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Get to Know Your South Carolina EMS Association

The makeup of South Carolina Emergency Medical Services (EMS) is just as diverse as the men and women that rise to the occasion and respond to the nearly 1.2 million calls for service that we field each year. While there are many opinions on the direction and evolution of EMS, we can all agree that the landscape of our industry is changing. Your South Carolina EMS Association (SCEMSA) exists to serve as your collective voice as these changes are negotiated, regardless of your affiliation type or position within an organization. Perhaps like many of you, I did not really understand what the SCEMSA was all about, who could or should participate, and why having a professional association was so important. I attended my first meeting over a decade ago and most of the discussion seemed to be over my head or not relevant to my level of experience. What I did not realize then was that the SCEMSA was all about, who could or should participate, and why having a professional association was so important.

I attended my first meeting over a decade ago and most of the discussion seemed to be over my head or not relevant to my level of experience. What I did not realize then was that the strength of a professional organization lies in having a strong sectional representation of all stakeholders — including me.

Since then your SCEMSA has been through some changes. Following a recent bylaw change, we are proud to announce that our Board of Directors has representation from all facets of SC EMS. Our membership is comprised of individual members, public and private providers, air ambulance, fire based, hospital based, technical colleges, regional EMS offices, associate members and more. In fact, membership is at an all-time high.

These are exciting times for us as we are continuing to strengthen our presence at the state and national level. We are engaging with the stakeholders such as the South Carolina Hospital Association, South Carolina Bureau of EMS, South Carolina Fire Chiefs Association, South Carolina Firefighters Association, South Carolina Office of Rural Health, SC Office of Healthcare Workforce, University of South Carolina, and many more.

In June 2017, we recognized a need to address some of the concerns surrounding workforce sustainability. To accomplish this, we established subcommittees to drive our research. Targeting the major areas of concern the Workforce Planning and Development, Health and Safety, Education, Membership, and Legislative subcommittees were formed. These subcommittees seek involvement from providers at all levels of experience to ensure that we address EMS concerns from all perspectives. The subcommittees published a workforce study in conjunction with the South Carolina Office of Healthcare Workforce in December of 2018 and then followed up with an evaluation of the EMS education pipeline in June of 2019. These documents provide valuable, meaningful data that can be used to quantify the workforce shortages we face in order to adopt strategies to mitigate workforce concerns moving forward.

Your SCEMSA is also actively involved in legislation. We hosted our second annual legislative breakfast in March, which was a tremendous success. The event was well attended by both EMS providers as well as the General Assembly. A delegation from the SCEMSA attended EMS on the Hill Day in Washington, D.C., earlier in April. We are actively working on issues such as PTSD, retirement, access to education and funding, assault on the healthcare worker and more.

In addition to the items above, you will see a new membership management platform rollout in January along with a new, more user-friendly website with documents provide valuable, meaningful data that can be used to quantify the workforce shortages we face in order to adopt strategies to mitigate workforce concerns moving forward.

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EMS agencies and their medical directors should be aware that a significant number of EMS personnel are injured during motor vehicle collisions while on duty and that emergency response “lights and sirens” is a significant risk factor for motor vehicle collisions. EMS agencies should continually review which types of calls really require an emergency response. In the July 2019 edition of the Annals of Emergency Medicine there was a very good study by Watanabe¹ looking at the safety of “lights and sirens.” I recently reviewed part of this article at the March Medical Director update in Wilmington, North Carolina. I want to summarize a few key parts of the article to reinforce the need to be judicious when utilizing “lights and sirens.” The key point I want to drive home with my column this month is that “lights and sirens” is dangerous and only use when it’s really necessary.

The study looked at 20,465,856 dispatches using 2016 NEMSIS data. The paper showed that overall there were 12.4 crashes for every 100,000 ambulance runs. In the response phase for no lights and sirens the rate of crashes was 4.6 crashes for every 100,000 runs and the rate was 5.5 with lights and sirens. For the transport phase the no lights and siren rate was seven and with lights and sirens the rate was 16.5 per 100,000 runs. The transports phase (no lights and siren to lights and siren) increasing from a rate of seven to 16.5 is a huge difference and implies a great deal of increased risk from using lights and sirens. In fact, the use of lights and sirens during the response phase more than doubles the risk of an accident.

Medical Directors and system administrators should review how calls are dispatched. This can be done by reviewing the different EMD cards used by emergency medical dispatchers. Every medical director should have the ability to make changes to how each individual call is dispatched. The paper makes the point that lights and sirens should only be used for time-critical calls such as airway compromise, respiratory failure, trauma requiring emergency surgery and patients with seizures that are not controlled.

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Dr. Darrell Nelson, MD, FACEP, FAEMS is Associate Professor of Emergency Medicine at Wake Forest University Health Sciences, Program Director EMS and Disaster Fellowship, Medical Director Davie, Forsyth and Stokes County EMS.

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Surface Water Rescue

There are quite a few specialties when it comes to technical rescue and water. Dive rescue, surface water rescue, swift water rescue, ice rescue, surf rescue, just to name some of the big ones. A team that wants to be successful and operate safely in these very dangerous environments needs to make sure that they are familiar with all aspects of what they are about to do.

NFPA 1670 – is the standard on operations and training for technical search and rescue incidents. While we know that NFPA's documents are guidelines, they represent many of the country’s expert opinions on how to do it correctly. They also are familiar with all aspects of what they are about to do.

Chapter 16 is the surface water rescue chapter and describes how the different levels of training should be deployed. Most of us in the fire service today are familiar with the standard Awareness, Operations and Technician levels, so having them listed in surface water rescue should not be a surprise.

Each “AHJ” (Authority Having Jurisdiction), this would be your city, county, town, etc., has a responsibility to identify the hazards in your area and continue to reassess these hazards every year. In an inland town that has no water exposures at all, the AHJ might not need to have anything for water related events, but they may have nearby caves that may need cave rescue situations addressed. Each locality is going to be different, so each specialty that’s needed will be different also.

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identified, setting it up and loading them into the helicopter. Once the training is over, get your feedback and make any changes you need to. One of the areas that OSHA can gig you on is not training to the mission you are performing. Document all your training and track everyone’s certifications.

Each piece of equipment that you would utilize needs to be trained on and practiced with, including your PPE. The Incident command system is also required training and the expectation is that it will be used on every call, so that mutual aid agencies can all integrate seamlessly in any larger event. A safety officer should always be appointed to assist the incident commander and maintain a safe environment for the responders.

**Respond to the Event**

This should be the easy part now that you have already pre-planned it and trained on it. When the call goes out, gather as much intel as you can and get the correct resources going early on. If it’s a water rescue, then you will need PFDs, boats and throw bags. You might need to have the dive team ready in case the victim goes under. If it’s at night time, make sure you have plenty of lighting and thermal imagers on hand. Accountability is always going to be important. No one should be freelancing at a water rescue and safety for the responders should always be the top priority. Stage equipment so that its close but not clogging up the scene. Setup your hot, warn and cold zones.

Police is usually going to be on hand to assist, so put them to work also. Communication is always the #1 failure at most larger incidents, so have radios available, make the command post or IC well known and keep comm's short and to the point. Most water rescues can become a technical event, so don’t feel like you have to do it all yourself. Swallow your pride and ask a neighboring agency to assist. Working together and combining resources can often turn a failing incident into a successful one.

**Control the Incident**

The goal of a fire response is to put out the fire, rescue any victims and not hurt your firefighters. The goal of the water rescue is to rescue the victim, control the location and not hurt your responders. For anyone who has ever arrived early on during a water rescue, you know it can be very chaotic and dangerous. People arriving before you are often trying to save the person themselves. This often creates additional victims, as parents of children, or other family members rush into the water to try to help. The same thing can happen to untrained first responders. People expect us to be able to handle any incident when we arrive, however the first arriving rescuers may not be the ones you want entering the water. Everyone needs to know their limitations and not contribute to the victim count. Controlling the incident starts with making sure no one else gets hurt. The drowning victim may or not be salvageable, so as in any other technical rescue always perform a risk/benefit analysis. Is what you are willing to risk, worth risking? Do you have the proper resources available to perform the rescue safely? Are you better off to barricade the scene, setup your zones, take command and wait for the proper resources? All questions that only you or your department can answer. Ultimately controlling the incident and not allowing it to progress can be one of the most important decisions for the entire call.

**Take Action**

Once the decision is made to take action, then it’s important to be organized, efficient and safe. The more you have practiced this scenario, the easier it will be. Many Incident Commanders have “a cheat sheet” that is laminated with step by step check offs for a fire. Your department can have

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Water Rescue
Cont'd from page 11

the same style checksheet for a water rescue. This helps to keep you organized and it makes sure that everyone is on the same page for the next action. The amount and type of action will be determined by the level of response and the amount of training. This is where our Awareness, Operations and Technician levels kick in and dictate how involved we get and what training we need. Once the victim is rescued and returned to shore, then standard procedures will take over that dictate where and how they will be treated and transported.

Scale Down
Once the event has been resolved and the victim transported from the scene, the personnel can start to scale down the incident or as some refer to the phrase demobilize. This would include making the scene safe from any other incidents, cleaning and returning equipment to service for the next emergency. Accountability should be finalized and making sure that everyone is present and healthy should be high on the list. Another great thing to do is to get a full set of vital signs for each person before leaving the scene. Not enough departments capture a full set of vitals after a stressful call like a water rescue. This would help to prevent sending someone home that isn’t physically well enough to leave. Many first responders have died during and after a technical rescue or fire due to medical issues compounded by the exertion and stress placed on them by a difficult call. Please take care of your people, they are your most important resource. Once everything is cleaned and ready to go, it’s time to rest, relax and recover. Hydration, and eating a healthy meal are both important parts of the scale down portion of the incident and easily overlooked.

Terminate
Termination of the call is the final step to closing out the incident. This means the trucks and personnel are ready for the next call, all paperwork has been filed and everyone is safe. This is a good time to get everyone involved to give their feedback and find ways to improve anything for the next run. If mutual aid is involved, have someone collect their feedback also. Larger incidents may decide to have a full debrief to bring all of the responders together. This allows everyone to get in the same room, tell their part of the call and allow everyone to see the full incident from start to finish. A debrief also is a good morale and team builder by getting people together that may otherwise not see each other again until the next call.

Conclusion
Technical rescues can be some of the most exciting and dangerous calls that we respond to. They are almost guaranteed to make the headline in the paper or be a story on the nightly news. This call is your chance to shine or to fail in front of your citizens. Proper planning, training and response is the key to success in almost any type of call that your department will respond to. Review the NFPA guidelines for your type of Technical rescue and use it to guide your department down the road to success. Good luck and be safe!

(Sources - NFPA 1670 – 2017 Standard on Operations and Training for Technical Search and Rescue Incidents.)

David I King Jr. has been with the Chesapeake Fire Department for 20 years and is currently a Special Operations Captain with the Flammable Liquids Firefighting team. He is also certified as a Dive Medic Technician and is the Dive Medic Coordinator for the Chesapeake Police Underwater Search and Recovery team. He is the Medical Director for Law Enforcement United’s National Board and is the owner of Underwater Medics LLC, a Public Safety Dive Medic Instruction company. You can contact him at underwatermedics@gmail.com or hear him on “The Dive Medic Podcast” on iTunes or Stitcher.
Trench Rescue: Soil Types, Trench Wall Failures and More

This article is designed to provide the rescuer with an understanding of the forces associated with soil “failures” and factors directly related to soil destabilization and collapse. It is not all-inclusive of how to perform trench rescues; this can ONLY come from taking certified trench rescue coursework, such as in the Chapter 8 Trench Rescue Standard for Technical Rescue. Likewise, my intent is not to make soil scientists out of you, but rather to give you the basic components of geologic features you will deal with when performing trench rescues.

I cover these aspects of trench rescue as they relate to soils, water, hydraulic and atmospheric loading, and related forces/weights that are important factors in understanding how to evaluate — and then perform — a trench rescue. This is similar to the information format used in the article I wrote regarding earthen dams and how/why they fail (CFRJ Summer 2017). I believe that to understand the principle characteristics — or the elements that cause a rescue to be needed — are critical as the FIRST step in understanding how a rescue is performed. As I have said many times in the past: “you don’t know where you are going until you know where you have been.” You cannot understand and perform any rescue without knowing the forces of nature that substantially contribute to the cause, in this case, to trench wall failures. Now that the groundwork (no pun intended) has been established, let’s proceed.

Soils

With the exception of organic soils, which are formed from decomposed vegetative materials like leaves, stems, roots (plants and plant components) and woody vegetation that have collected over hundreds or many thousands of years, mineral soils are formed from decomposed rock “weathered” and broken down over geologic time. Rock breaks down, ever so slowly, over millions of years, to become small particles called “soil.” Over time, geo-technical forces, freezing, thawing, heat, erosion, water, wind, plant acids and so forth break rock down into smaller and smaller particles. This is what we call soil. Soil gets moved (eroded) from one place and deposited in another. Examples? The depth of the Grand Canyon or the build-up of the Mississippi delta. The soil in the delta had to come from somewhere, right?

The basic mineral soils are sand, silt and clay, going from the larger particle size to the smallest particle size. In the general landscape where trench rescues will occur, common soil types described above are mixed. Exceptions would be deep sands like are found in the coastal plain areas or clay deposits or layers found in all parts of the state. But most of the time you will encounter soil mixes, like sandy clay loam, silty clay loam, loamy sand, loam, silty clay and various other mixes. The terminology relates to the amounts of sand, silt and clay in the soil mixtures. This is important, because it relates to the relative stability of a soil when trenched.

Cohesiveness of Soils

Fine-soil particles, like pure clays and soils containing a significant proportion of clay, tend to be more “cohesive” that is the particles tend to stick together. As such, when a trench is dug through soil types containing more cohesive particles, a ditch wall tends to be more stable. More stable here means that the trench wall is, under most circumstances, able to stand and self-support itself. Other factors that can affect this natural stability will be discussed later in this article. However, soil types that have a greater proportion of sand, or larger less cohesive soil particles, tend to be much less stable when exposed on vertical trench wall excavation. This means that the soil profile exposed in an excavation will have less stable trench walls. Look at this way: can you “wad up” a ball of sandy soil in your hand as well as you can a more clay soil type?

Then you can encounter soils with a higher silt content, the soil size particle bigger than clay particles but smaller than sand particles. This can tend to make a soil less cohesive than clay but more cohesive than sandier soil; thus,
Trench Rescue

Cont’d from page 14

the rescuer wonders just how stable this soil type will be in an exposed trench wall. Generally, if you encounter a soil type that has rock particles in it, the soil will usually be less stable. Soils containing a significant amount of gravel will almost always be unstable, meaning they will be more likely to be unable to support themselves when a trench is dug through them. Therefore, you can see now that soil types are most important as it relates to trench sidewall stability.

Soil Categories
In the Chapter 8 Trench Rescue curriculum, the program divides soils into three type categories: Type A soils as the cohesive soils, for example clay dominate soil types, like clay, clay loam and sandy clay loam. Type B soils of a less cohesive nature, mainly dominated by silt, like silty clay, silty clay loam and silty loam. Type C soils are dominated by more sand content, like sand, loam and sandy loam. As you can see, trench rescue is a specialty within itself.

Other Factors Affecting Trench Wall Stability
Soil weighs 90 - 120 pounds per cubic foot. A five-gallon bucket contains 0.67 cubic feet of volume. Fill up a five-gallon bucket and see how heavy it is to pick up. It will generally weigh 60 to 100 pounds and that’s if the soil is dry. Soil contains water, commonly referred to as the field moisture content. Soil at “normal field moisture content” is damp to the touch. A gallon of water weighs 8.34 pounds depending upon how saturated the soil profile is. So, the soil weight now also contains water weight. An item commonly not thought about in rescue evolutions is the weight of the atmosphere bearing down upon all things, including the earth’s surface. A contractor digs a trench six feet deep into the surface of the soil, now exposing the vertical cut banks to no support, that is, soil bearing upon soil for its lateral support. It would be similar to building a block wall on a footer, then remove most of the footer, leaving the block wall to support itself. This is the cohesion of the mortar holding the blocks together as they are now suspended in the air, like the soil particles are having to do now, minus their support.

In almost all circumstances, wetter soils are less stable than drier soils. If a trench is dug seven feet deep and the contractor encounters very wet soil conditions, the ditch will almost always “slough-in” from the bottom, meaning the lower trench walls literally “sink in” to the trench. Why? Hydraulic loading. Water in soil profiles usually either just sits there within the soil profile until it gradually drains deeper under the effects of gravity, or it “flows” or moves laterally through the soil profile. Either way, this water is present, and if a trench is dug that exposes this water content, it will tend to flow into the trench bringing soil with it. Consider it like this: If you saturate a sponge, then take a razor and cut the saturated sponge in half, the water runs out of the exposed sponge cut. Likewise, in a trench excavation. Even though the water is contained within the soil profile, it is still subject to lateral and gravitational forces, only in a soil profile the water brings the soil with it.

Ground vibrations tend to make any ditch or trench cut unstable. As you can see from all that’s been discussed above, open cuts, or faces of a trench are already destabilized. Now add ground vibrations from construction equipment, trains running close by, vehicular traffic, or even your department’s rescue equipment, and you greatly enhance the vulnerability of a trench cave-in or collapse. Anything that causes vibration of the trench walls will make them susceptible to collapse.

Scientific studies have concluded that the speed at which a cave-in occurs is approximately 55 to 66 feet per second, or roughly 45 miles per hour. A worker caught under the top of the trench cave-in covered with only two feet of material over his body has 700 to 1000 pounds per square foot of pressure exerted upon his body, and it happened so quickly he was powerless to move out of the way. Being trapped under this soil is very similar to being trapped in the snow of an avalanche. The material sets up tight around the body, and the victim cannot move. Over a very short period of time, the material compacts itself tighter around the victim until breathing is not possible. You understand the rest of the scenario if rescue cannot occur in time.

