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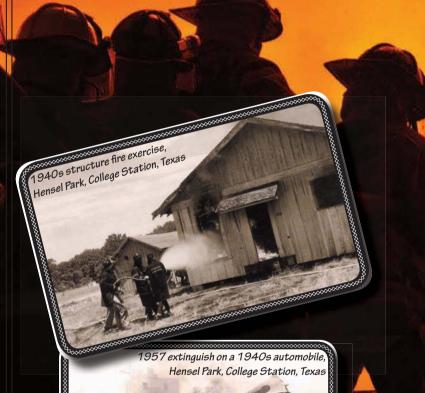




# Congratulations Volunteer Firefighters celebrating 275 years of service

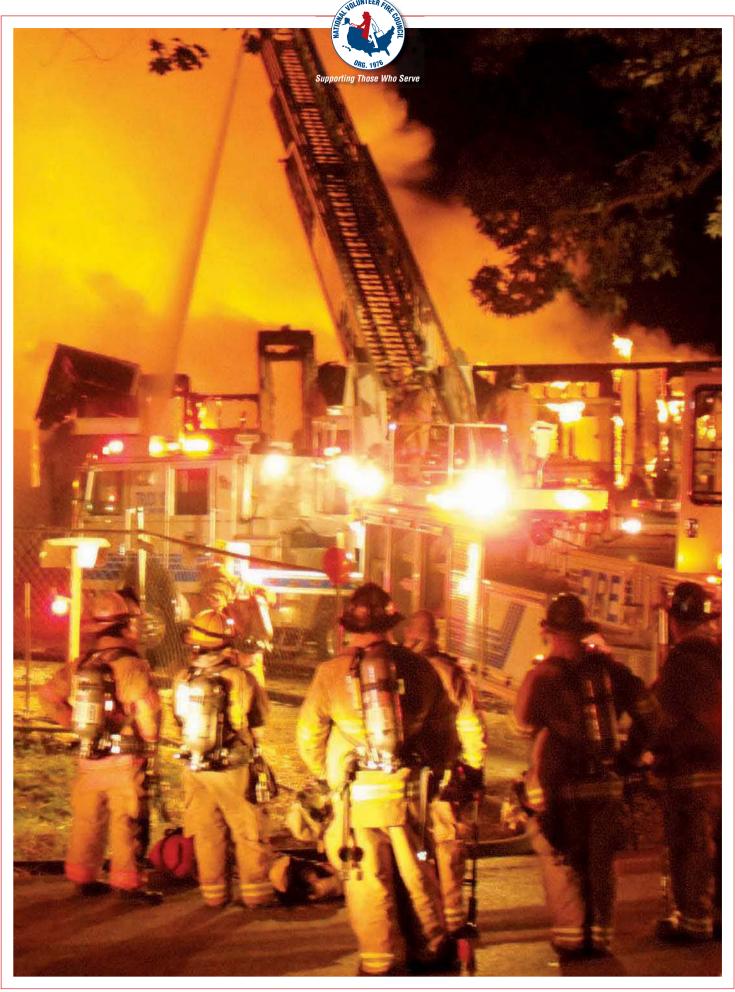
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Dear Friend,

The volunteer fire service has a strong and proud tradition in our nation. From the earliest colonial days, community members have worked together to fight fires that threatened their towns. Many of the leaders who helped found our nation, including George Washington and Thomas Jefferson, felt this call of duty and served in or supported their local fire brigades.

2011-2012 marked what can be considered the 275th anniversary of our nation's volunteer fire service. It was in 1736 that Benjamin Franklin founded the Union Fire Company in Philadelphia. While there were firefighting societies in the Northeast before this, the founding of the Union Fire Company is considered by many to truly be the start of America's modern volunteer fire service.

Much has changed in firefighting technology, training, equipment, scope, and understanding over the past 275 years. But one thing has remained consistent: When disaster strikes, our nation relies on brave volunteers who are willing to put themselves in harm's way to protect their neighbors and their communities. These individuals routinely put others before themselves and serve their communities without thought to personal gain.

Today, over 70 percent of all firefighters in the U.S. remain volunteers, carrying on the noble tradition that started with our forefathers. The National Volunteer Fire Council is dedicated to serving the volunteer fire, EMS, and rescue community, providing advocacy, resources, and programs to support these individuals and departments. Our goal is to make sure the volunteer tradition continues to thrive, now and in the future.

We hope you enjoy this publication as it looks back at the beginnings of our nation's fire service, how the volunteer fire and emergency services have changed over time, the continued importance of volunteers in today's society, and where we are headed in the future. Please also take time to visit the NVFC web site at www.nvfc.org to learn more about the organization and the resources and programs we offer.

Thank you to all those who serve your communities and keep our nation and our citizens safe.



Sincerely.

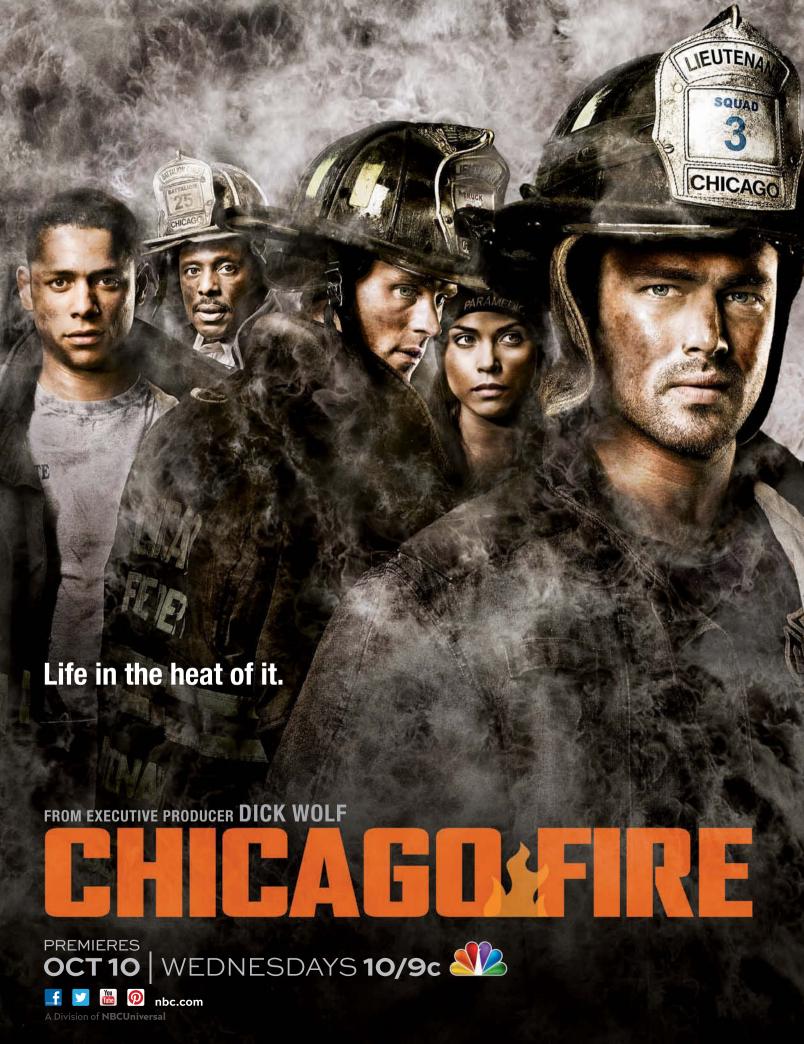
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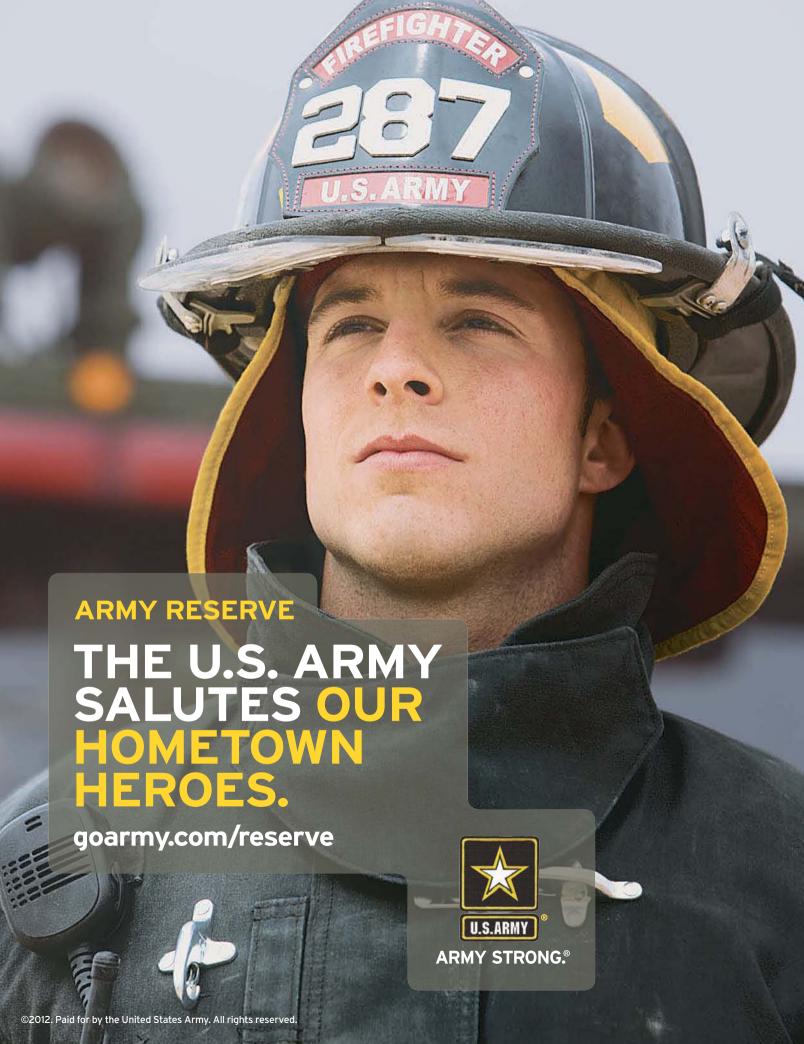
Chief Philip C. Stittleburg Chairman National Volunteer Fire Council

# A PROUD TRADITION

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#### A PROUD TRADITION: 275 YEARS OF THE AMERICAN VOLUNTEER FIRE SERVICE

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# THE HERITAGE AND EVOLUTION OF AMERICA'S VOLUNTEER FIRE SERVICE

By Craig Collins

he volunteer fire service is deeply rooted in the American tradition. To understand the fire service today, it is important to look back at how our nation's fire service began and the evolution it has undergone since the first official volunteer fire company was formed 275 years ago.

Fire has been a threat in America since the time of the first European arrivals. It did not take long for the early settlers to realize fire's destructive potential – from the start, it altered lives and communities in the New World. The 1608 blaze that struck the first colonial settlement of Jamestown destroyed homes and storehouses containing food, medicine, ammunition, and most of the settlers'

extra clothing. Over the long ensuing winter, many settlers died of malnutrition or exposure. Capt. John Smith, the young leader of the settlement, lamented their lack of caution. "I begin to think," he wrote, "that it is safer for me to dwell in the wild Indian country than in this stockade, where fools accidentally discharge their muskets and others burn down their homes at night."

Fire also played a fortuitous role in the founding of New Amsterdam – later New York – when, in the winter of 1613, a fire on the Dutch ship *Tyger* forced its explorers to come ashore at the tip of Manhattan Island. Less than a decade later, several of the first permanent settlers in New England, at Plymouth Colony, had to take shelter aboard the *Mayflower* after a fire destroyed their new meetinghouse.

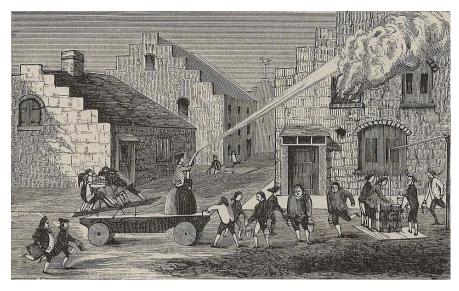
Tenjamin Franklin, the Fireman painting by C.W. Wright, 1850.

Crowded close together in wood-frame dwellings typically with thatched roofs – and, incredibly, with chimneys often made of wood – the early settlers lived in constant danger of fire. Firefighting was generally understood to be the responsibility of all able-bodied males in a community, and fires were typically suppressed by bucket brigades – lines of people passing buckets from a water source to a fire. These

brigades were rarely effective.

Until technology evolved to replace the bucket brigade, civic leaders focused their efforts on fire prevention and detection. In 1631, John Winthrop, governor of the Massachusetts Bay Colony, outlawed wooden chimneys and thatched roofs. In 1648, New Netherlands Governor-General Peter Stuyvesant passed a similar code, appointed four fire wardens in the city of New Amsterdam, and gave them the authority to inspect chimneys and levy fines. Eventually a paid team of watchmen, called the "Rattle Watch," began patrolling the streets at night, ready to shake rattles to alert townspeople to a fire.

The largest colonial city, Boston, suffered a series of devastating fires throughout the 17th and 18th centuries, and in their response to each, the city's authorities lay the groundwork



◆ An 1887 illustration titled "Firemen at Work, 1733" depicts firemen on a vehicle pumping water through a hose onto a burning building as other firemen bring water from a well in buckets and put it into the vehicle.

for the development of the American fire service. After its first major fire, in 1653, the city adopted several codes for equipping homes with firefighting tools and built a centrally located water supply. Another blaze in 1676 prompted codes requiring fireproof building materials, as well as the purchase of a state-of-the-art fire engine — a wooden box equipped with a direct-drive pump that would expel water through a hose.

Boston's new fire engine needed to be manned by a team – a bucket brigade to keep the tub filled and several men to transport and operate it. Twelve men and a captain, Thomas Atkins, were hired by the city to maintain and operate the engine. These men went into service on January 27, 1678.

The worst fire to date in colonial America struck Boston in 1711, destroying more than 100 buildings. In response, the people of the city began to form mutual "fire societies" - bands of about 20 people who pledged to protect the lives and property of their members in the case of fire. By 1720, Boston had 10 fire wards, six engines, and 20 firefighters who were paid per call. In a visit to the city, Benjamin Franklin, then a Philadelphia businessman, noted that Boston was much better prepared to fight fires than his adopted city. He sought advice from several prominent Bostonians on combating fires. Upon returning home, Franklin published a series of articles in

the *Pennsylvania Gazette* pointing out the need for better firefighting in Philadelphia.

Franklin, who is considered by many to be "America's first fire chief," co-founded the first firefighting organization in Philadelphia, the Union Fire Company, in 1736. A 30-member association, the company became the standard for volunteer fire companies throughout the colonies. By the time of the American Revolution, Philadelphia had 18 volunteer firefighting units modeled after it. Unaffiliated with municipal government, the units were small, self-governed, and self-financed. They were different from Boston's mutual aid societies, which were organized to protect the lives and property of their own members, in that Philadelphia's volunteers pledged to fight any fire near enough to be reached in time.

As volunteer units continued to form throughout the colonies, many people who would become instrumental to American independence – including George Washington, Alexander Hamilton, John Hancock, Samuel Adams, and Paul Revere – served as firefighters. Throughout the Revolutionary War, fire was used as a weapon by both sides, and suppression was difficult, with many American firefighters serving in the militia.

The end of the Revolution brought about a shift in the makeup of America's volunteer fire service. Under British rule,

# Fire TIME LINE

**1608** Much of the settlement of Jamestown, VA, is destroyed by fire.

1613 Navigator Adriaen Block's vessel, the Tyger, burns off the island of Manhattan, forcing Dutch explorers to spend the winter and spring exploring the island and its waterways.

1631 Boston Governor John Winthrop orders: "noe man shall build his chimney with wood, nor cover his house with thatch."

1637 The English firm Ryley and Mabb creates the first fire insurance pool.

1648 The Dutch settlement of New Amsterdam (later New York) adopts its first fire ordinance, levying fines for dirty chimneys, maintaining equipment, appointing eight fire wardens, and compelling male citizens to take turns on watch. The fire wardens, appointed by Governor Peter Stuyvesant, are the first fire inspectors in the New World.

1653 The city of Boston is almost destroyed by fire, after which officials decree that each house be equipped with a ladder to reach the roof, poles with swabs to snuff out sparks, and other firefighting tools.

**1658** Dutch shoemakers provide 250 leather buckets to the firefighters of New Amsterdam.

1672 Dutch painter Jan Van der Heyden invents the first fire hoses: 50-foot leather hoses, coupled with brass fittings. The lengths and connections remain the standard today.

1676 Another fire that destroys much of its city center prompts the city of Boston to invest in a hand-operated water pump, which is imported from London.

**1678** Boston appoints 12 men, led by America's first firefighting officer, Thomas Atkins, to man the water pump and respond to fires — America's first paid-per-call firefighters.

1696 Philadelphia enacts a fire ordinance requiring the cleaning of chimneys.

1711 The largest fire to date in colonial America destroys more than 100 buildings in central Boston, including the Old Meeting House and the Boston Towne House.

1718 Boston organizes the "Boston Fire Society," the nation's first mutual aid organization, with members pledging to fight fires at each others' homes, rescue their property, and guard against looting.

1725 Inventor Richard Newsham introduces the 10-person pump-action fire engine, which will dominate firefighting for several ensuing decades.

1731 New York's first fire brigades, Engine Company 1 and Engine Company 2, put the colony's first fire engines — two of Newsham's hand-drawn pumpers — into service.

1736 Benjamin Franklin co-founds the Union Fire Company in Philadelphia, which serves as the model for volunteer fire companies throughout the colonies.

1737 The New York Colony General Assembly establishes the 30-member Volunteer Fire Department of the City of New York.

1740 After a fire destroys much of the South Carolina capital of Charles Town, the colony's General Assembly enacts a package of building regulations.

1743 Boat-builder and inventor Thomas Lote of New York builds the first fire engine made in America, soon known as "Old Brass Backs."

