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**COVER:** A Boston (MA) firefighter from Engine 21 stands in Tower Ladder 3's bucket after a six-alarm fire in Boston's Charlestown neighborhood. Winter firefighting requires certain control measures for the engine to ensure there is an uninhibited flow of water through all hoselines and water towers. At greater-alarm fires, hoselines are often shut down for extended periods to reposition or redeploy. Keeping the nozzle cracked, just slightly, will help prevent a frozen hoseline. Once the first few handlines are stretched and operated at greater-alarm fires, engine companies must become resourceful at obtaining other hoselines for use. During winter operations, even one frozen handline means a delay in getting another hoseline or even having to redeploy tower or aerial ladders' master streams. Taking the time to manage freezing hoselines and pumps during extremely cold weather at fires requires diligence and a mindful awareness of the hoselines' condition—this includes supply hoselines. (Photo by John Cetrino.)





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# The Disaster Disconnect

## Emergency and disaster planning in the fire service

**E**mergency and disaster planning is a continuous evaluation of an organization's readiness and resolve: How it systematically plans and strategizes, how it deploys, and the established and calculated risks that it takes with the resources that it has are endemic to its established mission and culture. If an organization does not learn from its historical successes and failures at incidents or personnel misfortunes, it is not going to develop at a progressive rate. Emergency and disaster management can be synonymous with reputation and crisis management in their contemporary sense as every country around the world is witnessing pop-cultural change and an increase in high-risk/low-frequency incidents and threats to our personal and physical health and wellness. To remain at the ready in our communities and meet our obligations to the citizenry, fire departments must get a handle on internal risk and vulnerability just as much as what comes externally. Without this handle, we suffer from a disaster disconnect.

As we delve into some of the emergency and disaster planning in its holistic sense this month in *FireRescue*, consider the juxtapositions that can be made in your organization. No fire department that is suffering pains in response or personnel crises is the first one to experience them, so learning from those who've been there can help you manage these disasters. Let's start with our internal risk and vulnerability.

Unethical behavior has many connotations, depending on the type of behavior exhibited. Regardless, if you ask Wilbur Harbin from Miami-Dade (FL) Fire Rescue, he'll describe two root causes of this behavior: lax supervision and the failure of officers to take action to stop unethical behavior. Although this sounds like an easy fix, managing a fire company, battalion, division, or department's cultural behavior is not. We're all mostly friends in our departments, and having to be the boss at crucial times requires textbook supervision to pull it off in the face of our fraternal, cognitive biases; however, without this supervision seeing the light of day when it's needed, no amount of training will fix an officer who can't. Ronnie Coleman takes this matter further up the organizational chain to our fire departments' administrators, who must have the framework of accountability in place. This framework sets due process so that bad behavior does not simply test the validity of fairness and discipline. Rather, it prevents bad behavior from being tolerated, thereby

removing its negativity that impedes an organization's effectiveness on the business side.

Behavioral issues run the gamut from intentional to unintentional, with the latter being the major one, in my opinion. I say this because we see a lot of tragedy in the form of horrific incidents that cause great bodily harm and death, loss of staffing or fire companies because of the economy having its usual way with us, and personal problems that lead to unintentional destructive behavior that finds its way to work with us. Brandon Dreiman from the Indianapolis (IN) Fire Department brings us a great article on why this stress is real and gives us some great recommendations to prevent the loss of our jobs, profession, and internal and external families. Having sound mental health helps us be our fire departments' heroes and guardians and adds further value to the organization. Jim Crawford gives us another great case-study example from Tucson (AZ), and Matt Tobia looks at the other side of the spectrum with the consequences of overrewarding good deeds and heroics.

Today's routine structure fires (referencing common building types) have seen a value add in the form of understanding modern fire behavior and correlating it to conventional operations; however, interpreting the science behind it isn't so simple. David Rhodes continues his discussion on the need for a research guide for dummies on this subject so that it's all connected when the bells ring. As we look at the rest of our potential emergencies, it's hard to simplify the high-risk/low-frequency incidents in our communities. Brandon Siebert introduces us to one that we rarely think of, since these events are thoroughly planned and organized long before they even occur.

We always support the public's help in mitigating potential disaster through our CRR endeavors, especially at special events, but there are exceptions to this rule. Disasters can occur as the result of citizens attempting to manage incidents themselves prior to our arrival with extinguishers, pots and pans, etc. It is incumbent on us to understand that if these items are around, they're likely going to be used before we get there. CRR and emergency and disaster management, and all their variables, must come into play internally and externally to prevent the disconnect that occurs because of neglect, hubris, and unethical behavior. Striving to learn from others' misfortunes is always the first step in reconnecting your organization. **FR**



By Erich Roden

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## Under Pressure

Pressure-reducing devices and the fire service

By Anthony Rowett Jr.

**P**ressure-reducing devices are designed to reduce, restrict, or otherwise control the amount of pressure at a standpipe hose connection. From a design and even an installation perspective, these devices seem legitimate; however, from a firefighting perspective, these devices are nothing more than an additional obstacle and hazard during firefighting operations.

These devices are one of the most important aspects of operations at buildings that are equipped with standpipe systems. Pressure-reducing devices are installed on standpipe systems to do just as their name says—reduce pressure. This reduction in pressure should be of great concern to the fire service, as these devices have already caused line-of-duty deaths (LODDs). These devices are designed to be installed on standpipe systems in locations where

the residual pressure at a hose connection exceeds 100 psi and the static pressure at a hose connection exceeds 175 psi. The concept behind pressure-reducing devices is to prevent high pressures on hoselines that can cause injuries to firefighters. So, as a firefighter, which scenario would you prefer: advancing a hoseline from a standpipe connection with no pressure-reducing device, resulting in an overpressurized hoseline that weighs more and is more difficult to advance as well as presents additional nozzle reaction, or advancing a hoseline from a standpipe connection with a pressure-reducing device in place that was possibly not installed or maintained properly, resulting in an inadequate flow once you reach the fire?

Pressure-reducing devices gained the attention of the American fire service on February 23, 1991, at the One Meridian Plaza Fire in Philadelphia, Pennsylvania, where three firefighters lost their lives. The post-fire investigation found the presence of pressure-reducing devices that had been incorrectly set to the wrong pressure and therefore identified pressure-reducing devices as a contributing factor in these three LODDs.



A pressure-reducing device connected to a fire hydrant. (Photo by Z22.)



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## Apparatus Innovations

By Bob Vaccaro

Looking for a new apparatus? Unsure about what will work best in your department and for your community? Do you like low hosebeds? What about LED scene lights? Should firefighting tools be mounted so they are easily accessible on the exterior or should they be mounted only in compartments out of plain view? What about the safety of your crew? Do you know how to arrange compartments so equipment or tools won't go flying around if you hit a bump or have an accident? In addition to working with your local apparatus salesperson and even the manufacturer's factory engineers to design and build a safe and economical apparatus for your community, you can check out Bob Vaccaro's photo essay to gain some insight into what your next apparatus could be: [www.firefighternation.com/author/bob-vaccaro](http://www.firefighternation.com/author/bob-vaccaro).



### Featured Blog of the Month

MyFFN member Ben Stout posted a photo of a joint extrication and mass-casualty incident drill. Many departments come together to train on incidents that are both common and out of the ordinary. From mass-casualty and hazardous-materials incidents to wildfires and search and rescue, fire service personnel combine their experience, education, and knowledge to become more effective firefighters. Do you have photos of your department engaged in joint training drills?

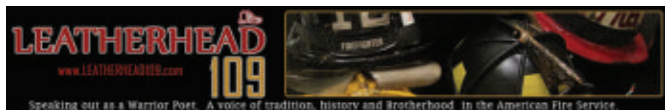
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### Humpday Hangout: Health and Safety

Every Wednesday of every week, various fire service personalities and leaders speak with members of the *FireRescue* and *Fire Engineering* teams on topics and information that influence and impact the way you and your department operate.

One Humpday Hangout focuses on how the fireground is inherently not safe, but when we say, "Let's make it safe," some take the word safe as a four-letter curse word. This week's hosts, P.J. Norwood and Sean Gray, will look at the fireground and the safety culture. Their guests, Deputy Chief George Healy and Assistant Chief Derek Alkonis, will weigh in on this topic. Check out the conversation on how safe is a four-letter curse word here: <http://tinyurl.com/hangout-health-safety>.



### Featured Blog: Leatherhead 109

As its title suggests, this blog harkens back to the days of firefighter yore. With an emphasis on brotherhood and tradition, self-described "Warrior Poet" Ben Fleagle draws on the history and heritage of firefighting to honor those who've come before and explore how leatherheads of today measure up to their forebears. Get a glimpse at: [www.leatherhead109.com](http://www.leatherhead109.com).

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Pressure-reducing devices require additional activities to be performed before firefighting operations can begin. These include removing the pressure-reducing device, if possible. If the pressure-reducing device cannot be removed, you must determine if the flow from the outlet will be sufficient or even adjust the device.

### DEVICE ADJUSTMENT

While an inline pressure gauge should be installed on the standpipe hose connection during all standpipe operations, the inline pressure gauge is specifically important during standpipe operations in the presence of a pressure-reducing device. If the pressure-reducing device cannot be removed, the most effective way to determine if adequate pressure is present at the hose connection is the installation of an inline pressure gauge. Once the hoseline is charged, the reading on the inline pressure gauge should be communicated to the company officer. When reading the inline pressure gauge, whether the pressure-reducing device has been removed or remains in place, remember that the age of the standpipe system will dictate the correct pressure reading. National Fire Protection Association 14, *Standard for the Installation of Standpipe and Hose Systems*, has a distinction between standpipe systems installed prior to 1993 and standpipe systems installed after 1993. Standpipe systems

installed prior to 1993 are required to be capable of a minimum of 65 psi of pressure at the topmost hose connection with 500 gpm flowing. Standpipe systems installed after 1993 are required to be capable of a minimum of 100 psi at the topmost hose connection with 500 gpm flowing. Therefore, when operating from a pre-1993 standpipe system, pressurization above 65 psi may not be possible, regardless of the presence of a pressure-reducing device on the hose connection.

While some pressure-reducing devices can be adjusted, others cannot. There are also some pressure-reducing devices that require special tools to adjust them. There are two types of pressure-reducing devices manufactured: nonadjustable and field adjustable. The nonadjustable pressure-reducing devices are designed to allow a specific pressure out of an outlet on a specific floor of a building. If installed on the wrong floor, removal of the device is the only way to obtain a sufficient flow. If the tools needed to remove the device are not available, the firefighters would have to stretch a supply line into the building to supply the handlines for the fire attack because there would be no way for them to obtain a sufficient fire flow from the improperly installed pressure-reducing device.

If firefighters encounter a field adjustable pressure-reducing device that was improperly installed, they can adjust the device to allow for a sufficient



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pressure and flow, but the tools needed to adjust the device may not be available. The tools that are required to adjust these devices vary; some devices can be adjusted by inserting a 3/8-inch steel rod into the adjustment hole and rotating the rod, while other devices require special tools that may not be present on scene.

The pressure-reducing devices that are adjusted using a 3/8-inch steel rod also contain a plastic cover over the adjustment cylinder to prevent people from adjusting the device. To adjust this type of adjustable pressure-reducing device, the plastic cover, which is held in place by a tamper-resistant screw, must be removed, and then a 3/8-inch steel rod is inserted into the adjustment hole and rotated to adjust the amount of pressure that exits the device.

### STANDPIPE CONNECTION

While all standpipe operations should be conducted with 2½-inch hoselines and solid bore nozzles with 1½-inch or 1¼-inch tips, it is even more important when pressure-reducing devices are encountered that this setup is used, as it is less pressure sensitive than a 1¾-inch hoseline equipped with a fog nozzle. It is imperative that automatic nozzles are not used on standpipe systems in general, especially when pressure-reducing devices are present, because these nozzles will provide a good-

looking fire stream regardless of insufficient nozzle pressure and gpm flow.

The responsibilities of the firefighter who is making the standpipe connection when a pressure-reducing device is found will vary depending on the equipment carried in the company's high-rise pack. If possible, the pressure-reducing device should be removed and then the hoseline should be connected directly to the standpipe connection. If the firefighter cannot remove the device, he should attempt to determine if the device will provide an adequate flow. This can be accomplished by attaching an inline pressure gauge to the standpipe connection outlet and then attaching the hoseline to the outlet of the inline pressure gauge. This setup will inform the firefighter if there is adequate water flow or not.

If the firefighter does not possess the ability to remove the pressure-reducing device or measure the pressure on the outlet side of the pressure-reducing device, he should, at a minimum, open the standpipe outlet valve all the way and observe the flow exiting the outlet. This will at least provide the firefighter with an idea of the amount of water that is flowing through the device. Any time a pressure-reducing device is found, regardless of the ability to remove the device or measure its output, the firefighter making the connection should notify the company officer of the presence of the pressure-

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reducing device and the company officer should notify the incident commander.

### ABSENT OR PRESENT?

What if you are not sure if there is a pressure-reducing device present? There are a couple of ways in which you can identify the presence of a pressure-reducing device, including the following:

1. The pressure-reducing device will be a separate device attached to the standpipe outlet connection.
2. The device housing will be larger than a standard standpipe outlet connection.
3. If you are still unable to determine if a pressure-reducing device is present, remove the outlet cap and look inside the hose connection outlet.
  - a. If the stem inside the outlet contains threads, there is no pressure-reducing device present.
  - b. If the stem is smooth, there is a pressure-reducing device present.

Preplanning is extremely important regarding pressure-reducing devices. It is during preplanning when most of the information about these devices will be obtained. During preplanning, you should do the following:

- Determine if pressure-reducing devices are present.
- If they are present, determine if they are located at all the standpipe hose connections or only on certain floors.
- Determine if the pressure-reducing devices are adjustable and, if they are, what tools are required.

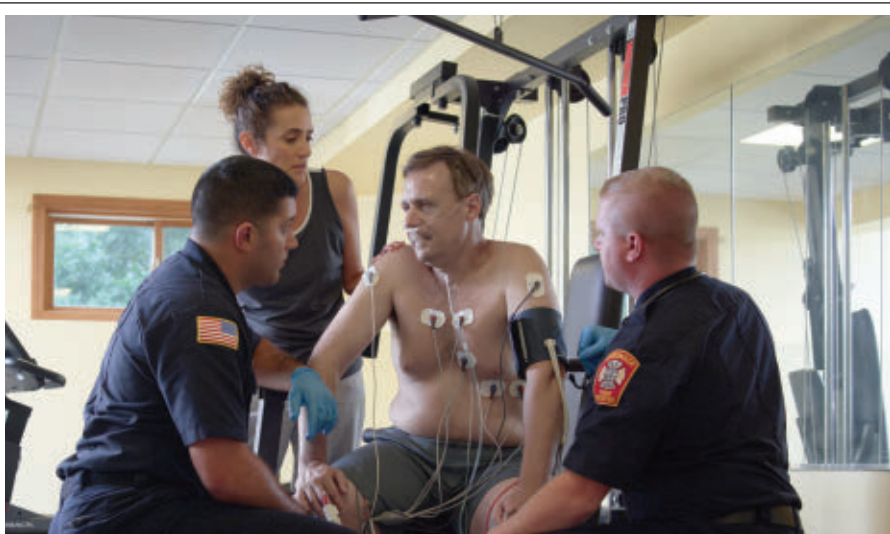
### KNOW THE HAZARDS

Pressure-reducing devices are present in all areas of the country, especially in newer buildings and buildings that have been recently renovated. These devices are seen as safety features in the eyes of designers and code writers, but firefighters must be aware of the hazards that are presented by these devices, principally the lack of adequate pressurization of hoselines. These devices have already resulted in firefighter LODDs, and without continuous training these devices will continue to pose a threat to firefighters.

All firefighters should be able to identify the presence of pressure-reducing devices as well as operate effectively when these devices are encountered. Any time these devices are encountered, they should be removed, if possible. If the

pressure-reducing device cannot be removed, an inline pressure gauge should be attached to the outlet side of the pressure-reducing device and the presence of the device as well as the pressure reading should be announced. **FR**

**Anthony Rowett Jr.** is an 11-year veteran of the fire service and a captain with the Mobile (AL) Fire Rescue Department. He was previously a firefighter with the Ogdensburg (NJ) Fire Department. Rowett has an associate's degree in fire science technology from County College of Morris (NJ), a bachelor's degree in fire science, and a master's degree in emergency services management from Columbia Southern University in Alabama. He has been published in *Fire Engineering* and *FireRescue* magazines.



