On Scene

Emergency Medical Services and REPLICA

Does your department deploy members with EMS credentials to wildland fires in other states? Do you provide EMS personnel to any of the USAR task forces?

Is your department on a state border that you cross back and forth on a daily basis in the normal scope of EMS operations? Did you know that unless your personnel are licensed to function in those other states, they are probably breaking the law?

That's where REPLICA comes in.

Merriam-Webster defines replica as "a copy exact in all details," and this definition works well for the topic of this article.

REPLICA is the short name for the Recognition EMS Personnel Licensure Interstate CompAct. REPLICA was a project spearheaded by the National Association of State EMS Officials

Please see "Emergency Medical Services and REPLICA," Page 3

Fire Chief G. Keith Bryant
IAFC President
& Chairman of the Board

Your Association, Your Direction

In 2012, a survey of IAFC members was conducted to solicit input for our association's strategic planning efforts. The results were used to formulate the IAFC's strategic direction at a summit conducted in Virginia in January 2013.

Attendees at the 2013 summit included a large group of members representing all IAFC divisions, sections, committees and the board of directors. This summit provided the IAFC's strategic direction based on our mission to Lead, Educate and Serve.

In our efforts to remain relevant and valuable to our members, we recently conducted another survey in December 2014.

I'm happy to report that the number of those responding to this survey was up 26% from the 2012 survey. I want to pause here and express my deep appreciation for the increased participation from you all.

Last month in Oklahoma City, the IAFC board of directors met to review this latest survey and to discuss any necessary adjustments and recommend any changes to our strategic direction.

> *"Not surprisingly, there was little if any change in what you identified as priorities ... and what you value and believe is beneficial in terms of the services you receive as an IAFC member."*

Not surprisingly, there was little if any change in what you identified as priorities from 2012 to present and what you value and believe is beneficial in terms of the services you receive as an IAFC member.

Legislative advocacy, professional-development programs, communication of timely information, networking and collaboration opportunities remain as IAFC services and benefits you find among the most valuable.

Among the most encouraging information from this survey was that 65% of the respondents would be extremely likely to refer a friend or colleague for IAFC membership, up from 56% in 2012.

Additionally many of our younger members desire opportunities to serve our organization in a leadership position and support the fire service through their membership in the IAFC.

Within the next few months, this strategic direction will be published for your information and comment before its formal acceptance by the board of directors.

As the IAFC is a member-focused, -oriented and -governed association, your feedback is vitally important to the current and future direction of our organization.

See the article "2014 IAFC Member and Leadership Survey" on page 10 for highlights on the Strategic Direction survey results.

And one more bit of good news to share. In 2014, the IAFC experienced a 3.25% increase in paid members. This brings our total membership to 11,248, our highest number in more than eight years. This is truly exciting and I can't thank you all enough for your efforts in this area. ◆

Emergency Medical Services and REPLICA

continued from page 1

(NASEMSO) at the request of the U.S. Department of Homeland Security to address the issue of allowing EMS personnel to work across state lines without having to be licensed in multiple states.

NASEMSO established a national advisory panel, which the IAFC participated in, to develop the requirements; the decision was made that a state-to-state compact would be the best way to solve this problem.

NASEMSO Executive Director Dia Gainor wrote,

> In one of the most labor-intensive projects of national significance in its history, the National Association of State EMS Officials brought industry partners and experts in the field of interstate compacts together over the last two years to develop model legislation for states' consideration and enactment."

This compact was released to the states in September 2014.

Gainor went on to say

> EMS is at the leading edge of a growing wave of medical disciplines' national bodies of state regulatory agencies that have discovered that interstate compacts are a novel yet time-tested way to solve the pervasive dilemma of providing appropriately credentialed individuals from other states the legal ability to practice under specified conditions, introduce unprecedented accountability related to those personnel, and create means of information sharing among states that have never existed before.

What does all of this mean?

Quite simply, once a state passes legislation that is signed into law to adopt REPLICA and then becomes a member of the compact, that state's EMS personnel can then function in any other compact member state without breaking the law.

This bodes well for the western United States, where annual deployments of EMS personnel to wildland incidents have always been a challenge.

Likewise, EMS personnel assigned to flight agencies would no longer be required to hold a license in every state they fly in and out of if those states become members of the compact.

Finally, EMS day-to-day operations can be made much easier for those EMS personnel who cross state lines to transport patients to a hospital.

In order for the compact to go into effect, a minimum of 10 states have to adopt it.

Since states have different legislative cycles, it may be a year or two before 10 states can adopt REPLICA.