1752 Benjamin Franklin, emulating European practice, establishes his own insurance company, the Philadelphia Contributionship, and begins issuing plaques or "fire marks" to be prominently displayed on building fronts as proof of insurance.

1752 The Relief Fire Company No. 1, today the nation's oldest continuously serving volunteer fire company, is formed in Mount Holly, NJ, initially under the name "Brittania."

firefighters had been primarily businessmen and civic leaders, such as Franklin and Washington. After American independence, firefighters increasingly were skilled laborers such as coopers, blacksmiths, carpenters, brewers, and masons, all of whom were intent on electing their own leaders.

It was during this time that volunteer firefighting entered a kind of golden age in which the firefighter, who left his work or the comfort of his home to put himself in mortal danger with no expectation of a reward, was revered as a kind of urban folk hero. Lithographers Nat Currier and Jim Ives, both of whom were volunteer firemen, helped to cultivate this image in the mid-19th century by producing prints exalting the firefighter. The firehouse became the social centerpiece of many city neighborhoods, and firemen wielded a growing political influence.

However, the nation's growing urban density along with the increasing segregation of the working class and gentry and the mounting violence of a nation on the verge of civil war resulted in a shift. Even as volunteer firefighters were growing in stature and public influence, some firefighters traded off that image and became corrupt and hostile.

\*Always Ready," 1858, by Louis Maurer, from the Currier & Ives "American Fireman" series of hand-colored lithographs.



Rivalries between urban volunteer fire companies could become brutal, and the race to be first to a blaze, always a point of pride, sometimes turned into a violent struggle.

Fire companies played a leading role in many of the urban riots of the time, and municipal authorities, with no power to screen candidates for the volunteer fire service or to discipline the conduct of its members, could do little to stop the violence. In a matter of just a decade or two, the mischief of these companies had worked to diminish the public image of the volunteer firefighter: Despite the solid civic service of most firefighters, their ranks were polluted by unaccountable thugs in companies named like street gangs (Philadelphia's companies included the Killers, Blood Tubs, and Rats). The people would soon insist on a change.

## STEAM OVERPOWERS THE GANGS

The hand-pumped engine that had revolutionized firefighting and led to the proliferation of volunteer companies throughout American cities played an indirect role in growing the ranks of muscled urban brawlers. It required a large complement of strong men – often 30 or more – to operate it in shifts.

One of the cities to suffer most during these years of turbulent violence was Cincinnati, OH, where in 1851 a major fire burned while firefighters led the city in riots. The city promptly arranged for the purchase of a steam-powered fire engine. At its first appearance at a warehouse fire, volunteers who feared displacement hurled stones and cut at the engine's hoses, but were repelled by citizen bystanders. The engine extinguished the blaze with four powerful streams.

The steam-powered pumper was not only more effective, it also required a small complement of skilled men to operate it rather than a large cast of ruffians. In light of its recent violence, Cincinnati hired the first full-time, paid fire department in the United States on April 1, 1853. When Cincinnati residents raised enough money to purchase a second steam engine in 1854, the city became the nation's first fully steam-powered fire department.



Chicago in Flames - The Rush for Lives Over Randolph Street Bridge" by John R. Chapin, 1871.

When the country entered into the Civil War, many of the military units assembled were anchored by volunteer fire companies. The most famous was the 11th New York Volunteer Infantry Regiment, known as the "Fire Zouaves," a 1,100-man unit drawn from the ranks of the city's volunteer fire-fighters by Col. Elmer E. Ellsworth, who said: "I want the New York Firemen, for there are no more effective men in the country, and none with whom I can do so much."

The veterans who returned home after the war had been steeped in military traditions, and most needed jobs. To rebuild the nation's fire service with these men — disciplined, courageous, and familiar with emerging technology—was a commonsense solution. Soldiers and officers who had worked with draft horses, drawing artillery pieces and supply wagons, proved a natural fit for the new powerful steamers, which were so large they required a team of horses to pull them through the streets.

One by one, America's large cities turned to hiring a paid firefighting force – many of whom had served as volunteers before the war – but the volunteer units in smaller communities shared the new postwar traits of professionalism, military rank structure, and distinctive uniforms. Over time, insurance companies helped hasten the professionalization of urban firefighters by insisting that trained companies replace

the street gangs that had ruled the cities before the war.

In the meantime, huge conflagrations continued to do serious harm. On October 8, 1871, two of the most infamous fires in U.S. history burned at the same time: the Great Chicago Fire, which killed hundreds and destroyed more than three square miles of the city, and the Peshtigo forest fire in northern WI, which remains the deadliest fire in U.S. history, killing more than 1,200 people. A year later, the Great Boston Fire – still the largest in the history of the fire-plagued city - consumed nearly 800 buildings over 65 acres. These losses focused public attention on the need for better fire protection, and forced change on an already rapidly evolving profession.

The notion of firefighting as a career, coupled with rapid technological advances, ushered in an era of profound change for the fire service. Like other professions, firefighting required training and education, screening examinations, and exacting personnel standards. By the mid-1880s, most of the larger metropolitan fire departments had created their own training facilities, and by 1909, New York's "Fire College" was attracting firefighters from around the country.

Technological advances also tended to shape the concept of firefighting as a science. The study of hydraulics led to improvements 1764 The Boston Board of Selectmen requires
firemen to wear identifying badges and hats
with their engine numbers clearly inscribed on them.

1774 Volunteer firefighter George Washington bought a hand pumper for Friendship Veterans Fire Engine Company of Alexandria.

1801 The first post-type fire hydrant is believed to have been created by Philadelphia chief water works engineer Frederick Graff.

**1803** The Philadelphia Hose Company is established to operate the nation's first hose-wagon.

1818 In the midst of a great blizzard, the first known female firefighter in the United States, Molly Williams, takes her place with the men of New York's Oceanus Company No. 11, hauling on dragropes to pull a pumper to a fire through deep snow.

1829 The first horse-drawn steam engine for fighting fires is invented, but will not be accepted in structural firefighting for another 30 years.

1841 The first self-propelled steam fire engine is built in New York in 1841, but is taken out of service after being sabotaged by jealous firefighters.

**1843** The Union Fire Company, founded in Philadelphia, PA, by Benjamin Franklin, disbands after 107 years of service.

1852 William Channing, a Boston doctor, invents an alarm system that can send a telegraph signal from a street box to an alarm office.

1853 Cincinnati, OH, establishes the first fully paid fire department in the United States. The department uses "Uncle Joe Ross," a steampowered, horse-drawn engine that revolutionizes firefighting: It can throw from one to six streams of water on a burning building, and can throw a single stream up to 240 feet.

1859 San Francisco heiress Lillie Hitchcock Coit, after helping San Francisco's Knickerbocker Engine Company No. 5 haul its engine to a fire on Telegraph Hill, is made an honorary member of the company.







♣ The Lake Huntington (NY) Volunteer Fire Department stands in front of a burned home with its fire engine, circa 1915.

in infrastructure and engine operation, and the first fire alarm systems were created in the 1870s. The first aerial ladder, a springloaded device, was engineered by San Francisco firefighter Daniel Hayes.

Among the changes sweeping the nation and firefighting technology during the late 19th and early 20th centuries, one arrived with a whimper: the internal combustion engine. Early gasoline-powered engines were expensive, and when the first gas-powered pump went into service around 1906 it was much weaker than its steam counterpart. Motorized engines were greeted with a shrug – but by the 1920s, when they had become less expensive and more powerful, they would launch the third revolution in American firefighting.

## THE MODERN VOLUNTEER FIRE SERVICE

As motorized fire engines became more widespread and affordable even to many cash-strapped volunteer companies, they increased both the range and speed of companies in reaching fires. Another technological innovation was also cropping

up at departments around the country – a portable breathing apparatus that allowed firefighters to get closer to a fire without inhaling smoke. Though the nation's volunteer firefighters still outnumbered paid firefighters by a large margin, they often faced challenges in finding funding to acquire these new resources.

As a profession, firefighting remained little changed from the 1920s to the 1960s. During the Depression years of the 1930s, firefighting was considered a stable and coveted job. After World War II, a boom in industry and residential development increased the demand for fire service, and in rural and suburban areas fire companies continued to be comprised of volunteers — many of them war veterans happy to belong to a paramilitary service organization with their peers.

By mid-century, it was clear that for all the advantages offered the fire service by technological advances such as the internal combustion engine, radio communications, and the self-contained breathing apparatus (SCBA), these breakthroughs did not alleviate the nation's fire problem. In many ways, they simply made it more complex. The distillation of petroleum, for example,

1865 New York's volunteer firefighters are superseded by the paid Metropolitan Fire Department.

1868 San Francisco firefighter Daniel Hayes designs and mounts an extension ladder raised by a spring-assist mechanism from the top of a ladder truck. The Hayes ladder, which could be raised quickly to the windows of burning buildings to rescue victims, was used by the San Francisco Fire Department until the late 1950s.

1871 On October 8, two of the worst fires in American history burn simultaneously: the Great Chicago Fire, which destroyed about 17,000 buildings over an area of 3.3 square miles, and the Peshtigo firestorm in northern Wisconsin, which killed 1,200 to 1,500 people — the most deaths by fire in U.S. history.

1873 John S. Damrell establishes the National Association of Fire Engineers, which later changed its name to the International Association of Fire Chiefs (IAFC).

**1873** The Boston Fire Department launches the *William F. Flanders*, the first boat specifically designed for the purpose of firefighting.

1896 The National Fire Protection Association (NFPA) is established.

1905 The first modern fire engine is manufactured by Knox Automobile in Springfield, MA.

1906 The first fire pumper to be self-propelled by a gasoline engine is delivered to the fire department in Wayne, PA.

1910 The first fire engine with a combination engine — one driving both the truck and the pump — is introduced.

1911 The Triangle Shirtwaist fire, in which 146 are killed, prompts a dramatic overhaul of New York City's fire code, requiring flammable materials to be safely stored, fire doors to remain open and unlocked, fire escapes to be firmly attached, and sprinkler systems to be installed in factories.

16 After inventor Garrett Morgan and a team of volunteers, wearing gas masks designed by Morgan, rescue 32 salt miners from a gas-filled tunnel 250 feet under Lake Erie, fire departments around the country inquire about purchasing his selfcontained breathing apparatus.

10 The International Association of Fire Fighters (IAFF) is formed as the union for career firefighters.

The gasoline fire engine replaces virtually all steam-powered engines.

1958 Our Lady of the Angels School in Chicago burns, killing 92 children and three teachers; the nation responds by improving fire codes in schools and public assemblies.

**7** America Burning, the landmark report of the National Commission on Fire Prevention and Control (NCFPC), describes the nation's fire problem and offers recommendations for better prevention and control of fires.

**974** The U.S. Fire Administration and its

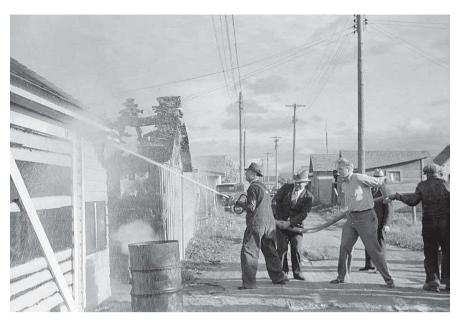
National Fire Academy are created by the National Fire Prevention and Control Act.

**▼** The National Volunteer Fire Council (NVFC), a nonprofit organization with the mission to provide a unified voice for the nation's volunteer fire and emergency services, is founded.

America Burning Revisited, the product of a three-day workshop by individuals who worked on the original project, members of Congress, and other representatives, reports little progress in educating the American public or their elected officials about the nation's fire problem.

🚺 🔽 Pennsylvania Congressman Curt Weldon, a former volunteer firefighter, establishes the Congressional Fire Services Caucus to support legislation for the benefit of all emergency personnel.

America at Risk, the report of a "recommissioned" America Burning panel, concludes that "America today has the highest fire losses in terms of both frequency and total losses of any modern technological society."



A volunteer fire department in action in 1939 in Terry. MT.

introduced a host of volatile industrial compounds that burned fiercely and could not be extinguished with water. The demands placed on firefighters increasingly required specialized knowledge and training.

The 1960s were a period of intense scrutiny of public institutions, and by 1971, a focus on the challenges facing the fire service had resulted in President Richard Nixon's appointment of a 20-member panel, the National Commission on Fire Prevention and Control (NCFPC), to study the nation's fire problem and the needs of the fire service. The Commission's report, America Burning, was issued in May 1973 and is widely considered to be the most influential document in the history of the fire service. The United States, the report concluded, surpassed all other industrialized nations in annual fire death rates and property loss – a fact for which the fire service, the designers of buildings, the government, and the public all shared blame.

America Burning offered 90 recommendations for improving the nation's record in preventing and controlling fires and proposed the creation of a U.S. Fire Administration to help focus nationwide efforts and establish priorities for research and action. One of the results of the study was the formation of the U.S. Fire Administration's National Fire Academy in Emmitsburg, MD, where today more than 100,000 firefighters and other first responders, paid and volunteer, receive training annually in program areas such as arson investigation, emergency medical services, hazardous materials, and incident management.

The fire service has arguably changed more in the last 50 years than in the previous 200 years. America Burning accelerated processes that had already begun within the firefighting profession, including mutual aid agreements, an increasing level of integration among paid and volunteer personnel – with combination departments becoming more common - and increasingly specialized services offered by both urban and rural departments. Emergency medical assistance, hazardous materials response, search and rescue, and other tasks have become standard for many departments.



National Fire Academy, Emmitsburg, MD.

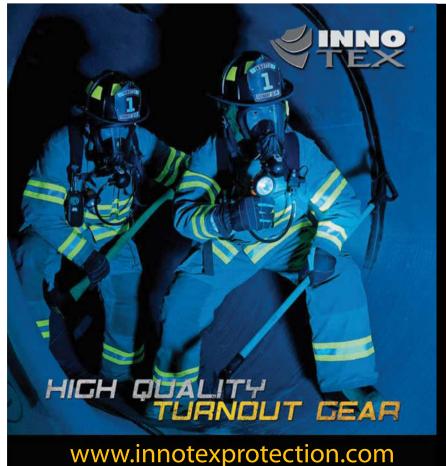
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**♦** A firefighter from the Cherry Hill (NJ) Fire Department in full PPE with SCBA and a hose pack.

Training requirements to become a firefighter or EMT have increased significantly over the last several decades. These increasing training requirements – along with several other factors such as more stringent legal and regulatory requirements, the increasing need for two-income families, higher call volumes, and complex social changes – have radically altered the composition of the volunteer fire service.

While the majority of U.S. firefighters are still volunteers, the numbers have been decreasing. At the same time, the average age of volunteer firefighters is increasing. Even so, data from the National Fire Protection Association show volunteer firefighters still comprise 70 percent (or just under 800,000) of all American firefighters, and more than 85 percent of the nation's 30,125 fire departments are all or mostly volunteer.

Recruitment and retention efforts such as Fire Corps, junior firefighter programs, the SAFER grant program, and others are working to keep the volunteer fire service strong now and in the future.

Despite their recent decline in numbers, the importance of volunteers in our nation's fire and emergency services is as strong as ever. Close to 800,000 individuals volunteer their time to protect their communities and serve their neighbors, with no expectation of monetary rewards. The fact that it's harder to be a volunteer firefighter today due to increased demands, skills, and time requirements may simply mean that the qualities always associated with becoming and remaining a volunteer – commitment, courage, compassion, and loyalty – are more prevalent among today's volunteers than ever before.

2000 The FY2001 National Defense Authorization Act (passed in October) establishes the nation's first significant grant programs to help local fire departments purchase equipment and training, hire staff, and recruit and retain volunteers, including the Assistance to Firefighters Grant (AFG) and Staffing for Adequate Fire and Emergency Response (SAFER) grants.

2001 Among those who died in the line of duty at the World Trade Center on September 11 were 342 firefighters, three fire safety directors, and two paramedics.

2003 The NVFC launches the Heart-Healthy Firefighter Program to educate all firefighters and EMS personnel, volunteer and career, about heart-related illness, a problem that accounts for about half of all on-duty firefighter fatalities annually.

2004 Fire Corps, a program funded by the Department of Homeland Security, is launched to increase the capacity of volunteer, career, and combination fire and EMS departments by engaging community volunteers in non-emergency roles, such as fire safety and prevention education, fundraising, or other needs. Fire Corps is administered nationally by the NVFC and supported by the U.S. Fire Administration.

**2007** While the United States continues to have one of the higher fire death rates in the industrialized world, its standing has greatly improved. The U.S. Fire Administration reports the fire death rate has declined by 66 percent from 1979-2007.

2007 The NVFC launches the National Junior Firefighter Program to get youth interested in the fire service and foster the next generation of firefighters and emergency medical personnel.

**2010** The NVFC creates the EMS/Rescue Section to focus on issues specifically affecting the nation's volunteer emergency medical and rescue services.

# THE NATIONAL VOLUNTEER FIRE COUNCIL

By Kimberly Quiros

he tradition of Americans volunteering to help in their communities is a long and proud one, dating back to colonial times. Today, 70 percent of all firefighters — or close to 800,000— are volunteers. Fire, emergency medical, and rescue service volunteers annually save communities more than \$129 billion nationally. These dedicated individuals form the backbone of our communities and protect our nation from disasters of all kinds.

The National Volunteer Fire Council (NVFC) was created in 1976 to serve as a voice for these volunteers on a national level. Today, the NVFC is the leading organization representing the volunteer fire, EMS, and rescue community, serving as their advocate on the national level as well as providing tools, resources, programs, and other services to volunteers nationwide.

The NVFC remains committed to its mission of providing a unified voice for volunteer fire/EMS organizations. To accomplish this, the NVFC:

- Represents the interests of volunteer fire, emergency medical, or rescue organizations at the U.S. Congress and federal agencies
- Promotes the interests of state and local organizations at the national level
- Promotes and provides education and training for volunteer fire, emergency medical, or rescue organizations
- Provides representation on national standards setting committees and projects

 Gathers information from and disseminates information to volunteer fire, emergency medical, or rescue organizations
 Comprising 49 state fire associations, as well as individual, department, and associate members, the NVFC is the only national organization entirely dedicated to supporting and educating volunteer firefighters, emergency medical providers, and rescue personnel.