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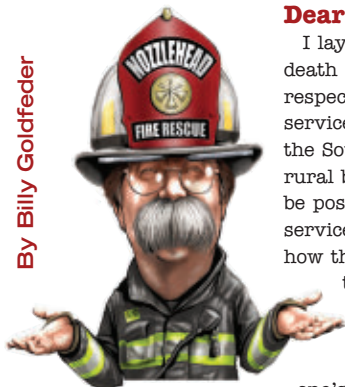
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# Fire Service Emotional Meters

The emotional toll of being a firefighter alongside other firefighters

By Billy Goldfeder



## Dear Nozzlehead,

I lay awake last night saddened by the untimely death of a man who by all accounts was highly respected and looked up to not just in the fire service but in his community. This man, a chief in the Southeastern United States, took his life in a rural backwoods area, a result of what appears to be post-traumatic stress disorder (PTSD) from his service to the community. I continue to ask myself how this can happen in today's atmosphere, and then I realize how close I came not too long ago, albeit under different circumstances.

None of us will ever know what was going on in that chief's head (or in anyone's, for that matter) in the weeks, days, and hours leading up to his suicide that weekend, but I do understand how easy it is to reach the point where you feel helpless—beyond hope. And believe me, having been in the fire service for many years, I know how hard it can be to open up and seek help. I would challenge each of you who takes the time to read this letter to Nozzlehead to seriously consider the things I am about to say: True reflection and action on the part of each of you could prevent another firefighter or first responder from leaving us behind to mourn them and ask why.

We have each heard a variation of the old saying, "The fire service is 150+ years of tradition unimpeded by progress"; it's something that firefighters are proud of. I would put forth to each of you that maybe it is time to rethink what we hold near and dear. We have lived, and continue to live, in a culture that is built on the belief in "badassery," that image of the valiant firefighter kicking down doors and rushing into a burning building in a scene reminiscent of Bull in the movie "Backdraft." Heroic yes, but not what firefighters face on a daily basis. Sure, there are times when we must go into a burning building to make a save because that's the job—saving lives. However, the rest of the time it's about the type of calls that are the routine of the firefighter's life: the myriad medical emergencies that make up the greatest percentage of our call volume, keeping us from sleep, or the horrific motor vehicle accident that leaves bodies broken and bleeding for us to clean up. All of this leaves its mark on the human psyche—a veritable rolodex of pain and suffering that no human should have to see, much less live with.

As we become seasoned in the fire service, we realize that we "must" maintain that macho persona, despite the fact that our personal rolodex is filling with visions of the death and destruction that we witness on every shift. We try to file the images and place them in that part of the brain that we keep locked; however, they slip out on

occasion, despite our best efforts. Unfortunately, in the firehouse, if a chink in your armor becomes visible to your crew, you are more likely to become the butt of jokes and pranks than the recipient of some real help. So, you struggle to keep it in and suffer in silence. You become the master at putting forth the smiling face and tough person image as you battle the pictures that run through your head.

In the past couple of years, we have lost more firefighters than I care to mention to not only PTSD but bullying and, in some cases, questions about integrity. I urge you and your brother and sister firefighters to keep in mind that all of these deaths were, in my opinion, preventable.

Did members of a department have to post sexually suggestive and downright scandalous things on social media sites, leading a firefighter/medic to take her own life? Was the loss of this human, who had dedicated her life to service, worth it? I submit that the answer was a resounding NO. Did the assistant chief deserve to have his integrity questioned by a member of city council in open session as part of a politically motivated argument? Again ... NO.

Jokes and fellowship will always be part of living together in the firehouse. It's to be expected when you spend so much time together, risking your lives and seeing the things you see. But, I must ask you, is being a BADASS worth the life of a brother or sister firefighter? Does the fact that you see one of your crew crying after a tough call really make him less of a firefighter? Obviously, the answer should be no to both questions. We must learn that being the badass of the station is fine, but not everyone is the same kind of badass. We are human, subject to the frailties that affect EVERY human out there; we just tend to deal with the horror a little better than the average person on the street.

I have to ask you, when was the last time your crew sat down together and talked about the issue of firefighter suicide? If you haven't, why not? We are willing to openly talk about everything else that is killing brother and sister firefighters, so why not suicide? Could it be because we don't want to admit to our crew and our brothers and sisters that we may not be 10 feet tall and bulletproof? As a firefighter, I pushed firefighter safety, and one of the things I always said was that, whether career or volunteer, we all died the same in a fire, and mental health issues are no different. Mental health issues you exclaim: "I'm not crazy, just having some problems dealing with a run or two."

**Looking back at my own brush with suicide, I am shocked at how rapidly things can go downhill when the rug is ripped from under you—but it's possible. What is really scary is that, over a long**

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**period of time, the rug merely slides away gently until suddenly you wake up one day with your feet on the cold bare floor. Shocked into action, you look for a way to get the rug back, but it's gone and without help will never return. In your mind, you realize that you can't fix it. And if you ask for help, you will become the butt of firehouse jokes, a fate that you know you will not be able to withstand. So, you turn to the only thing you feel will end the constant pictures in your head of broken bodies and soot-smearing faces of those who were taken way too soon; you seek the gun or the rope as your way out.**

This issue is not an easy one to fix because we are looked up to as the saviors of society. When folks dial 911, they expect to see a well-trained crew show up and handle things for them on what very well may be the worst day of their lives. Our brothers who are beside us expect us to be able to function at a high level of physical and mental performance, and chinks in that armor are not to be exposed. Despite all of this, we have to, HAVE TO, find a way to deal with this epidemic of suicide by our first responders.

To that end, I am asking you, no, I am BEGGING you, to take the time as a crew, as a company or chief officer, to sit down with your guys and gals and talk about the problem. Make it very clear that help is out there and that the department—and your station—will not tolerate anyone being demeaned for asking for help. Make it a point to check on your fellow firefighters after that really bad call and offer to talk about it. If you see someone starting to withdraw or put up that happy front, say something to your company officer.

Chiefs, make it known to ALL of your staff that you are interested in their mental and emotional health. Take the time to go out to the stations and do more than just glad hand everyone. Take the time to ask questions, and see if your crews are healthy and functioning properly.

Most of all, please remember that words and actions can hurt, even when you don't intend them to. Choose your pranks and jokes in the firehouse carefully, and keep in mind that fun at another's expense can be lifechanging for everyone involved. Last but not least, remember that no matter what, the bonds of brother and sisterhood should never be broken. No matter how bad it gets or how wrong you think someone is, he or she is your brother or sister firefighter—what you do DOES have an effect on all of them.

Thanks for listening; I would appreciate your thoughts.

—*Tough Times in Texas*

## Dear Tough,

I appreciate the time you took to write me. Sure, I am glad to provide my thoughts, because that's all they are, "my" thoughts and opinions, nothing more. I am about as far away from being a mental health professional as you can imagine! But, maybe my thoughts will help.

In 2016, I lost two firefighter friends to suicide and, like most, I was shocked and stunned when the news came out. Over my 40+ years as a firefighter, I have lost a few friends. One firefighter wrote me about a friend we recently lost and said that they, his

## National Association Resources:

- International Association of Fire Fighters (IAFF): No Fire Fighter Stands Alone program.
- National Volunteer Fire Council (NVFC): Share the Load program.
- National Fallen Firefighters Foundation (NFFF): Everyone Goes Home program.

## Hotlines:

- National Suicide Prevention Hotline (United States): (800) 273-TALK (8255).
- National Suicide Prevention Hotline (Canada): (403) 266-HELP (4357).
- Safe Call Now: a CONFIDENTIAL, comprehensive, 24-hour crisis referral service for all public safety employees, all emergency services personnel, and their family members nationwide: 206-459-3020.

friends and brother and sister firefighters, didn't see it coming. He was the last person they thought would do this. He and his wife had some beautiful kids and then screech—it was over.

The experts tell us that there's no single cause for suicide. Suicide most often occurs when an individual's stressors exceed the current coping abilities of someone suffering from a mental health condition. Depression is the most common condition associated with suicide, and it is often undiagnosed or untreated. Conditions like depression, anxiety, and substance problems, especially when unaddressed, increase risk for suicide.

In our business, it may be because of many factors. I'm thinking that schedule changes, bad runs, mandatory overtime, inadequate staffing, ridiculous run volume, sleep deprivation, poor training, bad bosses, the lack of fair administrative and operational policy (consistency), and malicious personnel may just be a few ingredients that help build up stress—some avoidable and some not. Again, just *my* opinion.

A national study of 1,000 firefighters by researchers from Florida State University reveals nearly half of the respondents say they had suicidal thoughts at one or more points in their firefighting career. Furthermore, approximately 15 percent reported one or more suicide attempts. Hmmm.

So, what do we say? What do we think? Firefighter mental health and emotional and PTSD type issues are highly complicated and, no matter what anyone does, only we know what goes on in our own heads. It must have been insanely painful for you and anyone dealing with this, keeping in mind (and I always try to keep this in perspective) that what may be a minor issue to you and me may be devastatingly hard for others to face. We have all seen that with the "How can such a little thing like that bother him/her?" but things do impact everyone differently. It's a horrible mystery filled with sadness; questions; and, at times by some, anger.

One firefighter I knew committed suicide in 2016 as well, and everyone, including me, thought he was very strong, tough, and not much bothered

him. And then one day he finds his wife screwing around with another guy (not a FF), and right after he didn't show up for work one morning. Firefighters responded to check on him and he was gone.

## EMOTIONAL METERS

Of course, the chatter was all over the place from sadness to anger to asking, "How can you kill yourself over your wife screwing around?" and on and on. Again, I was reminded that everyone's "emotional meters" (stressors) are set at varied levels, levels that we were born with and sometimes cannot adjust or may not even know they need adjusting. We are all different. Some of us like some kinds of music and some don't. Some think a certain piece of art is beautiful and others don't get it. And some of us deal with things in life one way, and others deal with them in a different way. I think the quicker peers and leaders understand that we aren't all cut from the same emotional mold, the better we will then be able to deal with this issue—and many more!

As firefighters, we respond to bad things and try to fix them. Sometimes we can and sometimes we can't. That's the opposite of what we want and even need to happen. We are in the business of making bad days get better. It's quite a responsibility. From rural to big city, it may be many calls or it may be "that one" bad call that hits us.

In the '70s, I worked out of a beautiful but very old firehouse. Upstairs there was an old piano (not sure why, but it was always there) and my friend (and brother firefighter) used to sit up there, alone, and play the piano for hours on hours on hours. Day and night, he loved to play the piano. After he committed suicide, someone commented that his playing the piano upstairs in the firehouse was a warning sign of

his upcoming suicide. I remember thinking, "WHAT? Suicide warning!? I thought he liked to play the piano!" I honestly didn't see it then and still don't 40 years later. I just thought he liked to play the piano.

## WHAT ARE THE STATISTICS?

The Centers for Disease Control and Prevention (CDC) found that farmers, lumberjacks, and fishermen kill themselves most often. High rates were also seen in carpenters, miners, electricians, and people who work in construction. The study, which showed enormous differences of suicide rates across jobs, placed mechanics close behind. Dentists, doctors, and other healthcare professionals had an 80 percent lower suicide rate than the farmers, fishermen, and lumberjacks. The lowest rate was in teachers, educators, and librarians.

The highest female suicide rate was seen in the category that includes police, firefighters, and corrections officers. The second-highest rate for women was in the legal profession.

It's not the first time a suicide problem has been noted for some jobs. For example, in the 1980s, media reports detailed high suicide rates in Midwestern farmers. That was attributed to a tough economy and farmers' use of pesticides that scientists have theorized may cause symptoms of depression.

I, like all of us, will certainly continue to do all I can to raise awareness, support, etc. on this tough challenge in our profession, but I will always have in the back of my mind that little piece of all this that I just don't understand (other than the fact that everyone is different in a very in-depth and deep way).

We ALL wanna think, "God, if I had only spent more time with him or her or called." Or, "Why didn't he reach out to me, you, whoever." And once again, I wonder if it just is not that simple.

As firefighters, we are almost all emotionally wired to solve problems, quickly and permanently, and we get very frustrated and upset when we can't. And that's us when facing a suicide of someone we care about. I can't even imagine what these people were facing that they are unable to deal with, but they must have felt there were no other options.

Texas tough, your points are very well taken. Pay attention. Go easy. Be more aware. Size up one another. It certainly cannot hurt. Is firehouse chop breaking and banter enough to push someone over the edge to take his or her own life? Is seeing bad things happen to others enough where an individual loses hope in his or her own life? To me, it depends on the person, his life environment (home, work, and social), and all that goes on with that in his head and heart. What can we do? Treat each other the way we would want our kids treated if they were working in our firehouse. That may sound simple, but maybe it's a good start and, unlike many of the factors, it's something we can control. **FR**

## The CDC's occupational suicide list:

1. Farmworkers, fishermen, lumberjacks, others in forestry or agriculture (85 suicides per 100,000).
2. Carpenters, miners, electricians, construction trades (53).
3. Mechanics and those who do installation, maintenance, repair (48).
4. Factory and production workers (35).
5. Architects, engineers (32).
6. Police, firefighters, corrections workers, others in protective services (31).
7. Artists, designers, entertainers, athletes, media (24).
8. Computer programmers, mathematicians, statisticians (23).
9. Transportation workers (22).
10. Corporate executives and managers, advertising and public relations (20).
11. Lawyers and workers in legal system (19).
12. Doctors, dentists, and other healthcare professionals (19).
13. Scientists and lab technicians (17).
14. Accountants, others in business, financial operations (16).
15. Nursing, medical assistants, healthcare support (15).
16. Clergy, social workers, other social service workers (14).
17. Real estate agents, telemarketers, sales (13).
18. Building and ground cleaning, maintenance (13).
19. Cooks, food service workers (13).
20. Childcare workers, barbers, animal trainers, personal care and service (8).



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# Big Haz Mat

Hackney designs a vehicle for the College Station (TX) Fire Department to address numerous haz-mat threats

By Bob Vaccaro



Everyone has heard the old saying, “Everything’s bigger in Texas.” Well, it seems that the College Station Fire Department followed this saying in the design of its new hazardous materials (haz-mat) vehicle.

To give you some background, College Station sits approximately 90 miles northwest of Houston and is the home of Texas A&M University. The fire department serves a population of more than 100,000 residents, plus the university. The department has six fully staffed and modern stations. The College Station Fire Department is also the lead agency for regional haz-mat incident response with a group made up of personnel from the College Station and Bryan Fire Departments and the Envi-

ronmental Health and Safety Office of Texas A&M University.

Since the department had a large task of providing haz-mat response and mitigation to this vast area of target hazards, it had to expand and improve its response and vehicle. According to Captain Josh Varner, “Based on some past incidents that we responded to, we decided we needed to improve our resources.” The department responded to a large chemical fire in El Dorado several years ago. At this fire, various mutual-aid departments responded to the incident with multiple vehicles at different times. Because of this type of response, it was difficult to manage from an incident command standpoint.

The College Station (TX) haz-mat apparatus built by Hackney on a Spartan Gladiator chassis. (Photos by Hackney.)



The trailer has large compartments and houses an air compressor and cascade system.



**FFN** To read more from Bob Vaccaro, visit [www.firefighternation.com/author/bob-vaccaro](http://www.firefighternation.com/author/bob-vaccaro).



“It was decided to investigate and begin planning a new multifunctional vehicle that could be used as a single point command vehicle plus handle and transport all of our equipment,” Varner says. “The goal was to have all of our haz-mat team members travel together and plan together at the same time.”

### VEHICLE NEEDS

The planning began in 2006. Unfortunately, the department was rejected three to four times for a federal grant, but it eventually received funding for the vehicle through the 2014 city budget. An old city hall building was sold along with an older dual pickup truck and 36-foot trailer that were used for response.

“In the meantime, we were invited to train with the Federal Emergency Management Agency Texas Task Force 1,” Varner says. “During this time, we evaluated our response and equipment carried. Our truck committee decided we needed to carry more air bottles and a compressor and cascade system. Also on the list was to upgrade our radioactive monitoring equipment, add a rehab space, and a command area for eight individuals.



