

Testimony of Dr. John Hall
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House Committee on Science, Space, and Technology
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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.