#### AN ADVOCATE FOR VOLUNTEERS

In its role as an advocate in Washington, DC, the NVFC works with members of Congress and their staffs to pass legislation that benefits the volunteer fire and emergency services. In addition, the NVFC works with federal agencies that deal with issues related to the fire and emergency services, engages other national fire and emergency service groups to conduct joint advocacy efforts, and provides tools for NVFC members to communicate with the federal government and get involved in grassroots advocacy.



Fire Corps teams assist fire and emergency service departments with non-operational tasks. One of the ways the Seymour (TN) Support Services Division helps its department is by providing rehab services to firefighters during incidents.

#### PROMOTING HEALTH AND SAFETY

Health and safety of firefighters and emergency personnel is a critical focus of the NVFC. Close to a hundred firefighters die in the line of duty each year, and thousands more suffer injuries or work-related illness. The NVFC strives to decrease these numbers and address health and safety issues in many ways. The Health and Safety Committee of the NVFC Board of Directors as well as the NVFC Health and Safety Work Group, which is comprised of representatives from national fire service and health/safety organizations, guide these initiatives.

Central to the NVFC's health and safety efforts are the Volunteer Firefighter Health and Safety Priorities, which are outlined in a series of B.E.S.T. Practices divided into the categories of Behavior, Equipment, Standards and Codes, and Training. Departments and personnel are encouraged to

adopt and enforce these B.E.S.T. Practices to protect their first responders.

While firefighters face many dangers as part of their job, the leading cause of on-duty firefighter fatalities is heart attacks – accounting for approximately 50 percent of all line-of-duty deaths each year. In a proactive effort to combat this dangerous situation, the NVFC launched the Heart-Healthy Firefighter Program in 2003. It is the nation's only heart attack awareness and prevention campaign for all firefighters and emergency services personnel, both volunteer and career.

The Heart-Healthy Firefighter Program works to reduce the number of deaths and disability from heart attacks, strokes, and related conditions such as high blood pressure through education, tools, and resources designed to inform and promote a healthier lifestyle. As part of that effort, the NVFC created a dedicated web site at www.healthy-firefighter.org that contains information, tools, and motivational components to help firefighters and EMS













♣ Above: The NVFC serves as an advocate for the volunteer fire, EMS, and rescue services on Capitol Hill. Right: The NVFC promotes critical health and safety issues through the Volunteer Firefighter Health and Safety Priorities, which are laid out in a series of B.E.S.T. Practices.

personnel get and stay healthy. The program includes Health and Wellness Advocate training, health and wellness webinars, an interactive fitness challenge, free health screenings, resource guides and toolkits, resources for developing a department health and wellness program, a smoking cessation campaign, tools for reducing heart disease risk factors and increasing fitness and nutrition, a cookbook and recipe archive, and much more.

The NVFC launched National Firefighter Health Week in 2007 to focus the attention of the fire and emergency services to health-related issues. In 2012, the NVFC and International Association of Fire Chiefs, which held an annual event focused on firefighter/EMS safety, combined efforts to launch a joint International Fire/EMS Safety and Health Week. Held in June, this annual event works to improve fire service health and safety by spotlighting the importance of first responders taking care of themselves both on and off the emergency incident scene. Details and resources from Safety and Health Week can be found at www.safetyandhealthweek.org.

Additional health and safety initiatives include the STOP vehicle safety training campaign, equipment management training and resources, a guide to help volunteer departments meet NFPA standards, and studies on critical issues such as obesity and fire-fighter suicide, among others.

#### RECRUITMENT AND RETENTION

The recruiting and retention of volunteers is an ongoing issue for many communities. The NVFC offers resources to help volunteer and combination departments with recruitment and retention

## Is Your Department at its B.E.S.T.?

Keep your department ready to take the next call with the National Volunteer Fire Council's Volunteer Firefighter Health and Safety Priorities



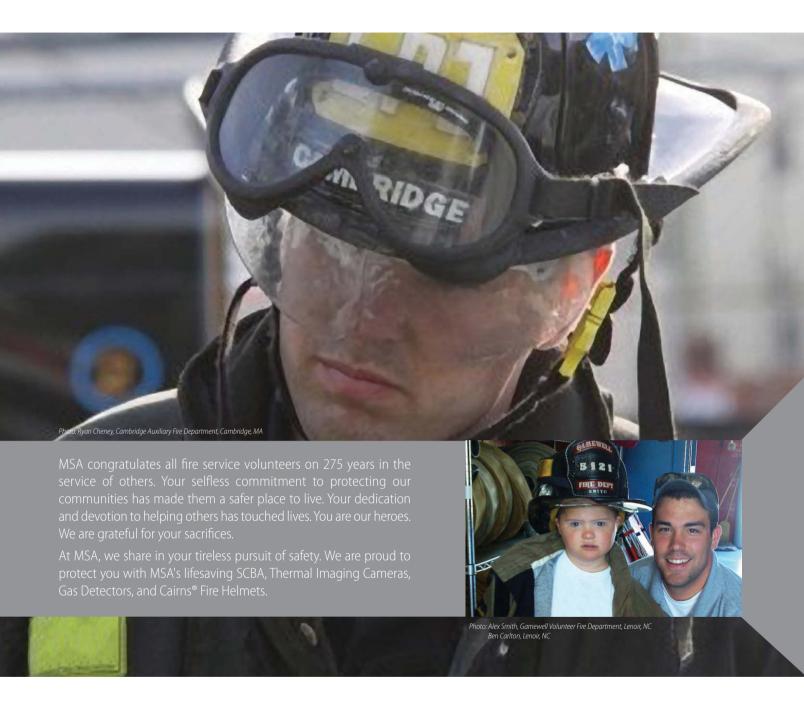
efforts, including the guide Retention and Recruitment for the Volunteer Emergency Services: Challenges and Solutions, a Cost Savings Calculator that helps volunteer departments calculate the value of their services to the community, the 1-800-FIRE-LINE recruitment campaign and materials to help states and departments implement the campaign locally, and sample documents and best practices. These resources and more can be found on the NVFC web site at www.nvfc.org.

A further complication to recruitment and retention challenges is the fact that volunteer firefighters are a group that is aging. To counter this trend, the NVFC created the National Junior Firefighter Program to help departments start and manage a local youth program as well as encourage youth to participate in these local programs. Junior firefighter programs instill in youth a lifelong connection with the first responder community, leading them to become active members or supporters as adults. It is a great recruitment tool for a local fire/EMS department while at the same time providing the youth with life skills and values they can use in whatever path they take as adults. Learn more at www.nvfc.org/juniors.

The NVFC also administers Fire Corps, a federally supported initiative that connects community members with departments to

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Two junior firefighters go through a training exercise during the NVFC's National Junior Firefighter Academy presented in Monroe, NC. Through the National Junior Firefighter Program, the NVFC fosters the next generation of the fire service.

assist with non-emergency roles. This increases the capacity of the department and the services it can offer while at the same time allowing first responders to focus on operational and training activities. More information about Fire Corps as well as resources and tools for starting and expanding a Fire Corps program can be found at www.firecorps.org.

#### **TRAINING**

The NVFC provides a series of training courses to volunteer firefighters and EMS personnel. Most of the training is available in an online format to fit the schedules and time constraints of volunteers. In-person sessions can also be scheduled at local departments or at regional or state conferences. Training covers a wide array of topics important to the fire service community, including health, safety, recruitment, retention, grants and funding, leadership, reputation management, and Fire Corps. View all of the NVFC's training opportunities on the NVFC web site at www.nvfc.org.

#### **COMMUNICATIONS: STAYING INFORMED**

To help keep its members up to date, the NVFC uses a wide variety of social networking tools. Follow the NVFC's activities through all of the following sites:

• Twitter: @NVFC

- Facebook: www.facebook.com/nvfc1, www.facebook.com/ firecorps, and www.facebook.com/juniorfirefighters
- YouTube: www.youtube.com/nvfccommunications

The NVFC maintains six web sites, covering the organization and its programs.

- NVFC (www.nvfc.org): This is the go-to site for breaking fire service and NVFC news as well as tools and resources regarding legislation, standards, grants and funding, recruitment and retention, training, emergency preparedness, and other issues. It also includes a Members-Only section that allows members to access information about benefits and other dedicated resources.
- National Junior Firefighter Program (www.nvfc.org/juniors):
   Find resources and news for junior firefighters and administrators of junior firefighter programs. These include tools for starting or expanding a program, a searchable database of existing programs, a volunteer hour tracking system for juniors, a listing of scholarship opportunities and schools that offer fire science degrees, profiles of members, and more.
- Heart-Healthy Firefighter Program (www.healthy-firefighter. org): Find tools and resources for getting and staying heart healthy as well as developing and implementing a department health and wellness program.
- Put It Out Campaign (www.healthy-firefighter.org/putitout):
   This campaign offers smoking cessation resources to help first responders and their families quit smoking and stay quit. It



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♦ Left: The NVFC Board of Directors is comprised of representatives from 49 state fire associations. Right: NVFC Chairman Philip C. Stittleburg speaks at a press conference promoting fire service legislation with members of Congress and the fire service.

also provides departments with tools for developing no-smoking policies and supporting firefighters who are quitting.

- Fire Corps (www.firecorps.org): This site provides the tools and resources to help departments and community volunteers start, manage, expand, and participate in a community support program.
- Sound the Alarm (www.soundthealarmtoday.org): Since most residential fires occur in homes without operational smoke alarms, the NVFC teamed up with the International Code Council to create this smoke alarm awareness and installation campaign, designed to reduce rural community fire hazards.

The NVFC also produces several electronic newsletters to keep members and interested parties informed. These include the *Dispatch* e-newsletter, the *Fire Corps E-update*, the *Junior Firefighter E-news*, and the *EMS/Rescue Section Update*, in addition to periodic news and legislative action alerts.

#### **AWARDS**

The NVFC has an annual awards program that recognizes individuals who have made outstanding contributions to the volunteer fire service. The nomination period typically opens in the winter, and awards are presented at the annual NVFC spring board meeting. Awards include the Lifetime Achievement Award, the Fire Prevention Award, the Junior Firefighter of the Year, the NVFC Junior Firefighter Program of the Year Award, and the NVFC

Legislator of the Year. More information about the NVFC awards can be found at www.nvfc.org.

#### **MEMBERSHIP**

Join the NVFC and be part of the voice of the volunteer. Membership levels include Individual, Department, Junior (under 18), and Associate. We value our members and offer a wide range of benefits including:

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- Member Assistance Program through Treatment Solutions
- Discounted admission and waived application fee from Columbia Southern University
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- Members-only tools and sample documents to help with grant-writing, recruitment and retention, and more
- · Personalized membership card and car decal
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- Discounted registration to trade shows through Firehouse Events
- Discounts on entertainment, tickets, travel, and shopping through Working Advantage

Learn more and join today at www.nvfc.org.

## VOLUNTEER FIRE SERVICE TODAY

By Eric Seeger

n paper, today's typical volunteer fire department runs much like a nonprofit organization. In fact, the National Volunteer Fire Council (NVFC) suggests incorporating a new fire department to protect firefighters and board members from personal liability. It is usually governed by a charter that is determined by a board, which dictates the responsibilities of the fire department to its people and the community it serves.

In an ideal world (translation: if staffing allows), a fire department's personnel should be divided between two areas of responsibility: firefighting and administration. The firefighting side of operations remains under the view of the fire chief. And the business side of budgets, fundraising, and public relations falls to a staff managed by a president.

In many cases, the entire department is governed by a board of directors and receives primary funding from the town or county it serves. It will also likely raise part of its operating funds from its local community and through grants.

That's where many of the common denominators of volunteer fire departments end. With so many volunteer departments serving so many uniquely different communities, with so many different budgets, and so many different threat exposures, it's difficult to find one-size-fits-all solutions to the issues they face.

Volunteers make up about 70 percent of all the firefighters in the country, according to data from the National Fire Protection Association. They often work alongside career firefighters in neighboring townships, and some fire stations utilize a combination of volunteers and part-time or full-time paid firefighters in order to remain operable. This is because

volunteers' work situations – jobs where they can't simply leave for a duty call, sometimes having two jobs, or households where both parents are employed – can make it difficult to muster a full crew every time the call goes out.

While volunteers are still the backbone of the system, their numbers are fewer than 30 years ago, and the average age of a volunteer is rising. Where the job used to skew toward firefighters in their 20s and 30s, today's force has an even range of all ages throughout its ranks.

"One of the biggest changes I've seen in volunteer fire departments since I started 40 years ago is the scope of services provided," said Philip C. Stittleburg, chief of the LaFarge (WI) Fire Department and chairman of the board of the NVFC. "The role of the fire department in society really continues to grow and evolve."

The old fireman's joke stated that their job was merely "putting the wet stuff on the red stuff." That no longer applies. In fact, fighting actual fires is typically one of the less common calls departments face today. Instead, they are the go-to operations for a wide array of emergencies. From providing emergency medical services to leading massive evacuations, a station's range of calls can vary simply on its charter or its location.





• Volunteer firefighters respond to an attic fire in a single family home in Two Rivers, WI. The scope of firefighters' duties today has expanded beyond firefighting to include emergency medical services, hazardous materials response, and disaster response, among others.



A volunteer firefighter participates in a training exercise.

When Hurricane Irene battered North Carolina's Outer Banks in 2011, flooding reached levels that longtime residents had never seen before. Many roads were cut off. And even though many volunteer firefighters suffered severe home damage themselves, the departments remained active. Every day after the storm, Dare County's emergency communications system set up regular "all calls" sessions, where each department called in its conditions and needs. Basically, the volunteer departments became the isolated and weather-beaten islands' link to the outside world.

Meanwhile, departments in the Rockies are helping with search operations for lost hikers, and volunteers near Bethesda, MD, are cleaning up accidents and saving lives on one of the most notorious stretches of highway in the country: the Washington, DC Beltway.

In training for potential widespread emergencies like terrorist threats, volunteer fire departments may have developed the acute ability to integrate and complement other disaster relief and law enforcement organizations in their areas. The need for integration and improved command and control was a hard-learned lesson on September 11, 2001. Today's volunteer firefighters understand that their mission doesn't end at the county lines; they know how to coordinate with other departments on major disasters, whether they are man-made, a widespread brushfire, or a hurricane that cuts off physical contact with the land.

"The other change that I've seen is in the level of training and professionalism. That has a lot to do with the mission creep that we've seen over the years," said Stittleburg. "A lot more is expected of our fire departments today than was expected before. Today's volunteer firefighters are a highly trained, highly professional corps of individuals."

#### **TRAINING**

Today's volunteers are not just highly trained, they are widely trained. The typical volunteer firefighter has received instruction in equipment usage, apparatus usage, basic first-responder EMS techniques, firefighting strategy, fire behavior, vehicle extraction, hazardous materials (hazmat), and rescue techniques, just to start. Beyond that, they also train for specialized scenarios that prepare them for common emergencies in their areas, for example wilderness search and rescue, paramedic, advanced hazardous materials, swiftwater rescue, dive rescue, and much more.

"Training has become a serious part of the volunteer fire service's issues because of the large amount of training that is being required by national standards," said Kenn Fontenot, former regional fire training coordinator for the Louisiana State University Fire and Emergency Training Institute, where he taught for 12 years.

"And the training can be broken out into three basic areas, which are firefighting, EMS, and hazardous materials as required by OSHA."

Today's volunteers perform their jobs at a level higher than their predecessors, but the training comes with a serious time cost for firefighters.

"Initial training for a new volunteer can add up to more than 240 hours, depending on the person's state and locality," said Fontenot. As a result, training is often cited as one of the reasons for poor recruitment and retention numbers; the initial hurdle of training is often too high for even the most well-intentioned volunteers.

The amount of completed training required before someone can respond to emergencies as a firefighter varies from state to state and department to department. Some departments will give a volunteer their pager with a promise that their training is completed within a certain time period, while other chiefs will require an agreed minimum of completed training before a firefighter is allowed to take calls.

The bright side is that training is usually handled at no cost to the volunteers, and if performed in house, it usually costs the departments nothing. Fontenot pointed out the most common training costs are incurred when stations must hire trainers.

#### **EMS**

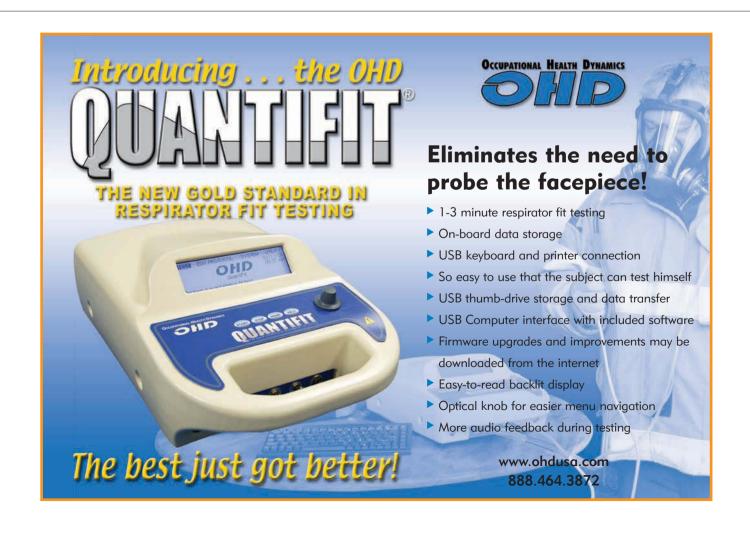
In his experience, Stittleburg believes EMS has caused the biggest game changer across fire departments around the country.



A firefighter secures a neck brace on an injured woman. The majority of calls to which firefighters respond are medical emergencies rather than fires.

"For the departments providing EMS, they have seen a shift in time commitment and scope of services provided as well as cost and training requirements," he said.