The rear of the trailer with a ramp for a robot and an area for the command center.

There was also a need for climate control and space for our Level A and B suits as well as various meters.”

After looking at several manufacturers and going out to bid, the committee chose Hackney. Hackney met all their specs and gave the committee a great deal for their money. Personnel traveled to the factory in North Carolina three times for prebuild, mid-build, and final inspection. The committee also looked at various vehicles online at the factory and even made some modifications to the unit incorporating other ideas. The design of the vehicle took into consideration future needs and space.

“Hackney was great to deal with on the build,” Varner says. “Their local salesperson worked hard with us and was very patient with all our ideas and concerns. It took roughly 13 months from design to delivery, which was great for us.”

### PLANNING FOR THE FUTURE

The College Station Fire Department’s response area, along with its mutual-aid coverage, presents many target hazards, including railroad tank cars carrying anhydrous ammonia, bio labs at Texas A&M University, tractor trailers carrying haz mats, and large industrial parks having haz-mat considerations. The vehicle will respond with eight personnel with a minimum of

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## College Station Fire Department Haz-Mat Specs

- Hackney model TDD1087, 37-foot drop-deck haz-mat trailer.
- Drop-deck frame technology that permits low compartment ground height for increased access to the vast amount of equipment stored onboard.
- A drop-down ramp on the rear of the trailer permits transport of a John Deere Gator all-terrain vehicle (ATV) or other types of wheeled vehicle. Floor tie-downs are provided in the anti-slip ribbed interior floor to secure the vehicle during transit.
- A 13.5 feet long x 93 feet wide room in the rear of the trailer provides 80 feet of clear headroom. The room, other than housing the ATV, is used as an environmentally controlled science lab and logistics center. Desks and bench seating on the side walls fold up and out of the way when the ATV is stored. Two rooftop air conditioner units provide a comfortable environment in the high temperature and humidity extremes prevalent in south Texas.
- A Spartan Gladiator extended long four-door custom tractor.
- A 450-hp Cummins engine.
- A 21,500-pound front and 27,000-pound rear axle.
- An 18-inch extended stainless steel front bumper with recessed Q2B, air horns, and electronic siren speaker (2).
- Eight-person seating positions in the cab with a slide-out stainless steel command desk behind the engine cover and upper cabinets above the four rear wall, forward facing seats.
- A 24-inch-wide x 90-inch-high compartment module behind the tractor cab with roll-up doors.
- Frame enclosure between the module and fifth wheel with integral access steps to the trailer roof access ladder and umbilical connections.
- Side entrance door on curbside of the trailer to lab and logistics center used as primary access. Electric deploy and retract auxiliary step beneath door.
- Roof storage compartments: Four, 120-inch-long x 26-inch-wide x 19.25-inch-high.
- Electric deploy awnings on the left and right sides of trailer.
- All Whelen LED warning light system and 12 VDC LED scene lights.
- LED compartment light strips recessed into side walls of all compartments and applicable partitions.
- Weather station with monitor mounted on telescoping pole.
- 40-kW PTO generator with three-phase, 100-amp umbilical connector between tractor and trailer.
- 30-amp shore power on trailer with automatic transfer relay supplying power to all interior trailer outlets and the environmental systems.
- 240 VAC Hannay cord reel with 200-foot 10/4 cable split at the power distribution boxes into two separate 30 amp 120 VAC circuits on the four outlets.
- Two Will-Burt light towers with FRC 1,500-watt Optimum flood lights. One tower is equipped with a monitoring camera that feeds a signal to a 42-inch LED television in the lab/logistics center.
- Mako 20.7 cfm breathing air compressor with four 6,000-psi ASME receivers and two-bottle fill enclosure.
- Breathing air hose reel with 250-foot 6,000-psi Synflex hose.
- Two utility air outlets on trailer connected to the air compressor.
- Chassis: Arrow XT™.
- Body: Rescue pumper.
- Actual overall height: Nine feet, eight inches.
- Engine: Detroit Diesel DD13.
- Horsepower: 500 hp.
- Pump: Waterous midship 1,250 gpm.
- Tank size: 500 gallons.
- Generator: Harrison hydraulic 20-kW.
- Additional: Whelen LED lighting package.

four being haz-mat technicians. “We have been responding to roughly 100 incidents per year with response growing yearly,” Varner says.

The College Station Fire Department has a large target hazard response area concerning hazmat. It took a proactive stance in designing its new response vehicle and added needed equipment that it needed by evaluating and training with other agencies before the design.

It determined what it needed not only for the present but for the future as well. The vehicle it designed was big enough to add any new equipment

in the future that it may need and provides a multifunctional trailer that extends the vast capabilities of the department and allows a large team to perform containment, monitoring, and mitigation from a single apparatus. **FR**

**Bob Vaccaro** has more than 40 years of fire service experience. He is a former chief of the Deer Park (NY) Fire Department. Vaccaro has also worked for the Insurance Services Office, the New York Fire Patrol, and several major commercial insurance companies as a senior loss-control consultant. He is a life member of the IAFC.



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Get your departments trained to always have in their minds that wildland fires can happen any time of the year. (Photo by Tod Sudmeier.)

## Are You Ready?

### Changing wildfire seasons and being prepared for mutual-aid calls

By Brad Davidson



**W**hen the summer months are hot and dry in Colorado, that's when you are expecting wildland fires to grow rapidly and cause lots of havoc. Your crews are a little more ready and may have been out on deployments for wildland fires, maybe in state or traveled out of state to help other agencies on wildland fires. But with the weather patterns and the lack of moisture, October 2016 was just as busy and devastating as the hot summer months.

#### READY TO HELP?

On October 3, 2016, a red flag warning had been issued for Pueblo County, which is made up of flat rural area as well as wildland-urban interface area to the west and southwest of our area.

Humidity was very low, there had not been moisture for a few weeks, and the wind was blowing steady all day. This area is made up of all different types of fire departments including full

time, combination, and volunteer. Also, there was a presidential candidate rally being held in the county, drawing many resources to help maintain that event.

With the different types of departments, everyone must be willing to step up and help each other when the big call comes in, especially on this day when a brush fire was reported in the Beulah area, located approximately 23 miles west of Pueblo in a wildland-urban interface setting. The fire was reported to be small at first, but the weather changed very fast, and the first responding department quickly called for mutual aid from surrounding departments as the fire began to move quickly because of the dry conditions and threatened homes. You need to realize the travel distance and time it takes for the incoming resources to get there to help. The big question then pops up: "Is your department ready for that type of request?"



All departments must have some type of working plan to be ready to help your neighboring departments. Fires are becoming more and more devastating, and there is no one department out there in the world that can handle a fast-moving wildland fire and still cover the day-to-day calls. We are all aware of the responsibility of our own department and that the citizens we serve come first. But some department, like the smaller volunteer departments, may only have 12 to 20 volunteers who are doing this for the love of the job and helping their own community. We must be ready to help assist these departments in their times of need.

### PRACTICE TO REALITY

In September 2015, the fire department in Beulah held a townwide drill to help prepare residents for evacuation in case of a large fire. Different obstacles were set up with lots of resources on hand to play different roles while residents practiced evacuating. Who would have thought a year later that call would be real? The call was to evacuate a town that only has three roads leading in and out of the area, and the fire was on both sides of the main highway so alternate routes had to be used. This took many resources to make this happen, but without that training things could have been much worse. The main body of fire did steer away from the heart of the town, but you always want to be ready to try to stay ahead of the fire.

Many resources came to the aid of the departments fighting the fire, but the dry conditions were making it tough. The fire was moving in three different directions, and there were homes and other property burning.

Two main challenges in these types of situations are communication and accountability. The strength of those two issues in this situation came from the local volunteers from the Beulah Fire Department. They knew their residents and how to contact them to make sure nobody was home as the fire crept toward them.

With an active emergency operations center for Pueblo County, many phone calls were made to outlying departments for mutual aid and the answer was quick: "What do you need and how soon do you need it?" We had many department from more than 90 miles away give aid because



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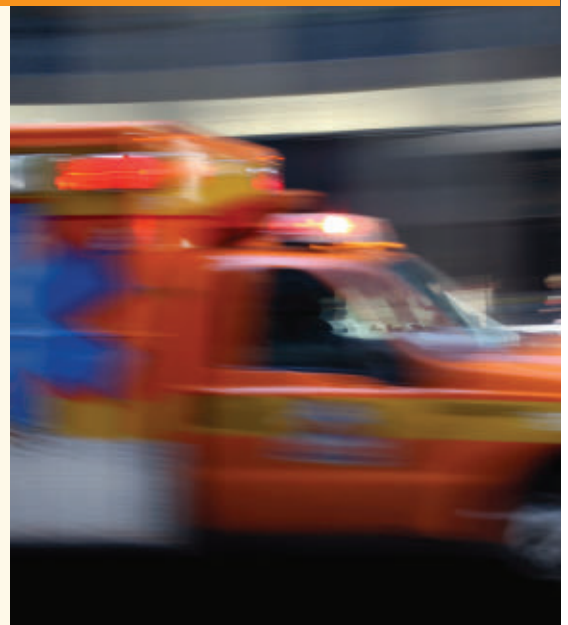


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## Wildland Urban Interface

nobody in the fire service wants to see things burn, and the request was made quickly to have departments give aid.

### EFFECTIVE TEAMWORK

In today's fire service, we have to knock down the fences between working in our own backyards and helping our neighbors. Each department has something to offer that neighboring departments

and offered to take over the fire, which meant the resource list became even bigger and broader. More than 5,800 acres burned and property was lost, but no lives were lost; this is a big factor of being prepared, conducting training, and speaking with the townspeople to help educate them.

On October 17, 2016, another wildfire, which started in Custer County in the early morning hours, raced to the east into Pueblo County, again

We train and train over tabletop scenarios on what we will do when we get that mutual-aid call, but when it happens, are our crews mentally prepared?

might not have. We train and train over tabletop scenarios on what we will do when we get that mutual-aid call, but when it happens, are our crews mentally prepared?

The fire in Beulah was in October, which is not usually part of the dry months or active fire season, but Mother Nature had something else in mind. After the first day of the fire, the state came in

threatening the town of Beulah. The preevacuation order was given, and the townspeople had to be prepared to go through what they had just gone through two weeks prior. The Junkins Fire, which burned approximately 17,700 acres, caused havoc in three counties. There were many properties evacuated, with not only local resources but state and federal resources working together as one team

to coordinate the goal of stopping the fire and having no loss of life; this was accomplished in about a two-week time frame.

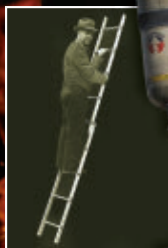
The overall lesson that can be taken from these two horrible events: Get your departments trained to always have in their minds that wildland fires can happen any time of the year. Have your staff trained and understand it's OK to call for mutual aid to get the resources coming and try to stay ahead of the game plan. And finally, if you are in a wildland-urban interface area, get out and conduct training and education for the residents you serve. They rely on us in the fire service to plan and prepare for the worst things that can happen. Be proactive for your community. **FR**

**Brad Davidson** is a 23-year veteran of the fire service and a division chief of the Pueblo West (CO) Fire Department. He was a volunteer firefighter for five years prior to moving to full time. Davidson has been a firefighter and engineer and worked his way through the ranks as an officer; he has been with the Pueblo West Fire Department for the past five years as a division chief. Davidson has worked in operations and the fire prevention side and has taught in many areas in the fire service.



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# Know Your Supplier

## The hydrant and its water supply

**A** fire hydrant is a fire hydrant, right? It is in the ground, connected to a pipe, and it will give us as much water as we need when we need it, and it is fine to take whatever flow we need from it, correct? Just because it is there, it doesn't mean that it will do anything that we want it to do anytime we need it to do that. Firefighters must understand a number of things about their hydrants to use them effectively when needed.

### WATER SUPPLY

First, firefighters must understand where the water supply to the hydrant comes from. Is it from a gravity tank system, a pumped system, or some other arrangement? Unless it is a private industrial or some other specialty system, the water supplying the fire hydrant system also provides the regular nonfire water for residences and commercial and industrial facilities in the area.

There are plenty of small-water systems out there with a few hundred-thousand-gallon capacity or less. These systems normally see increased usage during daytime hours with total capacity reduced by the evening hours and the system refilled/replenished on the overnight hours when usage levels decline. This may be termed as the "recovery" period for the water system. However, if there are one or more significant industrial or commercial users on the system, fire departments should understand during what hours those uses occur and what impact they will have on the flow capacity of hydrants.

Departments also need to understand both the capacity and flow that water systems will permit to reduce to as a minimum for firefighting. In combined systems, there may not be a minimum reserved for fire protection use. Is the system refilled from wells, a stream, a creek, or a river? How are those supplies doing? As of November 2016, almost 50 percent of the United States was in some form of drought, with 12 percent of the United States in a severe, extreme, or exceptional

drought. Almost 86 million people were affected by severe, extreme, or exceptional drought.<sup>1</sup> Extreme or exceptional droughts were being experienced in 13 states. In drought areas, it may be difficult to refill the water systems feeding hydrants to full capacity on a regular basis. Other factors, including pump problems and leaks, can also limit both flow and total capacity of a hydrant system. If fire departments drain a limited system, the other users on the system will not have any water supply. Fire officers need to maintain current knowledge of what is occurring with hydrant systems in their area.

### SYSTEM PRESSURE

When evaluating how much water is available for hydrant systems, look at both the static pressure and the residual pressure on the system. The static pressure is the pressure measured when no water is flowing from the system through hydrants. The residual pressure is measured when a flow is taken from the system, generally through a hydrant. The pressures and flow are graphed and will denote the available flow at the point where the static and residual pressure is measured. (While I won't go into the details of how to perform flow testing, you can find more on this topic in Paul Shapiro's article "Measuring Water Flow for Fire Suppression" in *Fire Apparatus*.<sup>2</sup>)



By Greg Jakubowski



A hydrant well located next to a fire department connection, but how much flow can we take from it? (Photos by author.)



Two adjoining hydrants on two separate systems. What flows are available from which one?

An important part of the flow evaluation is to leave a minimum of 20 psi residual pressure in the water supply system from the hydrant. Twenty psi residual pressure is an important number that is used to analyze water supply piping, as some pressure needs to remain in the supply system to avoid cross-contamination of the system and the potential to damage the piping if pressures are reduced too far.<sup>3</sup> It is critical for pump operators operating from fire hydrants to watch their intake gauge and not allow it to go below about 20 psi when on pressurized sources unless they have been specifically instructed otherwise by a local authority.



An old-style industrial hydrant with only two 2½-inch connections. This hydrant for some reason was installed in the ground and is difficult to use.

available after the flow for the sprinkler system is accounted for. You can start with flowing the predetermined outside hose stream, but firefighters need to be aware that if they want to flow more than this, they need to understand where the water is coming from and ensure that the flows will not rob the sprinkler system of the proper pressure and flow that it needs to function. In particular, some are concerned about the potential flows that firefighters might use from steamer (large-diameter) outlets on newer fire hydrants that may be in place. Many older style hydrants on industrial/commercial properties had dual 2½-inch outlets that were intended to have hoselines connected to the hydrant to directly fight the fire within the restrictions of the hose stream allowances.

Sites with sprinkler systems may have their own independent fire protection loop, supplied from an on-site gravity tank, ground tank and pump, or pond/impoundment with a fire pump. While fire pumps are normally set to automatically come on with pressure drop, they are normally set to run until manually shut off. Firefighters should understand this system and how it works, as pumps may need to be manually started or valves changed if something is not functioning properly. At the very least, at the conclusion of the incident the fire department should work with facilities personnel to shut down any fire pumps that are running and restore the on-site fire protection system to full service. All of this should be trained on in advance of an incident occurring.