Post Log
Trench rescue is a highly specialized type of rescue. Many factors influence how trench rescues are performed. Here, I have tried to present the most basic components involved in trench wall failures or trench collapses. Chapter eight of the Technical Rescuer Standards is the authoritative course for trench rescue training, along with federal and state OSHA standards as they relate to trenches and rescue. I would encourage any of you interested in physics and engineering concepts of soils and trench rescue to “go for it.” It is one of the most technically rewarding rescue skill blocks you can learn and use to save someone’s life.

Until next time, go make a difference in this world one rescue at a time.

Bob Twomey has been in the volunteer rescue service for 46 years, having served on fire Rescue Squads from the coast to the mountains. He is currently a member of Transylvania County Rescue Squad, past Chief and Training Chief, an EMT for 45 years, and is an IFNAC and OSM certified Rescue Instructor. Bob has been active in SAR, Mountain Rescue, and teaches high-level rescue. He is the chief pilot of Wolf Tree Aviation, and flies helicopter searches and rescue support locally. He is a Crew Chief for the NC Forest Service. He can be reached at 828-884-7174 or at btwomey@comporium.net.
I Wish it Was Still September 12th

Ken Farmer

For those of us in the fire and emergency services, we just completed another somber and serious reminder of September 11, 2001. I call it my generation’s “Day of Infamy.” Just like President Roosevelt declared the day of the attack on Pearl Harbor on December 7, 1941 as a day of infamy, the surprise attack on the Twin Towers in New York, the Pentagon and the crash in Shanksville, PA, September 11 placed a deep and significant mark on us in emergency services. It was an unexpected attack of war and one that most of us will never forget.

However, that event was now 18 years ago. An entire generation has been born and grew up only reading about it and not understanding the pain and anguish of that day and the months following. Eighteen years is a long time and most of the people have put it on the shelf and moved on with life. Those who experienced that day can remember exactly where we were and what we were doing the moment we were told to turn on the television that day. It will never be forgotten of course. I want to turn to a more positive experience that we all felt the very next day on September 12th.

On that day I believe the entire United States woke up and believed that we were one country united in one mission to protect the country at any cost. That feeling of unity and a clear sense of purpose has dramatically shifted away from that focus of the day after.

I grow more concerned every day when I think of the fact that people no longer even think about 9/11. They don’t generally think we could ever be attacked here on our domestic soil or that the terror and pain we experienced that day could happen again. I can understand that view based on their lack of experience.

What concerns me as an individual much more is the seemingly lack of solidarity and support for the country we live in. Each day there is endless controversy over border issues, immigration, defense, budgets, fake news, shooting, guns, the environment, voting or any one of a dozen issues. It seems the only thing we can do as a country is to argue about our views and our positions on an issue. What ever happened to our ability to sit and understand the view based on their lack of experience.

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I believe that we must first start by searching in our own soul as to what is important. We must decide first that there is a common goal and a common approach. We must accept the reality that we must all give a little to get things moving forward. We must accept the fact that there are many basic things we must resolve and agree on so we can fix key issues and make the progress we all need now.

It’s not easy to achieve this. We must first take our personal wants down several notches and make them a “nice to do” instead of a “must do.” We must address our large common problems in a method and manner that allows for discussion and some give and take and not a demand. We both have to give a little so we can all gain a lot. Compromise is the right position.

President Franklin’s efforts to get the United States Constitution approved. His article makes good sense. To read it follow this link: https://ncesia.com/compromise-and-conciliation

We must work towards unity of purpose and common needs instead of arbitrary actions and selfish needs of our own. Make the effort each day to find that common ground and common care. Take the time to try and understand the other person’s point of view and search for the answer that makes things work for everyone, not just you.

Remember how we were all bonded on September 12, 2001. All with one purpose and one goal.

Stay Safe!

Ken Farmer is Section Chief, Leadership and Fire Risk Reduction at the National Fire Academy, United States Fire Administration in Maryland. Email him at ken.farmer@dhs.gov
In October 2019, it was my honor to celebrate 22 years in the fire service. I started at Northview Fire Department in Lee County, North Carolina in October 1997. I have been a member of four other departments in my career. While looking back, I remembered a song that I heard many times in high school by Baz Luhrmann called “Everybody’s Free to Wear Sunscreen.” The song talks about suggestions the singer has based on his experiences. In looking back on my 22 years there have been tons of stuff I have learned, and I am going to share them here in hopes that it will benefit you in some way, much as the song does (don’t worry you can see it on YouTube https://www.youtube.com/watch?v=sTJ7AzBIJoI as you likely haven’t heard it).

Physical Health

First, take care of yourself physically. This job, whether career or volunteer, is tough on your body. Unfortunately, most of the damage we do to ourselves is irreversible. It could be your back, your knees, or maybe worse, such as cancer from not washing our gear and not wearing proper personal protective gear while working. Spend time working out. There are more resources now for this than ever before. I recommend 555 Fitness. They are a wonderful group of supportive people who want to see you succeed. Visit them at a conference near you and say hello. Do the Zoll Challenge as I did. See if you can ride a bike for a minute and then do two minutes of proper CPR. Let them coach you and get better!

Go to the doctor regularly. Do not let others try to downplay this and surely do not let others tell you that you are being a baby or anything else to deter you. It is so much easier to treat problems found early: no matter whether it is high blood pressure or cancer. Preventative care of your body is so much easier than reactionary care (and cheaper too). It’s your one and only body. Take care of it.

Mental Health

Next, take care of yourself mentally. We are seeing more and more the effects of our service on our mental health. We have seen an increase in PTSD retirements and, unfortunately, suicides in our brothers and sisters too. The first event that affected me was on Thanksgiving Day in 1997. Not much more than one month after I had started with the department. We were dispatched to a one car motor vehicle crash and ended with a very graphic fatality. Since then I, as most others like me, have seen so much. It becomes part of who we are. If we do not address this, it will swell up inside us and sooner or later there will be mental and physical prices to pay. Find ways to relieve this pressure. Talk to friends. Ask for help through your department. Get counseling. Find resources online. Let others help you through your suffering. Realize you cannot save everything and everyone. I think many times when we become firefighter/EMTs that we begin getting the mentality that we have to save and fix everything. How many times have you been called by the public, by friends and by family in order to fix something or save the day? The problem is that we cannot do this all the time and constantly. Attempt to protect the lives and property of others. However, remember that you cannot fix everything; including in your own life. Spend time with your family and let your spouse know you cannot save the world. I bet he or she will appreciate you for your honesty.

Never Stop Learning

Learn everything you can — every day. Some of our colleagues may not take this job seriously but any day this job can kill you. Train like your life depends on it because it does. Spend time taking classes from operational courses to any other training that builds you up. Get certified in areas where it will benefit you and your department. When you are training in your department, get involved and do not be afraid to speak up. Worst case scenario when you do this is that you learn, and someone may pick you on. However, the benefit is worth so much more than that. Do NOT ever stop learning. I still learn stuff about this job even 22 years into it and hope to learn even more as I continue. I hate it when I go to a training and you see someone who thinks they are too good to participate or who thinks that they know more than the instructor. Those are the ones I stay away from because they are dangerous.

Teach!

Not every person was meant to be an instructor. However, that does not mean that you cannot teach. Find time to train someone else. If you have been in this service for more than six months you have something valuable you can share with someone. Take time to do so even if it is only showing someone how to force entry through a new type of lock that a business is using in your first due. If you do feel comfortable in being an instructor, do it. Find ways to teach. This includes big conferences such as the South Atlantic Fire Rescue Expo (SAFRE) and FDIC. You never know what you may end up doing. I never thought I would enjoy going to such conferences and am blessed to share my messages now regularly. The more we teach others the more we are ready to face the dangers of the job. The information you share just may save a life of a citizen or a brother/sister firefighter.

Speaking of the major conferences, do not hesitate to go up to speakers and talk to them. Let me give you two examples in my career. First, I saw O’Ryan Ludwig from Champaign Fire Department at a national conference several years back. I so badly wanted to go up to him and talk with him, but I felt that I would be bothering him or that he wouldn’t want to speak with me. After I got back from the conference, I emailed him saying I wished I could have met him and such pleasantries. Over a year he and I communicated via email and at a national conference I had the opportunity to meet him. Since then he and I have had many conversations and run-ins and I am a much better person because of it. Imagine what I would have missed if I had not finally contacted him.

Don’t Miss Opportunities

Finally, never miss an opportunity. The biggest opportunity I have in my career happened a couple years ago. I was staying at a local hotel where I was going to listen to Chief Alan Brunacini and Chief Peter Lamb speak at the South Piedmont Community College. It was Friday night and I was there at the hotel early. While sitting outside and enjoying the weather, there walks up Chief Brunacini from a restaurant next door. We exchanged pleasantries and I told him I would be in his class the next day and he said he looked forward to it. I really wanted to ask him if he had time to sit down and just share any knowledge, he was willing to with me. Instead I let him walk away. At the end of his class I was honored by having about 50 minutes to talk with him. After that I found out how much he would have loved to talk to me if he had the time. Instead I lost it. Unfortunately, we lost Chief Brunacini several years ago and I will never get that opportunity back. I still think this opportunity necessarily has to be with someone like Chief Brunacini as it could be with a founding department member or someone else. This was just one of the major missed opportunities for me.

Don’t Miss Opportunities
We Are Still the Fire Department, right? RIGHT!

Our fire service has been around a while and for those that would suggest that not much has changed since our inception, this article will likely hurt your feelings. In 2018, the fire department I belong to responded to 9,131 calls for service. Like most departments, only 122 of those calls for service were structure fires. If you do the math, you will find that structure fires represented 1.3% of our total call volume. So, let’s look at the busiest fire department in the land. The mighty FDNY ran 2,127,510 calls for service in 2018, but only 27,053 were structure fires. The math again reflects that FDNY’s structure fires represent 1.3% of their total call volume. Put aside the fact that FDNY ran my department’s total annual call volume in 37 hours and 26 minutes, and you will see that we are not much different. In fact, fire departments nationwide are experiencing similar trends. What has caused this nationwide decline in structure fires? It is our fire prevention efforts. So, are we saying that we have prevented ourselves out of a job? Certainly not and for a number of reasons. First, it is not just us.

The Five E’s

The five E’s of prevention are: Education, Enforcement, Engineering, Economic Incentive, and Emergency Response. Our education efforts have saved an immeasurable number of lives but are often reactive. We tend to focus on what to do if a fire breaks out in your home and we provide that education mostly to our target groups — especially the very young and very old. We tend not to place as much emphasis on how to prevent fires, which is likely an opportunity for improvement. Under enforcement, our inspector types do an excellent job of ensuring that public buildings are compliant with fire and life safety codes; however, they do not normally inspect private buildings. While it is possible to find a fire hazard in a private building, the hazard is not always corrected. This makes enforcement not the sole activity responsible for our declining structure fire numbers.

Engineering is very robust. For example, it can reach appliances in private homes as well as fire suppression systems in public buildings. Economic incentive is where our insurance companies charge us lower premiums if our house is protected with a monitored fire alarm system. This is also how we get to the fire when it is still just a room and contents, thus saving the insurance company money (and more importantly the people, pets, pictures and pills). Finally, emergency response is the last line of defense and requires that we arrive quickly and intervene effectively. So, if you have read this far and think that the only thing that has changed in the fire service in the last 50 years is the number of structure fires we run annually, you are mistaken. Answer this: How many of you reading this practice starting IV’s or taking a blood glucose level as part of your monthly continuing education? I suspect the number is very low (maybe even zero). You do not practice these skills because you are doing them so frequently as part of your day to day responses, that they have become second nature to you. They are the opposite of what structure fires have become. So, what do we do with those high-risk, low frequency incidents (hazmat, technical rescue)? We have to train for them to the mastery level because we do not get much exposure to them as part of our day to day responses. Let’s come back to that in a minute.

We Are Still the Fire Department

Many of us have experienced increased call volumes despite our decrease in fires. This is possible because many of us have taken on additional responsibilities, either voluntarily or by popular demand. These additional responsibilities may take the form of auto extrication, technical rescue, hazmat response and pre-hospital medical response. Despite our responses to all of these different types of calls, we are still the fire department, right? RIGHT! We know that “Fire” is still our middle name because when a fire occurs, there is no one else to call other than us and to be sure, our structure fire situation is dire.

In the last couple of decades, someone has started putting fuel packages with higher heat release rates than has ever been witnessed in history, inside energy efficient construction designed to prevent temperature exchange with the outside environment underneath roofs that are often glued together. How do we respond to this change? We need to recognize the importance of training on these increased hazards for those operating within these environments as well. Many of us have taken on additional responsibilities, either voluntarily or by popular demand. These additional responsibilities may take the form of auto extrication, technical rescue, hazmat response and pre-hospital medical response. Despite our responses to all of these different types of calls, we are still the fire department, right? RIGHT! We know that “Fire” is still our middle name because when a fire occurs, there is no one else to call other than us and to be sure, our structure fire situation is dire.

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Does Firefighter = Alcoholism?

Chief Jamie Fulk

I’ve been in the fire service for the past 29 years. That is a lot of accumulated time and a lot has happened including a lot of funny memories, many sad 911 calls and more things that I am proud of than I can even count. So much of my life has been formed by this honorable service.

Recently, for the first time in my life, I looked at the fire service from an outside view. I thought back over all the firefighter deaths I had been a part of; some of these deaths were from natural causes, some were unexpected accidents, some were line of duty and some were suicide. As I reflected, I realized that I had been blind to my surroundings and not taking note of something tragic that was going on in our profession.

Nearly every case I reflected back on, involved firefighters burying themselves in alcohol. In other words, firefighters used alcohol to kill the pain of a firefighter’s death, to bury the memory of some terrible 911 call, to get through a relationship issue, or for some reason that simply can’t be explained.

I was so conflicted over my feelings regarding alcohol abuse that I decided to have an open conversation with my entire fire/EMS team. I wanted them to know what I was seeing and I wanted them to know that firefighter deaths, terrible 911 calls, and family relationship problems do not give the green light to terrible 911 calls, and family relationship issues. I wanted the team to know that their leader understood that problems do not give the green light to terrible 911 calls, and family relationship issues.

As a chief I believe there is no greater brotherhood than the United States Fire Service. I have seen the fire service step up to the plate and come together so many times. There is no one any prouder than I am to be a part of such a great service. I am always amazed of how quick and efficient the fire service can assemble resources on a fire scene at a moment’s notice.

The brotherhood is strong; right up until the point we have to confront our brothers and sisters about addiction. Tragically, too often we are slow to react and hope it goes away without our involvement.

If you are a chief officer or captain please know that someone in your department is struggling with an alcohol or opioid addiction. It does not matter how big, or how small your department is, it does not matter if it’s career employees, combination, or all volunteer, someone is struggling. There are a lot of things to be proud of in the fire service, but alcohol or substance abuse is not one of them. It’s time that we decide our culture needs to change and that only happens at the top. Because of that, I’d like to offer some help to those in a supervisor role.

Officers Are Often In The Know About Alcohol Abuse

Why address the officers specifically? Many times, as a fire/EMS shift officer, you find yourself knowing about an employee’s addiction. You learn of this information through rumors, personal observation or the employee asking you to cover for them. So often employees come to work on a Saturday or Sunday morning and ask their officer if it’s OK for them to go lay down for a while. You know the entire time that they will be back over from the night before and simply need to sleep it off. You may have even seen pictures on social media of your employee partying it up, six or seven hours before shift. If you are a supervisor (officer) and allowing employees to come in and sleep it off, and stay on shift; just know that you are enabling this behavior. You are helping them gradually destroy themselves, the department, possibly a relationship with their family or even worse, possibly helping play a part in an eventual alcohol related death.

Don’t Turn A Blind Eye to Those Who Are Struggling

It’s not uncommon for a supervisor to want to help their employee, but we need to help them the right way. Turning a blind eye to an employee’s addiction is not the right way. I truly believe many times we supervisors don’t address addiction problems with employees because of many reasons.

The word ‘You’ as follows, really means, “supervisor.”

• Don’t turn a blind eye to someone who is ingesting alcohol after hours.
• Don’t turn a blind eye to someone who has a relapse.
• Don’t turn a blind eye to someone who is not coming to work.
• Don’t turn a blind eye to someone who is using alcohol and sleeping.
• Don’t turn a blind eye to someone who is getting into legal trouble.
• Don’t turn a blind eye to someone who is ingesting alcohol on duty.

• You don’t want the addiction to be proven.
• You don’t want confrontation.
• You don’t want to lose a friend.
• You are afraid of what you may find out.
• You feel it’s none of your business.
• You are afraid that other officers are not going to agree with your approach.
• You are afraid of being labeled as a ‘by the book officer’.
• You do not want to do something outside of the normal officer job description and you do not have a laid-out procedure in your personnel policy, so therefore you are afraid to move forward with assisting the team member.

What you may not know is that as a supervisor you have some special powers. You have the ability to see the future. I am not referring to being a psychic; but you have past experiences to pull from. You have seen what has happened to fire/EMS employees in the past, when they behaved in certain ways. You also have the power to act; to do something instead of stand back with your fingers crossed that it will all work out.

Ask yourself, when is the last time that you spoke to one of your team members, one on one with another supervisor and let them know what you were seeing and feeling?

• Did you tell them that you, or other team members had smelled alcohol on their breath?
• Did you tell them that they are close to getting a DWI?
• Did you tell them that they are close to hurting someone else?
• Did you tell them that you know why they have to go to bed as soon as they get to work?
• Did you tell them that they are slowly killing themselves and the relationships with their family?
• Did you tell them that the addiction will eventually lead to poor job performance, absenteeism and maybe even lead to termination?
• Did you tell them that you held the keys to numerous resources that could help them get through this addiction!
• Did you tell them that if they wanted to go to rehab, their job would be waiting on them when they come back?