Stittleburg traces the evolution of EMS services and volunteer fire departments back more than 30 years. Ambulances with trained paramedics were mostly confined to larger metro areas. In rural areas, EMS was often provided by police or sheriff











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departments, which had personnel driving station wagons with stretchers loaded in back.

"If they didn't do it, it was not uncommon for the local funeral homes to use their hearses as ambulances," Stittleburg laughed. "That's just how EMS got delivered. 'You can pay me now or pay me later' — we always thought that was the ultimate conflict of interest when the funeral director was driving the ambulance!"

Add to that a desire at the federal level to curb the number of highway deaths, and it's no wonder that a demand for reliable emergency medical services grew stronger over the years. As is the nature of fire-rescue personnel, volunteer fire departments stepped up to accept the burden, which often seemed logical since firefighters are already called to most emergency scenes. The problem that evolved: Now these departments would be responding to emergencies that they had never dealt with before.

As fire departments added EMS to their lists of responsibilities, they moved from emergency response roles to higher-level medical response. That increased call volume coming through the fire station, because medical calls are much more common than fire or accident calls.

"Take the number of fire calls you were running 40 years ago, and then agree to take on EMS," said Stittleburg. "That's like increasing your original number of calls by a factor of 3- or 4-to-1 [in today's firehouses]. You've really increased your commitment."

It's for that reason that some fire departments still refuse to take EMS calls. In these cases, they've written EMS completely out of their department charters. Some departments are simply too small to send volunteers and vehicles to every medical call in their region.

There is no single template for making EMS work in every volunteer department. Some departments will run their own ambulances while others will simply support outside paramedic services (they can be volunteer, career, hospital-based, or private contractors). The level and percentage of training also varies. Some departments require all their firefighters attending emergency calls to be EMS trained while others make EMS calls optional. Likewise, some volunteers choose to be full EMS with no firefighting. Either way, firefighter training requires an understanding of basic first-aid skills, so all volunteers should have a minimal background in tending to injuries.

According to Fontenot, the three different levels of EMS certification require significant training in his state. Lower-level emergency medical responders (EMR) typically have a 50-hour training requirement with a two-year refresher of 20 hours. The next level up, EMT Basic, is about 160 hours. Next is paramedic level, with about 1,200 hours of training.

#### HAZMAT AND TERRORIST THREATS

While EMS training levels are elective for every department, hazardous materials and terrorism training have become required knowledge since the tragedies of September 11.

"[Hazmat] had always been there, but at a lower level," Fontenot said. "Then about eight years ago, there was a federal ruling that said to be a firefighter, you must be able to respond at the operations hazardous materials level, which is the second level for hazardous



A firefighter takes a sample of a chemical during a hazardous materials incident.

materials. That's when everyone's initial hazardous materials training went from four hours to 32 hours – with an eight-hour refresher every year."

To clarify, the difference between "awareness" and "operational" is the difference between being able to simply identify a hazardous materials leak (and call more highly trained responders to the scene) versus having the ability to react to a hazardous materials incident by evacuating an area and attempting to mitigate the problem without actually coming in contact with it. Fontenot gave the example of digging an earthen dike to contain a spill.

This increased training, while understood as well-intentioned, has not been well-received across the country. Many rural fire departments don't see themselves as having enough exposure to hazardous materials emergencies to require that all their volunteer firefighters take the extra training.

"In my fire department, we could easily get by with just four or eight hours of exposure training," said Fontenot, who advocates for reducing the federal requirement and allowing

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**Armstrong Medical** 800/323-4220 • FAX: 847/913-0138 www.armstrongmedical.com • csr@armstrongmedical.com individual departments to decide if higher-level hazmat training is right for their situations. For instance, other departments that have major highways with busy trucking nearby would be served well to increase their volunteers' level of hazardous materials training; a rural department with no major highways and minimal industrial activity should be able to train at a lower level.

Similarly, post-September 11 fire departments find themselves training for threats they never had to imagine before. Today, they are expected to be able to identify terrorism threats and notify proper authorities. They are also cross-trained to coordinate with other departments in response to man-made disasters. Theoretically, an event on a terrorist scale could call into use all the skills learned by volunteers through training: firefighting, EMS, hazardous materials, search and rescue, etc.

"I can see the value in this for departments near the bigger cities around the country like Washington, DC," said Fontenot, who trained firefighters in emergency response to terrorism before September 11. "It also is important in our region around cities like Baton Rouge [LA] and Houston [TX] that have large chemical infrastructure."

Most rural volunteer departments will never see the need to call upon this training, but it applies in day-to-day thinking for other threats. Fontenot noted that the best strategy firefighters who discover a potential terrorist threat can use involves keeping a cool head, notifying the proper authorities, and leaving the threat alone.

Depending on where a department operates, this strategy is equally effective in dealing with terrorism, homemade explosives, and meth labs, he said.

#### TIME TO SAY NO

Moving forward, Stittleburg and Fontenot both see an increasingly active horizon for the nation's volunteer firefighters. Continued mission creep, more aggressive training requirements, and an aging Baby Boomer population will ratchet up the number of medical calls coming into firehouses.

In regard to mission creep, "there may come a time where fire departments need to say, 'Sorry, we don't do that' to new responsibilities outside of their charters' missions. It's tough, because it's in our nature to always say yes, but that day may come," said Stittleburg. "Equine rescue – specialized units that rescue horses. I've heard of departments located in areas that have a lot of trail riding that do this. There's just no end to these special missions that get developed depending on the needs of the community."

Funding will continue to be another major challenge in the years ahead. "The cost of regular goods for consumers has gone up considerably in recent years, and the price of fire equipment has far outstripped the rate of inflation for the private sector," said Stittleburg. "It's gotten really expensive. If I buy a set of fire coat and pants for one of my volunteers, that alone costs \$2,200. When I put an SCBA [self-contained breathing apparatus] on his back, that's another \$5,000."

"It's gotten really expensive. If I buy a set of fire coat and pants for one of my volunteers, that alone costs \$2,200. When I put an SCBA on his back, that's another \$5,000."

Expect to see a trend toward federal, state, and local governments helping to shoulder more of the financial burden of their fire departments. "In the past, we've been expected to go out and raise much of our own funds," Stittleburg said. "But as the time demands continue to mount on our people, there will come a point where fire departments will have to turn around and say, 'We can't keep asking our people to do this job and run around selling raffle tickets and keep up these training schedules in order to do their jobs well.' [Governments] will have to help pick up some of that responsibility."

Furthering those problems, the fire service needs to address its challenges with recruitment of new volunteers and retention of current ones. The NVFC has started pushing for the implementation of programs like Fire Corps to enlist non-operational volunteers to lighten the load of firefighters, and the NVFC's National Junior Firefighter Program is designed to get teenagers familiar with firefighting before high school graduation.

Finding and fostering the next generation of volunteer firefighters is a crucial mission at the local and national levels. The role of a volunteer firefighter requires a selfless personality: These are people who will train hundreds of hours per year just to earn the privilege of working for free, doing work that makes people leave their paying jobs at a moment's notice to put their own lives at risk for citizens they've never met.

"When I talk to people about payday for volunteer firefighters ... they often wonder, 'Volunteer plus firefighter. That doesn't compute,'" said Stittleburg. "I tell them that they're thinking of payday as cash in hand. For a volunteer firefighter, payday is 'thank you.' Like when you just saved someone's house, and the owner comes up and says, 'Thank you for saving everything that's important in my whole world.' Or when you just cut someone's kid out of a crashed car, and they thank you for being there. You can't put a price on that. That's payday."

## FROM BURN TO BLAZE

THE NEW RULES FOR SETTING RECRUITMENT AND RETENTION ON FIRE

By Eric Seeger

no longer count on the children of current members following in their parent's footsteps. Nor can they count on a continuous stream of community people eager to donate their time and energy to their local volunteer fire department. Adding to the problem, departments cannot rely on members staying active in the volunteer fire service for long periods of time."

> Retention and Recruitment for the Volunteer Emergency Services: Challenges and Solutions, NVFC/USFA Report

Staffing assessments don't get much more sobering than that. But when the U.S. Fire Administration (USFA) and the National Volunteer Fire Council (NVFC) included this statement in the introduction to a 2007 joint report titled *Retention and Recruitment for the Volunteer Emergency Services*, those words were thought-provoking but hardly surprising.

They reflected what fire chiefs at volunteer fire departments had seen for years. The volunteer emergency services are finding





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it increasingly difficult to recruit new firefighters and EMS personnel, while at the same time turnover is accelerating. Today's average volunteer firefighter is also getting older.

The report surveyed chiefs, volunteers, and former volunteers across the country and found a wide but consistent set of issues causing challenges in recruitment and retention. Among them are increases in time and training requirements, emergency call volume, demands placed on firefighters, and family commitments with two-income households.

Like so many other fire chiefs around the country, Chief Jeff Cash has seen these symptoms among his volunteers. Today, his department in Cherryville, NC, has been shaped to address operability. The department includes six paid firefighters within its 44-person roster. "The six are here to drive the apparatus and get it on the scene," said Cash. "We've had to supplement our volunteers with paid firefighters because we've lost so many volunteers over the years." He added that most of his volunteers serve the dual roles of firefighter and emergency medical technician at the first-responder level.

"When I started 33 years ago, most of our calls were fire-related," he said. "Today, I'd say most of our calls are medical-related. By 'most' I mean about 80 percent."

To put it mildly, almost every aspect of the demands and responsibilities on volunteers has shifted during his career in Cherryville. Firefighters are handling more calls that require a wider spectrum of training with relatively fewer people at the ready.

Then there are the influences beyond the department. Cherryville is a small town in a rural setting, but many of its residents commute to a nearby city for work. "There aren't many jobs in our town. Men and women here drive an hour or more in the traffic to get to Charlotte every morning and then they fight the same traffic on the way back at night. It's impossible for them to be on call from that distance," he said. "After they work an eight-hour day and do that drive, they still want to see the family, go to the kids' ball games and recitals, and have a life of their own. They're running out of hours in the day to be volunteer firefighters."

Those who work closer to town have trouble breaking away from work to respond to emergency calls. And Cash added that when volunteers do sign up, they are often daunted by the constant amount of training with which they are faced.

Sound familiar? Those are roughly the same problems faced by most volunteer fire department in the country today. But as Cash (and many other fire chiefs) has found, many of them can be mitigated.

#### TRAINING FOR FRACTURED SCHEDULES

Cash understands that he can't rearrange volunteers' careers to fit his department's needs, but there are ways to make the requirements more flexible. As the first vice chair of the NVFC, he gets to hear recruitment and retention success stories from around the country. Where almost all departments used to have a regimented training schedule – say, every Monday night for three or four hours – many departments are now moving to more varied training times.

CASE STUDY

## FIVE STEPS TO IMPROVING RECRUITMENT AND RETENTION

s departments across the country aim to bring in more volunteers, one Maryland county has created an effective blueprint to get and keep citizens interested. Montgomery County Volunteer Fire and Rescue Association (MCVFRA) leads the way:

- 1. LEADERSHIP: Using money from a SAFER grant, MCVFRA was able to hire a full-time recruitment strategist to lead initiatives as well as direct other personnel in developing new initiatives. This person also seeks funding/grants to finance these projects.
- ADVERTISING: The department started a local advertising campaign to create awareness of the roles that volunteer fire and rescue personnel play in the community.
- 3. OUTREACH: The recruitment effort involves creating unique opportunities that allow for citizens to interact with volunteer recruiters. They opened a recruiting station in a former retail space, where visitors can see displays that include a fire truck's cab, handle firefighting equipment, and talk to current volunteers about signing up. MCVFA maintains an aggressive social media campaign.
- 4. FOLLOW-UP: Once new volunteers are signed up, they are enrolled in an 11-week course that helps them through some of the most basic training courses. They go through the orientation classes as a group for two reasons: ease of scheduling and building camaraderie among trainees. In its first year, this system achieved a 90 percent retention rate among new volunteers.
- 5. ENTICEMENT: In order to attract overnight volunteers to staff local departments, the MCVFRA is touting its Live-In program. Geared toward college students and working professionals, this program allows volunteers to live rent free at departments where they agree to staff apparatus three to five nights per week. Other perks offered to volunteers include free wireless Internet at fire stations, college tuition assistance, on-duty food reimbursement, and length-of-service retirement benefits.



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"The goal is to offer training at different days and times during the week," said Cash. "We're starting to see some community colleges offering training courses after midnight for people who work a second shift."

And with the advances in computer-based education, online training is another strategy for gaining a foothold in some departments. While Cash admitted that it's a radical departure in thinking for many volunteer fire departments, he stressed the benefits of allowing firefighters with fractured schedules to handle the classroom portions of their training on their own time. In many ways, this strategy mimics other vocational training programs like nursing that combine classroom and online training.

"They learn many of the thinking skills – strategy, equipment basics, things like that – on their laptops at home. And then during live training sessions, they can reinforce those lessons with the hands-on work that we do," said Cash. "A lot of what we train has to be hands-on, but with online classes, we can cut some of the classroom time."

He noted that with online classes, instructors can monitor how much time individual firefighters have logged in class. They can also see where students are having problems, and help them out.

The NVFC and other national organizations have already started developing online education as a priority for the future of training. For example, the NVFC offers a selection of online courses and webinars covering a variety of topics in health and safety, recruitment and retention, grants and funding, leadership, and Fire Corps.

"We've found that younger volunteers are very receptive to this type of training," said Cash. "It's the old-timers like me who have more trouble with it. But we have to accept that online training is the wave of the future for firefighting."

#### **FIRE CORPS**

With fewer volunteer firefighters, departments are starting to bring in more support volunteers to perform non-emergency roles. Through Fire Corps, community members can help their local departments with a variety of tasks while enabling first responders to focus their time on training and operational activities. And the way Stella Hickey tells it, Fire Corps did far more than give her a way to volunteer – it saved her marriage.

In 1998, she started training to become an EMT, but a back injury left her unable to fulfill that ambition. Later, her husband, Kirt, joined their local volunteer fire department in Hermiston, OR. "At first, I was excited for him," Hickey said, "but the emergency calls kept coming in, and he was always leaving." Dates would get cut short, and she recalled a time that he had to leave in the middle of opening Christmas presents to assist with a chimney fire. "It got to a point where I was feeling abandoned, and we were on the verge of separating."

That's when Kirt asked her to help the station organize an annual fundraiser event. Knowing that the station was understaffed,

JUNIOR FIREFIGHTER PROGRAM

## NATIONAL JUNIOR FIREFIGHTER PROGRAM

imple fact: At some point in their lives, most kids want to ride that big red truck. The National Junior Firefighter Program is designed to get them involved at their local fire department before that spark of interest burns out. Cherryville and many other departments have started bringing middle- and high-school students on board in local junior firefighter programs.

Junior firefighter volunteers are an asset in public outreach, non-life-threatening situations, and in day-to-day operations around the fire station. Youth fire service programs help foster the next generation of firefighters and fire service supporters while instilling life skills in the participants such as teamwork, responsibility, and leadership.

While they should not be involved in firefighting operations and dangerous situations until they turn 18, they can begin training at a younger age. "These kids have a tremendous level of interest," said Cash. "The day they are old enough, we don't have to spend an additional two years training them up to speed. They already have the maturity and the knowledge to join the ranks of volunteers just like any other firefighter."

Visit www.nvfc.org/juniors for more information about the National Junior Firefighter Program.

she agreed to help. In the process, she discovered her talent for organizing groups of people toward a single cause.

The fundraiser went very well, and Hickey was asked to revive the department's auxiliary program. "I looked into why it had failed," she said, "and I realized it was because it was limited to firefighters' wives. So there was no way to recruit more people. That's when someone mentioned that they had heard about the Fire Corps program."

That was seven years ago. Today, Hickey is the Fire Corps Advocate for the state of Oregon, helping other stations harness the power of non-firefighting volunteers. That means opening up the volunteer fire stations to citizens who can contribute their skills



## Helping celebrate 275 years of the Volunteer Fire Service!





◆ A group of volunteer firefighters rests near an ambulance February 18, 2011, after a long night of fighting a fire. The fire destroyed a shopping center, which was home to 14 businesses. These volunteers take time out of their lives and jobs to not only fight fires, but to aid in car accidents and many other hazardous situations in the community whenever the need arises. They are the local heroes of Southbury, CT, a small Southern New England town.

to help the department in ways that allow more time to be freed for the firefighters to do their jobs. Their contributions can range from cooking hot meals to clerical help, custodial work, facilities and vehicle maintenance, fire prevention education, and even various roles at emergency sites such as firefighter rehab and after-theincident support for victims.

For departments that want to create a Fire Corps program of their own, Hickey suggested to first assess what jobs would help the most. "Once you identify those areas, you can reach out to the community for help addressing that need." She also advised against simply asking volunteers for their time if there is no clearcut role for them in the department: It will lead to disinterest on the part of the volunteers.

One example from the Hermiston department: Their fire alarm testing and installation program wasn't having much of an impact in the community because the firefighters' availability was limited. So Hickey approached a local church congregation for help. The firefighters instructed a group of the church's trainers, who then taught volunteers to install the devices. "Before that group helped us, we would average about two installations every couple of weeks," said Hickey. "With their help, we were able to do about 300 installations in a couple hours." In addition, having so many community members helping (and receiving help) has paid off in positive word-of-mouth publicity for the fire department around town.

The Fire Corps program offers two major benefits: It encourages community members who cannot fight fires to have a stake

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in the success of their volunteer fire department, and it allows the firefighters to spend their on-hours concentrating on emergency response and training.

"Remember, these firefighters work a full day at their regular jobs, and then come down to the stations for training or to take calls. Anything that a Fire Corps volunteer can take off of their plates is a gain for them and the department."

As for the Hickeys' marriage, the couple spends more time together, and Stella renewed her appreciation for Kirt's work. "Now when he gets a call from the station, I'm the one pushing him out the door, yelling, 'C'mon, get going. They need you."

#### INCENTIVES FOR VOLUNTEERS

Though many of the outside forces drawing volunteers away from fire departments are economic, some departments have started leveraging their volunteers' needs to improve recruitment and retention. Incentives and benefits are becoming more common at departments around the country.