One key function that should be done at any fire in a sprinklered building is to connect to the building or property fire department connection and pump into it. This can help overcome potential concerns about “robbing” water supply from the sprinklers to be used for manual firefighting. This is a key factor supporting the need for incident commanders to understand the water supply at these

### SPRINKLERED BUILDINGS

When dealing with a private water supply system, such as that for an industrial or commercial complex that has its own water supply system, or when dealing with a sprinklered facility on the public supply, understanding the supply is even more important. Buildings that are sprinklered will have a specific sprinkler flow demand that is normally intended to control the fire with a hose allowance for fire department use to finish the job. The fire department “outside” hose stream allowance may be 250 gpm or 500 gpm but is typically not more than this. (Find more information on fighting fires in sprinklered buildings in *FireRescue’s* “Firefighting in Sprinklered Buildings.”<sup>4</sup>)

The important thing to understand is what fire flow is



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## Fire departments need to have a clear understanding of what flows and capacities are available from their hydrant systems under all conditions.

facilities so that proper tactical decisions can be made. Knowing about water supplies that are not directly supporting the sprinkler system and how to tap into them (hose relays or tanker shuttles) may be key to properly attacking a significant fire in a sprinklered building.

### HYDRANT UNDERSTANDING

One final key issue regarding hydrants is to understand that hydrants that are considered private but tied to the public system may be metered with a charge assessed to the owner if water is flowed from them. Firefighters wishing to use these hydrants, particularly for high-flow operations, should understand that there may be a cost for the property owner associated with the use of these hydrants.

Fire departments need to have a clear understanding of what flows and capacities are available from their hydrant systems under all conditions. They also need to work together with their local water departments to help plan for future changes/improvements to the water system to continue to improve fire protection for their coverage areas.

One place to start is to obtain the list of fire flow requirements for buildings throughout your coverage area. This can be obtained from the ISO.<sup>5</sup> The ISO information is generally good and will show where significant fire flows are needed and what may be available. Any areas where adequate flows are not available are opportunities to work on for improvement, in both protection and with fire protection ratings for the community. Every hydrant is not the same, and understanding the water supply system can greatly help firefighters and officers to best use that system to protect their community. **FR**

### RESOURCES

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# Science for Dummies Like Me, Part 2

## Shut the front door?

By David Rhodes



Last month, we looked at the importance of understanding what's burning and how that affects the introduction of oxygen via our ventilation. I was mostly focused on the vertical ventilation studies. This month, let's visit the front door. Out of all the things I have learned that I didn't know or didn't understand in context, the open front door is the most embarrassing. Once again, as a person who loves truck work, my truck time took pride in the fact that we could get in and find the fire, knock out a quick search, and then meet the engine company at the open front door and say, "Hey, follow me, the fire is this way!" I guess this was a form of living out what it would be like to be a Marine recon guy.

From the time I started in this business (circa 1985) until just recently, I gave no thought to opening the front or rear door and leaving it open while lines were being stretched from the rigs to the building, other units were arriving, etc. Looking back, I recall numerous fires in which fire was lapping out of the top of the front door within a couple of minutes of opening up. There were many searches done under that fire that was headed to the open door. There were a few times when it got a little hairy, but for the most part it was no big deal; it was the way we did—or sometimes still do—things.

### OPEN DOOR = VENTILATION

So, at the same time I am operating in this mode, I am also teaching and advocating vent-enter-search (VES) as one of the most effective search methods, a method that gets you to the victim's location fast instead of all that right hand, left hand stuff from the front door. "I could get to four victims before you even make it out of the living room," I would say. In teaching VES, I taught what I was taught, which was the first thing you must do is go and shut the door to the room you have entered. Thirty years ago, it was explained to me that if you stepped on a victim, even saw a victim, it did not matter because you *had* to shut that door first. If not, the fire would be drawn to you and burn you and the victim up before you could get out. Not bad advice, even for 30 years ago, from a guy who never read a National Institute of Standards and Technology or Underwriters Laboratories report.

So, if an open window requires an immediate closing of a door to block the draft created that pulls the fire your way (now widely understood as the flow path), what is the difference in opening the front door? Well, there is no difference. An opening is an opening, and all openings are ventilation. Once again, the lightbulb above my head lit up when hearing ole Baby Face Kerber saying, "Opening the front door is ventilation." It's not that it wasn't known. It's not that I didn't know it. It's just that it was out of context and never explained to me or many of you in the context of how we operate. Yes, I would shut an interior door to isolate a fire to a room. I would shut the door to stop the draft to the room where I was doing VES but never ever think about the effects of the front door being open.

A quick scroll through the hours of good fire videos on the Web captured by helmet cams, dash cams, and cell phones proves that not many others have been thinking about that front door being ventilation either. Person goes up, pops the door, and waits and waits and waits while line is being stretched from the rig. Before water is on the line, the fire is rolling out the front door, across the porch, and up the vinyl siding. Crews open up, knock the fire back, and make entry (a transitional attack? I won't go there yet, but think about it).

### ISOLATION

We can't get in the structure without opening it up, so no one should suggest that we don't open the door, window, wall, or whatever we have to do to get in. Just like vertical ventilation, what we need to be thinking about is *when* we make the opening. At every forcible entry class I have ever been to, been involved in, or watched, I can hear FDNY Captain (Ret.) Bob Morris saying, "You have to maintain the integrity of the door and control it!" Why is that? So, you can close it and cut off the oxygen to the fire, block the fire by shutting off the flow path, protect yourself, and prevent fire extension.

Many including myself laughed at the campaign adding the "I" to VES, making it VEIS. We all said that everybody wants to make a name for themselves and try to come up with a newfangled thing. "Everybody knows that you have to close



the door (isolate) when doing VES!” we hear over and over. Well maybe it’s not such a bad idea to put some emphasis on it, because some folks spent a lot more time training on the headfirst ladder bailout as a firefighter escape method to be used when you forget to shut the door to (isolate) the room you are in. Somewhere along the way, the message got lost.

Once again, research has reinforced things that we already know but maybe didn’t put in the perspective of our operation. We have taught the public to put a lid on a grease fire to extinguish, to sleep with doors closed to keep your house compartmentalized, but have we understood the implications for our own actions on the fireground like opening a door and leaving it open when we have no attack line charged and in place?

During the open door/closed door experiments in both the one-story and two-story houses, there was a tremendous lesson that every firefighter and fireground commander needs to keep in mind. In the one-story house, on average it took 80 seconds from ventilation (opening the door) to a rapid escalation of temperatures. In the two story, it took on average 160 seconds. This tells us that once we open the door or window, we have about a minute and a half to get water on the fire before things start to rapidly deteriorate in a one story and approximately 2½ minutes in the two story.

## LESSONS LEARNED

Here are my lessons learned from the front door:

- Making an opening of any kind in the structure is ventilation.
- Follow the old lessons, open doors, but maintain control of them.
- Closing interior or exterior doors can isolate fires and, in some cases, may extinguish the fire. The truck crew can close a lot of doors during a search. (If done right, we may not even need the engines anymore. The truck crews will be able to search and extinguish the fire. The can man will be able to handle any overhaul.)
- Don’t make an opening you can’t close unless you have a charged line in hand or you’re making an opening to pull someone out.

If you do go in to knock out a quick search before the line is ready, consider shutting the door behind you based on the circumstances and how long you need. **FR**

**David Rhodes** is a 31-year fire service veteran. He is a chief elder for the Georgia Smoke Diver Program, a member of the Fire Department Instructors Conference (FDIC) International Executive Advisory Board, a hands-on training coordinator for FDIC, an editorial advisor for *Fire Engineering* and the UL Fire Safety Research Institute, and an adjunct instructor for the Georgia Fire Academy. He is a Type III incident commander for the Georgia Emergency Management-Metro Atlanta All Hazards Incident Management Team and is a task force leader for the Georgia Search and Rescue Team. He is president of Rhodes Consultants, Inc., which provides public safety training, consulting, and promotional assessment centers.

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# February 1917 Fires

A look at fires that made history

By Paul Hashagen



In this month's column, I present historic fires or significant events in the fire service from February 1917. A reminder: Readers are encouraged to share information from their departments.

**February 2, 1917:** Chicago, Illinois: More than 30 people were buried when two three-story buildings collapsed as the result of a gas explosion at 811 West 14th Street. The fire department arrived and began to battle the fire within the shattered ruins of the building. The explosion had such force that pieces of glass were imbedded in homes more than a block away. One hundred men worked overnight within the smoldering, ice-covered ruins digging for survivors. In all, 10 people were killed and more than 13 were injured.

**February 3, 1917:** Union Hill, New Jersey: Members of the volunteer fire department were seriously injured while battling a fire in a condemned building. The structure, the International Pipe Cleaner Company at Francis Street and Hudson Avenue, had been condemned two weeks earlier. While battling the fire, members were crushed beneath a collapsed wall. Two members, Firefighters Ferdinand Fielder and Gustave Messner, both lawyers, suffered severe burns and other internal injuries. It was feared they were mortally injured.

**February 10, 1917:** Boston, Massachusetts: Flames broke out in the 10-story Hotel Lenox at Exeter and Boylston Streets in the Back Bay district. The fire was discovered at 5:10 p.m. on the second floor. The fire department, under the command of Chief Peter McDonough, went to work rescuing those trapped and extinguishing the spreading flames. The fire shot up the elevator shaft from the third to tenth floors. Despite a temperature of 10°F and a 50 mile-per-hour gale force wind, ladder and aerial trucks made numerous rescues on the upper floors. Many women and children were carried down ladders to safety. All but one of the hotel's 250 guests escaped.



June 12, 1924: Five alarms were transmitted for a fire that began in the basement of a wood turnings factory at 814 East 5th Street in Manhattan. The fire spread to two other buildings including a feather and down factory. (Photo courtesy of the Paul Hashagen collection.)

**February 12, 1917:** Minneapolis, Minnesota: Thirteen lives were lost during an early morning fire in the Kenwood Hotel. Sixty-eight guests were asleep in the hotel when a gasoline explosion in the basement ignited the fire. Spectators piled boxes against the wall to build a makeshift fire escape. When the first fire apparatus arrived without ladders, infuriated spectators attacked the firefighters. The captain of Engine 4 suffered a serious head injury but continued working. As the other units arrived, a life net was used to catch a number of people trapped on the upper floors.

**February 13, 1917:** Hoboken, New Jersey: The Holland-America liner *Noordam*, being held at her pier because of German submarine risks, suffered a fire in coal stores in the below deck hold. The ship, which was ready to sail to Rotterdam with 8,500 tons of grain, had been sitting for 12 days at the

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company's pier at the foot of Sixth Street. When the fire was discovered, crew members attempted to extinguish the smoky fire. When none of the crew returned, would-be rescuers were lowered one by one into the hold, only to be pulled back up unconscious. The Hoboken Fire Department responded and members of Engine 1, wearing smoke helmets, entered the hold and rescued the remaining unconscious crew. One of the six crew members died because of the fumes. The fire was so deep-seated that it was necessary to flood the hold to extinguish the flames.

**February 15, 1917:** Lawrenceville, Pennsylvania: For the third time in 15 years, and for the second time in one week, the business section of this community was swept by flames. The first two fires were incendiary in origin, and the latest fire was also believed to be intentional. Two brick buildings on Main Street, a department store with a lodge above, were destroyed. The town had recently purchased a chemical engine but it was not yet in service. With no modern equipment available, the firefighters rolled out their old hand pumper and went to work. The flames were soon out of control and help was requested. A motor fire engine from Corning was sent but became stalled in deep snowdrifts.

**February 18, 1917:** Baltimore, Maryland: A fire of indeterminate origin threatened the records of the British Consulate inside the Macht Building. The mysterious, early morning fire featured an explosion that blew out the plate glass windows of a first-floor tailor shop. Rumors of sabotage ran rampant. Fire officials believed a backdraft was the cause of the blast. Firefighters braved the thick smoke and battled the stubborn flames, stopping the spread before it could reach the third-floor consulate. Secret Service agents then swarmed the building, investigating the cause of the fire.

**February 21, 1917:** New Britain, Connecticut: Nine fires, which police labeled as incendiary, terrified this community overnight. The fire department made quick work of each of the fires, but nerves were on edge. Thousands of foreigners work in the city's various munitions plants. As word spread of the fires, these people became excited. The first fire was started in a cellar of a house where a dozen Swedish families lived. As fire after fire was discovered in different parts of the city, help was summoned from nearby fire departments. Waterbury sent a ladder and a hose company. Hartford, Bristol, and

Plainsville also sent companies. The state militia was called out to restore order. This was on the heels of several munitions plant explosions the previous several weeks. **FR**

**Paul Hashagen** is a 40-year veteran of the fire service. He retired from the Fire Department of New York (FDNY) after 25 years of service, with 20 of those years in Rescue Company 1. Hashagen is a former chief of the Freeport (NY) Fire Department and is still a member of Truck Company 1. He has written several books and numerous stories on the history of the fire service including *Fire Department City of New York: The Bravest; An Illustrated History 1865-2002*; and *One Hundred Years of Valor: Rescue Company 1 New York City Fire Department Rescue 1915-2015*. Visit his Facebook page at Paul Hashagen-author.



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# Look Me in the Eye!

## Values, principles, and ethics in the fire service

By Ronny J. Coleman



According to our justice system, everyone is innocent until proven guilty. Good premise. It prevents the accused from prematurely being judged guilty. At one level, that is an excellent goal of any justice system. On the other hand, if someone did it, shouldn't they be accountable? Should the guilty be allowed to walk away because of a technicality? The answer to that seems to be yes, based on the twists and turns that are introduced by attorneys in a variety of defenses in courts across the country. The best description of how the process works is called "following due process," and it is at the most fundamental level of disciplinary procedure in the fire service. In many states, this process has been defined as a "Firefighters Bill of Rights." Not unlike our Constitutional Bill of Rights, it is designed to ensure fairness in a conflict between acceptable and unacceptable behavior.

On the spectrum of justice, there is discipline. It comes from the word disciple, meaning student or follower. A disciple is used in a religious concept in which followers subscribe to a way of acting. In the fire service, we more often equate discipline to punishment. This is an unfortunate scenario because achieving discipline within an organization comes about from subscribing to a set of values.

An organization that is disciplined usually does not have a due process problem, but that does not mean that a situation cannot occur that tests the validity of both fairness and discipline. Unless there is a set framework for accountability in the organization, bad behavior can be tolerated and has a negative influence on the performance of the organization.

When I was a small child, my grandmother took me along when she went shopping one day. On our return home, I was in the backyard shooting off a cap gun. My grandmother asked me a single question, "Where did you get that cap gun?" I started off my defense by building the case that I found it. This was followed by her question, "Where?" I quickly told another falsehood and was asked another question. I could feel the pressure building up. Then she gave me a specific direction: "Look me in my eyes." I did and folded like a circus tent at the end of a weekend.

I blurted out my confession that I stole the gun and the caps. Immediately I found myself in the car on the way back to the five-and-dime. She marched me right through the door up to the manager. I repeated my story to the man. I was required to pay him for the

gun and the caps, which would be deducted from my normal 25¢ a week allowance; I was in debt for almost a year. I was required to apologize to him. I was never so humiliated in my life. I've never even thought of taking something that belonged to anyone else again.

My grandmother knew that as I looked her in the eye, I couldn't lie.

How does all of this compare to the fire service? The comparison takes us into another topic: ethics. In an ethical environment, when you do something wrong you are the first one to know. Ethics are moral principles that govern behavior. They are ideals or standards of behavior that dictate a consciousness to every situation. The question is, if you do not have moral principles, how can you have discipline? If you have discipline without accountability, what is the sense of fairness within the organization?

There are fire departments that lack a fundamental orientation to discipline. This behavior is often manifested in an organization by what is called passive aggressive behavior. This is even more serious than outright aggressive behavior. Passive aggressiveness is more indirect and surfaces through subtly treating people inappropriately. Per *Psychology Today*, there are at least five common types of passive aggressive behavior, including the silent treatment, subtle insults, sullen behavior, stubbornness, and failure to finish required tasks. One of the challenges we face in performing professionally is to make sure that passive aggressive behavior in organizations is replaced by a code of conduct that sets levels of acceptability.

No matter how qualified you might be from a technical point of view, if you engage in inappropriate behavior, the organization is harmed. Adopting the Firefighters Bill of Rights establishes a framework for accountability, but establishing a positive work environment that incorporates values and principles is equally important. Recognizing and eliminating passive aggressive behavior are important steps in creating an organizational work environment that is reflective of high performance. **FR**

**Ronny J. Coleman** is a retired state fire marshal for the State of California. He has achieved chief officer designation at both the state and national levels. Coleman has a master of arts degree in vocational education, a bachelor of science degree in political science, and an associate of arts degree in fire science. He is president of Fireforceone, a consulting firm in California.