I would ask you to work now with your state EMS official as well as your legislators to push for your state to adopt REPLICA. Ideally, all 50 states will adopt the compact so that regardless of where you go, you'll be an EMS replica. ◆

Norris W. Croom III, *EFO, CEMSO, CFO, is the deputy chief for the Castle Rock (Colo.) Fire and Rescue Department. He's been a member of the IAFC and EMS Section since 1998 and currently serves as the section's director at large and international director and as the vice chair and EMS representative on the CPSE Commission on Professional Credentialing.*

For more information on REPLICA, visit IAFCEMS.org or the NASEMSO Project webpage: NASEMSO.org/Projects/InterstateCompacts/index.asp.

See "REPLICAting Success Across the United States" *(by Deputy Chief Croom and Evan Davis, IAFC liaison to the EMS Section)* on page 5 for questions and answers about REPLICA adoption efforts.

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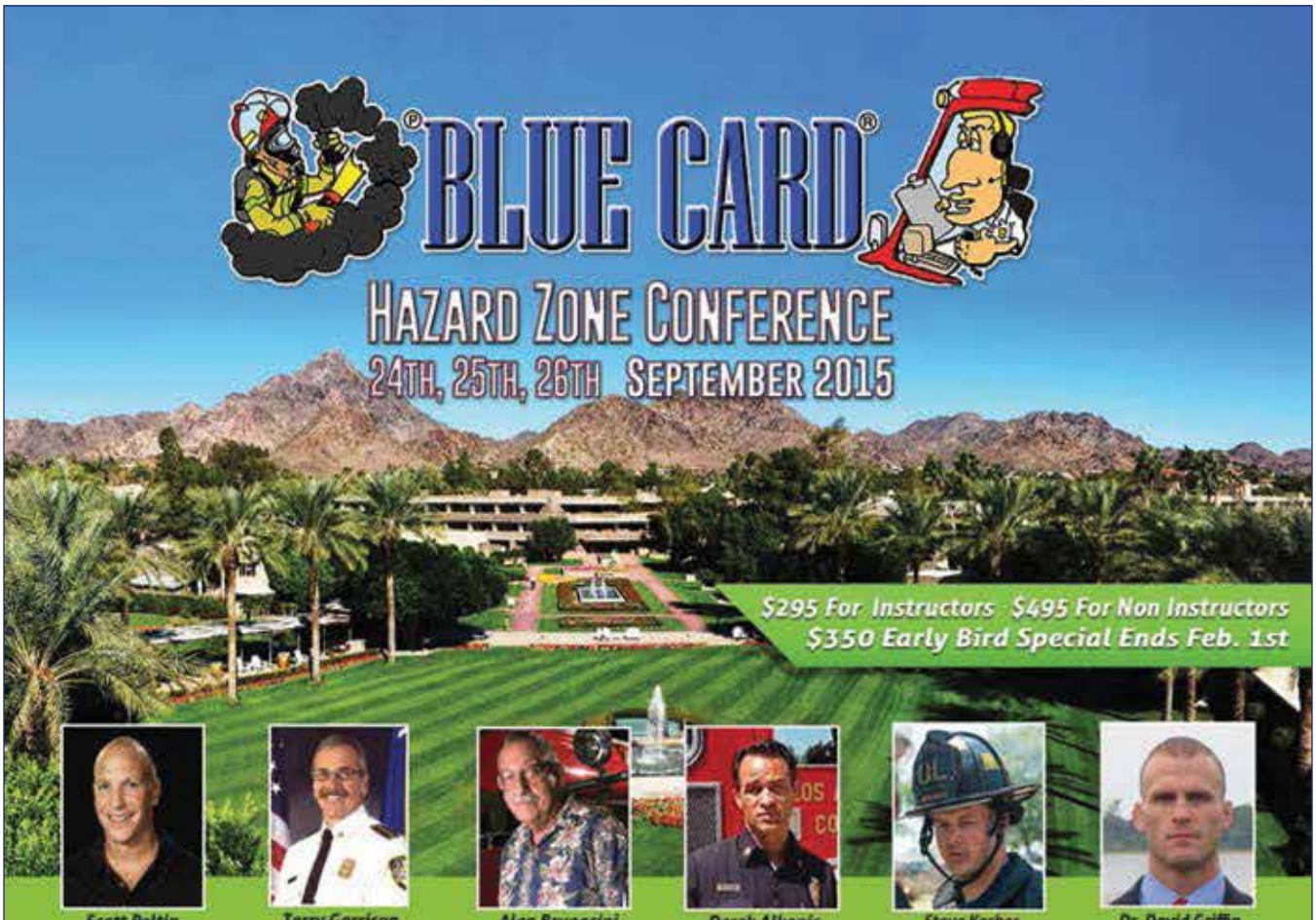

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2015 Hazard Zone and Leadership Conference Registration

This Year's Hazard Zone and Leadership Conference will be held on 24th -26th of September in Phoenix, Arizona at the amazing Arizona Biltmore Resort. Register early so you don't miss out .