Proactively Have the Tough Conversations Before It’s Too Late

As officers cannot keep waiting to have these conversations. After the employee has been charged with DWI, their life has spun completely out of control, their work performance is in the toilet, or worse. The time to reach out is now. There is nothing wrong with having a compassionate conversation with your department or individual members. There is nothing wrong with taking the chief’s hat off to show your staff you care. In fact, if “Chief” didn’t just mean boss. What if it also meant someone who cared about their well-being in this area like we care about their ability to perform agility tests. There is nothing wrong with having a compassionate conversation, but there is a lot wrong with passively turning a blind eye to someone who is suffering and likely feels trapped by their addiction.

Aim at Changing Culture, Not Just Individuals

The fire/EMS service did not advance in all the positive ways that it has overnight. It also did not unfortunately become synonymous with alcohol abuse overnight. We have to realize...
Today’s Youth Are Making a Difference

With the steady decline of volunteer firefighters across the nation, I would like to take this opportunity to share a positive story of how high school fire academies can make a difference in communities across North Carolina. My hope is to explain why it is important to keep recruiting new firefighters as well as keeping high school academies programs for new firefighters strong and active.

Several years ago, the North Carolina Department of Public Instruction partnered with the North Carolina Office of State Fire Marshal to allow firefighter certification classes to be taught in public high schools. Approved high schools hire a North Carolina Level II Fire Instructor to lead these academies across the state. Students taking part in this program must pass the practical skills and written test requirements set by the North Carolina Fire and Rescue Commission to become certified. The classes have been divided up into three different groups, and it takes three semesters to cover all classes. With the exception of Fire Control, TIMS, and Haz Mat, all requirements are met for North Carolina Firefighter Certification. As a result of the growing interest in these classes, NC OEMS has joined forces to offer NC EMT certification. NC EMT certification must be taught by a NC EMT Instructor and takes two semesters for completion. To summarize this opportunity, high school students can graduate from high school with the majority of their North Carolina Firefighter Certification completed and ready to sit for the NC EMT certification test.

Making a Difference

As a fire chief in a rural community in Rockingham County, North Carolina, I am seeing these young men and women make a remarkable difference. The Volunteer Fire Department of Bethany, Inc. currently has a roster of 41 volunteer firefighters, seven additional part-time employees, and eight additional junior firefighters. Of the above listed members, 15 have been a part of the Rockingham County High School Public Safety Academy, and several of the junior members will begin that academy during the fall semester of 2019. In recent years the academy has seen several graduates attain career firefighter jobs, EMT careers, and part-time firefighter jobs. In addition, three have graduated from paramedic school, two are currently in paramedic school, and four are currently residents at fire stations.

On July 5 at 12:16 a.m., the Volunteer Fire Department of Bethany, Inc. along with several mutual aid fire departments was dispatched to a residential structure fire. Units arrived on scene to find a 550 sq. ft detached garage with flames through the roof only 14 feet from a 3,100 sq. ft occupied home in a non-hydrated neighborhood. I was the first firefighter on scene and assumed command. The first arriving engine arrived on scene with three personnel on the truck, and one additional firefighter in a personal operated vehicle (POV) behind them. These firefighters worked quickly and stretched two handlines. They began to flow water on the house to protect it and try to stop the fire from spreading. I was met in the yard by three teenagers who had called 911 and had alerted the home owners to get out of the house. After additional apparatus and personnel arrived on scene, the fire was put out and thankfully confined to the garage with minor damage to the home. The garage and the contents were a total loss, but the home was protected, and the residents were able to sleep the remainder of the night in their home.

All apparatus was cleaned up, and the firefighters headed back to their stations; it was at this time when I realized the direct impact the high school public safety program had on this incident. One of the three teenagers who had driven by and spotted this fire was a former student in the high school fire academy. He later credited the high school program for knowing what to do, being able to act quickly to call 911, and to alert the homeowners. All three of the firefighters on the first arriving engine and the firefighter in his POV had all recently graduated from the Rockingham County High School Public Safety Academy within the past three years. These firefighters have been interviewed by the local news station and have been honored by Congressman Mark Walker, but are very quick to let everyone know that they definitely didn’t fight this fire alone and couldn’t have done it without the help of all the firefighters on scene.

Reaching Today’s Youth

As the fire instructor for the Rockingham County High School Public Safety Academy, I am constantly trying to encourage my students to join a volunteer fire department or rescue squad. Over the past six years we have had nearly 90 students join volunteer departments. Obviously not all of these young men and women have stuck with it, but we greatly appreciate the ones who have. If your department is seeing interest from these students across the state, please give them the same attention and time that you would any new member. Walking up to the door step of a fire station and asking to come in can be very intimidating to a teenager. Our window of opportunity to keep their interest may not be as big as it is for others. As with any new member, they like to feel welcomed, involved, challenged and a part of the organization.

Chief Joshua M. Evans, started his fire service career in January of 2003 as a volunteer firefighter with the City of Eden Fire Department. In 2013 Chief Evans accepted the position which he still serves, as an instructor with the Rockingham County High School Public Safety Academy. He is currently the Fire Chief of the Volunteer Fire Department of Bethany, Inc., located in Rockingham County, North Carolina.

Josh Evans

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Carolina Fire Rescue EMS Journal www.carolinafirejournal.com
that, as someone once said, “Culture eats strategy for breakfast!” Changing individuals one by one is powerful, but simultaneously, an unhealthy culture will continue to produce more honorable men and women who join our profession and fall prey to this terrible addiction.

What are the unhealthy cultures that we need to be fighting to change? I think most of what keeps people trapped in their addiction is a combination of pride and shame. Fire/EMS members are mostly proud individuals who do not like to show weakness or vulnerability. They feel like their coworkers and families have this high expectation of them and they cannot let anyone down. Many will never come forward unless you reach out to them; they feel their status will be affected, or they will not get promoted because they showed weakness.

Additionally, so many fire/EMS members feel that being upfront about an addiction will cause irreparable shame to themselves, and their family; therefore, it takes a complete life changing event for them to come forward. Will they be mocked by staff? Will they be isolated socially from events with their coworkers? Will they be seen as too weak to handle the job? We have helped to create this shame-fueled environment through years of intentionally or unintentionally telling those in the fire service that, “Crying is for sissies.” We have built a culture where those who need help may feel ashamed to ask for it. The tragic irony is that these are the men and women who rush out the door time after time to help others who need the help they themselves are ashamed to ask for.

Know That “Rock Bottom” Looks Different for Everyone

My family doctor once told me that people who have addiction problems will only get help when they hit bottom. I thought that makes perfect sense. When they get to their lowest point, they will reach out or accept help. Little did I know every one of us has a different bottom. The bottom for me may not be quite as low as someone else’s. Some people’s bottom may be when they lose their job, a spouse or family dies. Some people’s bottom may mean losing everything, such as their family, their job, their home, their health and may even be living on the street.

Knowing where the bottom is for a coworker is not very clear at times. But, as leaders we can often see the bottom coming up quickly for someone in our agency. In some cases, a fire/EMS employee’s behavior may be so erratic that everyone in the department can see disaster coming.

Act Now and Have A Long-Term View of Success

I am asking officers to get in front of this and make sure that your team knows you are there for them. None of us as leaders are perfect. We are all flawed in one form or another. Fire/EMS members that struggle with addiction can still be good employees and leaders. We need to remember why we hired them. Our team should know that we will help them and put them in touch with the resources that can help. Officers, don’t be afraid of what others may think of you for helping someone. Be willing to go the extra mile to hopefully bring back that person that you were so impressed with at one time. Additionally, we need to have patience. People who are addicted to alcohol or opioids did not get that way in a few weeks or months. They will also not get well in a few weeks or months. Do your best to not let them hit the bottom and be patient with them as they progress towards overcoming their addiction.

Expect to Encounter A Lot of Denial

As a chief officer I know from many years’ experience that we cannot help everyone. The fire/EMS member must be willing to accept help. They must have family or coworkers that are willing to support them while in rehab or counseling. It is also helpful if you have a department chaplain that can provide guidance. Nearly every conversation I have with someone who has an addiction problem, starts off by the person saying “You’re wrong, I don’t have a problem.” Chief, I got this, don’t worry about me.” Leaders please understand that most people are in denial and don’t want to be that person that they have responded to many times on the street corner.

Don’t give up on your team member if your first approach goes wrong, or you don’t get the answers you want to hear. Just remember in reality you were still somewhat successful because now they know the door is open to come in and talk to you.

Aggressively Respond to Someone Who Does Asks for Help

Whenever a team member decides to come in and ask for help, you must immediately act! Never ignore it; waiting days later to get back with them. If you try to assist your team member indecisively, dragging your feet, remember the team member may change their mind about wanting help and an opportunity may be lost. Worse still, that will be partly your fault. If a team member asks for help, do the following:

1. Drop what you are doing to help.
2. Have resources ready, in other words know the right people to call.
3. Contact your Human Resources Department and let them know you want to get one of your team members help.
4. Tell the member they are doing the right thing.
5. In some cases, you can assure the member that their job is waiting for them when they come back. This is especially true when they have been good employees and no criminal charges are pending.

One day one of your team members is going to need rehabilitation. It’s just a matter of time. They will need to leave everything, including their job for a short time. If you are a chief officer and have the opportunity to personally take one of your team members to rehab, please do it. If you have never loaded up one of your team members and taken them to rehab; you don’t know what you are missing. It is a life changing event for everyone involved. There will be tears, awkward moments of silence, nervousness, agitation, laughter; but the biggest thing of all; there will be hope. You will learn so much about your team member that you never knew and they will never be just an employee again. They will be someone that you connected with, and that you now understand more about their life. You will be someone who cared about them beyond their job performance. You will also learn that they are just like you. We all need help sometimes, so let’s do what we do best, help them before their life turns upside down.

In closing, maybe it is not just one of your employees that needs help. Maybe it is not just them who have fallen prey to the unhelpful culture of alcoholism. Maybe you as a leader are one of the ones who needs help. What should you do? I would encourage you to have the courage to get the help you need, not just for yourself, but for your department and all that we in the fire service hold dear. By admitting you need help, you will likely bust down years of pride and shame in a moment and pave the way for anyone else who needs help to admit it. Not to mention, you will help yourself! You are not just a leader in one of the most noble professions in our country, you are a person who matters and you too have friends and family who care about you.

Chief Fulk pursued his Bachelor’s of Science degree at Fayetteville State University where he graduated with a Bachelor’s Degree in Fire Department Management. He also attended the National Fire Academy for four years in Emmitsburg, Maryland, where he graduated with the prestigious Executive Fire Officer Certificate.
increased hazards, not relaxed due to the decreased volumes.

‘That’s Crazy’

In the U.S. military, there are likely few that complete more advanced training than our Navy Seals. But as Battalion Chief Anthony Kastros (Sacramento Metro Fire District) illustrates, ‘Ask the Navy Seals if they would go into battle in five minutes from a dead sleep, to an unknown battlefield, facing an unknown enemy, for an unknown target, with little to no intel, with other soldiers they may not know. They would say, ‘That’s crazy,’ yet we do it every day. We go from our dorm at two in the morning, to code 3 in three minutes to a fire in a building that we have not been in before, to face an enemy who disaster. These battles are likely unknown. We do this not knowing what companies will be with us at the moment. And to top it off, many in the battle have little to no experience. If this does not motivate you to train today, nothing will.”

Training on interior fire suppression in the same Class A building provides us limited preparation. The layout of the next building fire that we run will likely be much different from our burn building. Moreover, the materials burning at our next building fire will likely not be hay and pallets. Therefore, we have to close the gap between the accessibility of our training props and the reality of what we will see at our next structure fire. This is of critical importance given that our structure fires have become low frequency, high risk incidents.

If you are a chief level officer, you should consider allocating sufficient resources to these incidents, where the dynamically changing environment meet a time compression that has the potential to cause deadly consequences. If you are a company level officer, it is your job to keep your crew focused on why structure fire suppression training is important. When a crew member says, ‘Why are we training on this, we don’t have structure fires anymore.’ We must reply that our next fire may occur right now and will likely involve an unknown battlespace, with unknown enemies (the fire, the building, and the construction), alongside unknown firefighters with limited experience in an environment that is the most dangerous in the fire service’s history.

We’re Fighting the Same Battle

It’s probably not fair to say everything has changed, but it is fair to say a lot has. Add to the above that our personal protective equipment (PPE) allows us to penetrate deeper into buildings, and we can see that we are breeding a recipe for potential disaster. The way we avoid insult or injury is to remember the one thing that hasn’t changed. Our battles are still a matter of gallons per minute (GPM’s) versus British Thermal Units (BTUs). We must overcome the heat release rate of the fire (measured in BTUs) by applying enough water to absorb the heat at a faster rate (measured in GPMs).

Even in the last large conflagrations that destroyed half of cities one hundred years ago, our fire service ancestors fought the same battle. Unfortunately, their GPMs did not permit them to overcome the BTUs and they were often forced to use fuel removal as their eventual fire suppression tactic (i.e. the fire burned until it ran out of fuel). So, today we have evolved to a controversial acronym — SLICERS (Size-up, Locate the Fire, Identify and Control Flow Path, Cool the Space from Safest Location, Extinguish the Fire, Rescue and Salvage).

Size-up is the first of the sequential actions and normally the step we take first before we get out of the apparatus and complete with a 360-degree walkaround of the building. During that time, we hope to locate the fire while closing exterior doors or otherwise identifying the flow path of the fire. Then we do what some disagree with; cool the fire from the safest location.

For urban departments that show up with 50 firefighters on the first alarm, this may seem silly as they likely have enough people on scene to put them all in the building and displace sufficient oxygen in the interior to extinguish the fire (that’s a joke). However, in most departments (particularly those with large geographical response areas), staffing may be an issue. Therefore, we simply need to ask the question, do we want to apply water to the interior from the exterior until adequate staffing arrives, or do we want to let the fire burn until we get enough folks on scene to initiate an interior attack?

Remember that the fuel (the building) is the ‘reducing agent’ and the longer the fire burns, the more the building is reducing. Another thing that has not changed throughout our sometimes-painful transition to new firefighting tactics is this: Everything gets better once you hit the fire. Even those that may be trapped inside are afforded a better environment if we have hit the fire from outside when our staffing does not permit an interior attack. Whether our fire was initially hit by an exterior stream or a sprinkler system, we still have to eventually extinguish the fire, which most often involves a trip to the interior with properly protected and trained firefighters. While all of these sequential steps are occurring, we use rescue and salvage as actions of opportunity. We extricate those that are trapped (R: rescue) and perform salvage (S: salvage) operations at any point in the SLICE sequence.

So, with all this talk about fire dynamics, building construction and SLICERS suggests that despite the decrease in their frequency, we should not forget about them. The bottom line is this: we are still the fire department. People still call us to deal with building fires. We should not let all of our other responsibilities and types of calls get us distracted from the importance of understanding the changes in our building fires. If you add all of these acute dangers to the chronic carcinogenic effects of the toxic byproducts of combustion, it is easy to see how every building fire is becoming as high risk/low frequency as our technical rescues and hazardous materials incidents. In lieu of resigning ourselves to the “we don’t have fires anymore” attitude, we have to train to the mastery level and frequently refresh our skills so that we are properly prepared.

Be safe and do good.

Dr. David A. Greene has over 25 years of experience in the fire service and is currently the deputy chief with Colleton County (S.C.) Fire-Rescue. He can be reached at dagreene@lowcountry.com.
Throughout the day, firefighters and rescue workers are busy planning, responding to various calls for service and helping others in the community, with nearly 75 percent of North Carolina’s fire protection by land mass provided by volunteers. As a member of this group, you are a person who has chosen a life of service and are to be celebrated for the work you do. I know how hard it is to find the time or have the inclination to think about yourself and your future. Taking the time is an important step in making sure you, your family and loved ones are prepared for the future. I encourage you to take the time to gear up for retirement.

When I raised my hand to be the 28th Treasurer for the State of North Carolina, I made a promise to cut Wall Street fees for the North Carolina Pension Fund by $100 million during my first term. To date, we have cut $175 million with a projected savings of approximately $344 million over four years. I am committed to serving the people of North Carolina as the keeper of the public’s purse, creating a safe and secure future for our fellow public workers.

As a firefighter and rescue worker in the state of North Carolina, you are eligible to participate in the Firefighters and Rescue Workers Pension Fund (FRWPF). This fund is exclusively for your benefit and is independent of other retirement benefits available from your employer, whether a local government or another company. Having creditable service of 20 years on or after the age of 55 as a participating member in the FRWPF means you will receive a lifetime benefit.

Gearing up for retirement means being prepared. As a firefighter and rescue worker, you have a solid foundation and a clear definition of what it means to be prepared. There are preliminary checks, balances, planning, equipment readiness and team readiness. Tackle your retirement with the same dedication and enthusiasm.

Our role, as the Department of State Treasurer, is to maintain the integrity and sustainability of the North Carolina Total Retirement Plans, including the Firefighters and Rescue Workers Pension Fund. Your role is to make sure you are doing all you can to secure your financial future; which includes your savings and retirement plans outside of the FRWPF to help you with this, we have a vast series of educational materials online (www.myncretirement.com), including online estimators, FAQs, webinars, fact sheets, as well as your Fire and Rescue Handbook. In addition, as a participating member, you have access to education counselors who can guide you through preparations for a healthy financial retirement either in person, by phone or in a virtual setting.

ORBIT is the secure web portal where you will find many of the tools and resources you need to make informed decisions about your retirement. As a participating member, you can register and easily and securely manage your account, service credit history and stay informed. We have a full team that serves your community situated in the Office of the State Treasurer. This team works with all volunteer and career fire and rescue worker groups to make sure the tools and resources available as we continue to partner in giving back to your retirement.

We are committed to educating all our members about the importance of understanding retirement planning: The Firefighters and Rescue Worker’s Pension Fund is a part of your retirement plan but is not the only financial benefit you need to consider. As you look to your external resources, either through your employer’s retirement programs or personal savings, you must sometimes turn up the heat, be a little uncomfortable and put a little more in than you expected. Then, you begin to see progress and your money will grow.