"The first thing I tell departments is that they have to start by talking to their volunteers to find out [what] kind of benefits and perks they want," said Cash. "There's no point just throwing something out there. You want to make sure it has a benefit for them and it is cost-effective."

In large part, developing incentives means reexamining budgets as well as relationships within a department's township, county, and community. Among the creative concepts, Cash has seen departments offer life or health insurance incentives, length-of-service programs, business discounts, and much more.

The Louisiana State Firemen's Association Tuition Reimbursement Program recently started offering scholarship money to volunteers who make a two-year commitment. After two years of service – verified by training attendance and response to calls – the firefighters receive tuition reimbursement at in-state institutions up to \$8,000 for a two-year degree or \$16,000 for a four-year degree. They are allowed to attend school during those two years, but the money is not given until they have completed their terms of service.

Cash pointed to a department in Cedar Mountain, NC, which has started the Cedar Mountain Bucks program. Volunteers earn this fake currency by attending training, responding to calls, and taking care of other responsibilities around the department. At the department's end-of-the-year party, the department offers door prizes that are donated by local businesses and sometimes bought with the department's budget. Volunteers use their Cedar Mountain Bucks to bid on these items.

"These are nice items: golf clubs, shotguns, trips to the beach for their families, things like that," said Cash. "It has set that department on fire for attendance, and they actually have a waiting list of volunteers who want to join."

Incentives seem to be the future trend for recruiting and retaining firefighters. Sometimes that incentive is a Cedar Mountain Buck, a scholarship, or just making the load on volunteers' personal lives more manageable. With the right combination, any department's recruitment can be – as Cash put it – set on fire.

FIRE CORPS

## SOME ROLES WELL-SUITED TO FIRE CORPS VOLUNTEERS:

- COMMUNITY OUTREACH: Educators and community members
  are perfect for the day-to-day speak-and-greet or educational
  engagements that fire stations usually coordinate with schools,
  church groups, and other local groups. Likewise, volunteers can be
  very helpful in planning social events and fundraisers.
- GRANT WRITING: A skilled grant writer can bring in significant amounts of much-needed funding for a volunteer department.
- ADMINISTRATIVE: Not all volunteer firefighters love working the books. In fact, it might be one of the least-loved jobs around the station, next to restroom duty. That's OK, because there are plenty of people in this world who enjoy balancing the books and organizing schedules. Let them help.
- VEHICLE MAINTENANCE: Every community, no matter how small, has certified mechanics. It's just a matter of finding one who is willing to donate some time to help keep the vehicles in top shape. A reliable volunteer in this role can create significant savings over the course of a year.
- MAINTENANCE AND COOKING: After an evening on emergency calls, most firefighters just want to get home to their families.
   Returning to a clean station and maybe even a warm dinner goes a long way toward making them feel appreciated. That's where retention comes from.
- REHAB AND CANTEEN SERVICES: During long incidents, firefighters need periodic rest, rehydration, nourishment, and medical evaluation, which are services community volunteers can provide.
- EMERGENCY COUNSELORS: Fire stations in Oregon have started experimenting with trained emergency counselors. It's a role often performed by Red Cross volunteers and chaplains, but in this case, they are trained by the department and arrive on scene with emergency responders to comfort and advise victims, allowing the firefighters to do their jobs more effectively.
- PHOTOGRAPHERS: It takes some training, but a station photographer can be an asset in collecting evidence for later use. It is also helpful in documenting how a fire was fought or an extraction was handled (for later training or possible legal defense).

For more information on starting a Fire Corps program at your station, click on the "Departments" tab at www.firecorps.org. The Fire Corps program is administered by the National Volunteer Fire Council.

## WOMEN IN VOLUNTEER FIREFIGHTING

By Vera Marie Badertscher

obody knows precisely how many women serve as volunteer firefighters, although the International Association of Women in Fire and Emergency Services (iWomen) estimates the number to be around 35,000 to 40,000. Numbers vary widely from community to community.

There are volunteer departments with no women and there is at least one department made up entirely of women. Ronny Coleman, president of the National Fire Heritage Center and retired California State fire marshal, estimates from his experience that women make up 5 to 10 percent of volunteer companies.

Talking to volunteers from Cape Cod to Oregon showed that there is a general consensus about what the barriers are to recruiting women, what challenges women face, and particularly what rewards they find in signing up for their volunteer fire departments.

#### **HISTORY**

According to iWomen, the first woman firefighter was Molly Williams, a slave in New York City who became a member of the Oceanus Engine Company #11 sometime around 1815.

A few decades later, an heiress named Lillie Coit became firmly associated with firefighting in the public mind. Coit was a teenager in 1859 when she saw that the Knickerbocker Company #5 needed help dragging an engine to a fire on Telegraph Hill in San Francisco. Not only did she drop her schoolbooks to lend a hand, she exhorted people along the way to follow her example and help. Coit spent her life supporting the Knickerbocker Company, and although she was never a full-fledged firefighter, she was made an honorary member.

Coleman tells the story of Civil War days when firefighters were recruited to fight for the North. An entire division was made up of firefighters from New York City, but when they reported for military duty, officials discovered that a significant number of the New York Company were women. The women, who had joined

the firefighters just so they could fight in the war, were promptly kicked out of the Union Forces.

When the volunteer organizations in the East began to shift to career departments in the mid-1800s, women were generally not wanted. Over the ensuing decades, however, women gained acceptance in both career and volunteer firefighter roles.

Today, women volunteers are a valuable part of fire departments all over the country. At the Stayton (OR) Volunteer Fire Department, nine women currently serve in active firefighting roles out of a total of 55 firefighters, and all support roles are filled by women. One female member of the department, Capt. Sherry Bensema, has been there for nearly 20 years.

#### BARRIERS TO RECRUITING

Coleman, who conducts classes in recruitment and retention for California volunteer firefighters, lists four major problems that volunteer departments face in recruiting anyone – and some particularly apply to women.

#### 1. Competing time priorities of work commitments, commuting to work, and family life.

Women have historically been seen as the primary caregivers for children, and while that is changing, it continues to hamper women's ability to be on call. Women's willingness to volunteer has dwindled as more women hold down paid jobs, as well as care for their families.

#### 2. Poor leadership and lack of recruiting skills.

Because most leaders are also volunteers, the amount of time



#### "Women's history as volunteer firefighters is much longer than in the career sector, reaching back over one hundred years."

Many Faces, One Purpose: A Manager's Handbook on Women in Firefighting from the U.S. Fire Administration, available as a Google e-book

they can devote is limited. Coleman also finds that many departments simply do not understand how to find and actively recruit new volunteers.

#### 3. Increased training requirements.

Because of more sophisticated equipment, increased safety awareness, and statutory requirements, volunteers face more hours of training to become a firefighter and to maintain their positions than they did 20 years ago.

#### 4. A volunteer firefighter cannot schedule her own time.

If you volunteer in a library or school, you can pick the hours most convenient to you. However, in volunteer firefighting, when you are on call you never know what may be expected and how long you will be involved.

#### **ACCEPTANCE**

One frequently mentioned barrier specific to female volunteers is gaining acceptance in a mostly male environment.

Sabrina Steger, a volunteer in Reidland-Farley District in Paducah, KY, tells a story that illustrates how men also may face difficulties adjusting to having women in the department:

I've had one guy at this department who doesn't think women belong in the fire department. He joined after I did. He came from the northeast somewhere. In some departments, a different color helmet means different titles. In his department, a red helmet signified a lieutenant. In our department, all certified firefighters have red helmets.

He came to his first fire and he saw a woman get out of a car in rubber gear and there was a red helmet, and ... he thought, "I have to report to her?" and it didn't set well with him. Until he finally figured out everybody had a red helmet.

Steger says that although she had her run-ins with this guy until he decided she was not going away, they are now friends.



♣ Acceptance in a mostly male environment can pose a barrier to women volunteer firefighters.

Women may have doubts, too. Bensema has met women who do not think they could do the job. But, she pointed out, you do not know until you try.

Marcia Sirls, of the Aurora-Ross Fire District in Kentucky, noted physical challenges that some women must overcome. Shorter women may have trouble reaching things on the trucks. Like new male recruits, women new to the job may be slower. A lot of the equipment is very heavy – particularly hydraulic rescue tools like the Jaws of Life – and may take more than one person to lift or use. Sirls also mentioned a twist on the acceptance issue: The men may want to do things for the women, either because they think they have to be chivalrous or because they become impatient.

Becky Hartley, who volunteers with not one but three Kentucky departments, serves as volunteer trustee for iWomen. Her advice to women who may be intimidated about joining a male-dominated department: "Don't be afraid. There are more good apples than bad [among the men in volunteer groups]."

As a new trainee, she didn't think she was ready to fight a fire, but, she said, she learned she was.

"We got called out on a mutual aid call with another fire department and I rolled up and got out in full turnout gear. I went to the guy in charge and said, 'What do you want me to do?' He said, 'I want you to take that hose and take it over there and put water on that building.' 'Really? Seriously?' I said." He assured her she was ready. She knew she had earned respect.



**♦ Left:** Volunteers (left to right) Victoria Jackson, Becky Hartley, and Sabrina Steger prepare for smoke trailer training. Right: Women volunteers with the Latir (NM) Volunteer Fire Department pictured during a training drill.

#### **EQUIPMENT**

Another obstacle unique to female firefighters is the practicality of finding gear sized for women. Jack Carriger, chief of the Stayton (OR) Fire District and second vice chair of the National Volunteer Fire Council (NVFC), said boots are the hardest thing to fit for female firefighters, but his department has never turned anyone away because of size issues. Kimberly Sylvia, a volunteer in Cape Cod, was presented with \$300 boots by her mother as a college graduation present, but others say departments' budgets for replacement equipment make allowances for the needs.

Investing in equipment may take a big hunk of change, since, as Sirls pointed out, a full suit can run \$4,000. Sirls said that although there are not separate lines of equipment for women, her chief insists that every person must be measured and individually fitted.

"I got hand-me-downs for about a month," Sirls said. That is common in her department, but no one goes more than four to six weeks without being custom fitted. "Basically the time is to make sure the new volunteer is going to stay," she said.

#### **REWARDS**

Hartley described the swell of pride she experienced as a new firefighter, and certainly such pride provides one motivation for women volunteers. Community service is another. Sirls feels satisfaction when people tell her "thank you" because it shows she is able to help her community in a time of need. "It's the satisfaction of knowing you're helping people on the worst day of their lives," said Sirls.

And for potential volunteers, both women and men, who want to give back but still have reservations about the job, there are many options. "Not everyone has to do interior attack," said Steger. "There are lots of other ways you can help your community. You can help with rehab, rolling the hose, traffic control ..."

Steger said her volunteer fire service has helped her cope with a personal tragedy and enabled her to give back to the community that was supportive in her own time of need. She also finds it rewarding after her visits to schools to hear a kid at Walmart say, "There's the girl firefighter!"

Hartley said that the excitement pulls some people in. Although it is not for everyone, "When you hear the alarm call, you never know what's going to happen. There's the adrenaline rush." She said she saw all the TV shows and movies, but as soon as she answered the call herself, "I got it. I choose to do it. I like it. I love it."

For Sylvia, the motivation is to prove she can do it — "it" being whatever she is called upon to do. Sylvia volunteered as a stepping-stone to a full-time firefighting career.



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☼ Left: Women volunteers smile after successfully extinguishing a wildland fire. Right: Women volunteers bring "a woman's touch" to the job, and reflect the demographics of the communities they serve.

Some women, like Hartley, joined because their husbands were volunteer firefighters. Others had fathers in the field. Bensema was inspired by her mother who, at 70, has been a firefighter for more than 30 years. While her mother "... does not do interiors anymore," said Bensema, "she still turns out for calls" — and she takes karate lessons.

Bensema said the real reward is building your self-confidence. "In many jobs you don't get to see your results. But in this job, there's a beginning and an end. You see results immediately. It is very fulfilling."

#### ADVANTAGES TO DEPARTMENTS

While women have proven they are fully able to do "a man's job," they also bring a woman's touch to the volunteer work. Sylvia, like many women, loves working with kids, giving tours, and conducting educational activities. She also said of medical emergencies, "If it is a female patient, a female crew member can relate to the patient and often they'll be less intimidated."

Steger said that women volunteers "might be the ones people can talk to," and that they could be more likely to take the extra step of grabbing some pictures off the wall. Getting that precious picture might seem like "a girly thing," Steger said, but, "People will think more highly of the fire department if you give them the pictures instead of just destroying all their furniture" in the course of putting out a fire.

Bensema said women can compensate for strength and size by being better organized and thoughtful. "You have to figure out how to do [the job] without sheer muscle and sheer bulk."

At any rate, Coleman tells his recruiting classes, "The volunteer department is the community and the community is

the department, so firefighters need to reflect the demographics of the community."

#### SUPPORT FOR WOMEN VOLUNTEERS

Women can find many resources to help them learn and encourage them. Girls can attend junior firefighting camps or join junior firefighting programs (find resources at www.nvfc.org/juniors). Online resources and publications for women volunteers are available from the iWomen web site at www.i-women.org.

In Western Kentucky, Steger and Sirls started Women Firefighters of Western Kentucky (WFWK), a women's training program that they hope will help retain women and encourage new recruits. Although Steger is the only woman in her department, Sirls has seen five more women join her department since she started in 2005. While there are other groups for women, this one is unique in offering regular, twice-monthly training adapted for female volunteers.

Echoing Bensema's remark that women need to apply thought to compensate for muscle mass, women training together in Western Kentucky learn ways to address strength and height issues by adapting their methods, like walking a ladder instead of carrying it and using leg muscles, where women typically have more strength, to compensate for potentially less arm strength. The women trade tips on discoveries they have made, get consolation when they have problems, and develop camaraderie. WFWK maintains a mailing list for members and has started a Facebook Group.

As Hartley said, "We have to say, 'Women can't do what? Women can do anything."

## TRAINING

#### BUILDING KNOWLEDGE, SKILLS, AND COMMITMENT

By David A. Brown

enn Fontenot has seen his share of curious onlookers impeding the progress of those responding to a fire. His advice to prospective volunteer firefighters: Don't join the crowd.

"If you show up to an emergency and you can't perform the service you're there to perform, then you're just a bystander," Fontenot said. "If you can't perform the EMS procedures the way you should because you haven't trained, or if you show up at a fire and you haven't put in the time and effort to become proficient at [firefighting], then you're just in the way."

Having served a dozen years as regional fire training coordinator for Louisiana State University Fire and Emergency Training Institute before retiring in early 2012, Fontenot serves on the National Volunteer Fire Council (NVFC) board of directors and teaches various fire service training courses intended to make volunteers much more than bystanders. There are no shortcuts, he said. Rather, undertaking this training is a serious commitment to a serious task.

"Sitting through one class is not sufficient; you have to [train] until you are really, really good," Fontenot said. "I don't like the term 'expert,' but I do like 'competent' and 'proficient' a lot."

#### THE NEED TO KNOW

Ronny Coleman, National Fire Heritage Center president, retired California State fire marshal, and NVFC board member, has seen numerous changes throughout the fire service since donning his first set of turnout gear in 1960. Better training, he said, stands out as one of the most significant improvements the profession has seen. Looking at today's fast-paced information society, Coleman notes that modern fire training imparts a deeper and more diverse body of knowledge. The product, he said, is firefighters who are better prepared to comprehend the job's various complexities and promptly respond to challenging situations requiring quick decisions.

"A kid coming out of a recruit academy at the end of 18 weeks probably knows more than a fire chief did in the 1800s,"

Coleman said. "It's the increasing complexity of modern society. It's the influx of EMS, it's the [changes] in the world of hazardous materials. The body of knowledge has changed significantly. I have training manuals out of the 1920s and I can go back and compare them [with modern manuals] topic for topic. What we expect our firefighters to know today is significantly different."

Changes in awareness, such as a broader regard for hazardous materials (hazmat) and more diversified duties, account for the training upturn. "Right now, the average fire department is looked at more as an EMS agency than a fire department. [Most] of the calls are going to be medical and some of those are not really serious emergencies, but everyone uses 911 to call us," Coleman said.

The NVFC recommends that all volunteer fire departments set a goal that personnel attain, at a minimum, a level of training that meets or exceeds the National Fire Protection Association's (NFPA) 1001 Standard, which is the Standard for Fire Fighter Professional Qualifications, or an equivalent state standard in order to engage in fire suppression. In 2010, the NVFC released a white paper concerning training in the volunteer fire service, available on the organization's web site at www.nvfc.org. The NVFC is committed to ensuring that volunteer firefighters have an appropriate level of training to safely and effectively carry out their responsibilities.

Certification systems vary by state, but Fontenot said that every volunteer firefighter must complete two levels of hazmat training (awareness and operations) before being trained and certified against the NFPA 1001 Standard. Individuals undergo this training to establish their competencies in core abilities that certify them as a Basic Firefighter 1.

In Kentucky, State Fire Rescue Training Division Director Bryant Stiles follows a very pragmatic approach. "The basic certification centers around the concept that when a family member or any citizen dials 911, they want – and have the right to expect – a competent responder to arrive at their scene,"

❖ Firefighters lead a hose into a smoking structure during a fire training exercise at the Tarrant County College Fire Academy training facility in Fort Worth, TX.

Stiles said. "We've looked within that NFPA 1001 Standard and it has what we term 'Job Performance Requirements' – here are the things you must be able to do: flow water, wear a breathing apparatus, climb ladders. Those are the basic components that allow you to go in, provide fire suppression and fire education safety programs for the public.

"I want the responders to be able to function within his or her bunker gear and breathing apparatus. I want them to be able to use the basic tools—hoses, nozzles, ladders. I want them to be able to perform the basic functions of search and rescue, ventilation of a structure, salvage and overhaul, and then, most importantly, those responders must be able to effectively communicate with each other and with their command structure throughout the incident for their safety."