- Incredible hotel rate of $169.00 per night plus a $5.00 resort fee includes full access to all the resort has to offer and free WiFi.
- The Arizona Biltmore will honor this amazing room rate for 3 days prior to the conference and for 3 days after to allow all attendees to take advantage of everything the resort and the Phoenix area has to offer.
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- This year we will add lunchtime speakers to keep us abreast of the most current issues in today's fire service.
- Breakfast, Lunch, and snacks will be served each day at no additional expense to registered guests.
- Blue Card Instructors please remember to register for the Saturday Morning Instructor's Breakfast. Free for Blue Card Instructors.
- Wednesday night join Chief Brunacini for a pre-registration event in the Gold Room just off the main foyer. This welcoming reception includes drinks and appetizers and will be from 6:00pm - 7:30pm. Don't miss this oportunity to network with the presenters and guests.

To Register Go To www.bshifter.com

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REPLICAting Success Across the United States

Efforts are underway to have all 50 states to adopt REPLICA. A handful of states have introduced legislation in support of REPLICA, but some questions and misunderstandings have arisen. Here are answers to some common questions you may hear.

Is there really a need for REPLICA in the fire service?

Is your department located near your state's border? Do your personnel deploy as part of a USAR task force? Does your department ever provide mutual aid in another state? If you answered yes to any of these and your personnel were only licensed in your home state, they likely were in violation of the law. REPLICA means your personnel don't need to maintain multiple state EMS licenses and can participate in interstate mutual-aid response. REPLICA will greatly ease a bureaucratic burden for EMS providers and fire department leadership.

Does REPLICA contain regulations that could contradict state law?

No. In the event that Firefighter/Paramedic Smith travels from State A to State B to avoid disciplinary action from State A, REPLICA allows State A's EMS office to issue a subpoena, even if Firefighter/Paramedic Smith is now in State B. REPLICA would permit State B to enforce the subpoena in accordance to State B's own state regulations. REPLICA doesn't allow or facilitate enforcement of subpoenas in any manner that contradicts the receiving state's laws. This provision is nearly identical to provisions contained in various states' nursing-licensure compacts.

Why are states charged fees to participate?

The enactment of fees defrays the costs of operating the REPLICA compact and would assure that the activities of the compact are a state function and ultimately the responsibility of the state. The fee structure contained in draft legislation to adopt REPLICA is strikingly similar to other interstate compacts on issues such as adult offender supervision and educational opportunities for military dependents.

If a state adopts REPLICA, can it maintain its own certification standards?

Yes. States can maintain their own certification standards as long as they use the National Registry examination as a condition for initial licensing in their state. Meeting this requirement helps ensure that patients continue receiving a consistent level of care throughout all REPLICA-member states.

What are the individual requirements to be able to practice in a REPLICA state?

The individual must be at least 18 years old; possess a current, unrestricted license in a member state as an EMT, AEMT, paramedic or other state-recognized and licensed EMS provider level with a scope of practice and authority between EMT and paramedic; and practice under the supervision of a medical director.

What will the individual be allowed to do in a REPLICA-member state if their protocols are different?

An individual providing patient care in a remote state shall function within their scope of practice authorized by their home state and medical director unless and until modified by an appropriate authority in the remote state.

Are there any future requirements if a state adopts REPLICA?

Yes. If not already required within five years of adoption, the state will have to require background checks for all applicants seeking initial licensures. This background has to be FBI-compliant and based on the results of either fingerprints or some other biometric data check. The only exception will be for government employees who possess a national-security clearance as defined in the U.S. Code of Federal Regulations.

Adoption of REPLICA is a great opportunity for the fire service to significantly reduce administrative burdens that complicate daily life for some fire and EMS departments as well as mutual-aid responses for many departments. Since REPLICA must be adopted at the state level, find your state representative and senator: http://openstates.org/find_your_legislator. Ask them to REPLICATE advancement for EMS across the nation! ◆

Company Officer Leadership: To Transport or Not to Transport, That Is the Question

As a company officer or chief officer, have you ever heard your emergency medical technician or paramedic complain about a patient they transported to the emergency room when they felt transport was not medically necessary?

As an officer assigned to an ALS ambulance, it can be difficult not to join in and complain, especially when your crew believes the patient had an ulterior motive for wanting to go to the hospital.

Have the EMS system and ambulances ever been used as public transportation? If a person wants to go from the rural part of the city or town to the urban downtown area, how do they travel if they don't have a driver's license or a vehicle to drive?