When planning for a secure retirement, I encourage you to determine how much retirement income you will need to feel secure after you stop working. Ask anyone twice your age, most would say they wish they would have saved more. As you make that determination, I would urge you to consider personal savings and other retirement funds alongside your FRWPF.

How does the North Carolina Firefighters and Rescue Worker’s Pension fund work? Each month a contribution is made on your behalf either by yourself or someone else. Currently, the contribution is $10 and making this payment into the pension means you become a member. As a contributing member, there are certain milestone markers that set the stage for your future pension benefit. Currently set at $170 per month. You may apply for the monthly pension fund benefit in advance, as you are nearing (1) 20 years of creditable service as a firefighter or rescue squad worker; or (2) the age of 55. Once you meet these two requirements, you may apply for the monthly pension fund benefit in advance, as you are nearing (1) 20 years of creditable service as a firefighter or rescue squad worker; or (2) the age of 55. Once you meet these two requirements, you can begin receiving your pension fund benefit even while you continue to work as a paid or volunteer firefighter or rescue squad worker.

If you leave your department or squad before retirement, you can still apply for a lifetime benefit. The maximum contribution of $2,400 has been paid into your account. If you have met the requirements and retire at the age of 55, you will receive a lifetime benefit of over $51,000 per year. Over the course of your career, as a participating member, the maximum contribution of $2,400 has been paid into your account. If you have met the requirements and retire at the age of 55, you will receive a lifetime benefit of over $51,000 in retirement.

Let’s put the Firefighters and Rescue Workers Pension benefit into perspective. We will assume the average life expectancy is 80 years old. Over the course of your service, as a participating member, the maximum contribution of $2,400 has been paid into your account. If you have met the requirements and retire at the age of 55, you will receive a lifetime benefit of over $51,000 in retirement.

Benjamin Franklin once said: “You may delay, but time will not.” Being involved in your future, planning for your retirement, and building a healthy financial future are well worth the time you put in. We are here to support your efforts with the resources and information to help guide you as you gear up for retirement. http://myncretirement.com

Thank you for all you do for your community and our greatest North Carolina.

Dale R. Folwell is the State Treasurer of North Carolina. He was a four-term member of the N.C. House of Representatives, including two years as Speaker Pro Tempore. More recently he was Assistant Secretary of Commerce with the Division of Employment Security.
Social Media in Public Safety

Mark Rivero

Social media in public safety has become an interesting and ideal area of debate in the last few years. As technology changes and demand for instant results continue to improve our way of life, it also has an impact on the way we deal with social issues around the globe.

For instance, during the Route 91 shooting event, there were a number of outlets that one could listen to the actual discussions going on between attendees as well as first responders that were responding at the scene. On one channel, you could listen to the dispatchers assigning units and personnel while on another channel you could listen to law enforcement perform tactical strategies and on a third channel you could listen to emergency medical personnel respond to local hospitals. The actual video footage of disaster areas both man-made and natural.

The Negative Impact of Social Media

As much as we see the need/potential and applications of the various platforms of social media, we need to also address the negative impact that it has been associated with. As in any agency, policies are created to lessen the negative behavior or actions of those who attempt to 'bend the rules' or challenge administrative decisions. SOP's are directives that drive personnel in the right direction either on the incident scene or at the station. Idle time has always been responsible for wandering minds and actions of some personnel. With the multiple social media platforms that are available on Wi-Fi/internet, agencies need to be aware of the activities of those who like to ‘see what’s out there’.

With numerous incidents across the globe one can get themselves on social platforms that range from academic to any level of social deviance. Not only are these types of activities against agency policy and procedures, some are illegal at all levels, local, state and federal. As much as some people argue against it, employers in the private/public sector can ask for access to an individual’s social media accounts. This request may have a poor impact on the employment opportunity or even a promotion. Not that the candidate is or is not a quality individual, it becomes a question of their character or judgement for the public image.

What type of postings are being posted and how would an organization react when questioned about social displays of an employee. Positive social media/news will always be overlooked when something of negative and selling ability becomes public and someone can be taken down.

Social media has become a necessity in multiple areas ranging from advertising for academic institutions to selling automobiles with great results. When applying social media to public safety, it can have some of the most current and accurate information available and can also be utilized for major incidents and disasters with incredible information. Applications and usage will be the wave of the future for public safety to utilize any of the available platforms and this will also be an avenue for the newer generations to apply in the workforce.

Mark Rivero worked for the City of Las Vegas, Nevada, Fire and Rescue from 1992 until 2011, holding positions as firefighter, training officer and, ultimately, professional development officer creating degree pathways for fire service personnel and bringing in educational institutions to address higher education topics and degrees that were specific for the fire service. He currently serves as a program advisor/site coordinator for Southern Illinois University, and as the chairperson for the doctoral degree path committee for professional development at the National Fire Academy. He also works with the American Council on Education, reviewing fire service courses at various institutions across the United States. Rivero received his doctorate from the University of Nevada, Las Vegas, in 2004.
Leadership

The 7 Qualities Fire Service Leaders Must Possess

Doug Cline

During this series we will be examining the seven qualities that are necessary for a leader to be successful in leading the organization and the team. The first part will focus on Commitment.

You cannot be an effective team leader without commitment. You must be committed to the organization you are a part of, committed to the people you serve, committed to being the best you can be and committed to excellence in all that you do. There has never been a great leader in the fire service that was not committed to these components. Commitment is a leadership quality that inspires and attracts people. It shows that the leader believes in the organization’s mission, vision and values. Members of the team will focus on Commitment.

The first part of a team leader’s commitment is action and not mere words. It is easy to talk the talk but great leaders not only talk the talk but walk the walk. The walk they do is side by side with their personnel. Words are easy to say but they are much harder to live them out each day.

**Commitment is About Passion**

Team leaders cannot wait for everything to be picture perfect before they are willing to commit themselves. True leaders must have passion for what they are committing to. Commitment is needed before any significant success can be experienced. It is often a person’s passion in regards to the mission and vision that makes the difference between them being a good or a great leader. If you really want to make a difference in the life of others you need to look into your heart to examine the passion you have for the people, the organization and its mission to see if you are really committed. A passionate commitment will take a lot of energy, dedication and utilizing the talent of the personnel around them to accomplish the goals.

**Commitment is Action not Words**

The real test of a team leader’s commitment is action and not mere talk. It is easy to talk the talk but great leaders not only talk the talk but walk the walk. The walk they do is side by side with their personnel. Words are easy to say but they are much harder to live them out each day.

**Commitment Opens the Door to Opportunities and Achievement.**

Leaders will often face obstacles and opposition. It is important that leaders are able to find the opportunity in every situation. We know it is easy to lead in good times but the test of achievement is when a leader has the ability to lead during difficult and trying times. There will be times where their commitment is the only thing that carries them through these tough times. You will find that you second guess your commitment. Keep the vision on the end result. Keep the commitment and focus on what the end result is. Commitment allows team leaders to press on and get up no matter how many times they get knocked down. This quality will motivate the team around you and allow them to persevere as well. Nothing worthwhile can be achieved without commitment.

**How to Improve Your Commitment**

Measuring your commitment. There are times when team leaders believe they are committed but their actions show otherwise. This is when leaders may be talking the talk but not walking the walk. Take time to intra-inspect really where you are on the commitment chart. Ask for others input as well, in fact a 360 evaluation at this point may be beneficial. The findings are often time low to both your commitment to the organization and the most valued resource, the personnel of your team. This intra-inspection will give you a clear indication of your true level of commitment.

**Know What is Worth Dying For**

I know most of you have heard don’t fall on your own sword or that you are in a no win battle. So when you are in one of these difficult times or battles, you must ask yourself and know intimately what you are willing to die for. In this case you can see just how committed you are as you can answer what I as the leader would not be able to stop doing no matter the consequences. See if your actions match your ideals.

**Make Your Plans Public**

No group likes to be left in the dark with no vision or plan to go forward. It is important that you provide that road map through vision and direction to accomplish the mission of the organization and be able to paint a vivid picture of the vision you have. In fact your vision has to become the team’s vision of the team to excel. If you are finding it difficult to make that first step towards commitment, paint that picture and make your plans public. Making your plans public will help you to be more committed to following them through.

So after this first quality — commitment — it is time for a self-evaluation and a team evaluation. Just how committed are you as a leader to the organization? How committed are you to the success of your team? Is your team committed to each other? Is the team committed to the organization? Is your team committed to you as the leader? Answering these will help you evaluate yourself and your team.

Douglas Cline is Chief of the Training and Professional Development Division with Horry County Fire Rescue. He is the Executive Editor for The Fire Officer and Executive Director for the Command Institute in Washington D.C. A 36 year fire and emergency services veteran as well as a well-known international speaker, Cline is a highly published author of articles, blogs and textbooks for both fire and EMS. As a chief officer, Cline is a distinguished authority of officer development and has traveled internationally delivering distinguished programs on leadership and officer development. He also has a diverse line of training videos on leadership, rapid intervention team training, vehicle fires, hose line management, and emergency vehicle operations and fire ground safety and survival.

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**Leadership**

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Doug Cline
People tell me that the older I get, the more cynical I will become. To some degree I do believe this. However, instead of being cynical, I like to think of myself as a ‘realist.’ I have spent a lot of time over the last few years on a journey of learning about cancer in the fire service and seeing what the realities are about this disease and its impact on our brothers and sisters. I have spent many hours talking to survivors, families, educators, chief officers, non-profits, medical professionals and more. The one thing I have taken away is that cancer does not care who it affects, and we have to act and not just talk.

The last time I was at a fire expo, I was amazed at how cancer in the fire service is front and center in the minds of the industry. Ten years ago, cancer was only whispered about, then slowly people started discussing the problem and now it is everywhere. This is good and bad. From the earliest inception of the North Carolina Firefighter Cancer Alliance we realized that not enough was being done. Then we started teaching, learning and supporting our fellow firefighters with this massive problem — cancer. We quickly realized making changes in the fire service is not an easy process due to the entrenched traditions. Many times, we are pushing for a cultural change and true cultural change takes time.

It seems now almost any company, distributor or salesman seem to either have a product that addresses cancer in some way or they ‘support firefighters with cancer.’ This is where I become realistic and also a little cynical at the same time. I know that everyone is aware that cancer has to be addressed, and that is often done through engineering ‘solutions’ to the problem. And engineering solutions is very important, but the danger comes in the motivation behind these solutions. It surprises me how many of the solutions that are being touted don’t always have a lot of science or research behind them.

A good example of this is turnout gear. All of the major manufacturers are making great strides in improving the quality, safety and effectiveness of gear available to firefighters. This is great, however at the same time, one of the most important factors is not really discussed — the basic care and cleaning of this new gear. You can have the most technologically advanced gear and be tactically trained, however if your gear is dirty or not properly maintained, then it is no better than any other gear. When you walk around and start asking questions about gear you are often quickly pointed to the new bells and whistles that make it ‘cancer reducing’ but the topic of decontamination and proper use of SCBA are rarely covered.

When we teach our Cancer Alliance program to departments and community colleges about the inherent weakness in gear we often talk about the hood. The fire service knows that hoods are a weak point in our gear and there is a lot of developments happening. So immediately students begin asking questions like ‘what do you think about brand A? A’ filtration hood vs. brand B?’ Or ‘Hey those filtration hoods are great, we just bought them for our department, the company said they filter out 75 percent more contaminants than a regular hood. Is that true?’

In a way these questions really scare me. If we are not careful we can become more tied up in the ‘engineering’ of a solution instead of focusing on the more important thing — clean your hood and change it often. Remember the new filtration hoods have only been around a few years but several of the models are already in their fifth, sixth or even seventh revision. So, we need to be cautious about adopting things blindly without having good science and information to back it up.

When these questions about what gear is best, or what type of hood needs to be used come up, my opinion is pretty straightforward: ‘we are still learning.’ I will never say brand A is better than brand B. I will only say do your research, and focus on the basics we know work — wash your gear, establish good operating guidelines as a department, and educate your firefighters to the dangers of cancer.

Cancer is a very scary thing. And sadly, there are opportunists who use fear as a means for personal gain. That goes for cancer or any of the dozens of other problems that face us in our industry. Make sure when you are approached with something ‘new and improved’ to do your research and make an educated decision. I know that the majority of equipment manufacturers, distributors and salesmen do not have a personal gain in mind when it comes to showing the latest technology in the battle to clean up the fire service; they genuinely want to help make our jobs safer, however all of it falls flat if we don’t go back to basics — clean your gear and be smart about how you work on the fire scene.

If your department is getting some new gear or tech, make sure you get the proper training to go along with it. The North Carolina Firefighter Cancer Alliance along with many of our partners have information and educational programs available at no charge that will help you make the most of your department’s cancer reduction programs. Visit our site ncfirefightercancer.org for more information.

Travis McGaha currently works as an assistant fire marshal with the Concord Fire Department. He has worked in the fire service for seven years and has been working as an advocate for cancer awareness and prevention for more than 15 years through various organizations. In the last year he has worked with several other firefighters around the state in founding the North Carolina Firefighter Cancer Alliance which is a non-profit organization that focuses on educating and supporting firefighters about the dangers of the exposures that they face.
The proposition of higher education can easily leave someone confused to the point they don’t know whether to scratch their watch or wind their butt. Dozens of programs to choose from, endless forms to complete, and an additional array of acronyms to grapple with (RDS, FAFSA, RISE, UGETC and so on). I hope that this series will help you get a better handle on some of the more confusing points of pursuing education after high school.

The first constant we will examine is accreditation. It doesn’t seem like that would be terribly confusing — unless you have ever worked on a self-study. Better yet, why should you even care? After all, as long as the school has “College” or “University” in its name, then we’re good right? Wrong. There are two “College” or “University” in its name, then.

I filtered the list by Institutional Accreditors and found 26 different accrediting agencies. So, to peel another layer off of this onion, one must understand that each of these agencies has a different focus or scope. I found agencies that accredit institutions of various performing arts, religious studies, and distance learning. These agencies are said to have a national scope. In contrast, others on the list, have an operational scope of a specific state or geographical region. This is where we get the terms “national” and “regional” accreditation.

Regional Accreditation
Let’s take a quick poll. Student one is sitting at the kitchen table, talking about his pursuit of an Associate’s Degree. He mentions the name of his online university and student two comments about that university’s lack of regional accreditation. The first student replies, “that’s okay, because his school is nationally accredited and that is better than regional accreditation anyway.” Raise your hand if you agree with student one.

If you raised your hand, I can certainly see why. It only stands to reason that something that boasts “national” will supersede anything “regional.” Unfortunately, that is wrong in this case. In reality, they can’t be compared because they are different. (Have you started scratching your watch yet?) In the world of higher education, six of the regional accrediting agencies listed by the U.S. Department of Education are considered to be the “Big 6.” The following is a list of the six and their geographical scope.

1. The Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges covers colleges in California, Hawaii, and several U.S. Pacific territories such as Guam and Samoa.


3. The Middle States Commission on Higher Education (MSCHE) deal with Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, and the Virgin Islands.

4. The New England Commission of Higher Education (NECHE) covers states such as Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.


6. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) accredits Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, Tennessee, Texas, Virginia, Latin America, and of course our beloved North Carolina and South Carolina.

As I stated earlier, regional and national accrediting agencies are different, so in order to make the best decision, one must weigh any advantages or disadvantages. Colleges and universities that carry the distinction of holding a regional accreditation from one of the “BIG 6” do have one huge advantage over those that are nationally accredited. If you
attend and successfully complete classes at a regionally accredited institution, and later decide to attend another school, your credits are more likely to be accepted at ANY institution.

My educational journey is proof of a smooth transfer from one college to the next. After completing my Associate’s in Fire Protection Technology at Cleveland Community College, I never dreamed I would go on to pursue an advanced degree. However, several years later, I transferred to Fayetteville State University for a Bachelor’s in Fire and Emergency Services Administration. Both of these institutions are accredited by SACSCOC. I then went in search of a Master’s program that would allow me to branch out a bit. During that search, I found Southern Illinois University Carbondale. By exploring their website, I could verify they were regionally accredited by the HLC. Because of that fact, I was able to transfer seamlessly into an out-of-state university. One hundred percent of my credits were accepted with both examples. While that is my individual experience, I have also witnessed countless students transferring credits from regionally accredited schools to other colleges and universities with ease.

National Accreditation

Institutions that are accredited by an agency that have a ‘national’ scope geographically seem to also have an alternative scope as well; such as a niche or specific discipline of study. We find many online universities fall under this type of accreditation. For example, the Distance Education Accrediting Commission (DEAC) accredits schools that are considered, “distance education institutions.” While these accrediting entities are recognized by the Department of Education, credits and degrees conferred by them are not always accepted by other institutions. What this means for a student is they may not be able to continue to an advanced degree with another college or university. Essentially confining their higher education experience to one institution. Many students that I have had conversations with want to branch out a little with their bachelor’s for a second career after the fire service.

In short, regional accreditation credits and degrees will essentially transfer to either national accredited or other regional accredited institutions. Credits form colleges and universities with national accreditations will not transfer to a regional accredited school and may not transfer out of the awarding institution. Therefore, your choice should be based on where your future career and education journeys may take you. Even still, I urge caution. I had no idea that I would not have retired from the city fire department. Life does come at you fast and unforeseen doors open and close. If you are going to invest your time and money in a higher education, why not ensure that your endeavor is a path that will maximize your future?