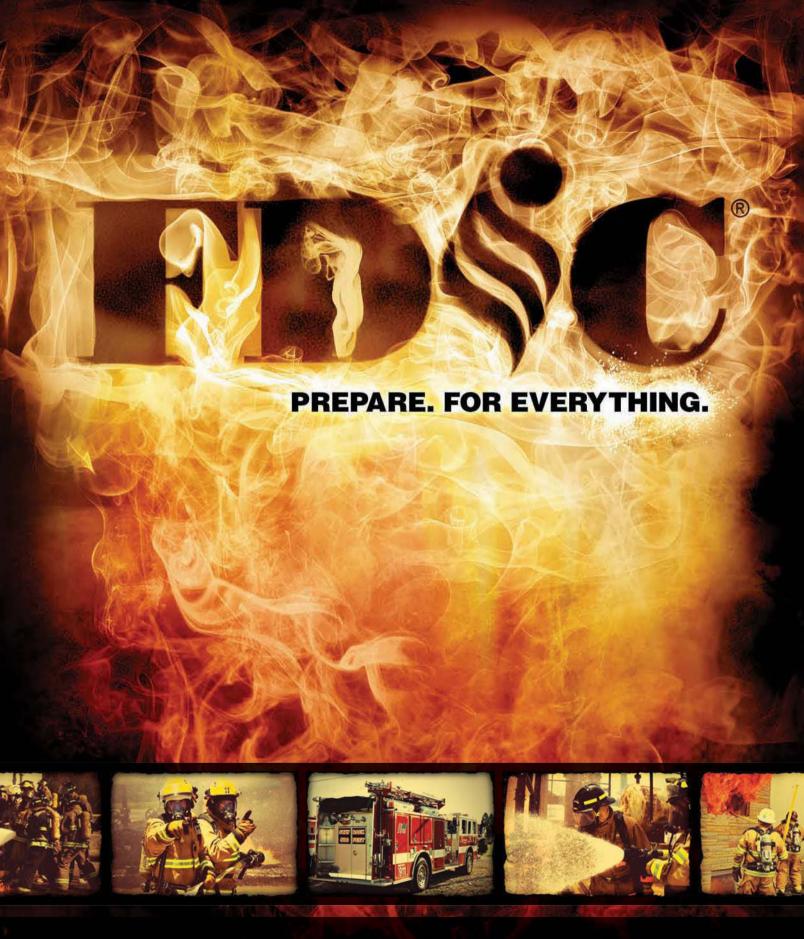
The NFPA 1001 Standard does not distinguish between volunteer and career firefighters for good reason. On any given day, volunteers may be called upon to perform the same tasks with the same level of risk as their paid counterparts. In the face of emergency, neither is any more or less important and that's why the need for knowledge and basic skills remains universal.

"As a training specialist, I do not differentiate between career and volunteer within the curriculum lesson plans or knowledge and skills requirements for my responders when we're looking at the Basic Firefighter I capabilities," Stiles said. "When you're going into a [burning building], fire does not behave differently when a volunteer is coming in than when a career firefighter is coming in. Both are coming into a fire that behaves the same way and they both need to have the same abilities to fight that fire."

#### REMAINING CURRENT

Continuing education (CE), an important element in a volunteer firefighter's ongoing service, also varies based on where they





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A group of firefighters trained at the Enchanted Circle Regional Fire Association's annual structure academy. The association includes 19 member departments, and both volunteer and career firefighters have the opportunity to train at the academy to keep their skills sharp.

serve. For example, Kentucky volunteers need 20 CE hours annually. Louisiana, on the other hand, has no set level for CE hours, but the Bayou State requires volunteers to renew their hazmat certification for the level at which they're currently working every year and their medical training every two years. Fontenot, who teaches a first responder medical refresher course, noted that, in OSHA states, firefighters have several recurring classes such as blood-borne pathogens and infectious control.

In general, Stiles explained, NFPA 1001 requires firefighters to have continuing education – knowledge and skills – that allows them to remain competent to serve the public. However, needs and challenges differ greatly throughout the nation, so regional requirements reflect these localized expectations.

"That works great, because while there is a basic level of competency that [firefighters] must have, there are differences from state to state," Stiles said. "For example, what a firefighter might need to know in Oklahoma might be different from what he needs in Vermont, due to weather, terrain, type of construction, type of area where they serve — an urban area or a rural area. These differences allow a state to tailor their training and certification

programs for the needs of their citizens and the firefighters who protect those citizens."

#### LEARNING OPTIONS

When making plans for their training, today's volunteer firefighters have options for where and how they train. Some participate in staterun training programs, while others turn to national opportunities such as the U.S. Fire Administration's National Fire Academy (NFA). Through its Volunteer Incentive Program, the NFA offers a time-effective version of the popular two-week courses it conducts year-round on its Emmitsburg, MD, campus. Considering that most volunteers would have difficulty committing to a 14-day stretch away from home, it offers an intensive six-day training option that compresses the schedule while maintaining quality and content. The NFA covers the cost of airfare, lodging, and books.

The NVFC (www.nvfc.org) and other organizations also offer a variety of online and in-person courses to help enhance firefighters' knowledge and meet continuing education requirements. Many universities, such as Columbia Southern University and American





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Public University, offer online degree programs in fire science and related fields. Such flexible learning options help ease the schedule demands of volunteers who may also juggle family and career priorities. Opinions vary on when and how training is best accomplished, but versatility and convenience are fair expectations for the digital age.

"We, in Kentucky, see great value with instructor-led training that has a hands-on component to it," Stiles said. "The basic fire service training is a labor-intensive training. But at the same time, we realize that in this day and time, there are many demands on our volunteers and they must be given the best opportunities for obtaining the training they need."

Essential to this ongoing objective, Stiles said, there is a concerted effort on the part of trainers nationwide to closely examine not only what they teach, but how they teach. Individuals learn at different levels, but dialing in the general parameters makes online learning increasingly effective.

"What we're working toward is making sure that the online learning is not just a process for generating certificates but it's a process for generating competency," Stiles said. "I think that we're starting to learn how people learn online. How long should the program be? How long can a student sit at a computer? How should the program be laid out?"

Lectures, slide shows, hands-on exercises — all can benefit the volunteer's training, but an integrated approach often offers the best blend of mental and tactile learning. Online courses followed up by live, on-site instruction that reinforces the digital lesson is a system that Stiles appreciates, but he said there remains a high value for the face-to-face approach among the nation's trainers — particularly in terms of continuing education.

"We're exploring some great options and opportunities for the fire service to learn," he said. "Online learning is a system where you can deliver a great amount of training to a great mass of responders. When you look at the thousands and thousands of firefighters that we need to train, the easiest way to reach them is through distance learning.

"At the same time, we have states that still value that handson approach where the responder has a nozzle in his hand, that he is throwing water, that he has a breathing apparatus on his back, and he is experiencing the skills and challenges of being a firefighter. We can not only reinforce learning that he had before; we can update him on the new techniques with knowledge and skills."

#### **KEEP IT IN PERSPECTIVE**

Regardless of how a volunteer learns or where they serve, they have to, as Stiles termed it, "Put the wet stuff on the red stuff." He goes on to point out that whatever the cause of an emergency, all disasters begin and end locally. That's a pretty clear motivation for a community's volunteer firefighters to obtain the best training and preparation possible.

"We [stress] that our responders have to be able to get water on the fire," Stiles said. "It is critical to any response that, in a timely, safe fashion, we can get firefighters into their bunker gear



Online learning is an increasingly effective option for volunteer firefighters to meet continuing education requirements in a way that works with their individual schedules.

and breathing apparatus, get hoses and nozzles off the apparatus, water supply established, hose lines with those responders in the front door, and get water on the fire.

"That is the best way that we can get a level of protection between that critical incident and the citizen. We want to get between the problem and the citizen."

Fontenot pulled no punches when he described the volunteer training process as "long." No sense sugar coating the truth – this is definitely one of life's roads that will quickly weed out those with anything but profound resolve.

"By the time [a volunteer] completes the basic training process, it's pretty lengthy," Fontenot said. "It can go from 150 to 200 hours. I would certainly pass that along to new applicants. There is a time commitment up front to become certified."

For those willing to make the commitment, Fontenot frames up the bottom-line objective with this query to volunteer trainees: "I ask them, 'If you or a family member – mother, father, wife, husband, child – was involved in an emergency, what quality of firefighter would you expect to respond?' Then, I point out that they need to be the same quality when they go out and provide service to the public.

"This gets [volunteer trainees] in the mind-set of how valuable our service is. It's not a catch phrase; it's a philosophy that what we expect, we should become, if we're going to provide that service."

# EQUIPMENT EVOLUTION KEEPS VOLUNTEERS SAFE AND EFFECTIVE

By David A. Brown

he job of volunteer firefighters has remained relatively constant over the 275-year history of volunteer firefighting in the United States in that the principal task of suppressing flames hasn't changed.

How these brave guardians perform that duty, however, has evolved, and how they do their job comes down, at least in part, to how well they are equipped. Thankfully, today's volunteer firefighters find that modern equipment protects, facilitates, and fits like never before.

Ronny Coleman, a retired California fire marshal and NVFC board member, has witnessed and personally experienced a vast range of equipment development over a career dating back to 1960. Today, as president of the National Fire Heritage Center, he believes the most impressive advancements have occurred in the vital area of personal protective equipment (PPE).

Indeed, extensive testing conducted by regulatory agencies in the 1970s, along with the proliferation of National Fire Protection Association (NFPA) standards and the ingenuity of private enterprise has presented today's volunteer fire departments with the highest level of protection the job has ever seen. Recalling a simple black rubber fire coat from his early years, Coleman said that today's volunteers have access to helmets, gloves, boots, pants, turnout coats, and self-contained breathing apparatus (SCBA) that have improved greatly in recent decades.

"There have been significant, if not downright revolutionary, changes in the requirements for PPE," Coleman said. "PPE has advanced [further] in the last 25 years than it did in the previous 300."

Rob Freese, senior vice president of marketing for Globe Manufacturing, has observed many of these changes – and what he hasn't personally seen, he's learned through family history as one of the fourth-generation owners of the company. Globe Manufacturing celebrates its 125th anniversary of turnout gear innovation

this year, and Freese said that while his company maintains some of its original concepts, it has also striven to respond to the changing landscape in which volunteer firefighters function.

"Back in the old days, when my great-grandfather first invented this stuff in 1887, it was really about keeping firefighters warm and dry in New England," Freese said. "That was a three-layer system – an outer shell, a moisture barrier, and a thermal liner. That's essentially the same as the garments we have today."

The difference, Freese noted, is that while the first two-thirds of the 20th century saw most fires fought from an exterior approach, this changed dramatically in the 1960s as the SCBA made its way into the fire service. The ability to breathe freely while inside a burning building launched a new age of turnout gear.

In the early '70s, DuPont introduced a new flame-resistant fiber called Nomex to replace chemically treated fabrics that eventually lost their protective properties with wear and wash. This revolution in turnout gear would expand throughout subsequent decades, as other new materials such as Kevlar® and PBI became available. Moisture barriers advanced from rubber coatings to breathable, high-tech films that also provide resistance to chemicals and blood-borne pathogens.

For years, comfort received little consideration in the design of firefighting gear. Today, turnout gear manufacturers display a contemporary concern for form as well as function. Contrasting with the largely utilitarian garments of decades past, new options combine comfort with decreased bulk for a freedom of movement that optimizes job performance.



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"Typically, firefighters had been purchasing gear that was made for the upper [90th] percentile of average individuals," Freese said. "You'd do a chest measurement, a waist measurement, and an inseam and that was it."

Now there is a move away from average sizing to producing turnout gear with a wide range of "fits" that are more tailored to each individual. Gear that fits better not only provides more comfort for the firefighter, it also provides increased safety.

#### MAKING IT BETTER

As modern garment production continues its quest for the next improvement, manufacturers have increasingly sought ideas and input from those who best understand what turnout gear should be: the firefighters. Improvements borne of deeper understanding have sprung from focus groups that ask firefighters key questions such as: What do you like about your turnout gear? What do you dislike? What would you change?

Now there is a move away from average sizing to producing turnout gear with a wide range of "fits" that are more tailored to each individual. Gear that fits better not only provides more comfort for the firefighter, it also provides increased safety.



The Elkhart Brass Rapid Attack Monitor allows a single firefighter to deliver a consistent stream quality in all ranges of motion.

Manufacturers also use market analysis and scientific data to best understand what gear should be. Doing so has enabled manufacturers to assimilate cutting-edge concepts from textiles to physiology into their garments. One of the newer areas of advancement is moisture management like that of high-end athletic wear.

"Looking at statistics over the last couple of decades, when you look at debilitating injuries and deaths, it's centered much more on the limitations of the human body with regards to exertion and heat stress than it has been about burns," Freese said. "I think the whole first century of our company we focused everything on protecting firefighters from the environment. Now, we're trying to [include] all of those attributes and get to a garment that works better with the human inside."

#### Other examples of development in firefighting equipment include:

A Breath of Fresh Air: SCBAs have undergone many changes to improve safety and performance, with modern improvements such

as optimal harness padding, built-in safety ropes, and handles for lifting a downed firefighter. Avon Protection equips its Viking Z Seven SCBA with a personal communication system that features a large push-button design and a voice amplification system with 10 levels to eliminate breathing noise. A larger air cylinder wheel makes adjustments easier with gloved hands, while a luminescent pressure gauge increases visibility in smoky environments.

Coleman said many fire departments now utilize carbon monoxide detectors to prevent firefighters from removing their SCBAs while CO levels remain too high. Companies such as Scott Safety and Masimo also make multi-gas monitors that detect potentially harmful levels of combustible gases, oxygen enrichment or depletion, carbon monoxide, and other invisible dangers.

"In the old days," Coleman noted, "we would take our masks off, [take a big whiff] and if it smelled bad, we'd put our masks back on. Big difference today."

Exposure to cyanide and other harmful substances in burning structures remains a concern for today's firefighters. Modern PPE, when used properly, does a good job of insulating



♣ Fire engines often carry a variety of equipment such as SCBAs, ladders, axes, cutting equipment, hoses, hose ramps, and other general tools.

firefighters from potentially toxic environments, but the pharmaceutical industry has recently devoted specific R&D efforts to the development of treatments for cyanide exposure.

Keep In Touch: New for 2012 is Globe's Wearable Advanced Sensor Platform (WASP), a flame-resistant T-shirt with an embedded monitoring sensor that measures vital statistics such as respiration and heart rate and transmits the data to an incident commander or on-scene rehab center. Integrating a moisture management design that works in concert with the turnout gear's thermal liner, moisture barrier, and outer shell, WASP identifies which firefighters are going to need more rehab time and thereby helps minimize debilitating injuries on the fire scene. This high-tech garment also includes geospatial tracking that can monitor a firefighter's movement throughout a structure to within six feet.

"If you have a downed firefighter, it alerts you quickly because you see his status and you know his current location," Freese said. "This will dramatically reduce the time it takes to go in and find him. That's a firefighter's greatest fear — they or their colleagues are down and you can't get to them because you don't know where they are."

Avon Protection's EchoTracer beacon and EchoSeeker tracking device assist in locating downed team members, while an integrated Telemetry Electronic Air Management System relays SCBA information that enables command centers to monitor cylinder pressure, real-time temperatures, Personal Alert Safety System (PASS) status, and SCBA battery status. If any concerns arise, command can recall individual firefighters or the entire team.

High frequency 2.4 GHz radio frequency gives the Scott Pak-Tracker Firefighter Locator System the reach needed to facilitate the rescue of firefighters who may be trapped in a building collapse or lost in a multistory structure. With a maximum line-of-sight searching distance at greater than 900 feet, the system creates a more direct path to a downed firefighter and it functions as a stand-alone instrument or integrated into Scott Air-Pack SCBAs.

Elsewhere in the field of electronics, Coleman points to communication systems as an invaluable element of firefighter safety. Many volunteer firefighters, he said, are carrying individual pack set radios of remarkably tiny proportions.

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level of individual firefighters," Coleman said. "[They're] not [necessarily implemented] everywhere, but that's the state of the art. The reason for this is a combination of the need to maintain control of firefighters for their own safety and the miniaturization of the technology. My original pack set probably weighed 40 pounds. The pack set we have today could fit in a shirt pocket."

Heads, Hands, and Feet: Time certainly honors the accomplishments of yesteryear – the helmet Coleman designed in 1960, sans right angles for projectile deflection, is still used today. Elsewhere, technology has added new features such as the TrakLite Integrated Lighting System of a Bullard classic helmet and the Bullard LT Series Quick-Attach Blade System, which enables the firefighter to press on or off either a blade-mounted face shield or blade-mounted goggle in seconds.

Gloves, while once intended mainly for keeping hands dry and improving grip, now bear R&D fruits such as wrist protection and cut resistance. HexArmor's Chrome Series are made with Super-Fabric material with enhanced cut resistance and feature oil- and

abrasion-resistant synthetic leather palms with PVC grip enhancement and  $Slipfit^{m}$  style cuffs.

Because fires aren't always fought on flat, even surfaces, Globe offers its Athletic Footwear for Firefighters – a lineup providing firm support that has been shown to facilitate a more natural gait and reduce slip-and-fall injuries. And with no steel in the construction, these slip-on and speed lace style boots have no heat/cold transfer and they're less susceptible to electric arc.

Getting There: The widespread conversion from gas to diesel engines in the '80s and '90s increased performance and fuel efficiency for firefighting apparatus while decreasing maintenance needs. Also, the adherence to NFPA 1901 (Standard on Automotive Fire Apparatus) has made vehicles like the Pierce Dash CF safer and more comfortable for firefighters. Meanwhile, changes in tools of the trade have also influenced the design of fire apparatus.

"Specifications for equipment have become more intense and equipment has become both larger and smaller at the same time," Coleman said. "By adding more and more stuff on a piece of fire

## VOLUNTEERING

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Front row, left to right: Rod Carringer, Michael Hammonds, Matt Szafranski, Tom Herman, Ron Prast Back row, left to right: Doug Heller, Brian Podsiadlik, Dwayne Tate, Eric Haverstock, Jason Peters



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apparatus, some of our apparatus have reached gargantuan sizes. But, at the same time, technology has allowed for miniaturization of [some items]."