Public transportation, including a bus or taxi, could be an option, but both of those usually cost money at the time of service. Those companies don't allow you to pay later or send you a bill.

Let me ask you this question: what public transportation service does allow you to pay later or will send you a bill?

You guessed it: ambulances operated by a municipality.

Where are most hospitals located? Right again, urban populated sections of the city or town, where a lot of commercial businesses are located.

Has this ever happened at your department or to your crew? Is there anything that can be done to curb this abuse of the EMS system?

A part of me wants to say it's part of the job; some of us get paid to do it and some municipalities bill and collect payment from patients or insurance companies for treatment and transport. The monies may go into some type of municipal fund or used to purchase fire/rescue equipment.

Should we be transporting everybody to the ER no matter what the reason, chief complaint or lack thereof?

This reminds me of a line by a helicopter pilot from the movie We Were Soldiers: "You call, we haul." There's also a part of me that feels fire-based EMS can be improved.

Could the EMS system develop no-transport parameters for EMS crews to follow when transport to a hospital emergency room isn't appropriate?

Most in the EMS field care about their patients and want to make sure they get the appropriate treatment.

For example, an EMS crew responds to find a patient with chest pain. The patient is of age (not a minor,) is not intoxicated and is alert and oriented to person, place and time. After a professional evaluation, the crew feels the patient needs ALS treatment and transport by ambulance to the emergency room. The patient states they don't want to go to the hospital.

The EMS crew will continue to discuss why the patient needs to be transported and attempt to convince the patient to go. They will even go as far as calling the doctor at the ER to explain the situation because sometimes patients listen to a doctor's advice more than that of an EMS crew.

If the patient still adamantly refuses treatment and transport, the patient and preferably a witness will sign a refusal form and the EMS personnel will document the call and submit the report.

Sounds like good patient care to me.

Here is some food for thought, some interesting questions to ponder:

» How can public officials and chief officers make sure personnel, ambulances and fire apparatus are utilized in the way they were intended?

» Should state EMS systems and fire/rescue departments look at purchasing passenger vehicles (SUVs) to respond to certain EMS calls when a three to four person ALS engine company and/or a two to three person ALS ambulance response may not be necessary?

» If the above is changed, will a municipality or fire/rescue department lose revenue?

» Will the municipality be able to bill and be reimbursed if they provide a non-transport type of service?

Have you heard about community paramedicine (CP)? CP is a model of community-based health care in which paramedics function outside their customary emergency response and transport roles in ways that facilitate a more appropriate use of resources.

Interest in CP has grown in recent years, especially in rural areas, based on the belief that it may improve quality of care while also reducing costs.

Here are some more questions to consider in this topic:

» Is CP, which has already started in some areas, the next big thing for fire-based EMS?

» What does the training entail and how much more training will a paramedic have to do in regards to CP?

» If your personnel are covered by a collective bargaining agreement (a contract), will this have to be negotiated?

» Is CP a change in working conditions?

» Does fire-based EMS have a seat at the table?

» Are chief officers being proactive and are they discussing this option with their municipalities and staff?

Again, just a few interesting questions to ponder.

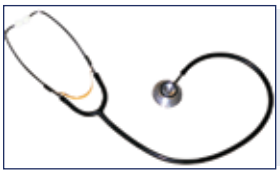
With the ever-soaring cost of health insurance, I believe EMS has been and is continuing to take steps to improve services and curb spending.

The government is looking and has looked at appropriate alternatives for patient's to be able to stay in their homes and for people that don't need an ambulance or an emergency room a more appropriate alternative.

Will fire-based EMS change? ◆

Brian Morrison, *M.S. EFSL, is a lieutenant with the Centerville-Osterville-Marstons Mills (Mass.) Fire/Rescue Department. He is an adjunct member of the Company Officer Leadership Committee and has been an IAFC member since 2012.*

What Is EMS Strong?



What matters more, the stuff on the outside of a uniform or the stuff on the inside? Next time you're getting dressed for work, take an extra moment for a good look in the mirror. What—and whom—do you see looking back at you? Look that person in the eye, take a deep breath and ask some tough questions.

What if today's shift brings me face-to-face with a mother whose teenage son has hanged himself in the basement? This is a moment she's going to remember forever.

The way I break the news, the look on my face, my body language—those all matter as much as my words. Am I ready for that?

What if today I find myself with a partner who cuts corners, who drives irresponsibly, whose personal triage system involves treating people differently based on the color of their skin, the shade of their religion, the hue of their sexual orientation?

Am I prepared to do what I know is right?

What if today's shift brings nothing but mundane, routine calls that don't use my skills or challenge me? Will I be professional and courteous, but nothing more?

Or will I find or make opportunities to be the best part of someone's day?