Programmatic Accreditation

The last type of accreditation is called programmatic accreditation. As you might have already deduced, this type of accreditation is for individual programs. Luckily, these waters are not as murky due to the small number of accrediting agencies dealing with fire and rescue service programs. The International Fire Service Accreditation Congress (IFSAC) may sound a bit familiar to you, because they are one of the two accrediting entities for fire certifications. IFSAC began in 1990 accrediting certifications. On a side note, you should be proud to know a driving force in the formation of this accrediting body were leaders from the North Carolina fire service. But to my point, in 1992, IFSAC started another accreditation assembly for fire and emergency services related programs. Currently, there are 42 institutions with IFSAC accredited degree programs in the world. Only four of the colleges and universities in North Carolina share in this distinction. They are Catawba Valley Community College, Cleveland Community College, Gaston College, and Guilford Community College. South Carolina does not have any accredited programs listed on IFSAC’s website.

I can testify from personal experience, that the quality of our program at Cleveland Community College benefited from the accreditation process. From the conversations that I have had with my counterparts that were accredited before us, they had the same sentiment. From a student’s perspective, I can say I noticed a marked difference in quality between the schools I have attended that have programmatic accreditation versus those that do not.

Other emergency service disciplines have programmatic accreditation entities as well. For our Emergency Medical System friends out there, there is the Committee on Accreditation for the EMS Programs (CoAEMSP). Emergency Management programs can be accredited by IFSAC as well as the Emergency Management Accreditation Program (EMAP). Now, I will say that I do not feel as if this is an exhaustive list, but they seem to be the industry standards in our area. Any programmatic accrediting body that is either recognized directly by the Department of Education or by an entity acknowledged by the Department of Education (such as the Council on Higher Education Accreditation or CHEA) is what a student should view as a legitimate accrediting body.

As any good student should, just do a little extra research before committing your efforts to whatever program gets your attention. Keep in mind that not all accreditation is equal, and regional accreditation is the most versatile. If a program has received programmatic accreditation, that will only add value to your investment. In our next issue, we will look at what FESHE is and is not as well as its current state with our new National Fire Academy Superintendent. OK, so I think you are ready to wind your watch now, but wait, wash your hands first.

Richard Carroll has over 25 years of experience serving in volunteer, career, and combination departments. Teaching for the last 13 years, he is currently employed at Cleveland Community College (CCC) as Coordinator and Instructor of Fire and Rescue Training. Carroll has earned his Master’s Degree in Public Safety and Homeland Security Management. In 2018, he was awarded the Community College Excellence in Teaching Award at CCC and was a top three finalist for the same award at the state level. Carroll can be reached at carrollr@ccccnc.edu.

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- Emergency Management Program (EMAP)
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Rope Based Casualty Extraction — An Introduction

Jeff Matthews

Agencies across the country are preparing for the next act of mass violence. Rescue Task Force (RTF) Tactical Emergency Casualty Care (TECC) and Tactical Fire Companies are quickly becoming common place. However, one area in the response to mass violence events that needs more training is technical casualty extraction. Technical casualty extraction entails the use of a low signature rope rescue kit to rapidly move casualties out of higher-threat areas. Casualty extraction can be as simple as carrying or dragging a patient through a secured corridor to awaiting medical aid and transport. However, there may also be a need where a more technical extraction will be warranted. The primary example occurs when multiple victims are located on upper floors; however other examples are plenty. A new threat such as a suspicious package or a confirmed device may be found, a sleeper assailant may present him or herself, or fire may be used as a weapon against responders to limit access to previously used corridors. In these cases, a light-weight low-signature rope rescue system would be warranted to hastily extract victims.

Before I go into details of what a low-signature rope rescue kit is, let’s first discuss what they are not. A low-signature rope kit is not the typical rope rescue gear kept on most engines, ladders, or heavy rescues around your state. While this equipment serves its purpose in a department’s typical rope rescue response, this equipment will quickly become cumbersome in the mass violence incident. The equipment is simply too heavy and requires multiple personnel to carry. Remember you will also be carrying medical equipment (your primary mission) and forcible entry tools.

What makes up a low-signature rope rescue kit? At a minimum, a low-signature rope rescue kit should contain enough rope, software, and hardware to lower a casualty three stories, construct a usable rope rescue kit. For packability, a low diameter rope rescue kit should contain enough rope, software, and hardware to lower a casualty three stories, construct a usable rope, and convert that descent control system into a hauling system if necessary. The hardware should be the lighter-weight variety, the rope is generally nine to 10.5 mm, and Dyneema slings are generally used instead of one-inch webbing. The first question we are often asked regarding a low-signature rope kit is, ‘what about NFPA?’ First, NFPA 1006, Standard for Technical Rescue Professional Qualifications, does not quantify what equipment must be used when performing a specific job performance requirement (JPR). The equipment used in rope rescuer qualifications should be representative of the equipment used by the authority having jurisdiction (AHJ). Furthermore, NFPA 1006 is a qualification standard; it does not dictate how you respond or the techniques you will use to affect a rescue. The other standard often asked about is NFPA 1983, Standard on Life Safety Rope and Equipment for Emergency Services. NFPA 1983 is a manufacturer’s standard. That is if you are manufacturing carabiners, NFPA 1983 is the standard you would look to for strength and performance testing requirements. Chapter 1 NFPA 1983 not only discusses when the standard issues specific requirements; chapter 1.1.5 also states when requirements will not apply.

“This standard shall not specify requirements for any rope or associated equipment designed for mountain rescue, cave rescue, lead climbing operations, or where expected hazards and situations dictate other performance requirements.”

Also note that NFPA 1983 defines General Use and Technical Use hardware. For the mass violence response, Technical Use hardware will be warranted as it generally fits in the light-weight equipment category.

Rope

Aramid fiber ropes such as Kevlar or Technora work well in the mass violence environment. Nearly every major rope manufacturer makes a rope of one of these fibers with either a nylon, polyester or aramid core. Each manufacturer has their own unique braid to include larger or smaller fibers and number of carrier fibers. Due to the variety of manufacturing methods, rope durability also varies. While Aramid fiber ropes will withstand a lot of abuse, some obviously will wear better than others. Some are stiffer than others. Most manufacturers are more than willing to send a rope short for your review.

For packability, a low diameter rope is warranted. I prefer a rope no smaller than nine millimeter as grip strength will become an issue with ropes smaller than that. Seventy feet of nine millimeter aramid rope will easily fit in a small backpack making transport easy. One final note on rope, do not use nylon cord to hitch on an aramid rope. Remember aramid fibers quickly dissipate heat, thus potentially melting your nylon prusik cord. Only use aramid fiber cordage or slings to hitch on to an aramid fiber rope.

Hardware

As previously mentioned, hardware should be aluminum to reduce weight. Hardware should be from a reputable company; Black Diamond, Kong, Petzl and Rock Exotica are most popular and have stringent quality assurance measures. Consider the use of auto-locking carabiners. In the heat of the moment, an unlocked carabiner may be missed with potential catastrophic results. There are many descent control devices on the market for small diameter ropes. Choose one that has a passive belay feature. That is a device that will auto-stop should the device be let go of or the handle is pulled too hard. This adds to the safety
of the extraction. Rope grabs will be needed to convert the rope system into a mechanical advantage. There are many small, lightweight devices found in the mountaineering or climbing market.

**Slings**

Slings will be used two-fold; one type of sling will be used for anchoring and the other used as a patient drag/harness. Dyneema is a material often used in climbing and mountaineering. These slings are light and strong for their size — 22 kiloNewtons (kN) end-to-end — making them extremely packable; again, the objective is to pare down the rope kit. A variety of sizes should be purchased to ensure all anchoring needs are covered. One note on Dyneema is it does not hold up to heat very well so, as an example, don’t wrap it around hot water or steam pipes. Of course, if you feel this is could be a potential issue, one inch nylon webbing can be substituted.

The patient sling is a very integral part of your kit. The sling should be of the loop type, with loops for the patient’s legs and arms. You would be surprised how many slings are on the market. Some are designed only as drag style slings. That is, they cannot be loaded in the vertical environment. I highly recommend a sling sewn from a reputable company that has been bench tested for design strength and is specifically designed to vertically lower a patient.

**Storage Options**

The final kit should be able to be stored in a backpack or fanny style pack. There is a plethora of tactical gear carriers on the market. Again, I reinforce the point is to have a small and lightweight kit. Don’t ruin it by purchasing a giant backpack! I prefer sling type backpacks as I can now sit the gear bag around my body without removing it. We are all familiar with the phenomena of putting a bag down and equipment disappearing!

The final piece to the low-signature rope kit is to get some training. Much of the equipment you will use is outside the normal scope of a typical urban rope rescuer. In addition, the smaller diameter rope and lighter-weight hardware means extra care to reduce loads on the systems must be undertaken. An instructor will also have the experience to show end-users how to become efficient with the equipment and think “outside-the-box” when planning for a technical casualty extraction. Finally, a training organization should have ample equipment options for you to work with to help your organization decide what equipment works best for you. As you can see, working under the auspices of a qualified instructor is extremely important.

In closing, my hope is that you or your agency never have to respond to a mass violence incident. But my greater hope is that if you do you are prepared.

Mr. Jeff Matthews is a 30-year veteran of the Fire Service and currently serves as a Battalion Chief for a large metropolitan fire department. Matthews is the author of Technical Rescuer: Rope Levels I & II, and co-author of the Operational Rescue chapter in Ciottone’s Disaster Medicine, 2nd Edition. He is the owner of Technical Rescue Consultants, a South Carolina-based company providing training solutions and consultation for NFPA 1006 rescue disciplines and specialist training for State US&R teams. He and his team have delivered specialty training throughout the country to State and local responders, Federal law enforcement and the Department of Defense. In addition, Matthews is an Associate Consultant with Threat Suppression, Incorporation, a world leader in response solutions to Active Violence Incidents. He can be reached at jmatthews@technicalrc.net.

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Public safety drones have and continue to save lives and enhance the operational safety and effectiveness of many public safety organizations in the United States. Globally, a recent DJI study documented over 260 incidents where drones have played a direct role in saving lives. Following the 2018 Hurricanes Harvey (Texas), Irma (Florida) and Maria (Puerto Rico), public safety drones took to flight like never before with thousands of successful missions alongside manned aircraft with no significant issues or conflict.

These missions provided invaluable situational awareness in the areas of rescues, flooding, road status, damage assessment and more. Drones are being used to monitor structure fires, wildfires, hazmat incidents, technical rescues, water rescues, law enforcement tactical ops (active shooter, hostage situations, SWAT), search for lost persons, shark patrols along beaches, assist lifeguard rescues, forensic investigations, traffic crash reconstruction, damage assessments following disasters, volcanic activity and many more applications.

In May 2018, the Bard Center for the Study of the Drone published a report identifying that there were over 900 public safety agencies that had received a Certificate of Authorization (COA). A COA provides public agencies with FAA authority to fly an unmanned aircraft system (UAS). While the Bard report identified agencies with COAs, it did not identify the public safety agencies flying under the 14 CFR Part 107 (Part 107) FAA rules. In Virginia, the number of organizations flying under Part 107 equalled the number of organizations with COAs doubling the number of public safety UAS programs from 26 to 52. It is reasonable to conclude similar trends exist throughout the country.

Additionally, the increased pace of public safety implementation of UAS programs combined with this statistical data would suggest there are over 2000 public safety UAS programs in the United States.

This expansive adoption of public safety drones is still a new frontier as there was no centralized or sufficient published information to assist organizations in the implementation of a drone program. As for training, there are many variations of training programs but no national standard for training curriculum and there are no minimum training requirements for a public safety remote pilot.

Based on the benefits that drone programs provide public safety organizations and the gap in the area of supporting information, the DRONERESPONDERS Public Safety Alliance nonprofit (DRONERESPONDERS.ORG) was formed in April 2019. Since its launch, with the announcement of an impressive Board of Advisors, DRONERESPONDERS has become the fastest growing national organization focused specifically on public safety drone operations with over 600 members and participants from 26 countries.

DRONERESPONDERS' mission is to enable shared UAS knowledge/training, standardized equipment/certifications, a global public safety UAS directory and professional/proficient UAS operations.

To support public safety organizations with drone programs or interested in starting one, DRONERESPONDERS provides an online Resource Center with over 300 public safety UAS documents — SOPs, best practices, lessons learned, checklists, training programs, taskbooks and reports. In order to access the Resource Center, you must join DRONERESPONDERS (it’s free).

DRONERESPONDERS also implemented a Technical Expert Program (over 100 technical experts) which includes representation from public safety, government, non-government organizations, academia and industry. These TEs will support the Discussion Forum (due to launch in September), serve as mentors to organizations and ambassadors for DRONERESPONDERS. For people with specific drone expertise interested in joining the TEP, you must be a member of DRONERESPONDERS and have an extensive background in the field of public safety drones. If interested and wish to be considered, please send an e-mail with contact information and credentials to charles@droneresponders.org.

DRONERESPONDERS is an organization focused on building an inclusive public safety UAS community that provides the means to communicate, coordinate and collaborate with and between public safety, government, non-government organizations, academia and industry to advance the implementation of public safety drone programs that ensure safe and effective operations in the National Airspace.

Join DRONERESPONDERS and become involved, share information or to simply access the Resource Center. DRONERESPONDERS is open to ALL!

DRONERESPONDERS is also excited to partner with Carolina Fire Rescue EMS Journal to provide regular updates on public safety drones.

Charles Werner is the retired Charlottesville fire chief and 45 year public safety veteran. After retirement, Charles worked with the Virginia Department of Emergency Management for two years as senior advisor/acting deputy state coordinator. Werner served in numerous leadership roles at the local, state, national levels on public safety communications, GIS, broadband, information sharing, thermal imaging, enhanced location technology, FirstNet and drones. He serves as Director-DRONERESPONDERS Public Safety Alliance, Chair-National Council on Public Safety UAS and was appointed by Governor Northam to serve on the Secure & Resilient Commonwealth Panel. Charles is an author with 120+ internationally published articles. In 2018, was selected Homeland Security Person of the Year by Homeland Security Today Magazine for work on public safety initiatives.
Responding to Gas Leaks

In a previous article, we talked about the generic hazards of dealing with compressed gases found in DOT Hazard Class 2. There have been two high profile incidents in the last several months illustrating the dangers of dealing with flammable gases in particular. In April, a gas leak in a store in Durham resulted in the death of the owner and injuries to 17, including a firefighter. In July, a home in Charlotte was leveled by an explosion caused by a gas leak inside the home. This incident resulted in the death of the homeowner. In September, a gas leak in a non-profit office building in Farmington, Maine destroyed the building and resulted in the death of a fire captain and injuries to six other people.

The intent of this article is not to speculate, point fingers or Monday morning quarterback the fire department responses in either of these incidents. Now is simply a good time to review the proper procedures for responding to a flammable gas leak, regardless of the circumstances or location.

Regardless of the time of day, time of year or weather, always wear your PPE. SCBA should be worn with the bottle on and the mask ready to be donned. The incident in Charlotte was captured on a neighbor’s door bell camera and showed how rapidly the situation can change when an explosion occurs. Your PPE will protect you from some of the hazards when an explosion occurs. Do not be lulled into a false sense of security just because you can’t smell gas. Some gases are odorless while others are treated with an odorant such as mercaptan to make them more detectable. Just because you smell gas is not an indication that an explosion is imminent. The odor threshold for mercaptan is one part per million. You will smell it long before there is enough to create an explosive mixture with air. This is a safety feature that was added after the New London School explosion in New London, Texas in 1937. Almost 300 students and teachers were killed when odorless natural gas gathered in the basement area and was ignited by the boiler.

Look for the majority of flammable gases to settle into low lying areas such as basements, crawl spaces and sewers. Of all of the flammable gases, only hydrogen, acetylene, methane and ethylene are lighter than air and will rise. Ammonia is placarded as a non-flammable gas, but will still burn. Its flammable range is 15 to 25 percent. A flammable gas by definition has a flammable range that starts at less than 12 percent by volume in air. All other flammable gases are therefore heavier than air and will sink to the lowest levels.

The only way to detect the concentration of a flammable gas in air is with a combustible gas indicator (CGI). Some engine and ladder companies may carry this piece of equipment. In other jurisdictions, it might only be carried by the HazMat Team. No matter who carries it, at least one must be on the scene of every leak and preferably more than one. THERE ARE NO EXCEPTIONS TO THIS RULE! This is the ONLY way to do it.

Your nose is not sensitive enough to tell the difference between a flammable mixture and a non-flammable one. A carbon monoxide (CO) meter carried for CO emergencies will not give you a proper reading as they are designed to detect CO and CO only! I cannot tell you how many calls I have responded to as part of the HazMat Team or listened to on the radio where the first due company had a CO meter and told the HazMat Team that they could cut back to non-emergency traffic or cancel altogether because their meter “wasn’t detecting anything.” Of course it wasn’t! It was designed to detect carbon monoxide, not flammable gas! Use the right tool, for the right job and know the proper applications and limitations of your equipment.

When reading the amount of a flammable gas in air do not be fooled by a reading stating that you are in an atmosphere below the Lower Explosive Limit (LEL). This reading can change in an instant should more flammable gas be introduced into the atmosphere. Also, do not make the mistake that you are safe in an environment if you happen to find yourself in an atmosphere where you are reading above the Upper Flammable Limit (UEL). This could quite possibly be the most dangerous position to be in. You are in an atmosphere where the fuel/air mixture is too rich, or too much fuel and not enough oxygen. More oxygen introduced into the atmosphere through something as simple as a door opening, the HVAC system activating or a strong breeze will reduce the fuel/air concentration into the Flammable Range. Once you are within the Flammable Range, you are in the middle of a perfect storm. The only thing needed to ignite the atmosphere is a spark. This spark could come from someone turning off a light switch, static electricity or from a tool scraping on metal.

Lastly, while responding it is important to request two things. Always ask for a wind direction so that you can approach the incident from upwind, keeping the flammable gas blowing away from you. Also, request the response of the local gas company for several reasons. These individuals have specialized training and will ultimately be responsible for repairing the leak. They have the tools and equipment to handle the job properly, including heavy excavation equipment that may be needed to dig up a ruptured gas line. They also bring another layer of air monitoring equipment to supplement that used by you or your HazMat Team.