# Thermal Imaging in the News

## Life-saving tool has many nonfire uses

I recently read a news story about a team of firefighters who used a thermal imaging camera (TIC) to locate and rescue a fisherman whose boat had capsized. As I read this story, it became clear to me that these firefighters were well-trained in the use of thermal imaging technology and used that training knowhow during this rescue.

As I've said previously, a TIC cannot see underwater, but it can detect heat sources above the water. The firefighters who were conducting this TIC search knew that. As the firefighters scanned the water and the shoreline, their TIC screen showed a "white" speck, indicating some sort of heat source. The firefighters followed that speck, which led them to the fisherman, who had made it to shore. The fisherman is a very lucky man that these firefighters immediately thought to use the TIC to find him. According to the fire chief, it was cold and dark outside, making it extremely difficult to conduct a search. In fact, the fire department feared the worst and was in the process of calling in divers to begin searching the water. Under these extreme conditions, the TIC helped to save this man's life.

These firefighters had the forethought to use the TIC and, most importantly, understood the technology to investigate the "white" speck they saw on the TIC's screen. TICs are becoming more common in fire departments now that this tool is better understood by the fire service and much more affordable to purchase. Thermal imaging technology is not only for fighting fires but for emergency incidents that firefighters respond to every day. Let's look at using a TIC in nonfire applications.

Motor vehicle accidents happen every day, but how often do firefighters use a TIC when responding to them? When arriving on the scene, it's critical to determine how many people were in the vehicle prior to the accident to account for all occupants. Use the TIC to check the automobile seats for hot spots to determine how many people were in the car. A TIC cannot see through glass, so be sure to open or remove the vehicle's door or window before you scan. Don't scan just one seat; scan multiple seats at the same time for comparative purposes, since your TIC will show residual heat. Look for contrasting heat signatures.

Recently, a firefighter shared with me an incident that occurred at night where a motorist lost control of his automobile and hit a tree at a high speed. On arrival, firefighters found the driver unconscious inside the car

and the passenger door open. They used the TIC to scan the inside of the car. The image on the TIC screen indicated a hot spot on the passenger's seat. Knowing this, the crew used the TIC to scan the area and found a second victim several feet away from the accident.

I am often asked, how long will the thermal contrast remain after a person has left the seat? It's hard to pinpoint exactly, but you can typically count on 15 to 20 minutes, depending on the outside temperature, humidity, the seat and clothing materials, and the amount of time the person was sitting in the car.

Use the same TIC search for motorcycle accidents. Often these accidents involve the driver and passenger being thrown great distances. By using the TIC to scan the motorcycle seat, firefighters can determine how many victims they are searching for. You can also use a TIC to track the trajectory of an automobile or a motorcycle that has left the roadway by identifying the tire marks left behind. The TIC will show warm heat signatures of the tire tracks, allowing firefighters to follow the tracks to help locate victims. If your crew is not using a TIC to scan automobile accidents, start doing it. It will save you time and maybe even a person's life.

Another incident involved a 61-year-old woman who wandered away from her home. Police were searching her neighborhood and a field near her house for more than an hour without finding any clues. After nearly two hours of searching, police called in the fire department to help. Time was critical, since the woman had been missing for more than two hours and it was getting dark and cold. Immediately, firefighters headed to the highest point behind the property to scan the field with a TIC. The TIC picked up a faint heat spot. The firefighters followed that spot and found the woman lying on the ground, partially hidden by vegetation. Within 15 minutes of searching using the TIC, firefighters rescued the woman. They said the woman was found about 15 feet below grade and 200 feet away from the area that the TIC first captured the image.

These real-life examples show how versatile a TIC can be in nonfire applications. It can save time and lives. **FR**

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By Carl Nix



# OUR STRESS IS REAL

Why deny it?

BY BRANDON K. DREIMAN





As firefighters, it is important for us to understand that we aren't alone in our feelings or experiences. (Photo from Pixabay.)

**A**llow me to begin this article by stating the painfully obvious: We have a difficult job in which life-and-death decisions are a routine part of our day. Think about that for a moment. Most people never make a split-second decision that could either save or kill another human. We make those decisions all the time—often we make them several times a shift. It takes a toll. When the going gets tough (sometimes seemingly impossible to overcome), we can't just throw our hands up and say, "Sorry. This is a toughie. I can't help you with this one." No, we don't have that option; we have to come up with a plan and try. We see indescribably horrible things, and we have to work around the horror, on the spot, and without hesitation to assist those we can still help. As firefighters, it is important for us to understand that we aren't alone in our feelings or experiences.

Like you, I love this job. I've worked in fire and emergency medical services since I was 16 years old. I used to do it for free, but I have been blessed to make a living as a firefighter/paramedic for the past 15+ years. I have also had the good fortune to become involved in peer support on both the local and international levels. From those experiences, I have seen how we all can suffer and struggle with the responsibilities of this work we love so much. And yes, it is perfectly acceptable to love this job and still admit that the stress from it makes your life more difficult. This job-related stress can be debilitating if we try to ignore it or self-medicate. I have seen too many colleagues try to avoid the physical and emotional pain of this job by engaging in high-risk behaviors. In the long run, those behaviors cost us our jobs, our families, and our lives. So, what can you do to maintain your mental health?

### STRATEGIES FOR MAINTAINING MENTAL HEALTH

While there are any number of things you can do, here are a few recommendations:

*Perform well-being examinations:* One thing you can do quickly and regularly is examine your emotional well-being after every shift. When you get home from your shift, find a quiet place and think about how you feel. Are you irritable? Exhausted? Sad? Happy? Do you find yourself reliving past events when you're alone? Do you avoid areas where bad events occurred? Are you having trouble sleeping regularly? While we can expect some of these feelings throughout our careers (and these feelings are indeed normal reactions), we need to seek out professional help if they become intrusive or persistent. The incidence of post-traumatic stress disorder in the fire service is way above the civilian average. One reason for this stark difference is our refusal to confront our emotions before they cause long-term problems for us. Regularly examining how we feel helps increase our self-awareness and bolsters recognition of emotional issues, which affords us the opportunity to get help before it's too late.

*Spend time with loved ones:* What else can we do to stabilize emotional health? Here is a simple way: Do things with your family that make you smile. It seems so obvious, yet how often do we actively seek out pleasurable activities with our families? For a lot of us, we are busy working overtime or second jobs. Or perhaps we go into our den and sit alone on our days off—isolating ourselves from our families. It could also be that we are more interested in going out with the crew and grabbing a few drinks to blow off some steam.

# OUR STRESS IS REAL

We see indescribably horrible things, and we have to work around the horror, on the spot, and without hesitation to assist those we can still help. (Photo by Tod Sudmeier.)

Now, I am not going to tell you that occasional isolation, quiet time, going out with the crew, and earning additional income are bad things. Indeed, those things can be healthy and necessary at times. But remember: When we retire, it is with the hope of having friends and especially family with whom we can enjoy our lives. Start now! Develop fun family relationships. Our families want to be a part of our lives, and we must do all we can to ensure they are there for us when the job no longer is. Establishing fun, positive relationships now can make all the difference when we reenter civilian life.

*Use support services:* If you have an employee assistance program or access to mental health services, go see a social worker on the anniversary of your hire date—whether you think you need it or not. Actually going in and talking to a social worker removes the mystery of it. It helps us get comfortable with the idea of talking to someone, and we see that the stigma associated with visiting a social worker or other mental health professional is undeserved. If nothing else, taking the first step of visiting a clinician now will make it easier to make the call in the event you really need help. Set yourself up for success by seeing what it's all about before you are in a crisis.

*Establish life beyond the fire service:* The next recommendation may be considered blasphemy in many circles, but it has to be said: Do not allow the fire service to become your life. Taking pride in our job and what it means to be a firefighter is fantastic, but letting this job consume our identities can be harmful. At some point, we all have the feeling that being a firefighter is who we are, not simply what we do, and that overwhelming pride is understandable. But, as uncomfortable as it may be, let's examine what this "I, firefighter" mentality can mean in the long run. On day one of your retirement, if you see yourself exclusively as a firefighter, your entire identity will be stripped away. To the personnel on the fire engines and fire trucks roaring by, you are simply a civilian again. If you aren't prepared for the eventuality of being a nonfirefighter, you are setting the stage for loneliness and a loss of personal direction. We have all seen the retiree who is absolutely lost after leaving the job because the job was that person's entire life, his identity, his everything—and it is heartbreaking. We should maintain a mindset that this is the job we do for now but not the person we are. You are not betraying the job or your oath by recognizing that one day you will have to turn in your gear. By accepting that there will be a day when we no longer report for duty, we can start developing the relationships and nonfire life that give us something to look forward to in retirement. We can be excited about what's next rather than fixating on what we leave behind.

*Make nonfire friends:* At this point, you may be asking, "How do I expand my identity beyond the job I spend one-third of my life doing?" I submit that one of the best ways to successfully



balance our identities is to find plenty of friends who don't work in the fire service. Again, this may not be a popular idea in the circles we run, but, put simply, if your only friends are firefighters, you need more friends. Why? Because we all know when firefighters get together off duty, we spend the whole night talking about firefighter stuff. The result is we never get a break from the job. Having friends besides our brothers and sisters fills an important part of our lives where we have discussions and experiences outside of our profession. Among the many emotional pitfalls we encounter on this job, burnout and compassion fatigue are major players. When we spend both our professional and social lives discussing and pondering fire-service-related activities, our lives are placed out of balance. We have to find things beyond the job with which to entertain ourselves. Having friends of varied professions and backgrounds is the perfect way to broaden the spectrum of our experiences and get a break from the stressors of the job. Having firefighter friends who understand us and where we come from is indispensable, but expanding friendships beyond the comfort of our firehouse family is essential to enjoying life during and after our careers.

## THE NEXT STEP

There are many more examples of things we can do to improve our mental health both before and after retirement. But hopefully the examples discussed above give you some guidance to start down a healthy path. The stigma associated with mental health services is finally disappearing, but it is up to each of us to have the courage to understand ourselves and seek help when needed. And the need to evaluate ourselves doesn't stop when we finish our last tour at the firehouse. Indeed, we must look beyond the job by not pretending that we will be firefighters forever. As hard as it may be to accept, at some point, no matter how great you are at this job, it will be taken from you. You need to do everything you can to ensure that friends, family, and good personal health await you when that day arrives. **FR**

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# Lax Supervision and Enforcement



Supervision and enforcement are the bedrock of leadership, accountability, justice, equality, and fairness. (Photos by Bill Tompkins.)

## The failure of leadership in the fire service

BY WILBUR HARBIN

In 2010, the Cumberland Valley Volunteer Firemen's Association (CVVFA), in collaboration with representatives from the United States Fire Administration, the International Fire Service Training Association, and the National Fire Academy, published a report on the negative impact unethical behavior (UB) has on the reputation of the fire service. The report, Fire Service Reputation Management White Paper, identified a national trend of UB in the fire service.<sup>1</sup> The White Paper also identified "leadership failures" as the root cause of a large number of unethical incidents. The two leadership failures identified in the White Paper are lax supervision and the failure of officers to take action to stop or prevent UB (lax enforcement). (1) If leadership failures involving lax supervision and lax enforcement are the root cause of numerous unethical incidents, the real national trend in the fire service is lax supervision and enforcement.

Sacramento Metro (CA) Battalion Chief Anthony Kastros (2014) described leadership in the fire service as a "leadership pandemic" and stated, "Officers fail on a daily basis to stop bad behavior and inspire good behavior."<sup>2</sup> Lax supervision and lax enforcement are the result of the choices each officer makes when they report to work. If the leadership problem in the fire service was a lack of knowledge or skill, training would reduce

or eliminate UB in the fire service. Training cannot fix an officer who chooses not to supervise or enforce the department's expectations of employee performance and conduct. Supervision and enforcement are the bedrock of leadership, accountability, justice, equality, and fairness. Without supervision and enforcement, poor performance and conduct will continue to increase.

### LAX SUPERVISION SUPPORTS POOR PERFORMANCE

In the fire service, performance expectations are consistent. Performance expectations include the following:

- Responding to emergency and nonemergency calls.
- Fire station maintenance.
- Apparatus and equipment maintenance.
- Hydrant maintenance.
- Training and tactical planning of structures (preincident planning).
- Fire prevention and community education programs.
- Treating supervisors, peers, and citizens fairly.

Performance expectations are written in policy and procedure manuals, administrative orders, and collective bargaining agreements. In addition to performance expectations that apply to all personnel, to become an officer requires taking a written and/



or practical assessment of an individual's knowledge and abilities. Some fire departments also require prospective or newly promoted officers to attend officer development training. With all the fire department requirements to become a competent firefighter and a competent officer, poor performance is not the result of a lack of knowledge or ability but a sign of lax supervision.

Officers are responsible for ensuring their personnel develop the right attitude and behavior to meet or exceed their department's performance expectations and values. All high-ranking fire department leaders want their personnel to provide excellent service to the community they serve. The desire for excellence has allowed many well-funded fire departments to provide their personnel with competitive salary and benefits and the most advanced equipment in the fire service. If fire service personnel are going to spend 25 to 30 years risking their lives for others, they should be provided with the best equipment and training their department can afford. The question that immediately comes to mind is, is lax supervision the expected return on the fire department's investment in its personnel?

### LAX ENFORCEMENT SUPPORTS POOR CONDUCT

Fire department officers are the law enforcement officers, or the police, in the fire service. According to the International Association of Chiefs of Police (1957), law enforcement officers have a duty to:

- Safeguard lives and property.
- Protect the innocent against deception.
- Protect the weak against oppression or intimidation.
- Protect the peaceful against violence or disorder.<sup>3</sup>

In military and paramilitary organizations, the word "police" means to keep clean. Operating as the police officer of the fire service, fire department officers are responsible for the overall cleanliness of the fire station, apparatus and equipment, their personnel, and themselves. Enforcement is the primary responsibility of all fire department officers. Enforcement requires courage and fairness. Without the courage to stop UB and the ability to ensure all personnel are treated fairly, firefighters and officers should reconsider being an officer in the fire service.

If fire service officers are lax in their enforcement of the rules and core values of the fire service, why waste time creating rules or core values?

The fire service should be one of the fairest places to work in America. Officers are responsible for enforcing state and federal workplace laws, fire department policy and procedure, fire department values, and collective bargaining agreements. The clear mandate for all fire department officers is to keep the workplace free from all forms of harassment, discrimination, hostility, and UB. Unfortunately, UB still exists in the fire service. The severity and frequency of UB in the fire service is increasing. How can officers or firefighters be held accountable for their behavior when the officers who supervise them are lax in their enforcement of the fire department's performance expectations and values? If fire service officers remain silent or fail to ensure the workplace is free from UB, innocent citizens and employees will suffer. John Stuart Mill said: "Let not anyone pacify his conscience by the delusion that he can do no harm if he takes no part, and forms no opinion. Bad men need nothing more to compass their ends, than that good men should look on and do nothing."<sup>4</sup> Lax enforcement is fertile ground for the seeds of UB to sprout and flourish. Poor conduct is a sign of lax enforcement.



The only way to correct unethical behavior in the fire service is for every officer in the chain of command to hold themselves and the personnel they supervise accountable for doing the job they volunteer or, in some cases, get paid to do.

### LEADERSHIP

Lax supervision and lax enforcement are leadership failures that should not be tolerated in the fire service. The national trend of unethical behavior in the fire service is not going to be corrected by taking another class or receiving another certification. The only way to correct unethical behavior in the fire service is for every officer in the chain of command to hold themselves and the personnel they supervise accountable for doing the job they volunteer or, in some cases, get paid to do. Fire service personnel who commit unethical acts come closest to the abusive power of tyrants and dictators when they are not held accountable for their actions.

Leadership, accountability, justice, equality, fairness, and excellent service cannot exist in the presence of lax supervision and lax enforcement. Being an effective officer in the fire service is not easy. Holding fire service personnel accountable for their actions takes a tremendous amount of vigilance, courage, and effort. Lax supervision and lax enforcement are clear indications that fire service officers do not lack knowledge or skill; they lack the courage or desire to lead. **FR**

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# Where's



## The role of community risk reduction in special events

BY BRANDON SIEBERT

**T**ake the time to honestly ask yourself about the quality of your agency's policies and procedures regarding special events. Do you address emergency egress and occupant loads? Do you take the forecasted weather into account? Do you treat family events the same as those serving copious amounts of alcohol? Does your agency even get involved with special events beyond staffing them with medical personnel?