What if today is the worst shift of my entire career? What if I find myself utterly exhausted, annoyed, sore, uncertain, discouraged or afraid? Where will I look for strength when mine is used up?

Now, are you ready for a shock?

The answers to these questions really don't matter. What does matter is that you're willing to ask them honestly and reflect on what they mean. What matters is acknowledging that sometimes you're going to come up short, sometimes you're going to be unsure of yourself and sometimes even your best isn't going to be enough, and you're going to fail.

In fact, if you answered those questions easily and with confidence, you're probably fooling yourself.

What matters is acknowledging that the stuff on the inside of the uniform will never live up to the stuff on the outside. The stuff on the outside is a legend, a myth, a façade. The stuff on the inside is human.

What matters is how you face that realization, and how you find the balance between the human you are with the superhuman the rest of the world expects you to be.

And where the two intersect, at the crossroads of human and superhuman, you'll find EMS Strong.

EMS Strong is what draws a special few together to do incredibly important work, often under difficult circumstances, and many times with little thanks.

EMS Strong is the bond you share with fellow first responders. Sometimes that bond is expressed in a silent nod of recognition, and other times it takes the form of war stories shared for the umpteenth time. But it's always there.

EMS Strong is the knowledge that you're a part of something very special.

It's the belief in something bigger than yourself—bigger than your level of certification, bigger than the color of the patch on your shoulder, bigger than the logo on the union card in your wallet.

EMS Strong is the well from which you draw the fortitude to maintain your composure when the going gets tougher than most people can imagine.

EMS Strong is the willingness to keep learning and growing, as an individual and as part of a profession that's evolving into a true partner in the healthcare continuum.

EMS Strong is what allows people to trust you with their secrets, with their nakedness, with their safety, with their very lives or the lives of the people they love. And it's what makes you able to accept the burden of that trust.

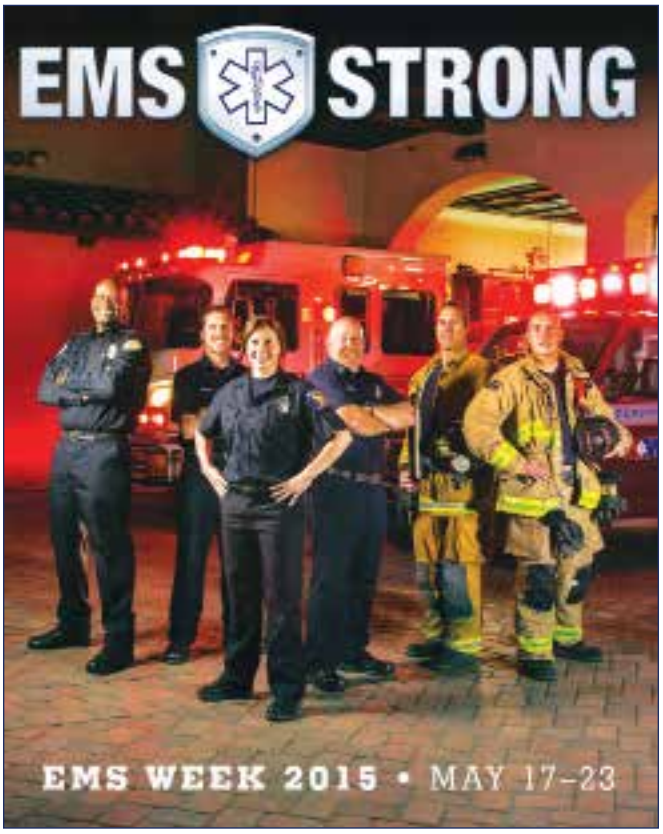
EMS Strong is what draws you to help, what empowers you to face danger when others are running away. It's there in those moments, big and small, when you find out what you're made of. It's what makes you proud. It's what keeps you humble.

EMS Strong is precious, but it doesn't belong to you. It's on loan to you, and you need to pay it back with interest for future generations.

EMS Strong is us. EMS Strong is you.

Now, stop talking to yourself in the mirror. It's time to get to work. ◆

Jeff Lucia, NREMT-P (ret.), is a partner at the RedFlash Group.



What Is the EMS Strong Campaign?

The EMS Strong campaign seeks to celebrate, unify and inspire the men and women of our nation's emergency medical services.

Created by the American College of Emergency Physicians in partnership with the National Association of Emergency Medical Technicians, EMS Strong brings together associations, EMS services, sponsors and national media to honor the dedication of EMS practitioners nationwide and to take National EMS Week into the future.

EMS Week is May 17-23 this year, focusing on EMS Strong. Learn more at EMSstrong.org.

The IAFC is an association partner with the EMS Strong campaign. We encourage you to get involved.