Gas leaks have led to explosions that have injured and killed numerous firefighters and civilians over the years. Do not become a statistic by becoming complacent. Handle each of these emergencies in the matter that they deserve. They are dangerous hazardous materials incidents with the ability to kill and injure firefighters and civilians. Do not mention the fact that they can cause millions of dollars in damage. They are not nuisance calls. Never forget that.

Mark Schmitt is a Captain/HazMat Specialist for the Greensboro Fire Department assigned to the Foam/ARFF Task Force and a veteran of 25 years in the fire service. The majority of his career has been spent in Special Operations. He holds a Master of Public Administration in Emergency Management and is a graduate of the National Fire Academy’s Executive Fire Officer Program. He has taught numerous hazardous materials courses for the Greensboro Fire Department, local community colleges and the North Carolina Office of the State Fire Marshal in addition to serving as a contract instructor with the National Fire Academy.

When the budget is tight, creative thinking creates critical solutions. A number of services are reusing old purposes andventures to make needed emergency equipment. The Hackney group agency is meats the way to serve thousands of dollars by repurposing a number of structures to a new, purpose built facility.

GUESS WHAT

When the budget is tight, creative thinking creates critical solutions. A number of services are reusing old purposes and ventures to make needed emergency equipment. The Hackney group agency is meats the way to serve thousands of dollars by repurposing a number of structures to a new, purpose built facility.

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Intermodal Tank Containers: Often Forgotten but Ever Present

It is an undeniable fact that hazardous materials responders should possess a thorough knowledge of the containers that hazardous materials are transported in. When we focus our attention towards the realm of hazardous materials transportation, we often think about the “usual suspects” of railcar transportation and the MC/DOT specification series of highway transportation trailers and vessels. The one area of hazardous materials transportation containers that is usually overlooked is that of intermodal tank containers, as we usually do not encounter such containers on incident scenes or in training as often as other highway or rail transportation containers. Intermodal containers are by their very nature present in the transportation realm, but also are encountered at fixed facilities. If we as hazardous materials response professionals overlook intermodal containers, we are doing ourselves and the citizens we protect a huge disservice.

Intermodal containers are named as such because they are containers surrounded by a frame that allows them to be placed on multiple modes of transportation, e.g., a highway transportation flatbed trailer, a flatbed railcar, or waterborne transportation such as a ship. Intermodals are also known as isotainers (short for ISO container) due to the fact that the International Organization for Standardization (ISO) develops the specifications to which the containers are constructed to in international transportation. As a side note, the International Maritime Organization (IMO) stipulated such specifications throughout 2001. Although the broad description of intermodal containers includes both intermodal tanks and intermodal box (or “conex”) containers, we will concentrate our discussion on intermodal tank containers.

We will first turn our attention to the product identification markings that are specific to intermodal tank containers. While intermodal containers should possess the usual placarding as required by Department of Transportation (DOT) regulations and the UN/NA Identification Number appropriate for the product transported either on a placard or by itself in an orange rectangle, there is also an identification system specific to intermodal containers that are shipped internationally which allows us to determine what the container is carrying and the hazards of the product therein. This identification system consists of two orange rectangles stacked atop each other. The bottom rectangle contains the UN/NA Identification Number of the product, which allows us to determine the product inside utilizing the Emergency Response Guidebook or other research sources. The top rectangle contains a Hazard Identification Number (HIN), also known as a “Kemler Code.” If the HIN begins with an “X” it indicates that the product is water reactive. The numbers comprising the HIN then indicate the hazard or hazards presented by the contents, which can then be researched in the Emergency Response Guidebook in the pages dedicated to intermodal containers (pages 16 through 19 in the 2016 ERG). For example, a code of “8” corresponds to a general hazard of corrosivity. The doubling of a digit indicates that the hazard is intensified. If the HIN is comprised of a single numerical digit, it will be followed by a zero. A third numerical digit provides additional information. A code of “80” would then correspond to a corrosive substance, while a code of “88” corresponds to a highly corrosive substance. A code of “886” corresponds to a substance that is a highly corrosive toxic substance, all of which are delineated in the Emergency Response Guidebook.

As stated above, the previous IMO specification system for tank containers was succeeded internationally by the ISO “T Code” system that was introduced in 2001. The T Code system classifies intermodal tank containers by test pressure, shell thickness, pressure relief device or devices, and bottom opening requirements. For example, a “TI2” tank container has a test pressure of 6 bar (87 psi), a shell thickness of at least 6mm, has a pressure relief device and rupture disc; and three shut-off devices (internal, external, and a cap or blank). While the T Code system is currently in use internationally, we will discuss intermodal tank containers in greater detail by their current DOT domestic IM specification, as that is still in use domestically and is what most responders in the United States remain most familiar with.

The IM-101 and IM-102 intermodal tanks (formerly known as IMO 1 and IMO 2 in international transportation) are considered to be nonpressure tanks, which is a misnomer because their working pressure can be up to 100 psi. I often envision them as being closely akin to low pressure
A major consideration in responses to intermodal tank container incidents in present-day times is that intermodal tank containers may not only be present on highway, rail, or maritime transportation conveyances; but may also be present at facilities as temporary, semi-permanent or permanent bulk containers.

Pressure intermodal tank containers are termed DOT Spec. 51 containers in the U.S. and were formerly termed IMO Type 5 containers in international transportation. Such containers closely resemble MC 331 highway transportation tank trailers surrounded by a frame. As with any intermodal tank container, the frame may run continuously along the length of the container ("box type") or may only exist at the ends of the tank with the tank itself providing structural rigidity ("beam type"). The working pressure of Spec. 51 containers ranges between 100 psi and 500 psi, with normal internal quantities ranging from 4,500 gallons to 5,500 gallons. Commonly transported commodities include LP gas, anhydrous ammonia and chlorine. Tank fittings commonly resemble pressure relief/vacuum relief devices. IM-101 and IM-102 tank containers transporting hazardous materials are required to have two bottom outlet valves for redundancy that are externally operated and a liquid-tight closure such as a screw cap, blind flange or other type of cap.

Glenn Clapp is a past president of the North Carolina Association of Hazardous Materials Responders and has over 22 years of fire service and emergency management experience. He is currently an Improvement Specialist with the Industry Expansion Solutions Division of North Carolina State University and is a volunteer firefighter with the Fairview Fire Department. He is also a Technician-Level Hazmat Instructor, an Executive Fire Officer, a Certified Hazardous Materials Manager and a Certified Fire Protection Specialist.
Delivering the BAD NEWS  
As a Public Information Officer

Bill Suthard

Today’s “news” is dynamic and real time. It can arrive in the form of a credentialled, bonified media representative, a bystander with an ax to grind who owns a YouTube page, a simple member of the local homeowner’s association wanting to keep their members and residents informed, or a well-known member of your community who files regular freedom of information act requests with your agency. The main thing to remember is that these examples are the same. They are today’s media. And YOU, as a public information officer (PIO), serves as the official conduit for their “stories.” Never discount them, never discredit them and never take for granted their true impact. They all equally have a right to hear from you.

As we say, good news travels fast, but bad news travels even faster and grows even bigger, often taking on a life of its own. Who’s to say your original audience hangs around to hear the real, true story if/when the correction occurs, pages deep within the periodical and not on the front page, or at the end of the late-night news broadcast at 11:29 p.m. The key to managing a bad news incident is how you respond to it initially as well as your subsequent responses.

Responding to Bad News
First off, the worst thing a PIO can do when responding to bad or negative news is to do the following:

• Ignore it
• Avoid it
• Excuse it
• Mislead the public
• Mislead the media
• Defend the obvious

The best thing a PIO can do when responding to bad news is to:

• Acknowledge it quickly, without delay
• Make sure agency leadership is part of the bad news response
• Apologise if you need to, but reassure that it won’t happen again and that you’re still researching what happened. Buy some time – positively
• Involve and engage industry experts to help you correct the course

The best thing you can do is to immediately address the issue. No matter how bad the news is. Addressing it directly, with the truth, will always help you. The term ‘reputation mismanagement’ is a widely used term for those that avoid, excuse, mislead, redirect or avoid reporting to your customers (media, residents, fellow employees, victims associated). Trust me when I say there are many examples of reputation mismanagement. What’s interesting is that many agencies have PIOs or at least someone managing their public relations. According to the Department of Labor, public relations professionals outnumber journalists six to one. This is more than a double increase in the last 10 years. So why does this occur if we have someone ‘in charge’ of media relations?

Always remember that timely, accurate and actionable information to the public and the media is a primary responsibility of the PIO. That could mean having to acknowledge an unfortunate event. If you, as the PIO, releases that unfortunate information first, you’re transparent to your audience, which is a very important reputation to have. Being first can be difficult, especially during the 24-hour news cycle, but you need to be timely in addressing bad news. Below is an example of an agency immediately posting bad news.

PIO’s must be careful that they don’t seem to be withholding information from the media and the public. This approach will only erode trust within
I believe government public information officers have been exercising increasingly tighter controls over the interviewing and reporting process in recent years.

A series of studies sponsored by the Society of Professional Journalists (SPJ) says public information officers are making it more difficult to get access to interviews and information. The article recalled that back in July 2014 SPJ along with 37 other journalism organizations sent a letter to then President, Barrack Obama complaining that PIOs were “requiring questions in writing before interviews, having PIOs monitor and direct interviews with agency employees, prohibiting employees from speaking to journalists and blackballing reporters who question too aggressively.”

I applaud him and you can see examples of him taking bad news straight to the community by reviewing some of his videos on the page.

I agree all though to both Director Holmes and Operations, and I have attached the corresponding chronology. Yes, it took OUC over 10 minutes to get the assignment dispatched. The reason is because the information was relayed initially by media transmission from an MEO 4D officer. The police dispatcher had to get all the appropriate info from the field unit, what’s going on, etc. which is a much slower process over the radio. The police dispatcher then entered the info into OAD. In a nutshell, it takes longer to do it this way. Once the fire dispatcher gets all pertinent information to properly code the call, units were then dispatched. By the time the 611 call came in, the assignment had been dispatched and marking out route.

The recommended national average that you referenced below is based on 4J calls, not for radio transmissions from officers in this field.

Bill Suthard is a Firefighter/EMT and Public Information Officer (PIO). He works part-time for the Huntersville Fire Department and full-time for the Charlotte Fire Department where he is currently assigned as the Operations Manager for their Communications Division. Suthard directly manages the five Shift Supervisors and 36 other members of the Division. He manages the Division’s public information, social media accounts. Suthard is also an instructor for the Federal Emergency Communications Division (ECD), a portion of the Department of Homeland Security. Each year in October, he also serves as the PIO for the National Fallen Firefighter Memorial service in Emmitsburg, Maryland which he lists as one of his greatest accomplishments.

Examples of Addressing Bad News Directly

Examples of Poor Responses

Incident involving a PA fire house makes the news and social media rounds.

Fire in DC involving a ‘delayed’ dispatch of help makes the news and social media rounds.

I read in an article on Poynter (pointer.org) recently that stated "a
It is OK to not be OK With Your PTSD

This article is the first in a series to outline an issue that is rapidly growing into an epidemic across our country. It is an issue that we ourselves can mitigate and most importantly, we can manage. It is an issue that we, as public safety workers, are our own worst enemy causing many hardships within our family. We provide meticulous care to our patient’s physical wounds and needs, yet we ignore the blatant signs of trouble in our partners, members of our work family and members of agencies that we work with. We aggressively treat physical wounds that we can see with the utmost care. Yet when there is a change in behavior that we don’t understand, we address it with past and present traumatic events. Although many co-workers recognized the change in their behaviors and offered understanding, others don’t grasp what is going on and attributed the behavior to the fact that “They are just crazy” or labeling them as being weak. They then become a target of secret conversations and are blackballed from social networks and normal work related activities.

We often view psychological trauma a weakness when it is not. We view the term mental health as a derogatory term and PTSD as an affliction instead of the injury that it truly is. PTSD is not a disorder; it is an injury that needs care just like a multisystem trauma that we send helicopters to. It needs to be addressed before it gets out of control. And care needs to be given to the person before we address the needed suicide intervention. Yet we treat PTSD to a white elephant at the party. No one wants to talk about it or face it. Unfortunately, this denial is genuinely a defense mechanism against something that we do not understand and will cause us grief or bring out our own demons if we address it. Some people are impacted worse and quicker than others and suffer from the impact of their bad calls early in their careers. This doesn’t mean any less of a person, it just means that they are human too. We all do the job we do because we care. Looking at our careers with an honest eye, we must admit that we have all had a call that has bothered us. If you haven’t then we are kidding ourselves, in denial, or haven’t been on the job for more than a week. It is the nature of the work.

There are some that have a difficult time grasping the true magnitude that post-traumatic stress has on a person. It is a foreign concept for those who have a greater capacity to manage the bad and ugly aspects that our profession throws at us. With that being said, I would venture to say that if one asked the people close to those warriors if their personalities had changed since venturing into this profession, the answer would be yes. It changes all who take on the uncertainty of managing an event that puts someone else’s very existence in their hands. The outcome of that change varies and depends upon how we as individuals and as a response system manage the impact. To do this correctly takes education and an understanding of the problem.

For those who have never experienced the aftermath of what PTSD brings to the table, allow me to pose an example.

A person has a bad call or a series of bad calls with no chance to process or work through the grieving process of each traumatic impact. Now imagine reliving that call in your mind over and over every minute of every day. You can’t push it to the back of your mind. You don’t work that way. You have nightmares that get more vivid and real as time goes on to the point that you can’t sleep at night. You try to manage it by denying that it is a problem, but you can’t. Your doctor says “Here take this pill, it will relax you.” Now you are drugged and find it even more difficult to function which causes added stress. That stress, anxiety, sleep deprivation, and medication all impact your family life, your relationships, your self-confidence, your work proficiency and your interaction with co-workers just to name a few. Your co-workers, supervisors, loved ones don’t understand how psychological trauma impacts every aspect of one’s life.

Eventually it threatens your overall ability to do your job. You can’t admit anything is wrong because it will mean that you will risk being classified as weak by your co-workers, not fit for duty by your boss and less of a human being by your family for whom you can no longer provide for. So you struggle along until you can’t anymore. People start to talk about your performance behind your back. You can’t help but hear about it. The rumor mill is not as top secret as it may wish to be. This causes additional stress and friction. You end up quitting your job before you are fired due to disciplinary action. You just can’t handle all the stress, sleep deprivation, anxiety and the endless day mares about the bad calls. In turn you also lose your ability to work because you are not in your chosen profession. You have now lost everything that you have worked for and in turn feel that you have lost your identity and your sense of self. This whirl wind won’t stop. You need help, but can’t ask for it. Eventually you have no option but to find another job that doesn’t “Trigger” those memories.

This is not an exaggeration. This happens every day. By denying that post traumatic injury is valid and refusing to provide the same compassion to our peers as we provide when managing patients, we are contributing to the failure of very talented, experienced individual.

Before we can expect anyone to change how they view psychological trauma impacts everyone differently. But the first and most obvious is noticing a change in behavior. When you know your co-workers sometimes better than their own family does. Be cognizant of their “normal” and recognize that change. Don’t be afraid to sincerely reach out and just say “Are you OK?” Now if you do this, you better be ready for the answer.

Secondly, take the time to respect that person by not gossiping about their behavior. Before we go off the deep end and draw a conclusion that is disastrously wrong, understand that they may be going through something that you don’t know about.

We owe compassion to our patients so why don’t we show that same compassion to each other and to ourselves. We may have to ask ourselves, “am I alright” and be OK with the answer. It is OK to not be OK as long as we take the initiative to manage it properly. That is the rumor that we need to start spreading and truly believing in.

Next edition we will discuss how the job impacts the family dynamic.
Imagine assuming command of a military operation of this scale that had never been attempted before in warfare. As a history buff, I’d rather enhance my understanding about leadership by reading biographies on famous historical figures, including military and political leaders who guided our nation through challenging times. If you look at my own bookshelf, you’ll see plenty of books on Dwight D. Eisenhower. While he was a great leader as our 34th President, I’ve always been interested in studying his leadership as commander of D-Day. I’ve had the good fortune of visiting the beaches of Normandy, France on two separate occasions — both commemorating the anniversary of the D-Day invasion on December 6, 1944. In 2001 I traveled alone. The trip was a birthday gift from my family. Three years later, I took my sixth-grade son with me for the 60th anniversary celebration. It was a tremendous learning experience for the two of us.

If you ever want to do a case study on leadership to enhance your leadership attributes, read about General Eisenhower and his command of the D-Day operation. Imagine assuming command of a military operation of this scale that had never been attempted before in warfare. Failure was not an option, only success. Eisenhower had command of approximately 160,000 troops from four different countries, and had as his deputies, men of sizable egos whom he had to form into a unified team of advisors. The allied armies prevailed on D-Day thanks in large part to the leadership of General Eisenhower. What’s ironic about Eisenhower is that he never served a day in combat. He spent much of his career behind a desk or at military basis training troops; he never spent a day in the trenches. And yet despite his lack of combat experience, he excelled as a leader.

So, what made him a leader capable of guiding an allied army to victory across the terrain of western Europe? In my readings, I have found five leadership attributes that Eisenhower possessed. These are attributes found in most successful leaders — attributes that every aspiring leader in the fire service should embrace:

- **Trust** — Eisenhower placed great trust in his deputies. He seldom left no stone unturned when making critical decisions. He didn’t always agree with the advice, but he was always willing to seek it.
- **Resolve** — Eisenhower did not waiver once he made a decision; he was fully committed to its execution.
- **Responsibility** — Eisenhower once said, "Optimism and pessimism are infectious, and they spread more rapidly from the head downward than in any other direction." He exuded optimism whenever he met with his troops, which is why they were willing to fight for him.
- **Humility** — Few if any pictures exist of General Eisenhower speaking from a pedestal or wearing a uniform adorned with military ribbons and medals. In his mind, acclaim on the battlefield should always go to those who fought bravely and spilled their blood.
- **Responsibility** — Eisenhower drafted a message on the eve of D-Day that he was prepared to release if the allied armies could not establish a foothold on the Normandy beaches. The last line read, "If any blame or fault attaches to the attempt, it is mine alone."