As more and more fire service organizations in the country shift toward a community risk reduction philosophy, many are failing to integrate special events into their risk assessments. One major contributing factor to this epidemic is the fact that the model fire codes and fire protection trade agencies have little guidance when it comes to large outdoor assemblage events because fire codes are

inherently designed for enclosed structures. Individual agencies are therefore compelled to create their own arbitrary requirements for such events.

For instance, fire apparatus access roads as defined in the model fire codes are distinctly intended as a means of approach to structures. However, fire lanes are crucial at special events so that emergency vehicles can access all areas for medical treatment and transportation. Unexpected incidents such as hazardous materials release or technical rescue must be considered as well. At a carnival in May 2016, a fire department in Connecticut successfully used an aerial ladder to rescue two children who were stranded in a malfunctioning Ferris wheel. Without adequate fire lanes, the large ladder truck may not have had enough room to set up for that rescue.



# the Party?



Depending on the size and type of event, the task force should also consider requiring the event staff to use video boards, public address systems, or signage to inform the spectators of critical emergency information. (Photo by Vj453.)

## TASK FORCE

The first key step in the fire service management of special events is to develop a task force with all applicable stakeholders in your jurisdiction. Invite officials from fire, emergency medical services, police, public works, risk management, emergency management, city hall, and so forth. Also, invite local health and liquor department staff for events that will be serving food or alcoholic beverages. The task force should then formally convene with the organizers of each special event well in advance of the proposed date. This allows the event coordinators enough time to address any concerns voiced by the task force without having to postpone the event. Representatives from each specific event such as private security, food vendors, concert technical staff, and fireworks pyrotechnicians should also attend the task force meetings to provide precise details. It is also a good idea for your jurisdiction to formally define “special events” so that promoters know whether their event needs to be brought to the task force.

The task force needs to be a dynamic and evolving process that goes beyond simply reviewing events. General discussions should take place covering emerging trends and recent events around the world. One jurisdiction’s task force recently introduced the

topic of civilian-owned unmanned aerial vehicles (UAVs), also known as drones, near large gatherings of people. Law enforcement officials voiced their concerns about drones being used by extremists to conduct surveillance of potential terrorism targets. Emergency medical personnel further expressed unease about the risk of aerial vehicles crashing into people gathered in a crowd. As a result, that task force created provisions that essentially banned the use of drones at special events in its area.

## ESTABLISHED STANDARDS

As the authority having jurisdiction, you should conduct research prior to arriving at the task force meetings. Today, all aspects at our level of government are data driven, so be prepared to reference codes, standards, and case studies to reinforce what you are asking of the event staff. It’s also a good idea to consult with officials from other agencies who have had successes and failures with similar special events.

The importance of recording all the proposed restrictions, conditions, actions, and requirements discussed at the task force level cannot be overstated. Many of the events you will come across are recurring, and it therefore makes future events much easier to manage when you have accurate and complete records. Task force



As more and more fire service organizations in the country shift toward a community risk reduction philosophy, many are failing to integrate special events into their risk assessments. (Photo by Cristie Guevara.)

members must refrain from making any unofficial verbal agreements that cannot be verified later.

Do not let outside pressure from individuals whose vested interests are beyond the safety and welfare of the community interfere with your duties. While politicians, business owners, and investors deserve to voice their opinions, they should not be allowed to coerce regulatory officials into cutting corners at special events. Resist the urge to look the other way or make an exception and put the public in jeopardy just because a person of influence has an alternate agenda.

A matrix for conducting a risk assessment of an event should be created by the task force wherein different categories are evaluated. Minimum categories should include weather, use of alcohol, total attendance, event type, and safety. A points scale can be used to assign a risk value. For example, no use of alcohol might be zero points while heavy alcohol consumption could be five points. The sum of the values in all categories would then determine the overall risk of the event. The system you ultimately choose for conducting special event risk assessments should be reevaluated at least annually to ensure reliability.

**EVENT REQUIREMENTS**

The task force should be prepared to require that the event representative hire or at least consult with an experienced event planner or designer if necessary. Complex events that are projected to have thousands of attendees and numerous hazards should not be hand drawn on a piece of paper two days before the event. The use of computer-aided design drawings, satellite imagery, exact measurements (as opposed to estimates), and formalized event itineraries are valuable to all task force members and should be provided by event management. The task force may even require

the event planner to provide engineering analyses for unique situations such as extraordinarily large membrane structures or stages. As an example, special events task forces across the United States have recently begun asking for flammability surveys of decorative colored powder because of a 2015 combustible dust explosion resulting in the deaths of 15 people and injuries to almost 500 others at a large outdoor special event in Taiwan. The use of colored powder at special events has risen in popularity, and it is commonly sprayed or thrown on participants. Fire departments have even asked for physical samples of the powder to prove its combustibility using controlled test burns.

Depending on the size and type of event, the task force should also consider requiring the event staff to use video boards, public address systems, or signage to inform the spectators of critical emergency information. Event attendees would benefit from knowing the locations of emergency exits, first-aid areas, and water stations prior to an incident occurring. This is similar to the preflight announcements that flight attendants make. A designated event staff member can also use a public-address system and a prewritten script to direct spectators during an emergency, just like a voice evacuation fire alarm system would.

**OUTDOOR CHALLENGES**

Your agency and task force will have to decide how you choose to calculate occupant load and required egress width for outdoor events. Once again, bear in mind that model fire codes are currently designed primarily for climate-controlled structures with fire protection features. Outdoor venues will pose unique challenges for the fire code official compared to a building. For example, fire code exit width calculations assume that swinging exit doors with panic hardware are being used in assembly occu-



panies whereas outdoor events often use temporary gates and fencing. The event hazard category as determined during the risk assessment can dictate the coefficients used to calculate occupant loads and egress widths.

The task force should then compile an emergency action plan (EAP) or similar document to be reviewed before, during, and after the event. The EAP will be tailored to your agency's needs but should at a minimum include the event timeline, site map, contact information of key players, two-way radio channels, and emergency procedures (such as evacuation or inclement weather). Contingency plans for unexpected situations such as communications system failure, hospital diversion, or loss of electricity should be addressed in the EAP. The nearest open areas that can be used as landing zones for air ambulances need to be identified in the EAP as well. To ensure consistency and reduce the event planning workload, the task force should create specific EAP templates for commonly used venues in your jurisdiction. For security reasons, the EAP should be kept confidential and only distributed to vetted personnel that have a specific need for it.

### SPECIAL EVENT PERMITS

Qualified individuals, preferably certified fire inspectors, should physically inspect the event during the setup phase as well as during the event itself. Delegation of the site inspection to individuals with other duties such as medical personnel or police officers is not recommended. Any last-minute changes to the event that cannot be avoided should be communicated with event command staff for distribution. The physical inspection should verify information on event plans that were previously reviewed and approved by a fire code official. Plan review and inspection of special events should be done by means of a permitting process that is required by the fire authority having jurisdiction.

The special event permitting and inspection processes are crucial, as evidenced in a 2016 incident involving a circus tent collapse in New Hampshire that resulted in the deaths of a father and his young daughter. The required permits for the tent were allegedly not obtained and therefore no inspection was done. The Occupational Safety and Health Administration later issued the event operator 14 serious citations after its post-incident investigation. Among the citations were notes that incorrect and damaged tent stakes were improperly used and that severe weather forecasts were ignored. The state fire marshal's investigation also revealed reported confusion among circus workers as to how to properly alert and evacuate the crowd inside of the tent once the inclement weather began to damage the canopy.


### FOLLOW UP

An important final step for the task force is a post-event follow up and evaluation. All players involved should submit a report detailing areas for improvement and what worked well. This information should be presented to the event

staff if it is a recurring event. During multiday events, a short debrief should be completed at the end of each day to address any small corrections that can be made before the following morning.

Once the task force has gone through several special events and has become comfortable and sufficient with its processes, an emergency planning exercise should be completed. A mock special event should be created and submitted to the task force through the usual means. A tabletop or functional exercise would then be completed. Participation in the exercise should be mandatory so that all the players can formally meet and gain experience working together. An emergency situation requiring the use of contingency plans in the EAP should be integrated into the exercise and worked through. Consult with the emergency management personnel in your jurisdiction and use the wealth of free information from the Federal Emergency Management Agency for assistance in conducting an emergency planning exercise. Special event emergency planning exercises should be done at least every three years.

As your jurisdiction becomes progressively more efficient with the special events process, the task force should compile informational guidelines that are made available to potential event organizers. These guidelines would accompany the permit applications so that the applicant knows what is expected before the task force is even aware of the event. It is recommended that the guidelines be broken up into individual packets or chapters based on the type of event. Examples include fireworks, tents, extensions of premise, stages, etc. Special event guidelines should be reviewed by the task force annually.

The management of special events from a community risk reduction standpoint is not a daunting endeavor once the task force and its associated processes are in place. Documentation, consistency, practicality, and communication are keys to special event success. On the flip side, complacency and an unwillingness to cooperate are toxic mindsets in dynamic special events environments. Reevaluate your policies and procedures from the ground up as well as annually, and take things one step at a time. 

**Brandon Siebert** is a full-time inspector/investigator for a career fire department in the suburbs of Phoenix, Arizona. He also volunteers at a second fire department for a total of more than six and a half years of fire service experience. Siebert has an associate's degree in emergency response and operations and has been on staff with a private event management company for more than 13 years.



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# A TALE OF TWO FIRES



## Portable fire extinguishers and community risk reduction

BY ROBERT J. ROSS

**W**e constantly come up with catchy slogans for fire prevention programs like “get out stay out,” but we are fooling ourselves if we think this is the answer to our fire education prayers. In fact, I would propose it is a bit of a failure on our part. Though each year many injuries occur to the public who are fighting fires with makeshift items like pots and pans and even, in some cases, garden hoses, we as the fire service fail to embrace the full range of educational programs that include the safe and effective use of portable fire extinguishers. It is vital that we accept that it is inherent in the human nature of some people to try to put out incipient and small fires prior to calling 911.

### TWO EXAMPLES

Let me give you two examples with remarkable outcomes. On March 19, 2015, my department responded to a call that began as

a small incipient fire and ended up being a two alarm. A nine-year-old was watching TV when the plug behind the couch began sparking and the TV went off. He went to get his sister in the kitchen. With good intentions, his sister tried to extinguish the corner of the couch, which was now smoldering, with a wet dish towel. She did this for several minutes, but the fire grew in intensity to the point where she could no longer tolerate the heat, smoke, and flames that were filling the living room. At this point, she gave up trying and fled the house, calling 911 from a neighbor’s home.

The cause of the fire was determined to be an electrical failure in the plug behind the couch. The first floor of the house was a total gut because of heat and smoke damage, and the second floor was salvable but the occupants were displaced from the house for more than six months.

My years of experience tell me that if these occupants had a 2½-pound ABC extinguisher, this fire could have been quickly





A photo of the living room where the women attempted to put a fire out with a wet towel. (Photos by author.)

extinguished, leaving minimal damage to the home.

The second example is a fire that occurred in 2013 in the kitchen of my brother Mark's home in Haddam, Connecticut, a small community 25 miles south of Hartford. Haddam has a well-qualified volunteer fire department, but Mark's home is in a rural part of town, and time of day and response time can be a challenge. Mark's twin teen daughters were the only ones home, and they were cooking popcorn in the microwave when the motor failed and caught on fire. The girls immediately left the house and went to the neighbors, as they had been instructed, and called 911. The neighbor went back to my brother's house and grabbed a 10 ABC fire extinguisher Mark kept in his garage. The neighbor entered the house just as the resident state trooper arrived, and he followed carrying an extinguisher from his cruiser. The neighbor and the trooper quickly knocked down the fire, which had flames extending to the cabinet above.

The fire department arrived a short time later and removed the microwave and cabinets involved in the fire, using fewer than 10 gallons of water on the smoldering cabinets. Mark and his family were displaced for one week while the interior was cleaned and within several weeks the kitchen was replaced and life for them returned to normal. This is a success story for the use of a portable fire extinguisher.

#### LACK OF EDUCATION

A federal survey conducted a few years back concluded that 93 percent of the homes surveyed had a working smoke alarm. That's great and getting better all the time. What troubled me about that report was that it stated that only 44 percent, or less than half of the homes surveyed, had a working fire extinguisher and one third of the fire injuries reported occurred during fire extinguishment or control. I would propose these burn injuries



are related to the use of makeshift items rather than portable fire extinguishers in the attempts to extinguish fires.

The portable fire extinguisher is the most underused public firefighting tool available because we as public fire educators and the fire service in general fail to realize the portable fire extinguisher's value in extinguishing incipient stage fires. As a result, we fail to promote them in our cadre of fire prevention programs. And why should we when our own fire codes often do not require extinguishers in locations where they clearly have the potential to do good?

A myth about portables is that they require expensive training. As a first-aid appliance, the argument of training, which I think was well debunked by Jim Tidwell of Tidwell Code Consulting, should not be a reason for watering down or amending the code



This photo shows a garden hose the occupant was planning on using at a recent stove fire before calling 911. Thankfully, she abandoned that idea.

requirements. If you consider the history of portable extinguishers, there has been a great deal of research, testing, and engineering into the labeling and operating steps to meet the most very fundamental concept of their use. A person with no training or experience should be able to read the label, remove the extinguisher from its bracket, and extinguish an incipient stage fire.

I have heard countless arguments against portable extinguisher use throughout my 35 years in the first response services. One, that people will not know how to use them, is wrong. According to "Ordinary People and Effective Operation of Portable Fire Extinguishers," a study conducted by Worcester Polytechnic Institute, "The data collected strongly suggests that the ordinary person can operate a fire extinguisher and use proper technique to effectively extinguish a fire. Overall, 98 percent of the 276 participants were able to discharge extinguishing agent onto a fire on their first trial; 100 percent of the participants were successful on their second trial with a minimal amount of training."

## COMMUNITY PREPARATION

As the fire service struggles with so many health and safety issues, the biggest being the exposure to the byproducts of today's household contents and the related link to so many cancers, doesn't make sense that our priority in fighting a fire should be in preventing it? During my rookie year in Middletown (CT) in 1982, the lesson of fire prevention being our first defense was engrained in me by Deputy Fire Marshal Paul Rasch. Rasch was so passionate about fire prevention that he often dragged the line members along with him for his school prevention programs. It was there, in the classroom, that I saw the value of teaching young children the dangers of fire, and my own passion for public fire education was born. I have fond memories of going out with

Rasch to teach Stop, Drop, and Roll. Rasch even had a dollhouse he modified and could smoke up to show the importance of keeping your bedroom door closed and the need for fast-acting smoke alarms.

But back in those days, we did not have the high-tech products we have today. Recently, the Fire Equipment Manufacturers' Association (affectionately known as the other FEMA) donated to the Connecticut Fire Marshals Association an electronic fire extinguisher training prop. This was a generous \$10,000 gift to the association membership that it could use in training residents and businesses about fight or flight and, if they choose to fight, the proper use of portable fire extinguisher operations. I can only hope those charged with fire prevention efforts will fully grasp the potential of the device and put it to full use.

My current department's annual fire prevention week open house had record attendance last year, with more than 2,000 residents participating. Our program includes a diverse offering of fire and safety educational opportunities that include residential sprinklers and portable fire extinguisher training. I ask my fellow fire service professionals, no matter what rank you hold within your department, isn't it incumbent on all of us that we should teach those we strive to protect how to have the right equipment in place prior to an incipient stage fire and to properly extinguish a fire so that we can reduce the number of people injured? **FR**

**Robert J. Ross** is a 36-year veteran of the fire service and is chief of the South Fire District in Middletown (CT). He has served as Connecticut state fire marshal, executive division director at the former Department of Public Safety, state coordinator of the TOPOFF 3 exercise, and chief of the Middletown Fire Department. Ross was the 2015 recipient of the Fire Equipment Manufacturers' Association Life Safety Advocate Award for his efforts in supporting fire prevention education and his advocacy for fire safety code development.