(The article "What is EMS Strong?" has also been published on the EMS Strong website.)

2014 IAFC Member and Leadership Survey

The IAFC issued a survey in late December/early January and a total of 595 members and 97 IAFC leaders responded. The information helped the board of directors revise the IAFC Strategic Direction document in late January. Here are some key findings.

Demographics

» 87% of members and 92% of leadership have 20+ years of fire service experience.

» 56% of members are fire chiefs, 31% chief officers, 6% company officers; among leadership, 69% are fire chiefs; 20% chief officers.

» Among members, 47% are with career departments, 39% combination and 11% volunteer; for leadership 47% are with career departments, 44% combination and 4% volunteer.

Firefighter Safety

» 50% of members say the IAFC should focus foremost on behavioral change, followed by expanded safety training programs (40%) and additional research on new technologies to improve safety (36%). Among leadership, 53% ranked behavioral change first, followed by additional research (41%) and expanded safety training (31%).

Officer Development

» Members ranked leadership training for company (64%) and chief (52%) officers a very high need.

» 52% of members thought it extremely valuable for the IAFC to offer officer-development training through regional, in-person events; 47% for online training. Among leadership, 46% ranked regional training as extremely valuable; 36% for online training.

Image of Fire Service

» 50% of members (51% of leadership) felt the IAFC should focus on the fire service image at all levels (regional/state/global); 26% of members said the focus should be on a combination of regional/state (24% leadership).

» Both members and leadership commented that the fire service can't rely on the hero image.

Succession Planning

» Only 22% of members reported that their department has a formal succession plan (28% of leadership).

» The need for succession planning for chief officers was identified as most critical – 57% among members, 66% of leadership.

Community Relevance

» 45% of members say their departments have a community outreach plan (63% of leadership).

» Only 30% of members say their departments regularly conduct citizen-satisfaction surveys (41% of leadership).

» 51% use a data-management system with GIS to help review incidents to determine needs and gaps (58% of leadership).

Budgeting and Funding

» 92% of members say chief officers most frequently contribute to the budget process.

» 70% of members say having a budget template specific to the fire service would help them determine budget needs.

Fire Prevention

» 86% of members report their department has a formal fire-prevention plan.

» 79% of members want the IAFC to provide best practices for this: (88% of leadership).

Other Challenges

» Even though budget matters were addressed earlier in the survey, the general membership group often cited money concerns in the open question about other challenges faced.

» Members want help with grants. This includes finding grants and assistance writing grant applications. The importance of training is often promoted, but there is little funding to seek additional training.

» While the leadership group is also concerned about money, their responses to this question more often cited forward-looking matters such as recruitment and retention, generation gaps, emerging technologies passing them by, and coping with long term job stress. ◆

Safety & Health: Paramedicine to Reduce the Incidence of EMS Response

Have you heard the adage, "We are in the business to put ourselves out of business?" The surest way to prevent firefighter line-of-duty death and injury is to prevent an event from occurring.

The fire service has been successful in reducing the impact of fire through code adoption, commercial and residential sprinkler systems installation and a host of public-education activities.

However, in most departments, EMS is the mainstay of modern response yet little has been generally accomplished to significantly reduce the incidence of EMS response.

Consistently, 50% of all LODDs and injury each year are related to cardiovascular causes; 25% are related to responding to and returning from alarms. Reduce the exposure and reduce the incidence.

Though actual values differ by organization, some department EMS activity may be over 70% of their overall call volume.

The fire service is positioned for profound impact to improving the quality of lives of our community, resulting in a decreased need to access emergency service for a given population cohort. This ultimately leads to a reduction in EMS calls for service. Reduce the exposure and reduce the incidence.

Community paramedicine is the latest phenomenon, created as a response from multiple demands. Each program is relative to its particular community needs but generally share some basic concepts:

- Meet the health care needs of a given patient population more appropriately
- Reduce demand on stressed EMS systems
- Use resources more efficiently and effectively

Though vernacular may be new, alternative models for healthcare deliveries are not; 10, 15 or even 20 years ago, organizations experimented with various strategies to counter rising EMS response rates. However, few strategies addressed root cause.

Consider the fire service has done a great job marketing 911 and quick response times for every call for service. The public has been conditioned to call 911 for even the perception of an emergency.

Firefighters/paramedics respond with lights and siren, keeping response times low. Engine companies are frequently dispatched with lights and sirens as well to shorten arrival time. Patients are treated and transported expeditiously and turned over to a receiving facility quickly.

The question needs to be posed: "Is this the best model?"

Imagine the scenario of the chronically ill patient who frequently accesses emergency services for difficulty managing a condition; common patient conditions might include asthma, congestive heart failure or diabetes. A paramedic with enhanced training in patient assessment, social services and home health meds and the ability to spend time with a patient may identify a root cause for recidivism.

