program that submits the data to the NFIRS. By having a process with multiple checks, we are able to ensure that we submit accurate data. Many fire departments around the nation use similar processes to submit data to the NFIRS.

It is important to emphasize the need for the NFIRS to receive accurate data about the nation's fire problem. The FIRE and SAFER grants have played an important role in this process by requiring grantees to participate in the NFIRS. I also would like to highlight the need for fire chiefs to be able to download real-time data from the NFIRS, so that they can analyze trends in the nation and their states and communities. We are concerned that the proposed cuts to the USFA's budget for Fiscal Year 2013 would eliminate USFA's plans to develop the capability for chiefs to get real-time information from the NFIRS.

Questions by Representative Lamar Smith (R-TX)

- 1) Dr. John Hall of the National Fire Protection Association states in his testimony that the best fire safety research in the Federal government is at the National Institute of Standards and Technology (NIST). The kinds of research performed involve fire-retardant materials to protect firefighters and chemicals to mix with water to fight fires. How would you grade the quality of research going on in fire safety and the level of coordination between the federal government agencies as well as industry when it comes to fire safety research? Where do you think improvement is needed?**

A number of federal agencies are engaged in important fire safety research, including NIST; the Science and Technology Directorate at the U.S. Department of Homeland Security; the U.S. Department of Defense; the National Institute for Occupational Safety and Health; and the Bureau of Alcohol, Tobacco, Firearms and Explosives. This research covers a variety of different fields including new personal protective equipment for firefighters; new communications technology; new technology for detecting biothreats and responding to them; effective strategies for communities to prepare for wildland fires; and new information into the causes of arson and firefighter fatalities.

Most of this research is excellent and will help reduce both firefighter and public injuries and fatalities; and reduce property loss. The biggest challenge is to communicate the results of this information out into the public sector, which can be done through technology transfer, articles in public safety periodicals, and presentations at fire service professional association meetings and conferences. The USFA can play an important role in conveying the results of this taxpayer-funded research to the fire and emergency services community.

Responses by Mr. Kevin O'Connor

Questions for the Record: The Honorable Ben Quayle

The fire problem in the United States remains among the worst in the industrialized world. Total economic cost of fire losses in the United States reached over \$300 billion in 2009. Yet the public, media, and local governments are generally unaware of the magnitude and severity of the fire problem to individuals and their families, to communities, and to the Nation. How is the effectiveness of the United States Fire Administration's (USFA) various prevention and public education programs currently measured? How do you ensure that today's programs are reaching target populations and persuading them to improve their safety measures?

As a world leader in fire loss, the United States has a responsibility to raise awareness of fire risks and consequences, and work with at-risk communities to mitigate such loss. USFA currently partners with other federal agencies, public safety organizations and the fire community to develop and deliver fire prevention and safety programs on such diverse topics as the importance of sprinklering, smoke alarm maintenance, arson awareness and wildfire preparedness.

Although the International Association of Fire Fighters (IAFF) is fully supportive of these programs and initiatives, it is not directly involved with the delivery of such programs and is unable to comment on their effectiveness.

Questions for the Record: The Honorable Lamar Smith

Dr. John Hall of the National Fire Protection Association states in his testimony that the best fire safety research in the Federal government is at the National Institute of Standards of Technology (NIST). The kinds of research performed involved fire-retardant materials to protect firefighters and chemicals to mix with water to fight fires. How would you grade the quality of research going on in fire safety and the level of coordination between federal government agencies as well as industry when it comes to fire safety research? Where do you think improvement is needed?

The IAFF agrees with Dr. Hall's assessment of the fire safety research conducted at NIST. The IAFF is currently partnered with NIST to conduct groundbreaking studies on the impact the size of fire fighting crews has on the fire service's ability to protect lives and property. Conducted by a broad coalition in the scientific, fire fighting and public safety communities, one such study, the results of which were published in 2010, found that four-person fire fighting crews were able to complete 22 essential fire fighting and rescue tasks in a typical residential structure 30 percent faster than two-person crews and 25 percent faster than three-person crews. This report was the first of its kind to quantify the effects of crew sizes and arrival times on the fire service's lifesaving and fire fighting operations. The IAFF is currently partnered with NIST in studying the impact of crew size in high-rise structure response.

The IAFF also regularly partners with the U.S. Fire Administration to study issues relating to fire fighter health and safety. In recent years, this partnership has produced reports on emergency incident rehabilitation, emergency vehicle safety, voice radio communications and respiratory diseases in the fire service. By raising awareness of important health and safety issues and recommending best practices

for the purpose of mitigating illness and injury in fire fighters, these studies are a critical tool in helping protect the health and safety of fire fighters.