# Keep It Clean



Every single dive your dive team makes is in a contaminated environment, and regardless of what location, body, or type of water you are diving in, your divers are faced with some type of contaminant. (Photos by author.)

## Public safety diving and contaminated water

BY SCOTT HUFF

**T**he reality: Every single dive your dive team makes is in a contaminated environment, and regardless of what location, body, or type of water you are diving in, your divers are faced with some type of contaminant. A simple definition of contamination is to make something dangerous, dirty, or impure by adding something harmful or undesirable to it.

Public safety divers face a multitude of operational areas from retention ponds; lakes; creeks; rivers; static to dynamic bodies of water; oceans; ports; harbors; drainage ditches; and, in rare cases, holding tanks and containment structures. These areas contain some sort of contaminant with a varying degree of toxicity and pollution level.

### PROTECTION EFFORTS

It is imperative that the equipment your divers are wearing reflects on the side of safety and be the right equipment for the style of diving you are trying to perform. Not all manufactured dive gear is suitable for public safety diving, and it should be investigated and proficiently trained on in a controlled environ-

ment prior to placing it into operation. Wearing a dry suit is a technical specialty and takes specific training from a credited agency specializing in dry suit diving certification. Check with your local dive gear manufacturer for training.

To help mitigate risks, teams should review National Fire Protection Association (NFPA) 1953, *Standard on Protective Ensembles for Contaminated Water Diving*. This standard presents minimum design, performance, testing, and certification requirements for protective clothing and equipment items, including dry suit, dry suit gloves, and dry suit footwear designed to provide limited protection from physical, environmental, and certain chemical and biological hazards. Suits in compliance with NFPA 1953 provide a vital minimum threshold of safety for divers.

Work with your local health department, environmental protection agency, or state agencies to provide your team with information on what testing and control efforts are being done in your area. They will be able to give you potential effects of exposure and contaminants that may exist and valuable suggestions on safety precautions for your team. Although it is not realistic to know every contaminant that may exist, the sediment and water quality

testing can be achieved and give you a good baseline on what level of exposure protection, equipment, and training you will need.

## TYPES OF CONTAMINANTS

There are millions of possible contaminants. Some are more hazardous than others, and some may need to be avoided all together even in tiny concentrations and short exposure times.

### 1. Biological contaminants:

- a. Human sewage, animal sewage, urban and industrial sewage, commercial ships, marinas, agriculture runoff, hazardous waste disposal, urban storm water runoff and marine fresh water organisms, pathogens (disease-causing bacteria, viruses, rickettsia that degrade quickly in water), microbiological organisms, and sediments are all biological contaminants. Viruses such as hepatitis A and B as well as tetanus are also biological.
- b. Protozoans are single-celled marine and fresh water organisms. The organism known as giardia lamblia is a protozoan and is a common contaminant in fresh water, even in remote and pristine areas. Symptoms are similar to those of E. coli but are usually less severe.
- c. Toxins are poisonous substances produced by microorganisms; plants; and, in some cases, animals. The most well-known and common toxin is the one known as “red tide.” This is caused by a marine dinoflagellate and can cause gastrointestinal and respiratory problems in humans. This type of algal outbreak is usually associated with large fish kills.

### 2. Chemical and industrial contaminants:

- a. There are literally millions of chemicals in use today with varying toxicity and permeability. Some of the most common are vehicles in the water, sunken boats, agriculture runoff, and urban sewage.
- b. Hydrocarbons are the chemical divers are most likely to encounter and include creosote and benzene with low-level long-term exposures. These will float on the surface and do the most damage to dry suits.
- c. Heavy metals are found in sediments and pose a low risk to divers but are considered systemic poisons. Long-

term exposure to these metals can have serious health effects and cause liver, neurological, and kidney damage.

- d. Polychlorinated biphenyls (PCBs) have been banned in the United States since 1977 but still exist in waterways from early dumping. PCBs do not readily decompose in water and are found in bottom sediments and pose serious health risks in low levels of exposure.

- e. Pesticides are organic phosphates and can have devastating effects on the nervous system, organs, and tissue.

They are most commonly found around agriculture areas and golf courses and should be tested for regularly. Pesticides are difficult to detect and may not be decontaminated properly, making them a high-risk contaminant.

- f. Chemicals to absolutely avoid include carbon tetrachloride, dichloropropane, ethyl benzene, styrene, trichloroethylene, and xylene. If you suspect the water is contaminated with one or more of these chemicals, do not dive. There are more chemicals than can be covered here, and it is rare that complete information is available in an emergency. One excellent resource is the Chemical Transportation Emergency Center. This group, located in Washington, DC, is sponsored by the chemical industry and is ready to assist public safety personnel who are responding to chemical emergencies. If you believe a chemical has been released into the water and you require urgent information about its effects, please call them at 800-424-9300. They will need detailed information about the incident and the nature of the suspected chemical. This hotline is for emergency use only.

### 3. Nuclear and radiation:

- a. Diving in any proximity to radiation should only be attempted by specialty trained and specialty equipped personnel. The risk vs. benefit should be obvious in this type of situation and evaluated by your standard operating procedures (SOPs).

### 4. Other factors:

- a. Heavy rainfall, runoff, and localized flooding in areas outside the waterway banks pose the most common pollution exposure to our teams. These are referred to as nonpoint



Decon should start immediately after the diver exits the water.





Left: It is imperative that the equipment your divers are wearing reflects on the side of safety and be the right equipment for the style of diving you are trying to perform. Right: Tenders and shore support personnel should direct the diver to keep all gear in place, especially the full face mask, and assist the diver to the decon area.

- source pollution. Dog feces, motor oil, fertilizers, and pesticides are examples of these nonpoint exposures.
- b. Sediments as described above can contain PCBs and heavy metals found on the bottom and along edges of the waterway and should be avoided as much as possible.
- c. Hazardous materials in areas of tank spill containers, storage tanks, or working around aircraft spills should be taken into consideration for extra protection suits and time spent in this environment.

After working with your local agencies on water quality and testing, you should have a good baseline for dealing with contamination in your area and how to mitigate exposures. Establish good SOPs based on your findings and ensure your divers and shore support personnel are protected with the proper personal protection equipment (PPE).

While most dive teams endeavor to find the perfect equipment for all circumstances, that is rarely, if ever, possible, and compromises must be made. If you do not have the appropriate equipment for a certain type of mission, you should call in additional resources. The amount of risk a dive team is willing to accept will vary depending on the potential for a rescue as opposed to a recovery. Obviously, most public safety divers are willing to accept a higher risk if there is the possibility of saving a life. However, the safety of the dive team is paramount. Teams currently diving in wet suits and open circuit self-contained underwater breathing apparatus (SCUBA) should reevaluate their equipment choices and understand we do not dive in perfect water scenarios in public safety diving—even in training.

## DECONNING YOUR DIVERS

The fire service has taken great strides toward combating cancer within our personnel. The public safety dive team should be no different and should not cut corners in diver PPE. Dive team leaders need to step up the game in protecting our divers and ensure they are not only wearing the proper PPE but that we properly decontaminate (decon) our divers after a dive. Simple Green and mild dish soaps seem to work well for deconning equipment and are fairly cheap. Other cleaners and

disinfectants could be harmful to your gear and are not meant for the dive gear and suit materials. Check with your local manufacturer on cleaning practices and how to properly decon your equipment.

Decon should start immediately after the diver exits the water. Tenders and shore support personnel should direct the diver to keep all gear in place, especially the full face mask, and assist the diver to the decon area. Once decon is complete, the tender should assist the diver in doffing dive gear and decon equipment a final time before placing it in the apparatus. The diver must be cautious of areas around the face, nose, and mouth and should not handle food until proper hand washing and face washing are complete. Touching items after a dive could cause cross contamination of everything the diver touches.

Be cautious of stowing dirty or wet dive equipment in bags, compartments, or lockers after a dive. Allow complete cleaning and drying of all equipment and ensure it is in good working order prior to the next dive.

We are the *only* discipline in public safety that trains in the environment in which we work, and we need to be protected at all times. Keep in mind: If we train like we work, we will work like we train.

Check with your local dry suit and equipment vendors/manufacturers to see what suit may be right for your type/area of diving, and always side on diver safety. **FR**

**Scott Huff** is a 16-year veteran of the fire service and a lieutenant with the Indianapolis (IN) Fire Department assigned to Special Operations Tactical Team Engine 7. He has been with the Indianapolis Fire Department his entire career and was the dive commander from 2009 to 2015. Huff is an active public safety SCUBA diver and is certified through Dive Rescue International as a Public Safety Diver, Public Safety Scuba Instructor, Diver Rescue Specialist Trainer, Ice Dive Trainer, Swift Water Trainer, Dry Suit Trainer, and Interspiro Repair Tech. He dives PADI, NAUI, SSI, ESI, DRI, and HSA (Handicap Scuba Association) as an instructor. Huff is actively involved with the International Association of Dive Rescue Specialists, is a graduate of Halls Dive Academy, and travels the country teaching specialty classes and seminars on public safety diving as a corporate trainer for Dive Rescue International.



# Resistance Bands

Firefighter functional movement training

Resistance bands are a great tool to mimic what we do on the fireground. (Photos by author.)

**W**hat makes a firefighter a firefighter? There are so many characteristics that are fundamental to our identity; courage, honor, and integrity are just a few of those character traits. While essential to every firefighter, these characteristics can also be found in nonfirefighters. So, what makes a firefighter a firefighter? TRAINING!

Training is what separates the firefighter from the general public. It is our persistent pursuit for continued development that allows us to do the things that we do. At the Fire Department Instructors Conference (FDIC) International, you'll find the greatest instructors in the world as they share their experiences and knowledge in a way that will transform how you perform and think as a firefighter. It is my privilege and honor to be able to bring my experience and expertise to FDIC 2017 with firefighter functional movement training, and I want to share some of that with those of you who are unable to attend.

## FIREFIGHTER FUNCTIONAL MOVEMENT TRAINING

Firefighter functional movement training is a complete training system designed specifically for firefighters by firefighters. As the lead peer fitness trainer of the Milwaukee (WI) Fire Department, I have had the privilege to help create a long lasting,

sustainable health and wellness program. In addition to that, it has been a pleasure to be a part in moving the culture of firefighting toward health and wellness; combined efforts have helped reduce injury claims by 57 percent and helped save the city of Milwaukee \$1.3 million. I have been fortunate to have the opportunity to participate in a process that has helped in the success and training of more than 30 departments.

What does it mean to be firefighter functional? Being functional is essential to increasing performance and reducing the risk of injury. But what does it mean to be functional? How can you develop programming so that you are functional? To answer these questions, you have to start by defining your function. Then it is from there that we can begin to formulate quality programming that will meet the demands that we have. With firefighter functional movement training, the goal is to learn how to use the T.A.C.T.I.C training priorities to identify the functions and demands we have as firefighters. For a program to reduce injury risk and increase performance, it must have its roots in the function—which is the very purpose of using the T.A.C.T.I.C training priorities. This acronym serves as a rapid and effective means to assess any program and see if it truly fits firefighting. While there are numerous elements for T.A.C.T.I.C training, for

By Jordan Ponder





today's article I am going to focus on the I in this acronym—irregular implement.

## IRREGULAR IMPLEMENT

Firefighting equipment is normal and dynamic in nature. The things we are using are not symmetrical and consistent in shape and design. While ergonomics has done incredible things to make equipment easier to manage, everything we are interacting with possesses unique characteristics. In firefighting, the equipment we use is irregular in nature. The fact that our equipment is irregular, coupled with how it relates to our chaotic environment, requires us to be able to react safely and efficiently. This is our function. Being able to move irregular equipment in a reactive fashion safely is essential to reducing injury and improving performance. This is why resistance bands are one of the best irregular implements that you can use because you can use them to train to be functional with explosiveness and stabilization while being affordable.

## RESISTANCE BANDS FOR EXPLOSIVENESS

Resistance bands are a great tool to mimic what we do on the fireground. The ability to react with proper stabilization is essential for firefighting because of the equipment we use and the chaotic environment we work within. When it comes to lifting a ladder overhead, you are putting a piece of equipment into motion far away from your center of gravity and then proceeding to put your body underneath it. From a fitness perspective, this is an incredibly dynamic function. But how can you train for it? With resistance bands!

The beautiful thing about resistance bands is that they teach you to move explosively. When the band is in its rested state, there is minimal tension. When you lengthen it out, the tension increases. Consequently, you need to move quickly and rapidly to lengthen your resistance band in a way that trains you to be

strongest at the end of the motion. This ascending strength curve is unique to resistance bands. It teaches you to begin the motion with explosiveness to finish the motion strongly. When you are raising a ladder, do you want to be strongest at the end of the motion or at the mid-range (which is what is trained when using traditional means of lifting)? The *end* of the motion! The stronger you are at the end range, the faster you will raise that ladder and the less effort it will take because you started putting that ladder into motion quickly at the beginning.

## RESISTANCE BANDS FOR STABILIZATION

Now that you are raising this ladder overhead, you need to be able to control it while protecting your body. While many firefighters can do this, they do it while increasing risk of injury to their shoulders and spine because of poor stability. The ladder may be overhead, but it is done by sacrificing their posture and making compensatory movements. These inefficient habits, done while under duress while encumbered in turnout gear, puts you at an elevated risk for injury.

Resistance bands help you learn how to stabilize, because when you put them into motion they continue to move. This again is characteristic to the tension that occurs when you lengthen it out. When it is elongated, the band wants to return to its starting position. This is where that tension comes from. However, as you continue to train with resistance bands, you'll learn how to control a dynamic load with proper stabilization to make sure that you are being efficient. So, what is proper stabilization?

Stabilization is the ability to secure your joints into place intentionally. For firefighters, the most important series of joints to stabilize are the ones attached to your spine. To do this, you must use and activate the muscles that are attached to the spine. When these muscles are activated, you align your spine like a column. With resistance bands,



Resistance band hip-assisted reverse lunge.



A clean to overhead press.

you get excellent external cueing about the alignment of your spine when you use it for an overhead press to mimic raising a ladder because of how your body is within it. To perform an overhead press with a resistance band, you step inside the circle of the resistance band so that you are inside the loop. This way, when you extend the resistance band, you are inside of it, causing the resistance band to create a line through your spine, which will then indicate whether you are operating properly as a column or not. In this position, you are reminded to activate those muscles attached to the spine—most notably your glutes, abdominals, and scapula—to make sure that you are in healthy position to perform this function.

### AN AFFORDABLE TOOL

Resistance bands are an incredibly affordable tool that will train you to be functional. In today's economic climate, fire departments struggle to find the funding to support how they envision a health and wellness program. With the high cost of treadmills, weightlifting equipment, and elliptical machines, many departments think that a health and wellness program is beyond their reach because of the monetary limitations they are experiencing. There are tremendous benefits to using the equipment listed above; however, you can experience those same benefits with resistance bands at a fraction of the cost.

When it comes to using your financial resources, your department needs to be responsible. It needs to provide the greatest return on investment possible. As previously stated, there are incredible benefits to the expensive traditional equipment, but the issue is that, when the lights go off in your firehouse gym, that equipment stays there. This is not an efficient investment. Resistance bands are incredible and affordable, and even more incredible is the education

that is behind that that makes them truly train you and your department to be functional.

It's not the equipment that makes the firefighter, it's the education and application of that equipment! Firefighter functional movement training teaches you the science behind resistance bands as well as specific applications to ensure that you improve how you move and perform in a way that will increase your safety tremendously. The best thing about the education you will gain is that it stays with you and will carry over into how you perform your job. It will make you functional in a way that investing in expensive equipment won't.

Training is what separates firefighters from nonfirefighters. It's the endless pursuit to find the most optimal and efficient way to perform our duties and tasks. By taking this same approach and same mentality to improving health, you and your department will be developing countless benefits that continue beyond your shift. Resistance bands are an unparalleled way to develop explosiveness and stabilization while being affordable as you learn to implement and use firefighter functional movement training. **FR**

*To learn more about firefighter functional movement training, contact me at [jponder@fd-pt.com](mailto:jponder@fd-pt.com).*

**Jordan Ponder** is a captain with the Milwaukee (WI) Fire Department, assigned to Engine 30. As an ACE certified trainer, he is the lead peer fitness trainer for the Milwaukee Fire Department and has several functional fitness certifications. Along with being a professional bodybuilder for the World National Bodybuilding Federation, Ponder is also the head of Firefighter Dynamic Performance Training, the firefighter safety campaign that awards departments with free emergency safety training equipment and free safety classes just for participating. To learn how your department can be awarded free equipment and classes, connect with Jordan Ponder via [firefighternation.com](http://firefighternation.com) or [jponder@fd-pt.com](mailto:jponder@fd-pt.com).