Many scholars far more knowledgeable than I have written volumes of work about Eisenhower, the simple soldier from Kansas, arguably the greatest general in American military history and our 34th president. Yet in most of the books I’ve read, Eisenhower’s greatness — at least as a military leader — can be distilled into five essential attributes: trust, resolve, optimism, humility, and responsibility. Those five attributes can govern the way we all lead as members of the fire service.

Bill Webb has served as Executive Director of the Congressional Fire Services Institute since 1995. CFSI is a nonprofit, nonpartisan policy institute dedicated to enhance congressional awareness about the concerns and needs of the fire and emergency services. As Executive Director, he works closely with members of Congress and fire service leaders to sustain support on Capitol Hill for programs and legislation that benefit our nation’s fire and emergency services. Before joining CFSI, Webb worked for the Firefighter Combat Challenge as the project manager for the competition. He currently serves as Vice Chairman of the National Fallen Firefighters Foundation and is an honorary member of the Vienna Volunteer Fire Department, the Delaware Volunteer Firefighters Association and the International Association of Fire Fighters Local 36.
Planning the Station Site for Expansion

It is a safe bet that when most departments are building a new station, they never consider the possibility that one day they will need to expand the facility. The thought seems to be, “If we’re spending this much on a new station, surely we’re building all we’ll ever need.” However, most stations will have two or more major additions and renovations during their life spans. It only makes sense to plan for those future additions while planning the original facility. Having a design professional with that foresight is critical to your planning process.

Site Expandability

With the ever-increasing cost of land, most departments limit their property acquisition to the minimum necessary to fulfill the immediate need. When evaluating potential station sites consideration should be given to purchasing more acreage than is currently needed. Property costs will probably never be lower than now, so take advantage of the market if the budget will allow. If you are already in the station and an adjacent parcel becomes available, consider the opportunity of purchasing. Even if your department never needs the extra land for expansion, you can likely sell the additional parcel for a profit in the future.

Site utilities, such as water, sewer, gas, etc, can be increased in capacity with the first project to ensure that your future needs will be met without incurring the expense of complete upgrades. Larger meters, taps and lines are not inexpensive. But they’ll only be costlier in the future.

The placement of your new facilities on the site will prove critical in your ability to expand later on. If your site is at all larger than needed for the original facility, make sure you position built items so that the features that will potentially expand in the future have the room to do so. Make sure that the space between the portions of the building and driveways, parking lots, or other site features is adequate to satisfy future growth. Lay out driveways and parking lots that can easily be expanded. When a by-pass lane is designed into the apparatus site...
circulation configuration, it not only provides convenience for moving apparatus on site and extra parking for large visiting vehicles, but it may also prove to provide needed space in the future for adding apparatus bays.

A common mistake is to locate necessary features too close to the street right-of-way. It is predictable that roadways will widen in the next 75 years. Locating too close to the right-of-way means that someday you will likely lose important parking lots or outside apparatus staging areas.

Other future related activities may be planned for the site. Many of these activities may not be connected or even related to the station itself. Maintenance or storage facilities, training grounds or buildings, and helicopter pads are all potential activities that may be in your longrange expansion plans. Plan the eventual locations of these activities so that immediate placement of utilities, drives, parking lots, etc. can best serve the future plans with little or no disruption. A simple and inexpensive initial construction item is to put multiple, empty conduits under all driveway and parking lot intersections. This will make it possible to install all sorts of future utilities and lines without cutting and patching paved surfaces.

One of the challenges often encountered in the station site design process is the state or local Department of Transportation allowing multiple or wide curb cuts for emergency vehicle egress to the public roadway. Therefore, if you are planning for the future addition of vehicle bays that will egress straight out to the public roadway, you may need to consider making the initial curb cut wide enough for your future goals. This may let you avoid asking for a future widened curb cut in later on when the reviewing authority is not as agreeable.

Consider oversizing the above ground or below ground storm water detention capacity so that it is more likely to accommodate the increased future quantities necessitated by facility expansions. Also, give thought to where you are planning future expansions so that your landscape design in today's project is not wasted in the future. For instance, unless the landscape ordinance requires it, do not plant large specimen trees where future bays will be added, making it necessary to cut them down when the additions are made.

If expansion is a major consideration while planning a new facility, these and many other ideas will become apparent.

Since 1988, Ken Newell, AIA, LEED AP BD+C, has earned a national reputation for the programming and design of Public Safety Facilities that are functional, practical and budget-conscious. He has been directly involved in the planning and design of over 300 fire stations, EMS stations and Public Safety Training Facility projects designed by Stewart-Cooper-Newell Architects. Since 2000, Ken has become one of the most in-demand presenters at national Public Safety design conferences. His unique ability to deliver high-quality and educational presentations, on very practical topics, has earned him top ratings from audiences across the country.

Future roadways and road widening should be considered in your station site planning.
An Outside Architect’s Observations on Design-Build

Josh Boltinhouse

Where do you turn FIRST when your department needs a new facility or expansion of an existing station? There are obviously many factors that go into facility construction – from site selection and architectural design to permitting and construction. Getting your design done and up preliminary plans. Not until the designs were relatively developed did a general contractor typically get involved in the process. Then I joined a design-build firm and experienced a whole new way to collaborate.

Having now worked as both an “outside” and “in-house” architect, I can confidently say that inviting your general contractor to the table early on in the design of your station provides countless benefits. With the architect and contractor working together from the beginning, they are able to integrate the conceptual design with the logistical challenges of the construction process. This collaboration ensures continuity throughout the entire project lifecycle, saving you time and money along the way.

Integrated Design-Build vs. Design-Build

Any general contractor can offer design-build services by simply hiring out the architectural services to an outside architect or firm. This approach removes the typical owner-architect relationship, as the architect technically works for the contractor and not the owner. This can sometimes lead to the architects being reduced to a simple commodity rather than an owner having the full service an architect can bring to the table. The outside architects often fall “out of the loop” as construction begins, leaving them disconnected from the project and from the owner relationship.

Choosing integrated design-build means the architect and the general contractor are under one roof and truly share accountability to the owner throughout the project duration. This relationship provides a connection between the owner and the design-build team that has real value.

Because most fire departments, paid or volunteer, do not have a staff to dedicate to full-time project oversight, working with a single source keeps the project from overwhelming the fire department. The in-house architect and contractor will integrate the design elements, regulatory requirements and budgetary aspects into a cohesive plan. When the architect and contractor are on the same team, there is an increased feeling of shared success, no need for finger-pointing, and a greater desire and urgency to get issues resolved.

Cost Advantages

As an outside architect, it can be difficult to anticipate the cost implications of certain design decisions. There can be a disconnect between design ideas and the actual costs of implementing those ideas. While the architect may understand that you need to stay within a defined budget, there is no substitute for having the architect and contractor work together from the early stages.

The contractor builds and prices building every day, so we will have a good idea of what is realistic and achievable within a budget and enable the department to define their priorities. Additionally, an in-house architect has the ability to influence where and how costs get reduced.

This is a far better scenario than having a contractor come in with a different agenda and value engineering options that aren’t realistic from an architectural point-of-view or don’t correlate with the owner’s priorities.

Time Savings

Having the architects and contractors able to walk down the hall and discuss design ideas and costs not only saves money but also helps to avoid wasted time redesigning when the design doesn’t meet an owner’s budget. Throughout the architectural process – from the initial program outline through the conceptual plans, preliminary plans, construction drawings and permitting – the contractor can provide the architect with valuable input on construction methods, material selections and cost considerations. This ongoing dialogue assists with the decision-making process, saving time in the long run.

The design process becomes more efficient using the design-build approach since the in-house architect has a direct line of communication to the estimators and subcontractors, allowing for conversations that establish clear direction and expectations.

Choosing an Integrated Design-Build Company

I’ve seen first-hand how a company with integrated architecture and construction capabilities offers the greatest benefits to fire departments and other clients. If these advantages make sense to you, the next step is choosing a design-build firm.

• Look for a company with a proven track record of successfully delivering fire station projects within budget and on time.
• Ask to see their previous fire station project experience and obtain references from other fire chiefs.
• Make sure the company has the financial ability to complete the project, pay their subcontractors on time and fulfill their warranty.

With the right company in your corner, you’ll get a facility that fits your budget parameters and meets the department’s needs today and into the future.

Josh Boltinhouse is a principle architect at Bobbitt Design Build, based in the company’s Columbia, S.C., office. He previously worked as an architect with a non-design-build firm.
Changes for the Modern-Day Fire House

Changes within the fire industry have always been present. The need and requirements for safety, strength and security have never been stronger than today. Along with that, the building codes are constructing have come a long way with adapting to the changing needs of the fire department. Three of the major changes in the fire industry are: separation between gear and trucks, the size of the equipment needed, and the need to house full-time firemen in all city and rural areas.

Some of the first fire stations organized in North America date back to 1650. These members were only volunteers and were asked to roam the city looking for fires. Two hundred years ago larger cities like Cincinnati, Ohio and Jamestown, Virginia started to have government run departments in their cities to help protect their patrons. Today, nearly everyone has a cell phone and can call, text, or in some way notify the local department of a fire brewing. During those early years, fire trucks were small and nimble to maneuver the hectic streets. These trucks oftentimes had more weight on the trucks than the gross weight of the vehicle. As time continued to pass, the trucks grew in size, stature and ability. For example, what was once a single handle for holding on to the truck as firefighters went to the fire, is now a full seat harness belt for its driver and riders.

Many stations that are being renovated today have the same issues, the overhead doors are too small and the new trucks won’t fit. In commonplace 1950-1980s construction, 12-foot-tall doors were standard, typical, and not thought of as needing to be taller. Today’s doors are 14 feet tall and have nearly 30 inches of clearance between door frame and bumper as the truck enters the building. With these heights and clearances, the fire industry will be well covered for larger apparatus for the foreseeable future. Vertical clearances when inside the building have also been a growing trend.

Having the ability to stand on the truck to service hoses, bulbs, or for cleaning is a task that can be done inside the bays if a building is tall enough to support a fireman walking on the top. With 18 foot eve buildings and steep roof pitches, this clearance is obtainable. Tests are showing that separation of firefighting gear from firefighting apparatus, in a non-active roll, helps to keep the gear cleaner and prolongs the durability. Of course proper cleaning and maintenance will also help considerably. Firemen

are more cognizied today about their continued health because they want a future that doesn’t involve ‘I told you so’ when visiting the doctor. More construction is featuring enclosed locker rooms and gear storage. Keeping the two entities of gear and equipment separate takes space and money, but in the life of a fireman it is a low cost on equipment and personal self-health. When considering renovation or new construction, think about where the best served equipment room would be for your station. Call a trusted Design-Build General Contractor that has experience with station renovations.

As more talk and consideration is happening for paid fireman, bedrooms are essential when it comes to building a new station. Most stations now are planning for at least three bedrooms in their new or renovated station. Many stations that need renovating have adapted bedrooms from closets or retracted office space for the use of three bunkbeds. The growing desire and need to respond faster to calls when the distress bells rings are growing among rural counties. While most urban city stations currently have paid full-time firemen, some of those stations are also in the same shape, with makeshift bedrooms. One of the most important features to have is a sprinkler system in all the bedrooms. In many cases, as previously mentioned, bedrooms are not sprinklered due to a conversion from office to bed. However, in modern construction, all sleeping bodies must be protected by use of sprinkler, fire walls and approved egress.

Like technology, the fire industry has grown in the last 25 years just as much as it grew in the last 250 years. Bigger, faster, and cleaner is the name of the game for most products, and the fire industry is not different. The need for bigger equipment leads to bigger buildings that have faster doors and require more cleaning. It’s a relevant cycle in our lives today and one that is likely not going to slow or decrease in expectation. If you are in need of a bigger station, new construction or renovation, contact a trusted Design-Build General Contractor.

Goosie Kennedy is a Project Manager for D. R. Reynolds Company, Inc., a Design-Build General Contractor.
Raleigh Fire Department

Department Name: Raleigh Fire Department
County: Wake County
Type Department: Municipal (fully paid) Fire Department
ISO: Class 1
Number of Stations: 28
Number of Apparatus:
Pumpers: 29, Aerials: 9, Specialty: 1
Heavy Rescue unit
Do you provide EMS? Yes
What type: BLS is provided as a “First-responder” program in conjunction with Wake County EMS.

Specialty Operations:
Regional HazMat response team,
Regional Technical Rescue Team
Annual Budget: $65 million
Area Covered: 149 square miles
Population: 469,000
Total Runs: 43,181
Fire: 17,042 (39.47%)
EMS: 26,139 (60.53%)
Chief: John McGrath
Number of Members: Paid: 621
Volunteer: 0
Address: 310 West Martin St. Suite 200 Raleigh NC 27602
Website: Raleighnc.gov/fire
Phone: 919-996-6115

Top concerns in your community: Keeping up with the phenomenal growth; lightweight wood construction with a masonry veneer

What upgrades will you make in your department this year?
We are in the process of building two new fire stations. We are in the process of totally upgrading a station (the third in the last 3 years) with another to be started upon completion of the current upgrade. We have secured the budget for a new HQ and another two new stations.

What special hazards or unique businesses in your community?
The City of Raleigh has the typical hazards faced by any large municipality (i.e. high rise buildings, transient freight trains, warehouses etc.) but no extraordinary hazards (i.e. oil refinery, etc.)

What’s great about your department?
One of the things that the Raleigh Fire Dept. takes pride in is the fact that every Raleigh Fire Station is equipped with an industrial Extractor washing machine and dryer. Also, every station has a washer and dryer for our members work uniforms. As you probably are aware, firefighters have a much higher occurrence of cancer that the general population. One of the reasons is the exposure firefighters have to carcinogenic particulate on their Personal Protective Equipment (PPE). Every one of our firefighters has two sets of PPE. The extractors allow our members to clean one set after every exposure at a working fire. In addition, members can clean their clothing at the station, thereby not having to expose their families to such things as bed bugs. Each of our stations is divided into hot, cold and warm zones with Plymovent exhaust extraction systems on every apparatus floor in every station.

Fire and Life Safety Education Team

- Raleigh Fire Youth Academy
- NFPA Remembering When
- NFPA Learn Not 2 Burn Classes
- Fire Prevention Week
- Holiday Express @ Pullen Park (Holiday Safety)
- Letterland Day @ Pullen Park
- Campus Safety Training
- Workplace Safety Training
- Fire Extinguisher Training
- Career Fairs
- Health and Safety Fairs
- Fourth of July Block Party @ Brier Creek (Fireworks Safety)
- Community Heroes Day @ Crabtree Valley Mall
- “Help Us Out. Put It Out.” (Smoking Materials Campaign)
- Juvenile Fire Setters
- Public Safety Day at Leesville High School
- RPD/RFD Basketball Camp
- Events @ Dorthea Dix
- Hearing and Visually Impaired Safety Classes
- Smoke Alarm and Carbon Monoxide installs
- Mud Day @ Walnut Creek Wetlands Park
- The Alzheimer’s Association Walk to End Alzheimer
- Green Road Community Book Bag Drive
- Community Advisory Council Meetings
- Raleigh Neighborhood Exchange
- Guatemala Day

You protect the people. We protect the gear.

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Belton Fire Department

Department Name: Belton Fire Department
County: Anderson
Type Department: Combination Fire-Rescue Department
ISO: Currently we are an ISO Class 3 Department
Number of Stations: We operate out of one centralized station
Number of Apparatus: 4 Pumpers, 2 Pickup/Rescue Trucks, 1 Command SUV, 2 Special Ops Trailers
Do you provide EMS? Yes
EMR Level: What type: BLS, ALS, FR
Specialty Operations: Our department works with the Anderson Technical Rescue Team to provide rescue services for the entire county of Anderson. Many of our personnel are trained as Divers and Swiftwater Rescue Technicians. We also have personnel trained in Confined Space, Rope Rescue, Land Search and Building Collapse. Our two special operations trailers contain a large amount of rope rescue and hazardous materials equipment which is available to any agency if needed.
Annual Budget: $609,850
Area Covered
Square miles: 5
City Limits/Cover an additional five square mile in Auto Aid area.
Population: 4,600 (City)
Total Runs: 1161
Total Runs in 2018
Fire: 380
EMS: 781
Chief: William B. Maness (Brad)
Chief Officers: Asst. Chief Brad Stevens
Other Officers: 2 Captains, 1 Lieutenant, 1 Sergeant
Number of Members: We have 32 members currently: 5 Career, 4 Part Time, 23 Volunteers
Address: 306 Anderson St., Belton, SC 29627
Website: www.beltonfire.net (unofficial)  www.cityofbeltonsc.com (official city page)
Phone: 864-338-7048
Community Outreach: This is why we exist. Our love for the Belton community runs deep. I truly believe we are the foundation of this town and we should do whatever we can to serve. Part of our mission statement describes putting others before ourselves and we try to do that in all areas of service.
We are active in all city events, we deliver dynamic risk reduction
see BELTON FD on page 44
programs to all of our city schools by working with the Career and Technology Center firefighting students. We provide “Burn to Learn” demonstrations to elementary aged school children where they can see what happens during a fire.

Over the last four years, we have helped to organize a “Year End Studies” program for the local elementary school where they spend three days with our staff learning about our profession. We help to welcome students to school on the first days by assisting in the drop off line and escorting kids to their class. Our members have also assisted the Recreation Department with Easter Egg Hunts and parades.

We are active in smoke alarm blitzes and installations and routinely conduct welfare checks to many of our citizens. On several occasions, our personnel have purchased groceries and household items with their own money to make sure a need was met. We truly have some of the best people around and they make me proud each and every day.