Root cause, once discovered, can be mitigated. Often, simple interventions may reduce or eliminate a need to access emergency services.

Organizations involved with community healthcare programs, or community paramedicine, are reporting successes with improving the health and quality of life of patients as well as experiencing increases in availability of larger apparatus and transport units for high priority calls.

If a correlation exists between the health and safety of the community and the health and safety of firefighters, more effort should be placed on alternative service models that may prove beneficial to all. ◆

***Danny Kistner,** CFE, CFO, EFO, MIFireE, is fire chief of the McKinney (Texas) Fire Department and serves as treasurer for the Safety, Health & Survival Section.*

Suspicious Activity Reporting and the Fire Service: What Company Officers Need to Know to Save Lives

This is the first in the series of SAR case studies. This article focuses on the NSI-defined activity Material Acquisition/Storage. This activity is defined as the "acquisition and/or storage of unusual quantities of material such as cell phones, pagers, fuel, chemicals, toxic material and timers, such that a reasonable person would suspect possible criminal/terrorist activity."

Date of incident: October 2011
Dispatch: Investigation; smoke in a building
Response: Single engine company

Upon arrival, white smoke was issuing from a single apartment with several occupants standing on the balcony.

One occupant claimed he was boiling pasta and it overflowed.

On further investigation, the crew found no evidence of a cooking fire; rather, they found several chemicals, including Drano, on the kitchen counter (figure 1).

Fire crews were then summoned by two females who lived in an adjacent apartments; they complained their skin felt like it was burning (EMS was notified).

The fire crew reentered for routine monitoring, but found nothing. Further investigation revealed 6 bottles of acetone, 2 bottles of hydrogen peroxide, homemade bomb-making paraphernalia, a book on electronics and circuitry and a shelf full of other chemicals (figures 2-5).

A list of these chemicals was recorded in the officer's notes (figure 6).

Arson investigations, FBI JTTF and police EOD were notified; all responded to the incident and conducted independent investigations within their lane of responsibility.

The occupant also had just picked up a package from the front desk, which contained two pounds of ammonium nitrate pills (figure 7).

He maintained his story that he was boiling pasta until questioned by arson investigators and EOD technicians.

At that time, the occupant changed his story and admitted he was boiling Drano to produce a strong acid to make tie-dye shirts; no evidence was found of shirts.

Upon further questioning, the occupant admitted to conducting homemade chemistry experiments, which included making crystals, because his community college chemistry curriculum would not allow him to conduct the experiments in the lab.

"Whether a plan for a terrorist attack is homegrown or originates overseas, important knowledge that may forewarn of a future attack may be derived from information gathered by state, local and tribal government personnel in the course of routine … activities."

—National Strategy for Information Sharing, October 2007

Lessons Learned

There is no routine response. The incident began as a routine smoke-investigation incident and materialized into an EOD incident.

The information found in the occupant's residence was consistent with making homemade explosives.

While his motives stem more from curiosity than malicious intent, the accidental ramifications of such are the same for fire department response.

The occupant most likely will continue to conduct experiments in another apartment complex. ◆

Kathleen Stanley *is a battalion chief in the Fairfax County (Va.) Fire and Rescue Department and a member of the Joint Counterterrorism Assessment Team/ NCTC.*

Walter Webb *is a lieutenant (ret.) for the D.C. Fire and EMS Department and a member of the Joint Counterterrorism Assessment Team/ NCTC.*

To highlight the importance of Suspicious Activity Reporting (SAR) within the fire and emergency service and to emphasize the importance of training on and understanding the reporting policy, the IAFC's Committee on Terrorism and Homeland Security is presenting this monthly series.

It highlights components, as identified by the National SAR Initiative (NSI), of potential criminal or terrorism activity that requires further investigation by providing actual case examples from across the United States.

These events could occur in any fire/EMS department anywhere. SAR reporting should be incorporated as part of our public responsibility to recognize and report observed behaviors, activities or materials we encounter in the course of our daily duties that present outside the reasonable norm.

For more information on SAR reporting, go to NSI.NCIRC.gov. For subject-specific training products, you can access the following document on JCAT tab on LEO and HSIN:

- **Roll Call Releases:**
  - **Cold Pack Chemicals. Potential Use in Improvised Explosives**
  - **Violent Extremist Manuals - A Potential Indicator of Production Efforts**
  - **Homemade Explosive Triacetone Triperoxide Mistaken for Methamphetamine**
  - **Triacetone Triperoxide as Possible Homemade Explosive**
  - **Hydrogen Peroxide and Organic Fuel Mixtures as Possible Homemade Explosive**

Environmental Sustainability: Quick Savings through Lighting

One of the most popular ways to achieve energy efficiency and realize cost savings in your firehouse is through lighting methods. Incandescent bulbs are an inefficient way to light compared to the newer alternatives.