# Collaborative Community Risk Reduction

## Incorporating the public in emergency prevention efforts

People often speak of the organizational culture of the fire service but seldom with such clarity and conviction as my friend Laura Baker, an assistant chief for Tucson (AZ) Fire. Laura has been in the fire service for 22 years, beginning as a firefighter and rising through the ranks to her current position. She served time as the fire marshal and has a broad perspective on the topic of what the fire service should really be about.

Chief Baker has been promoting a concept called “Hero to Guardian.” In simple terms, it reflects the point of view that our values need to adapt to the realities we (the fire service) face. People often seek out the job of being a firefighter with a picture of someone rushing through flames to save the victims inside. And, as I pointed out in last month’s column, that seldom happens.

That is not a slam, because it does indeed happen in the real world. And people are alive today who would not be so without a quick and effective emergency response. But considering the odds, with 80 percent (91 percent in Tucson) of our calls being medical, it is more likely we’ll save someone with medical treatment than from a fire. And sometimes the “save” scenario doesn’t come to an individual emergency responder at all. But there is value in serving in this noble profession. And, Laura sees another path to self-validation and value for the fire service.

### COMMUNITY INVOLVEMENT

Her interest in the topic began when looking at community policing models. Law enforcement is facing renewed calls to “police” in a different fashion than many have in the past. A fairly recent policy document developed by the Obama Administration outlined several key points about improving police operations, encompassed in the concepts of community policing: building trust and legitimacy, improving relationships with the community, reducing risks in the community, training and education, and improving officer safety.

The police are not responding to these concepts and pushing them because they don’t have enough to do. They are looking at new ways of doing business because they need the community’s help

in solving problems. The police grab most of the headlines—and very intense public scrutiny. They need the community’s support perhaps now more than ever. But aren’t we in the fire service facing the same issues in our own way? It is rare for someone to shoot at a firefighter, but very often the public is questioning the pay and benefits we receive and the way we do business.

How then do we translate those concepts into the fire service world? Laura and some of her peers are beginning to spread the word about collaborative community risk reduction (CRR) in their own area and throughout the nation. Chief Jim Critchley of Tucson believes in these concepts and supports their expansion there. Tucson is moving forward with plans to reduce frequent 911 callers, increase smoke alarm installations, and promote collaborative community healthcare initiatives in the area. It is engaging station officers in developing specific station plans and working to push risk assessments down to the local station level. There is more, but you get the picture.

### PROGRAM CHALLENGES

What is happening in Tucson is not without challenges. Don’t we all have them? Anyone reading this from their area should be aware that they know there is a long row to hoe. But applying the principles of CRR to all department operations is their goal. And in my humble opinion, it is the future leaders like Chief Baker who will help make it happen because the road is longer than any one administration.

As past president of the International Association of Women in Fire and Emergency Services, Laura has a platform from which she can promote the concepts of CRR elsewhere in the nation. At events including Fire-Rescue International and at the National Fire Academy, Laura and her compatriot Chief Mike Carsten have been spreading the word of the need for the fire service to move in this direction.

Laura’s view is that the value future firefighters need to place in the department, and in themselves, is to focus more proactively on the problems they encounter, get to the root of the problems, and find



By Jim Crawford

**FFN** To read more from Jim Crawford, visit [www.firefighternation.com/author/jim-crawford](http://www.firefighternation.com/author/jim-crawford).

## Community Risk Reduction

ways to solve them. To develop relationships with the community, which is many times more diverse than we realize, and so to be able to understand and relate to that diverse community. To convince the community that fire is everyone's fight, and that they have a role in reducing risks from fire and other common emergencies—because no fire department has all the resources they need to care for everyone.

### COMMUNITY GUARDIANS

And when firefighters embrace these concepts, they begin to look at themselves as a kind of guardian and servant of the community where a multitude of risks are attacked proactively. They start helping the community solve problems for themselves, all the while helping to manage call volume and improve public safety. And they begin to see the positive results of enhanced community relationships as they get outside the fire station and become more proactive members of the community they serve.

This change in firefighters' values will take a very long time. Tucson is looking at it now because so many people have retired, and the department has a chance to recruit and train new employees with the right skills and attitudes that will continue to propagate these values. It can do this while taking advantage of the skill sets already in place and

the many high-quality individuals who already reach beyond the immediate needs of emergency response.

Chief Baker and her peers are to be commended for their leadership in this arena. It is a long row for the fire service of the entire nation to hoe—not just one department. In my opinion, we need more like her. **FR**

**Jim Crawford**, FIFireE, is project manager for Vision 20/20 and a retired fire marshal and deputy chief of the Vancouver (WA) Fire Department. He is a member of the NFPA technical committee on professional qualifications for fire marshals, a former member of the Standards Council for the NFPA, a fellow of the Institution of Fire Engineers, a life member of the IAFC, and past president of the International Fire Marshal's Association. Crawford is the author of *Fire Prevention Organization and Management* and is an editorial board member of *FireRescue*. He has received the R. Wayne Powell Excellence in Fire Prevention Award, the Dr. Anne Phillips award for leadership in fire and life safety education from the Congressional Fire Services Institute and the International Fire Service Training Association, the "Fire Protection Person of the Year" from the Society of Fire Protection Engineers, and the Percy Bugby Award from the International Fire Marshal's Association.

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# New Deliveries

By John M. Malecky

The Indianapolis (IN) Fire Department has placed in service five Pierce Saber pumpers. Each has a 450-hp diesel engine, a raised roof cab, a single-stage 2,000-gpm pump, a 500-gallon water tank, and a top-mount Control Zone pump panel.



**Pierce Manufacturing**  
920-832-3000; [www.piercemfg.com](http://www.piercemfg.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

The Trimble (TN) Fire Department responds with this 4 Guys pumper. Built on a Freightliner M2 106 chassis and powered by a 350-hp Cummins ISL diesel engine, it has a Hale Qflo 1,250-gpm pump, a Foam Pro 2002 system, UPF 1,000-gallon water and 20-gallon “A” and 30-gallon “B” foam tanks, a TFT Crossfire deck gun with an Extern-da-Gun, and two 1½-inch preconnects. The cab has five seats.



**4 Guys Fire Trucks**  
814-634-8373; [www.4guysfire.com](http://www.4guysfire.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

The Stanley (ND) Volunteer Rural Fire Association placed in service this Midwest brush unit. It has a Freightliner M2 106 chassis, a 350-hp Cummins ISL diesel engine, a Darley 2BE 21H pump (100-380 gpm), a foam Pro 1600 system, APR 1,500-gallon water and 20-gallon foam tanks, a one-inch booster reel, two 1½-inch front bumper discharges, and four preconnects in man wells.



**Midwest Fire Tanker**  
800-344-2059; [www.midwestfire.com](http://www.midwestfire.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

FIREFIGHTERNATION.COM

The Indianapolis (IN) Fire Department has placed in service two Pierce Arrow XT rear-mounted 75-foot aerial ladder trucks with single rear axles. They have 450-hp diesel engines, raised notched roof cabs with six seats, and a forward-facing EMS compartment. The aerials have remote tip controls.



**Pierce Manufacturing**  
920-832-3000; [www.piercemfg.com](http://www.piercemfg.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

The Frankfort (IL) Fire Department uses this Smeal/LTC Snorkel. It has a Smeal Sirius chassis with a 450-hp Cummins ISL diesel engine and six-seat cab with two EMS cabinets. It has a Waterous CSU 1,500-gpm pump, a UPF 500-gallon water tank, and a Harrison 10-kw generator. The Snorkel is 55 feet and has a 500-pound payload.



**Smeal Fire Apparatus**  
402-568-2224; [www.smeal.com/lighting](http://www.smeal.com/lighting)  
[firerescue.hotims.com](http://firerescue.hotims.com)

The Greenwalds Fire Company, in South Whitehall (PA), operates this KME Predator Panther pumper. It has a 450-hp Cummins ISL diesel engine, an Allison 3000 EVS transmission, an aluminum body, a Hale Qmax 2,250-gpm pump, a UPF 750-gallon water tank, a low hosebed, an Onan 8-kW PTO/Hydraulic generator, FRC scene lights, and Whelen brow and telescoping floodlights.



**KME Fire Apparatus**  
800-235-2938; [www.kovatch.com](http://www.kovatch.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

PHOTO BY ADAM ALBERT

## Hannay FF Series Standard Booster Reels

The Hannay FF Series standard booster reels are designed to handle 1¼- or 1½-inch I.D. booster hoses or 1½- or 1¾-inch I.D. collapsible hose. The booster hose reel is steel-painted graphite with aluminum, but stainless steel construction is also available. A gear-driven crank rewind and pinion brake come standard with options for a chain-and-sprocket drive powered by electric, hydraulic, or compressed-air motor. Rollers and roller mounting brackets are accessory items that can be added upon request. The Series can handle pressures up to 600 psi.



**Hannay Reels**  
877-467-3357; [www.hannay.com](http://www.hannay.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

## Ajax Rescue Tools Extrication Tomahawk

The Ajax Rescue Tools Extrication Tomahawk rescue tool's hardened point is for breaking glass, making purchase points in laminated glass, use as a tire punch, and making a strut insertion point in the body of a vehicle. It also features a pry bar for making a purchase point in door, hood, or trunk seams for a hydraulic tool insertion and prying off hatch and trunk gas struts; a gas shut-off valve wrench; and a flat surface for hammering in cribbing, wedges, or striking surface for driving points into objects.



**Ajax Rescue Tools**  
800-323-9129; [www.ajaxrescuetools.com](http://www.ajaxrescuetools.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

## Metcam TramBed

Metcam TramBed commercial truck bed extension is an aftermarket, slide-out truck bed with welded, adjustable, power-coated legs. With a TramBed installed in the factory truck bed, operators enjoy a convenient in-field work surface that places all their machinery and materials within easy reach. They can also transport up to 2,000 pounds of cargo in the TramBed and slide it out for quick access with complete stability and support. The TramBed 2.0, an enhanced version available at a lower price, features heavy-duty construction that includes an all-stainless-steel deck.



**Metcam**  
888-394-9633; [www.metcam.com](http://www.metcam.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

## Streamlight Strion DS, Strion DS HL, and Strion DS

Streamlight® Inc., Strion® DS, Strion DS HL (high lumen), and Strion DS HPL (high performance, high lumen) rechargeable lights offer two independent, easy-to-locate switches for added user flexibility. The ultra-compact flashlights provide both a head-mounted, pushbutton switch and a second, multifunction pushbutton tactical tail switch for full feature control independent of the other switch. Each light features the latest in C4® LED technology. The Strion DS delivers an optimal balance of a bright, far-reaching beam with ample peripheral light and long run times.



**Streamlight**  
800-523-7488; [www.streamlight.com](http://www.streamlight.com)  
[firerescue.hotims.com](http://firerescue.hotims.com)

## Agri Drain Warthog Floating Pump

The Agri Drain Warthog Floating Pump is a rugged, highly efficient pump that pumps water at a rate of 850 gpm for fast, efficient water removal or retrieval. The pump weighs approximately 85



pounds, allowing for the setup and use of the pump to be a one-person job. With the optional floating fuel tank, you can increase the typical run time from around one hour to approximately 12 to 15 hours between refueling intervals. The Warthog Floating Pump is great for water removal as well as supplying water from a remote water source.

**Agri Drain**  
800-232-4742; [www.agridrain.com](http://www.agridrain.com)  
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## Honeywell AreaRAE Pro Monitor



Honeywell AreaRAE Pro wireless, transportable, GPS-enabled, multithreat monitor collects information on meteorological conditions and simultaneously detects a broad range of threats including toxic and combustible gases, volatile organic compounds (VOCs), and radiation. While monitoring for hazardous conditions, AreaRAE Pro uses wireless technology to communicate threats in real time up to two miles to a host receiver, where critical information is conveyed via remote software so that connected responders and decision makers across the enterprise have

increased situational awareness to make faster, more informed decisions.

**RAE Systems**  
800-538-0363; [www.raesystems.com/products/arearae-pro](http://www.raesystems.com/products/arearae-pro)  
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# Russian Generals

Issuing citations when they are truly deserved

By Matthew Tobia



**F**irefighters, by nature, are not particularly good at accepting compliments. We deflect and defer, knowing that firefighting is a team effort and that individual achievement is neither sought nor celebrated with victory dances in the end zone. It's hard to explain to the public why we might be high-fiving after rescuing someone from a burning building or reviving a cardiac arrest victim. There are certainly instances when individuals are thrust into a circumstance when they must literally risk their lives to save someone and, in that instant, affirm the heroic act of becoming a firefighter in the first place. Such achievements are recognized on days like Medal Day; still, for most of us, we are extremely uncomfortable wearing the physical representation of a job done well.

Few issues can spin a coffee table up as quickly as a discussion about departmental citations. The number of opinions is matched by the number of people sitting around the table. Put on a helmet and shoulder pads and then ask the question, "When is it appropriate to recognize members for their heroism?" There will be those who answer immediately: never. Firefighters, they will assert, have already performed the greatest act of courage in becoming firefighters ... everything else is in the line of duty.

Others around the table might articulate another position: Recognizing individuals for an act of bravery is tantamount to reinforcing the positive attributes that we want our members to exhibit. Further, when so little tangible can be done for firefighters to adequately reflect the depth of esteem that the public holds them in, why not extend some visual reflection of lives saved and exemplary performance praised? The fire chief should have the discretion to recognize individuals who contribute significantly to the mission of the organization. Such recognition can serve as a visual reminder to others in the same organization that hard work and perseverance in effort are celebrated formally.

For those who have served in the military and witnessed truly heroic acts of bravery, usually connected to the loss of life of brothers in arms, there is a certain humility that is difficult to express in words. And yet, the military has the Congressional Medal of Honor, the nation's highest honor for members of the armed forces whose sacrifices so move the spirit as to demand recognition. Medal

of Honor recipients speak about the tremendous weight that comes with wearing the physical embodiment of their acts and yet they do so with grace and pride, knowing that they are not representing their own actions but the actions of all members of the military who never made it home and whose similar bravery did not get recognized.

The danger in any such effort occurs when the concept of recognition is taken to its extreme, producing Russian generals who boast a chest full of ribbons and medals and betray the very core of heroism. In this era of giving every kid a trophy for participating so no one gets their feelings hurt, there is grave danger in cheapening the entire effort so greatly as to make the value of any medal or ribbon functionally zero or, worse, insult and denigrate the acts of truly valiant individuals.

We are not civilians whose acts of heroism are all the more incredible when you consider that they could have simply turned and walked away from the circumstances that catapulted them into a moment of what must have been tremendous fear. Courage, it is said, is not the absence of fear, rather it is action in the face of fear, and such civilians are truly courageous. There are also instances when firefighters risk their lives in such a way to warrant formal recognition, although such men and women never serve with that intent. Most of us have never known what it is like to risk our lives in such a way that when we emerged from the event on the other side—and found ourselves still alive—we were genuinely surprised.

We should have ceremonies to honor our brethren. We call those among us who affirm our core values a *firefighter's* firefighter. We should issue citations for genuine bravery. We should not issue citations of bravery for being the member of a crew that staffed a bull roast, hung around the station for 20 years, or any of the other myriad actions that, while certainly worthy of our thanks, do not compare to those rare instances of immeasurable risk and reward in a life saved. Recognizing individual or group effort for no-risk actions cheapens the very essence of why we are here, and we are better than that—or we should be. **FR**

**Matthew Tobia** is an assistant chief with Loudoun County (VA) Fire and Rescue and is a 27-year veteran of emergency services. He can be reached at [matthew.tobia@loudoun.gov](mailto:matthew.tobia@loudoun.gov).

**FFN** To read more from Matt Tobia, visit [www.firefighternation.com/author/matthew-tobia](http://www.firefighternation.com/author/matthew-tobia).



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