Top Two concerns in your community:

1. Maintaining a high level of service with fewer firefighters. Recruitment is becoming more and more difficult and the call volume isn’t going down. We still need people of all ages to volunteer and assist our paid staff with fire, medical and administrative duties.

2. Much of our city has legacy type homes and older commercial structures. We are now seeing some growth and the new construction that comes along with it. I want us to be more educated in fire and life safety codes so we can ensure the new growth will be safe for years to come.

We need to educate our citizens and potential builders on safer means of construction and residential sprinklers. If we really want to build a safer community we have to be willing to have those conversations.

What are you doing for fundraising? This year we are working to raise money for the Cancer Association of Anderson by selling Breast Cancer Awareness shirts. We also would like to work on raising funds to assist school-aged students that may have difficulty paying their school lunch fees and other debts.

We typically don’t take part in fundraising for our department since our citizens already pay for that service through their taxes. At times, we have held small fundraisers to purchase items for our Explorer Post.

What upgrades will you make in your department this year? We are constantly working to improve our fire attack delivery by upgrading hoses, nozzles and equipment. If we are fortunate enough to receive grant funding, we will be replacing all SCBAs to ensure our firefighters have the best equipment possible to save lives and property.

Inside the station we will be working to refinish our truck room floors and working on some cosmetic issues in and around the station. We have had great support from our city leaders over the last three years and we’ve made much needed improvements to our building.

What special hazards or unique businesses in your community?

Just outside the city limits, but in our automatic aid area, there is a bulk petroleum tank farm and pipeline that is a major target hazard. We dedicate many hours of training each year to ensuring our personnel is ready to respond should there be a fire, leak or technical rescue incident.

What’s great about your department?

I am truly humbled to work with our fantastic firefighters. They always go above and beyond in everything they do. Service and training is at the forefront for our department and in a day when everyone has less time, our folks willingly give up the time they have left for someone else.
Crossword Puzzler

Hurricane Season: Are You Aware and Prepared?

By Caroline M. Schloss

ACROSS

1 Avoid wading in flood water, which can contain dangerous ______; underground or downed power lines can also electrically charge the water.
2 A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less is called a tropical ______.
3 Become familiar with your evacuation ______, the evacuation route, and shelter locations.
4 A tropical cyclone with maximum sustained winds of 74 mph (64 knots) or higher is classified as a ______.
5 Hurricane storms are most active in the month of ______.
6 The Atlantic hurricane season spans from ______ 1 to November 30.
7 Generators should only be used outdoors and away from windows.
8 An emergency preparedness ______ includes three days of food and water, medications, a flashlight, batteries, cash, and first aid supplies.
9 Emergency Alert System (abbr).
10 The roughly circular area of comparatively light winds that encompasses the center of a severe tropical cyclone.
11 Just six inches of fast-moving water can knock you down, and one ______ of moving water can sweep your vehicle away.
12 Flooding from heavy rains is the ______ leading cause of fatalities from landfalling tropical cyclones.
13 Turn Around, Don’t ______! Do not walk, swim, or drive through flood waters.
14 Six hours prior to landfall and during landfall, stay away from _____, flying glass could injure you.
15 Hurricane ______ is the portion of the year having a relatively high incidence of hurricanes.
16 One way to protect yourself from high winds is to take refuge in a designated storm ______, or an interior room.
17 Fast moving, heavy rains, destructive ______, flooding, inland flooding from heavy rains, destructive _______, tornadoes, and high surf and rip currents.
18 Storm ______ is the abnormal rise of water generated by a storm’s winds and this hazard is historically the leading cause of hurricane-related deaths in the United States.
19 Gather needed supplies for at least ______ days; keeping in mind each person’s specific needs, including medications and pet’s needs.
20 The primary hazards from landfalling tropical cyclones.
21 The Saffir-______ Hurricane Wind Scale is a 1 to 5 rating based on a hurricane’s sustained wind speed.
22 An increase in the maximum sustained winds of at least 30 kt in a 24-hour period is considered a ______ intensification.
23 One of the largest concerns associated with hurricanes is a power ______.
24 At the onset of approaching hurricanes persons are encouraged to always be ready to ______ and if told, do so immediately.
25 The National Hurricane Center (abbr).
26 Six hours prior to landfall and during landfall, stay away from _____, flying glass could injure you.
27 The National Oceanic and Atmospheric Association (abbr).
28 One way to protect yourself from high winds is to take refuge in a designated storm ______, or an interior room.
29 A tropical cyclone with maximum sustained winds of 111 m.p.h. (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale is considered a ______ hurricane.
30 An increase in the maximum sustained winds of at least 30 kt in a 24-hour period is considered a ______ intensification.
31 Keep your car in good working condition, and keep the gas tank _____; stock your vehicle with emergency supplies and a change of clothes.
32 At the onset of approaching hurricanes persons are encouraged to always be ready to ______ and if told, do so immediately.
33 Emergency Broadcast System (abbr).
34 Charged your ______ phone and other communication devices about six hours prior to the storm.
35 Six hours prior to landfall and during landfall, stay away from _____, flying glass could injure you.
36 At the onset of approaching hurricanes persons are encouraged to always be ready to ______ and if told, do so immediately.
37 The Saffir-______ Hurricane Wind Scale is a 1 to 5 rating based on a hurricane’s sustained wind speed.
38 A tropical ______ has maximum sustained winds of 39 to 73 m.p.h. (34 to 63 knots).
39 One way to protect yourself from high winds is to take refuge in a designated storm ______, or an interior room.
40 A tropical cyclone with maximum sustained winds of 38 mph (33 knots) or less is called a tropical ______.
41 The roughly circular area of comparatively light winds that encompasses the center of a severe tropical cyclone.
42 One of the largest concerns associated with hurricanes is a power ______.
43 An announcement that sustained winds of 64 knots (74 m.p.h. or 119 km/hr) or higher are expected is a hurricane ______.
44 An increase in the maximum sustained winds of at least 30 kt in a 24-hour period is considered a ______ intensification.
45 Keep your car in good working condition, and keep the gas tank _____; stock your vehicle with emergency supplies and a change of clothes.

DOWN

1 Turn Around, Don’t ______! Do not walk, swim, or drive through flood waters.
2 Tornadoes can accompany landfalling tropical cyclones and typically occur in rain ______ well away from the center of the storm.
3 Hurricanes ______ is the portion of the year having a relatively high incidence of hurricanes.
4 Hurricane ______ is the portion of the year having a relatively high incidence of hurricanes.
5 One of the largest concerns associated with hurricanes is a power ______.
6 Hurricane ______ is the portion of the year having a relatively high incidence of hurricanes.
7 An announcement that sustained winds of 64 knots (74 m.p.h. or 119 km/hr) or higher are expected is a hurricane ______.
8 One way to protect yourself from high winds is to take refuge in a designated storm ______, or an interior room.
9 A tropical cyclone with maximum sustained winds of 111 m.p.h. (96 knots) or higher, corresponding to a Category 3, 4 or 5 on the Saffir-Simpson Hurricane Wind Scale is considered a ______ hurricane.
10 Hurricane storms are most active in the month of ______.
11 The Atlantic hurricane season spans from ______ 1 to November 30.
12 Generators should only be used outdoors and away from windows.
13 An emergency preparedness ______ includes three days of food and water, medications, a flashlight, batteries, cash, and first aid supplies.
14 One of the largest concerns associated with hurricanes is a power ______.
15 The National Hurricane Center (abbr).
16 The National Oceanic and Atmospheric Association (abbr).
17 The roughly circular area of comparatively light winds that encompasses the center of a severe tropical cyclone.
18 One way to protect yourself from high winds is to take refuge in a designated storm ______, or an interior room.
19 Gather needed supplies for at least ______ days; keeping in mind each person’s specific needs, including medications and pet’s needs.
20 Storm ______ is the abnormal rise of water generated by a storm’s winds and this hazard is historically the leading cause of hurricane-related deaths in the United States.
21 Just six inches of fast-moving water can knock you down, and one ______ of moving water can sweep your vehicle away.

Caroline M. Schloss is a current member of the Knotts Island Volunteer Fire Dept., Currituck County Emergency Response Team, Currituck County CERT, National Association of Search and Rescue, Project Lifesaver VA.

Answers on Page 47

Carolina Fire Rescue EMS Journal www.carolinafirejournal.com
When searching for healthy eating tips, the phrase “portion control” pops up time and again. Simply put, controlling your portions means sticking to a set amount (portion) of food in one sitting. The right amount depends on your calorie and nutrient needs. And, of course, what actually fills you up. Whether you’re trying to lose weight or just eat healthier, it’s important to have a good idea of what a healthy portion looks like.

“Portion is different than serving size,” Caroline Kaufman, R.D., tells SELF. “The serving size is a measured amount of food or drink (what you see on a nutrition label) and your portion is the amount you actually consume,” she explains.

For example, one serving of granola may be listed as a quarter cup, but if you have two servings, your portion is a half cup. Oftentimes, the right portion size is one serving, but that’s not always true.

Your Plate Should Be 50/25/25
The best way to eyeball healthy portions? Fill your plate or bowl with 50 percent veggies or salad, 25 percent lean protein, and 25 percent starchy vegetables. This helps you control portions.

Fill the plate with fresher choices. Eat more foods from the farm not the grocery shelves. Foods from the farm will expire within a week. Get rid of the items that have a shelf life of over 14 days.

Eat Off Smaller Plates
Use salad plates and small bowls instead of dinner plates and large soup bowls. Why? The perception is you’re eating more than you are. We eat with our eyes and nose first. A salad plate that’s piled high with food looks and seems more filling than a scantily topped large dinner plate.

Most restaurants serve enough for two people. Before you go in make the decision to share the plate with someone. You save money and calories. If you are by yourself ask for a to-go box right away and pull out half to take with you. That way you can determine the correct portions before you dig in. It’s much harder to stop eating when there’s still delicious, cooked food on your plate.

Stop Eating Straight From the Bag
Portion out a certain amount of food using the serving size on the container as your guide.

When you’re taking snacks on the go, portion them into Ziploc bags or small containers. Purchase food already in serving sizes like a cheese stick or single-serve yogurt or 100 calorie bag of nuts.

To Buffet or Not to Buffet
Buffets seem like a great deal with lots of choices. The problem is you forget everything you’ve been taught about healthy portion sizes and eating with your stomach not your eyes when you have endless options and feel like you should get your money’s worth.

Choose not to go to buffets, but if you find yourself there because someone else made the suggestion survey all the options on the buffet before digging in. If you remember the top two recommendations above you will be fine. Avoid the temptation to go back for seconds.

Be More Mindful When You Eat
Turn off your phone or put it away and sit quietly, enjoy the company of others and the food.

Eating when you’re distracted pretty much guarantees you’ll overeat. If you don’t pay attention to what you’re putting into your mouth, it’s tough to recognize when you’re full. Avoid eating in front of a screen. That means your TV, laptop and your phone.

If you want to determine how you can improve your fitness and implement a program at your department contact kleatherman@fitnessforumonline.com
The Fire Protection Technology degree programs at Rowan-Cabarrus provide students with the technical knowledge and skills necessary to work and advance in fire protection, administration and management.

Courses in fire prevention and safety, public education, building construction, fireground strategies and tactics, and local government finance and laws as they apply to emergency services management. Graduates pursue employment with providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, and educational and government agencies.

For more information about the Fire Protection Technology program, please visit https://www.rccc.edu/beps/fire-protection-technology/. For more information about Rowan-Cabarrus Community College, please visit www.rccc.edu or call 704-216-RECC (7222).

Kochek’s Strainers, Elbows Test at the Top
Results of latest independent flow tests posted on Kochek website
August 13, 2019—Putnam, CT - Kochek Company, LLC has posted on its website white papers detailing the latest independent flow test results of multiple brands of fire hose, strainers and elbows. Conducted by GBW Associates, LLC and Water Supply Innovations, LLC, test conditions were closely monitored for consistency and elimination of variables. Kochek lightweight suction hose was used as a constant in each testing category. Kochek’s low level, ice, floating, box, and barrel strainers and 90° suction elbows performed at or near the top of all test subjects. Description of each test’s flow speed, motor speed, and vacuum readings as well as official summaries of independent test findings may be found at www.kochek.com.

Strainers for Every Call
The latest flow testing data support fire professionals’ observations of Kochek’s rugged construction, reliable performance, and versatility in the field.

Kochek. strainers are compact and constructed of lightweight aluminum yet are durable to withstand harsh weather conditions while delivering maximum water flow. They come in sizes from 1.5” to 6” and are available in NH, Storz Camlock, connection styles.

Kochek produces a full line of top performance water flow products manufactured from high quality materials engineered to exacting specifications. All Kochek products are covered by a five-year warranty against manufacturing defects.

Headquartered in Putnam, CT, Kochek Company, LLC was founded in 1968. A technologically advanced manufacturing company, Kochek is a leading producer of water movement products for fire, water works, and irrigation markets throughout North America and abroad. To achieve its mission to manufacture and deliver the highest quality products at competitive prices, Kochek dedicates time and resources to the development of innovative solutions that meet high standards of excellence in engineering, manufacturing, and customer support. More information about Kochek and the company’s entire line of fire equipment may be found at www.kochek.com.
Bostic Volunteer Fire Department
2020 Marion Body Works Custom Top Mount Pumper/Tanker w/ aluminum body, Kenworth chassis, Paccar PX-9 580 HP engine, 1250 GPM Hale QFlo Plus pump, 1500 gal. poly tank.
Delivered by Anchor-Richey EVS, Inc.

Mebane Fire Department
2019 F350 Ford QRV Brush Truck w/gas engine, 135 GPM 0-50 PSI Hale HPX75-B18 pump, 225 gal. UPF poly tank, front deluge system, remote start, custom side compartments.
Delivered by Anchor-Richey EVS, Inc.

La Grange Fire Department
2020 Midwest All-Poly Series 1800 Tanker-Pumper w/Freightliner chassis, Cummins L9 engine, 1000 GPM Darley LSP PTO pump, 1800 gal. polypropylene tank, special length (25’ 4”).
Delivered by Midwest Fire Equipment

New River Volunteer Fire & Rescue
2020 Midwest Fire All-Poly Series 3000 Tanker-Pumper w/Freightliner chassis, Cummins L9 350 EV HP engine, 1500 GPM Waterous GLU 1500 Split Shaft Pump, 3000 gal. polypropylene tank.
Delivered by Midwest Fire Equipment

Stewart Simmons VFD
2020 Midwest Fire All-Poly 2000 Gallon Tanker-Pumper w/ Freightliner chassis, Cummins L9 350 EV HP engine, 500 GPM Hale APS0 PTO Side Kick pump, 2000 gal. polypropylene tank.
Delivered by Midwest Fire Equipment

DON’T MISS FEATURING YOUR PRODUCT in our upcoming Winter 2020 Issue

Carolina Fire Rescue EMS Journal
www.carolinafirejournal.com advertising@carolinafirejournal.com
Winchester Fire and Rescue Department
Pierce Enforcer Aerial, HD 105' ladder, DDC DD13, 505 HP, 1750 lb-ft engine, 72,000 lb. GVWR, side roll and frontal impact protection, 18” stabilizer penetration, HiViz lighting. Delivered by Atlantic Emergency Solutions.

Greensboro Fire Department
Pierce Arrow XT Pumper w/Cummins ISX12, 450 HP engine, 47,000 lb. GVWR, 22” extended front bumper, single stage Hale pump, aluminum “New York Style” hose bed. Delivered by Atlantic Emergency Solutions.

County of Rockingham, Bridgewater FD
Pierce Enforcer Pumper w/DDC DD13 505 HP 1750 lb-ft engine, 47,000 lb. GVWR, 750 gal. tank, Akron 8000 series valves, aluminum hose bed. Delivered by Atlantic Emergency Solutions.

High Point Fire Department
Pierce Arrow XT Tiller w/Cummins X15, 565 HP, 1850 lb-ft engine, 73,300 lb. GVWR, 16” extended bumper, Akron 5480 StreamMaster II Electric w/extended vertical travel nozzle. Delivered by Atlantic Emergency Solutions.

City of Monroe Fire Department
Pierce Enforcer Pumper w/Cummins ISB 450 HP, 1250 lb-ft engine, 47,000 lb. GVWR, 750 gallon tank, FoamPro 1600 single agent with 30 gallon tank. Delivered by Atlantic Emergency Solutions.

Louisburg Fire Department
Pierce Enforcer Pumper w/Cummins ISB 450 HP engine, 47,000 lb. GVWR, 22” extended front bumper, Hale DSD 1250 GPM pump, HiViz lighting. Delivered by Atlantic Emergency Solutions.
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**SUNSCREEN**

**Cont’d from page 16**

**Love the Job**

Whether volunteer or career, this is the best job in the world. You help others when they need it most. You are trusted when others are not. Ever been handed a lifeless child from their mother? I have. That shows trust above trust for a mother to hand over their child especially when that child is in need. Do everything you can to help others. Be there when they need it most and more than just putting out their fire. Do what you can to make their lives during their worst time be a little less bad. Remember, they may not remember how well you put out their fire, but they will most definitely remember how you made them feel. Do everything to leave this job better than you found it. Find time to spend with the founders or the senior men. Make the coffee for them and have it hot and ready at all times. Do something extra every day for the citizens and the senior men. You will be rewarded more than you ever will know.

So, in retrospect of 22 years, and in hopes of 22 more, think about these points I have made and remember “Wear Sunscreen.”

David Hesselmeyer, M.P.A., has been in emergency services for 16 years. Currently he is a firefighter, rescue technician, paramedic, and North Carolina Executive Emergency Manager. Hesselmeyer is the owner and primary consultant with On Target Preparedness (OTP) which contracts with emergency services agencies and non profits to assist in risk assessments, plan writing, plan revision, exercise development, etc. He currently volunteers with Robys Creek Fire Rescue and works part time with Harnett County EMS. He can be contacted at dhesselmeyer@ontargetprep.com or visit his website at www.ontargetprep.com.