By replacing incandescent with high-efficiency lighting upgrades, like fluorescents and light-emitting diodes (LED), the payback can happen in a relatively short period. Experts put the break-even point for these projects at around two to four years.

Another way to save energy is to install lighting sensors that activate when someone enters a space and turns off when no activity occurs for a predetermined amount of time. These switches use some phantom energy so use them in spaces where lights are left on for extended periods when no one is present. Do you have any of these spaces in your fire stations?

A couple of examples demonstrate these energy-efficient upgrades for fire departments.

The first example is from the Raleigh (N.C.) Fire Department (RFD). By upgrading their lighting, RFD achieved a 154,190 kW energy reduction, which is enough power to run 13 homes annually.

RFD reduced their costs by over $11,000 per year and achieved a payback in less than three. Best of all, the fiscal benefits were accompanied by better quality lighting, enhancing the work environment by making it safer and more productive.

The second example comes from the Durham (N.C.) Fire Department. They reduced their electricity consumption by two-thirds. They replaced their less-efficient T12 fluorescent lighting with the more energy efficient relative, T8 and T5. The bulbs are smaller in diameter, but use less energy and put off similar amounts of light.

Energy efficient lighting is a popular upgrade because it's easy, well used and cost effective. What opportunities exist in your fire department to upgrade lighting? ◆

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Environmental Sustainability: Finding Benefits through Ceiling Fans

Being sustainable and reducing operating costs doesn't have to be a complicated effort. A great case in point: ceiling fans. They're (re)gaining popularity in the construction industry and can be implemented easily into remodels or new construction for your firehouse.

Most people know that ceiling fans can make spaces more comfortable during summer months, but many don't realize the full benefits ceiling fans can provide.

Ceiling fans have been shown to reduce energy usage by as much as 40% in the summer and 10% in the winter. They do this by creating air movement that expands the acceptable comfort range of the space.

How is this achieved?

In the summer, use the ceiling fan in the counter-clockwise direction; the airflow creates a wind-chill effect, allowing our skin to breathe and cooling us down.

Unlike room air conditioners, ceiling fans don't suck moisture out of the air, which can leave eyes, throat and skin dry and sore. This airflow can reduce the temperature in a room by up to seven degrees.

In the winter, reverse the motor and operate the ceiling fan at low speed in the clockwise direction. This produces a gentle updraft, forcing warm air near the ceiling down into the occupied space.

Installing ceiling fans in your facility makes perfect sense because it will improve the efficiency of your heating and cooling systems. A ceiling fan can pay for itself very quickly. According to statistics, it costs about a penny an hour to run a ceiling fan, versus $0.43 an hour for centralized air conditioning or $0.16 an hour to run a room air conditioner.

You save money every day you use a ceiling fan!

Here are some more tips:

» The amount of air moved by a ceiling fan depends on the angle, or pitch, of its blades. A pitch between 11 and 16 degrees is best for maximum air movement.

» Ceiling height is also important when choosing a fan. For safe operation, fan blades should be at least 7 feet above the floor; the optimum placement is generally between 8-9 feet above the floor.

» Buy the best quality fan you can afford. The higher the quality of fan, the quieter the operation and the better the performance.

» Make sure you use an appropriate UL-listed metal box, marked "For Use with Ceiling Fans." Ceiling fans should be secured to structural framing as the weight and torque exceed the strength of typical electrical junction boxes.

» Remember to adjust your thermostat when using your ceiling fan for additional energy and dollar savings.

Ceiling fans cool people, not rooms. If the room is unoccupied, turn off the ceiling fan to save energy. ◆

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Spotlight on the IAFC: What the EMS Section Does for You

The IAFC's Emergency Medical Services Section:

- Is a forum that addresses fire-based EMS issues.
- Provides guidance and direction to the IAFC board and membership on fire-based EMS issues.
- Represents fire-based EMS issues to the federal government and other interest groups.

Each spring, the EMS Section sponsors Fire-Rescue Med (IAFC.org/FRM). This year, the conference is moving to a new location, the Green Valley Ranch in Henderson, Nev., and will be held March 23–25.

Fire-Rescue Med addresses a wide variety of EMS issues, and the conference is recognized throughout the industry as the premier gathering of fire-based EMS leadership. Sessions are specifically targeted toward upper management, EMS officer and mid-level supervisors.

With more than 2,400 members, the EMS Section is one of the IAFC's largest and offers a wealth of resources to members and the EMS community. We invite you to explore our website to learn more: IAFCEMS.org. ◆