Coleman also noted that the addition of EMS services to modern firehouses requires apparatus to carry more medical equipment, so the need for more and diverse storage has increased the demands for space-efficient design. Additionally, modern firefighting apparatus has also reflected developments in the automobile industry. For example, onboard computers monitoring the vehicle's performance and efficiency instantly alert the operator to any potential problem areas and will actually shut down the apparatus if it falls short of minimum safety thresholds.

The Telstar by Spartan ERV (Emergency Response Vehicles), which debuted in spring 2012, boasts a 138-foot telescopic and articulated aerial platform with an up, over, and down range of motion that allows firefighters to reach over parapets for roof rescues, clear power lines and trees for access, and make below-grade rescues. Additional features include greater compartment space and room for a high-capacity pump, while 129 feet of ground ladder storage makes it the only articulated boom platform to be classified as an "all-response vehicle."

Rosenbauer, whose lineup includes pumpers, aerials, rescue trucks, tankers, and urban interface apparatus, has addressed the costly issue of idle time with its GREEN Star idle reduction system. The Diesel Particulate Filters (DPF) necessary for EPA emission regulations can become clogged due to frequent idling, but GREEN Star's Auxiliary Power Unit bypasses the main chassis engine to decrease strain on the DPF. GREEN Star yields significant fuel savings, reduces maintenance expense, and minimizes a fire department's carbon footprint.

See the Problem: Clear vision is an uncommon luxury for fire-fighters, but thermal imaging cameras enable them to peer through smoke and darkness to observe the fire scene and plan the safest and most efficient approach. For instance, Scott Safety offers a compact handheld imager, the Eagle Attack, which provides high resolution and sensitivity for clear imaging and high degree dynamic range. Accessories include a vehicle-mounted charger, a glare shield, a retractable lanyard, and a rail mount for aftermarket accessories (flashlight, laser, etc.).

Stay and Spray: On scene, today's volunteer firefighters have a much broader menu of fire suppression options than the straight bore tips and simple fog nozzles that Coleman recalls from decades long past. Today's nozzles, like the G-Force series of fixed, selectable gallonage, and automatic nozzles from Task Force Tips, offer a wide array of nozzle options for water and Compressed Air Foam Systems. For extended applications, monitors like the Elkhart Brass Rapid Attack Monitor enable firefighters to deliver large volumes of water from an unattended position.

Until some fail-safe 24/7 fire prevention device makes its debut, society will never lose its need for firefighters. And as long as fires need fighting, those who voluntarily answer the call of duty deserve the utmost in safety, comfort, and performance — whether they wear it, communicate with it, breathe it, drive it, or spray it.

Coleman concluded: "We're still fundamentally fighting fires manually, but we're more focused on the use of technology for firefighter safety."

"By adding more and more stuff on a piece of fire apparatus, some of our apparatus have reached gargantuan sizes.

But, at the same time, technology has allowed for miniaturization of [some items]."

FIREFIGHTER FUNDING

## FUNDING FOR FIREFIGHTERS

ew volunteer fire departments have stable funding bases and, although there's no universal formula, a few common strategies exist. For starters, FEMA's Assistance to Firefighters Grant program provides funding for equipment, training, and supplies, while repositories like FireGrantsHelp.com provides members of the fire service with grant listings and application assistance. Local government support varies by community, and public-private partnerships often play a key role in generating resources. However, imaginative volunteer departments can shake loose a lot of green with a good old-fashioned fundraiser.

Retired California fire marshal Ronny Coleman jokingly nodded to the "3 Bs" — bingo, breakfast, and boots. No doubt, firefighters have flipped many a pancake, hosted lots of game nights, and held out those boots at busy intersections. However, the more motivated and innovative departments make fundraising a year-round activity, with multiple events offering the public diverse opportunities to donate through interesting — and often interactive — events and activities.

Fundraising events may include safety fairs, open house weekends, and sponsored athletic events. Business-savvy departments may also generate positive cash flow by leasing out their property for cell phone tower placement or renting their banquet halls for conferences, weddings, and other social events.

"The only limitation to volunteer funding is creativity of the local fire chief," Coleman said. "It's creativity and strong community relations. Some departments have trouble [raising money] because they remain obscure behind closed doors. To the opposite end of that spectrum, the firehouse is the center of the community. The most successful firehouses are the ones that treat themselves as if they ARE the community."

## COMMUNITY CONNECTION

BETWEEN EMERGENCIES. VOLUNTEER FIREFIGHTERS BOND WITH THOSE THEY SERVE

By David A. Brown

sk Shannon Ryder why she serves as a volunteer fire-fighter – in addition to her full-time job as a career fire-fighter – and she'll tell you it's about showing her three kids the importance of giving back to their community, helping others, and being part of something bigger than yourself.

That "something" larger than she was became hugely important to her, and a traumatic event cemented her appreciation for and her commitment to the selfless servants protecting her community.

Ryder joined the Vadnais Heights (MN) Fire Department as a volunteer firefighter in 2003, six years after volunteers from that very department pulled her from a battered vehicle following a serious accident that left her unconscious with severe internal injuries.

"I was pronounced dead at the scene," Ryder recalled. "The guys that I now serve with extricated me from my vehicle. We laugh about it now, but in real life, they were a part of me surviving."

In her career job as a firefighter/standard technician with the Spring Lake-Blaine-Mounds View (MN) Fire Department (SBM) – a combination department with strong support from public education and Fire Corps volunteers – Ryder edits and updates policies, general rules, and standard operating procedures when she's not "running into burning buildings." There's plenty of the burning building stuff on the volunteer side, too, but for Ryder and all who freely give their time to the communities they cherish, there's also a lot of non-emergency interaction with local citizens.

#### **EDUCATION AND OUTREACH**

"For the most part, people think we run into burning buildings every day and we don't," Ryder said. "There are a lot of other things that we do."

Although the pulse-pounding reality of suppressing a real fire and rescuing real people in real danger may be the most captivating part of the volunteer firefighter's job, the men and women dedicated to public safety have much more to offer the communities they protect. Stella Hickey, who serves as the secretary/treasurer for the Oregon

Volunteer Firefighters Association and is the Oregon State Fire Corps Advocate, said that parades are a popular community awareness tool for her state's local departments. In Sebring, OH, a parade that brings in fire departments from throughout the region is part of the volunteer fire department's four-day Fireman's Festival, which also includes rides, food, and educational activities.

Some volunteer stations reach out to the public with open house events that offer lots of visitor-friendly information like safety tips for the home and fire extinguisher demonstrations. On the flipside, volunteers often visit homes throughout their community and conduct safety checks and smoke alarm installations. Ryder said SBM personnel – career and volunteer – periodically visit a local restaurant and encourages kids to draw an emergency escape route. Those who do so enjoy an ice cream treat – compliments of the house.

Across the country, volunteers frequently provide safety education in schools and at hospital health fairs. Ryder joins volunteers from each of her departments to present fire prevention messages to students from elementary to high school. The "Stop, Drop, and Roll" explanations work well for the younger kids, while presentations to older students progress into first aid and CPR. High schoolers enjoy hands-on — make that "gear-up" — activities during which the volunteer firefighters allow the students to wear their personal protective equipment (PPE) and actually extricate a crash dummy from a staged auto accident scene.

"There's a lot of fore training that goes on prior to that day, but when we bring the equipment out, that's a fun day for them," Ryder said.

SBM has also targeted local high school students for a pre-prom presentation on the dangers of drinking and driving in order to raise awareness and prevent tragedies.



♦ At the annual Night to Unite event, the combination Spring Lake Park-Blaine-Mounds View (MN) Fire Department meets with neighborhood watch groups. While the children check out the fire trucks, the adults receive safety information and fire department information.





**♦ Left:** Bucket rides are fun for community members, but they also provide an opportunity for firefighters to relay safety information and build rapport.

Right: Out of interest for the safety of community members, the Spring Lake Park-Blaine-Mounds View (MN) Fire Department holds events to assist in properly fitting bike helmets and selling helmets at cost price.

"We mock up a scene of actual high school kids from their school who get into a crash and we respond as if it were real," she said. "We demonstrate what happens on an emergency scene like that."

Hickey likes how Umatilla County, OR, has incorporated fire safety into a classic kids' favorite. Through a grant secured by their Fire Corps team, the local volunteer department purchased an inflatable smoke house (similar to a bounce house) designed with fire safety elements that show kids and families potential dangers in homes and how to evacuate in the event of a fire.

Sometimes a volunteer department's community involvement amounts to a lot of laidback fun that further strengthens the relationship. Local fairs and community events offer great opportunities for pleasant face time and subtle awareness exercises. SBM often brings its ladder truck to local events and takes kids up for a bird's eye view from the bucket.

"In 2011, we were supposed to give the kids rides in the ladder truck, but it was so hot, we just opened the master stream and the kids ran under the water," Ryder said. "I think they liked that more."

#### **PUBLIC PERCEPTION**

One of the most significant benefits of community interaction is familiarization: firefighters meet citizens; citizens meet firefighters. Remove the mystery, cut through the mystique, and when people get to know people, a clear picture emerges. Where such transparency dwindles, misconceptions spring forth.

"Some people believe that firefighters are in it for the adrenaline rush, but the majority of them are not in it for that reason," Hickey said. "They're in it to help people. They have the heart to save people and their property.

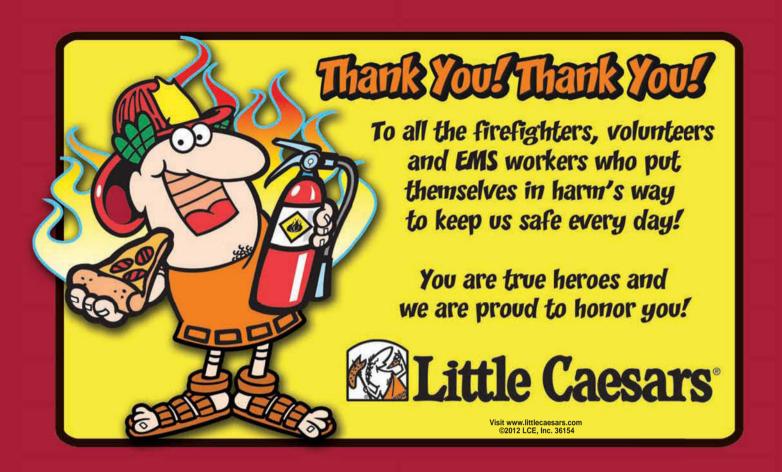
"Most firefighters I have met have been affected at one point in time by an emergency. They had someone who was hurt from their family, or a friend was, or they were personally victims of a fire or a crash where the fire department showed up and they were touched by that. They have this huge sensibility that if they don't do it, nobody else will."

Ryder strongly identifies with that point. "There's a group of the public that loves the firefighters because they think we're heroes," she said. "We're not heroes – we just do what we do because that's what our gift is. We're not any better than someone who has [other] gifts. We're all very proud of what we do."

Hickey added: "Another misconception that most people have is that firefighters are always on call and leave their jobs in a moment's notice. A lot of them think that volunteer firefighters sit at the station 24/7. In a lot of rural settings, volunteers have to come from their homes and other places."

In her role as Fire Corps Advocate for Ohio, firefighter/EMT Candice McDonald strives to communicate the investment of time and effort that volunteer firefighters make in their local communities. Much of this commitment, she said, occurs outside the public eye.

"The general community doesn't realize how much time [it takes] to get and maintain certification to serve as a firefighter. Some in the general public think that because they're volunteers,





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**♦ Left:** Hernando County (FL) Fire Corps volunteers conduct blood pressure checks at a recent Hurricane and Safety Expo. Right: Taking part in events like the Spring Lake Park-Blaine-Mounds View (MN) Fire Department's Night to Unite, pictured here, helps to strengthen relationships between fire departments and the communities they serve.

they are not held to the same standards as career firefighters. In fact, they are held to the same level of training in required certification and ongoing education," she said.

## THE PRICE OF PROTECTION

One particular misconception, Hickey said, provides perpetual motivation for volunteers to perfect their community relations skills. "Most citizens think that all fire departments are funded by taxes, but they're not."

Hickey said that volunteer firefighters pay for their equipment mostly through fundraisers that can range from modest Fourth of July cook-offs to countywide fire safety carnivals. The classic pancake breakfasts and spaghetti dinners are most common, while motorcycle poker runs present another option for the wind-in-your-hair crowd. Hickey lauds the creativity of an Ohio community that holds a "Walk for Firefighters" during which volunteers take to the local athletic track in full turnout gear (at night for cooler conditions). Supporters pledge donations for each lap completed. Vadnais Heights, Ryder's volunteer (paid-per-call) department, raises funds through the sale of T-shirts and a traditional meat/veggie stew known as "fire department booya." These and all efforts to garner public support tend to fare best within established relationships.

"Working with Fire Corps, which is a support organization for fire [departments], one of the things that we have noticed and actually tracked data on is that fire departments that have that citizen connection have greater ability to fundraise," Hickey said. "Just look at the misconceptions out there. A lot of people I talk to say things like, '[The fire department] doesn't need another piece of apparatus,' and they don't know how inefficient the [current apparatus] is. Or some will say, 'It doesn't cost that much to buy a piece of apparatus,' but it costs over \$200,000 to buy a simple, bare-bones piece of apparatus.

"Communities that understand what their departments are doing and see what they're doing – how they affect them, how much money it costs to do the things that they see their volunteers doing – are more likely to financially support their department."

Hickey said that volunteer departments welcome citizens to observe training so they see firsthand the commitment of those who protect the community. Some even invite citizens to walk through entry-level training, often called a "Citizen Academy," to see how deep the loyalty goes.

"A lot of times, citizens don't even realize what it takes to train to be a firefighter and that volunteers don't get paid to train," Hickey said. "After seeing this, [citizens] are more supportive, whether it is financially, whether it is goods and services, or if it is lending support when a bond or levy needs to be passed."

With 38 years of volunteer firefighting service in Long Island, NY, Charlie Kerrigan now works as commander of Florida's Hernando County Fire Corps. Operating under the auspices of the local fire department, his team of community volunteers provides on-site rehab (hydration, check of blood oxygen level and other vitals) for firefighters and sheriff's office personnel to reduce the risks of heat-related debilitation.

"Hernando County Fire Corps also operates a Fire Safety House for local schools in order to provide fire safety education in conjunction with local school districts. Since our inception

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we have had over 3,000 school-aged children make use of the FSH. We also work with the Division of Forestry to promote the Firewise program," Kerrigan said.

Between incidents, the Hernando Fire Corps works in local communities by providing first-aid services at public events and offering free blood pressure checks, CPR training, and safety lessons such as drowning prevention. Throughout his career, Kerrigan has found this community interaction a critical tenet of a big-picture relationship.

"We always tried to make ourselves proactive in the community, so they respected us and when it was time to get new equipment, they were on our side," he said. "Also, in trying to retain and recruit volunteers, you want to be outstanding in the eyes of the community so people will support those types of things."

### A COMMON COMMITMENT

Ultimately, to truly serve their communities, volunteer fire-fighters must embrace their communities. Protecting people and property remains Job No. 1, but there's no overstating the value of relationship building.

"We actually have two distinct messages," Ryder said of SBM's community interactions. "We have what we call 'Public Education,' where we're actually going in and our mindset is to teach them something. With our car seat program, we're teaching them to put the car seat in their vehicle correctly. With the fire extinguishers, we're teaching [safe operation].

"Then, there's the relations portion of it where we're just relating to the public by giving truck rides and having a little bit of fun. Now, when my partner is giving the bucket rides, I usually try to open the compartments that the public wants to see. We try to include a safety message whenever we can without being the drill sergeant. We'll [display] our equipment and say, 'This is our water rescue equipment so be really careful when you go swimming and wear your life jacket.' Everything we tie into some sort of a safety message."

Committing such time and effort into relationship building helps the volunteer firefighters dial in their efforts to best serve their communities. As Ryder noted, "We do a lot of surveys and we really try to stay involved so we know who's in our community and what they need. We pass out little cards with our truck on one side and on the other side is a safety message."

The departments with which Ryder is involved exemplify the extra-mile mentality of the nation's volunteer firefighters, delivering a dose of compassion for community members that they have to see under dire circumstances. Care kits with hotel coupons, stuffed animals, blankets, and pet resources lessen a fire's life-altering impact, while chaplain services and personal attention help individuals reassemble their fractured reality.

"We'll stay there with you with our cell phones and help you make some phone calls and get you to where you need to be," Ryder said. "Once the fire is [extinguished] we'll grab a few personal items for you and then we'll make sure you get to a hotel and you get something to eat. That's something I'm very proud of."

FIRE CORPS

# FIRE CORPS: SUPPORTING LOCAL HEROES

any have the heart for volunteer firefighting, but physical and/or psychological barriers prohibit them from suiting up and responding to calls. Enter Fire Corps — a fire service support group that provides a vital link between those who fight the fires and those who wish to support them.

Founded in 2004, Fire Corps operates as a partner program under the Citizen Corps initiative, with funding through the Federal Emergency Management Agency. With the goal of helping communities prevent, prepare for, and respond to emergencies of all kinds, the nationwide program engages volunteers for the purpose of assisting local fire and EMS departments with logistical planning, maintenance support, and various non-emergency tasks. Doing so helps expand the services a department can offer and allows first responders to focus more on training and response activities.

"There are a lot of people who want to help the fire department and be part of what we are because we are out there and the community knows what we are," said volunteer firefighter and Minnesota Fire Corps Advocate Shannon Ryder. "Fire Corps is a program that, if you don't want to run into a burning building, you can still be part of the fire department. It's a really cool connection between the volunteer firefighters and the community."

Fire Corps volunteers may handle a fire department's bookkeeping and web site updates, or undertake community service projects such as teaching fire safety, installing smoke alarms, conducting home safety check — even changing flat tires. Encouraging the next generation of firefighters is also important, as evidenced by the Ohio Fire Corps' Enhance for the Chance youth peer advocate program, which encourages youths to ready others their age for fire prevention and disaster preparedness.

Learn more about Fire Corps online at www.firecorps.org.

# REPRESENTING EXCELLENCE

FOUR DEPARTMENTS PORTRAY THE COMMITMENT OF OUR NATION'S VOLUNTEER FIRE DEPARTMENTS TO KEEPING COMMUNITIES SAFE

By Eric Seeger

ial 911 anywhere in this country, and there's a greater than 90 percent chance that a department using volunteers will answer that emergency call. Of the total 30,125 fire departments in the country, 20,480 are all volunteer; 5,290 are mostly volunteer; 1,860 are mostly career. Only 2,495 are all career.

They protect citizens in their communities from emergencies of every sort: pulling people out of wrecks and burning buildings, assisting in man-made disasters like hazardous materials spills, or running rescue operations in natural disasters.

In this magazine, we've discussed the history of the volunteer fire service, its ever-evolving responsibilities, and the obstacles it faces at the organizational level. It's easy to get caught up in procedure, policy, and fundraising, but when that alarm bell sounds, that all gets set aside.

This section highlights four departments that represent some pieces of the wide spectrum of emergency responses carried out by volunteers every day. This isn't a top four list; rather it's a tribute to all the stations across this country that answer those calls with undaunted bravery. Sometimes they encountered problems they had never imagined possible, but that didn't slow them down. They put on their gear, relied on their training, and got the job done.

## **ALL ON THEIR OWN**

## Cordova Fire and Rescue Cordova, AK

Like so many Alaska fire departments, this department's location doesn't offer its volunteers many easy breaks. Surrounded by rugged terrain, the small fishing town of Cordova – situated on the

state's south coast – has no highways leading in. So if the situation gets ugly, there's probably no immediate assistance coming from neighboring townships. When they do get help, it usually comes from the state, federal government, or the National Guard, and that means things have gotten really bad.

In Cordova, the undisputed high-water mark for "bad" will always be the day that the *Exxon Valdez* oil tanker ran aground in nearby Prince William Sound. An environmental disaster of that scale left its mark on the town, its fishing industry, and the fire department for years.

Later, near the early portion of the new millennium, Cordova gained notoriety for suffering three avalanche deaths in three straight years. The one that hit closest to home happened in 2000. Emergency crews from Cordova Fire and Rescue made the grim realization that the home of one of its own firefighters, Jerry Le-Master, had just been swept over by the snow.

"We got there and went to work right away, forming a line with our probing sticks, looking for anything under the snow and giving everyone shovels," said Volunteer Fire Chief Michael Hicks. As is procedure, they kept one person with an air horn on lookout to watch the snow for more avalanches. If the horn sounded, the crew was supposed to drop everything and run. "We would stop every so often, call his fire department pager, and listen." They hoped he had it with him when the avalanche hit.





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Brattleboro, VT









➡ Left: Cordova Fire and Rescue volunteers conduct an avalanche drill. Right: Damage in the wake of the September 2011 Bastrop Complex Fire, a series of three wildfires that merged into one. A large percentage of the calls the Bastrop Volunteer Fire Department receives are wildland fires.

Most avalanche victims can survive only about 15 minutes buried in the snow. But six-and-half hours into the search, they located their fellow firefighter. LeMaster had been thrown into an air pocket in the basement, next to his furnace.

It was an amazing piece of luck, Hicks noted. "He was pretty hypothermic when we dug him out. He went into cardiac arrest multiple times, but they were able to revive him while they took him to the hospital." The firefighter survived that avalanche, but sadly his wife – who was in the house with him – was not as lucky.

In 2008, a giant snow slide killed a Cordova city council member who also served as the area's resident avalanche expert.

And last winter saw the town shut down by 18 feet of snowfall that arrived in a mere 10-day span. With many sections of the town cut off from one another, everyone from volunteer firefighters to politicians and everyday citizens became part of the relief effort, running shelters, clearing roofs, and checking in on their neighbors.

Digging the town out from that snow rated as "National Guard bad" on the Cordova scale, with the main firehouse as a staging area. The town bought every snow shovel it could source and paid people more than \$20 an hour to shovel snow off the roofs of school buildings and other critical infrastructure. There was no way it could take medical calls normally, so the department set up snowmobiles as impromptu rescue vehicles to respond to emergency calls.

Hicks said that a slow-moving disaster like that snowstorm really helped the town practice the incident management plan it had put into place a few years ago. "All the city employees got to understand their roles as they were gradually called in," he said.

But it's not all snowstorms and avalanches for Cordova's fire department. Over the years the firefighters have had to battle massive fires in the town's fish cannery factories. Their operations are often hampered by the fact that only three sides of the buildings are accessible to their trucks—the fourth side usually has a wooden dock coated with flammable creosote.

And then there are the harbors, with a fleet of fishing boats that may number from a few hundred to more than a thousand during different fishing seasons. The department does not keep a fireboat, so any blazes on the water must be handled with portable pump equipment.

Hicks recalled a fire at a power plant a few years ago. The fire occurred during the winter at a location that was accessible only by boat. The crew of six volunteers had to load all their gear, including air packs, a portable pump, and hoses, into an Alaska State Trooper boat. When they arrived to shore, they hiked their equipment three-quarters of a mile to the fire. "That's when the pump started acting up," Hicks said. "They fought the fire by themselves with one pump, one hand line, and with one guy constantly holding his finger on the pump's carburetor. But despite all that, they were able to get the fire under control."

It may not be an easy place to work as a volunteer, but the firefighters of Cordova call it home and step up to meet any challenge that may come.

To read more stories about life at Cordova Fire and Rescue, check out *Fire and Ice: Tales from an Alaskan Volunteer Fire Chief*, written by the department's retired fire chief, Dewey Whetsell.

## SADLY, SOMETIMES THINGS ARE BIGGER IN TEXAS Bastrop Volunteer Fire Department

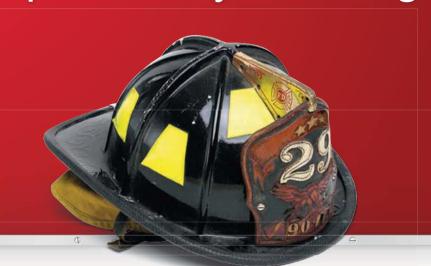
Bastrop Volunteer Fire Department
Bastrop, TX

Most Texas firefighters are no strangers to grass fires and brushfire. In Bastrop, this four-station, all-volunteer department handles about 1,000 total calls per year, and Chief Henry Perry estimates that between 40 and 50 percent of them are wildland fires. Most of the blazes, he said, are under control within 10 or 15 minutes of his team's arrival.

That's how they quickly recognized that they were severely outmatched by a wildfire that struck their area in 2011. Whipped up by fast winds and dry conditions, the firestorm grew to become the worst in Texas history for total home loss, and third in the nation.

"We knew this scenario would hit someday if the conditions were right," said Perry. "And this was the perfect storm." For the 12 months before a tropical storm moved over Louisiana, Texas

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♦ When they realized they couldn't contain the blaze, the Bastrop volunteers got to work with the sheriff's department and the county EMS service to evacuate citizens endangered by the flames.

had seen record droughts. Bastrop was on the dry side of the storm, experiencing 30- to 50-mile-per-hour winds and low humidity. That's when, in a matter of minutes, downed power lines ignited a series of three brushfires that burned together.

"That day, we weren't the only department working," said Perry. "We were competing for resources, because the surrounding counties were burning homes, too. That day, our region had something like 68 wildfires. We just got the biggest."

Pushed by the wind, the first fire ran more than eight miles in two hours. Fire No. 2 burned into fire No. 1, and fire No. 3 ran about a half-mile parallel with the first one. Perry said they were lucky that the fire avoided town.

"My fire chief on the ground radioed in and said, 'Get the rest of the county," said Perry. Including mutual aid from other departments, Bastrop quickly mustered about 50 firefighters to the scenes. "But after the first unit had been on the scene for about 15 minutes, we stopped fighting the fires," he said, noting that it was moving so quickly that it could jump entire four-lane highways. There was nothing they could do to contain it. "We could see this was a life-safety issue, so we started evacuations."

Their effort involved their fire department, the sheriff's department, and the county's EMS service. "We were on Facebook and Twitter, the National Weather Service's emergency announcements, and Reverse 911," said Perry. "We played all the cards we had that day to get people out ... We evacuated about 5,000 people in two hours."

The fire started on Sunday, Sept. 4, 2011, and the last house burned down on that Wednesday. The fire was completely finished on Oct. 29. At one point, Bastrop had about 1,400 firefighters on the ground from many neighboring states, securing the line and making sure the fire wouldn't get any bigger – proof, Perry put it, that the Incident Command System works.

By the time it was finished, the fire destroyed 1,700 residential and commercial structures in 34,000 acres. It also killed two residents – one who refused to evacuate and another who ducked past barricades to return to his house and got caught by the fire.

At the time of the interview with Perry in early July, Colorado's massive Waldo Canyon wildfire was still burning. "I'm not sure if Colorado is going to surpass us for property damage, but I hope they don't," he said. "Not because I'm afraid I'll lose bragging





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• In the midst of unprecedented flooding in Bismarck, ND, volunteers were on hand to check on residents in flooded areas, to secure floating propane tanks, and to man the water rescue team 24/7.

rights, but because I hope they don't have to go through what we had here." (Note: The Waldo Canyon fire destroyed 347 homes in 18,247 acres and claimed two lives.)

If there's one piece of advice he can offer to departments that deal with a lot of wildland fires, it's to prepare your firefighters with the proper functional protective equipment — the backpacks, radios, fire shelters, etc. "Give them everything they need," he said. "Departments spend hundreds of thousands of dollars equipping for structure fires which they do maybe 5 or 10 percent of the time. But they need to give their people the right equipment for the fires that they might fight 40, 50, or 60 percent of the time."

## PREPARING FOR A DISASTER THEY SAID WOULD NEVER COME

## Bismarck Rural Fire Department Bismarck, ND

Fire departments spend thousands of volunteer hours each year training for every scenario they could imaginably encounter, but last year Bismarck Rural Fire Department faced one that they had always been assured would never happen. The town is located on the dam-controlled Missouri River. For 50 years, the dam was able to control water flow well enough that

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the town saw no large-scale floods for decades. That run of good luck ended in 2011.

After the heavy 2010-11 snowfall season, the rivers and reservoirs upstream of Bismarck had swollen to unprecedented levels, compounded by heavy rainfall. By spring, the water collected upstream at Garrison Dam was getting critical. To mitigate the problem, the U.S. Army Corps of Engineers had to increase flows at the dam, releasing more water downstream than they had ever done before.

The flooding began in May. By June, the Army Corps had to open an emergency spillway at Garrison. Those spillway gates had never been opened before, and it guaranteed flooding in downstream Bismarck.

With a few weeks of warning, state and federal agencies descended on Bismarck to help it prepare for the water. Homes were sandbagged and diked. Some residents were out of their homes until that winter when the river had completely receded, but many homeowners decided to stay and defend their properties.

"The city had even built dikes through the town to contain the water, so our ability to respond to fires was limited to where we could drive our apparatus through the roads," said Allan Klein, chief of Bismarck Rural Fire Department. His station of six full-time career firefighters and about 30 part-time paid-per-call volunteers normally responds to emergencies in a roughly 400-square-mile area on the outskirts and suburbs of Bismarck, but in this case, they were cut off when the swollen river severed the city down the middle.

"Luckily, we didn't encounter any fires during this time, but our guys got called for a lot of propane tanks that were spotted floating down the river," said Klein. "We would use our rescue boat to locate them. If they couldn't bring them in, they would chain them to a tree with a lock to keep them in place."

Firefighters are problem solvers, so it's only natural that the volunteers of Bismarck, like everyone else in town, felt somewhat helpless when the water started rising. They could only stand by and watch its banks swell and stay at an elevated level — a sight they never thought they'd see.

The crews paired with sheriff's personnel to keep tabs on the residents who remained in the flooded areas to defend their homes—and were reachable only by boat. Some citizens stayed for months as long as their pumps and dikes held out. Fortunately, there were no lives lost to the flood in Bismarck.

Other homes were eventually destroyed when the water came over sandbags or the ground eroded from under their foundations. Two large waterfront homes were threatened as the Missouri River's banks washed away; one collapsed into the water, but the other was saved.

"On a daily basis, our firehouse became a mobilization point for the National Guard. They had flat-bottom airboats, which are driven by propeller, staged here from two different counties," said Klein. "Our water rescue team was mobilized into 24/7 coverage, so we had to bring up other personnel to fill in for the duties of the water rescuers. There was a lot happening here that was new to us. The situation constantly changed as the flood unfolded. We took whatever came, and we handled it."

## THE SUBURBS AREN'T AS QUIET AS THEY SAY

## Cabin John Park Volunteer Fire Department Bethesda, MD

At first glance, a list of Cabin John Park Volunteer Fire Department's (CJPVFD) responsibilities seems similar to the duties of most volunteer departments. The difference is that it performs those duties at much higher frequency than most because of its location. Plus, it has helped enact groundbreaking legislation at the state level.

This department represents the workload shared by many volunteer departments that serve the suburban areas outside major cites. Bethesda sits just outside the infamously trafficsnarled Washington, DC Beltway. Its local highways operate at three speeds: locked crawl, quick-but-packed, and flat-out fast. As Deputy Fire Rescue Chief Paul Sterling, Jr., put it, "It's a perpetual state of rush hour."

Between the traffic accident calls and the calls to support the county's ambulance service, Sterling estimated that EMS accounts for about 70 percent of the department's approximately 7,600 calls each year. That other 30 percent includes a very active river rescue team as well as the typical fire duties. It's a rapid pace even when you take into account the approximately 130 volunteer firefighters it keeps on roster and the additional 54 career firefighters assigned to it by Montgomery County.

To handle this kind of flow, CJPVFD maintains very full garage bays in its two stations. From the bigger station, the department runs two engines, a ladder truck, a brush truck, and a Basic Life Support EMS unit that can be upgraded to Advanced Life Support



In addition to firefighting duties and a high volume of EMS calls, the Cabin John Park Volunteer Fire Department has an active river rescue team.



The Cabin John Park Volunteer Fire Department and other fire departments in the county were instrumental in effecting the county's adoption of mandatory residential fire sprinklers in all new-construction homes, which may be responsible for the low number of fire deaths in CJPVFD's area.

(ALS) when staffed with a paramedic. The other station runs an engine, an ALS unit, a brush truck, and a water tanker.

Sterling added the river rescue team to that long list. Tucked between the Washington, DC, and Virginia borders, CJPVFD's coverage area runs along the Potomac River. The river is lined with parklands that attract a high volume of recreational enthusiasts – hikers, bikers, paddlers, tubers, etc. – who often underestimate the threat of their surroundings.

"That is a specialty service that we train on all the time," Sterling said. "Swiftwater rescue is quite technical and quite dangerous." His department trains with other jurisdictions in the county plus Virginia fire departments that it often interacts with on rescues, as well as aviation crews from the national parks. "They are a great eye in the sky for us, and they can see much more from up there and direct us to the emergency," he said. "Not all of the calls we answer are on the river. Many injuries and illnesses occur up on the hiking trails. Sometimes they are easier to approach by water than with a truck."

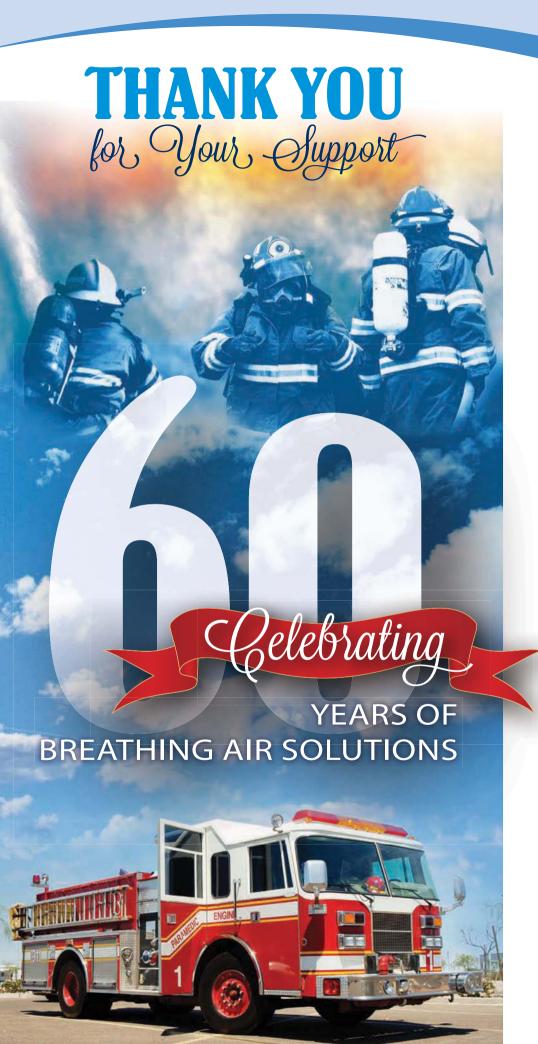
Sterling also proudly noted his area's low number of fire deaths, which local departments attribute to the county's adoption of man-

datory residential fire sprinklers in all new-construction homes. Under the pressure of the fire departments, the county adopted the mandatory sprinklers in the early 1990s.

In recent years, CJPVFD and other Maryland departments lobbied hard to have a similar measure enacted for all the counties in their state. This May, the law passed, and all homes built after September of this year will be required to be equipped with fire sprinklers. While homebuilders are turned off by the added expense of sprinkler systems, the fact that homes are less fire retardant today (with open floor plans, vinyl siding, and packed tightly together on smaller lots) played a significant role in the decision.

"We were up against the construction industry on this one, [which was] complaining about the added cost," said Sterling, "but we wanted to know what kind of price you're supposed to put on someone's life. These types of systems not only save the lives of residents, but they save firefighters' lives, too."

While the battle was hard-fought, that argument ultimately won the day: Contractors aren't the ones who have to run into burning buildings when their projects go up in flames – it's the firefighters who do.









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