What's Happening

Navy Fire and Emergency Services Newsletter

Protecting Those Who Defend America

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Email the Editor:
Ricky.Brockman@navy.mil

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I Robot

By Ronny J. Coleman

Some folks like science fiction, others don't. I belong to the first group. I began reading science fiction as a teenager and have continued through most of my adult life. The interesting part about having that type of background is that you often have the opportunity to see scientific facts replace science fiction.

Many science fiction novels written at the turn of the century postulated that we would someday go to the moon. We have been there and done that. Others have talked about things that were unbelievable fifty years ago that are common place today. Just look at the computing power of your cell phone and your iPad.

One of my favorites was a book written by Isaac Asimov entitled *I-Robot*. There was a set of rules that robots were required to obey that Asimov proposed to assure that robots would never turn on the human race. The three rules are :

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

Of course Asimov did not have the special effects generator to produce the visions of such terrifying robots as the Terminator and the Transformers.

However, don't be surprised if you see a robot sometime in your future. For example, we currently have robotic vacuum cleaners, robotic welding machines and robotic surgery equipment.

One of the problems of robotics is that of mobility and stability. This is especially true in trying to traverse uneven and unfamiliar ground.

But things are about to change. In the latest issue of Technology Review Magazine , there is an article on robots being created by the Massachusetts Institute of Technology that could conceivably alter all of that. Meet Atlas!

Chief's Clipboard (Cont.)

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The MIT robot, named Atlas, demonstrates an exceptional sense of balance and stability that will allow it to move around human environments very effectively. Interestingly, the very first use that they are proposing for this robot is its use in emergency rescue operations. Does that sound a little like the world we live in?

Don't worry; it isn't going to be here next week. There are limitations to Atlas. It is expensive and it is noisy. Nonetheless, it is being programmed to deal with such things as entering control rooms at nuclear power plants or controlling valves in hazardous materials scenarios. The designers will readily admit that "if your goals are to make something that is equivalent to a person, we have a way to go". That quote is from Mark Raibert, co-founder of Boston Dynamics who is continuing to pioneer the development of robots with "dynamic balance". What that literally means is being able to maintain continual motion and remain upright.

In the MIT Technology Review, there is another technology that is paralleling robotics that is already being used in the fire service but its potential has yet to be achieved. I am referring to drones. If you are paying attention to the news today, you probably already heard drones are being used in wildland fires. The article in MIT talks about them being used in agricultural settings.

The concept of a drone is so simple that I am surprised that it took us this long to figure out. It is merely a low cost aerial camera platform utilizing either miniature fixed wing airplanes or helicopters. These miniature aircraft are equipped with autopilot using GPS and containing a standard point and shoot camera.

This is not the same as a radio controlled airplane that you might have seen flying over a park somewhere. It is a very sophisticated yet economically achievable device that allows an omnipotent view of the ground. In the agricultural setting, these devices are already being used to assess the status of crops, the effect of water, and the health of plants. And, it can do so in a matter of moments.

The article suggests that the use of drones by agriculture is part of being a more data driven process. The farms of today are extremely sophisticated and technology is all part of their tool kit. It is likely that it will be part of the fire services took kit in a more meaningful way in the future.

Over the years I have written numerous articles projecting that certain things would happen in the fire service. A significant number of them have come to pass. However, it was not because of my predicting something that didn't exist, it was because I was projecting something that already existed. Could we have visualized the proliferation of video cameras in the business place 20 years ago? Yet, 20 years ago, video surveillance was there. It was simply not readily available and too expensive.

As a result, I would submit that robotics is going to have a place in the fire service in the very near future. Those robots may cost a million dollars each now, but when they get down to a more reasonable level, someone is likely to form a conclusion that buying a robot that never has to retire is an economic advantage.

Chief's Clipboard (Cont.)

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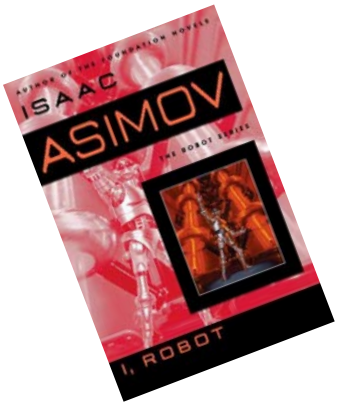

I once communicated with Isaac Asimov about the question of what would happen if there was a fire in a zero gravity environment. I still have his postcard where he said "let me think about it".

Today, you can go see the movie *Gravity* and see what science fiction writers think is likely going to happen if there ever was a fire out there.

Going back to our opening paragraph, there are people who think science fiction is hokey. I suppose there were people who felt that way about steamers, automotive apparatus, 800 mhz radios, and other technologies that have been adopted by society and integrated into the fire service. It pays to pay attention to technology when it is in its infancy.

About the Author: Ronny J. Coleman is the former California State Fire Marshal, Past President of the IAFC and Chairman Emeritus of the Center for Public Safety Excellence. He has won numerous awards in his lifetime career devoted to writing about fire and life safety.
You can read more of Chief Coleman's columns at
http://www.cafsti.org/tabletalk/

Combs Cartoon

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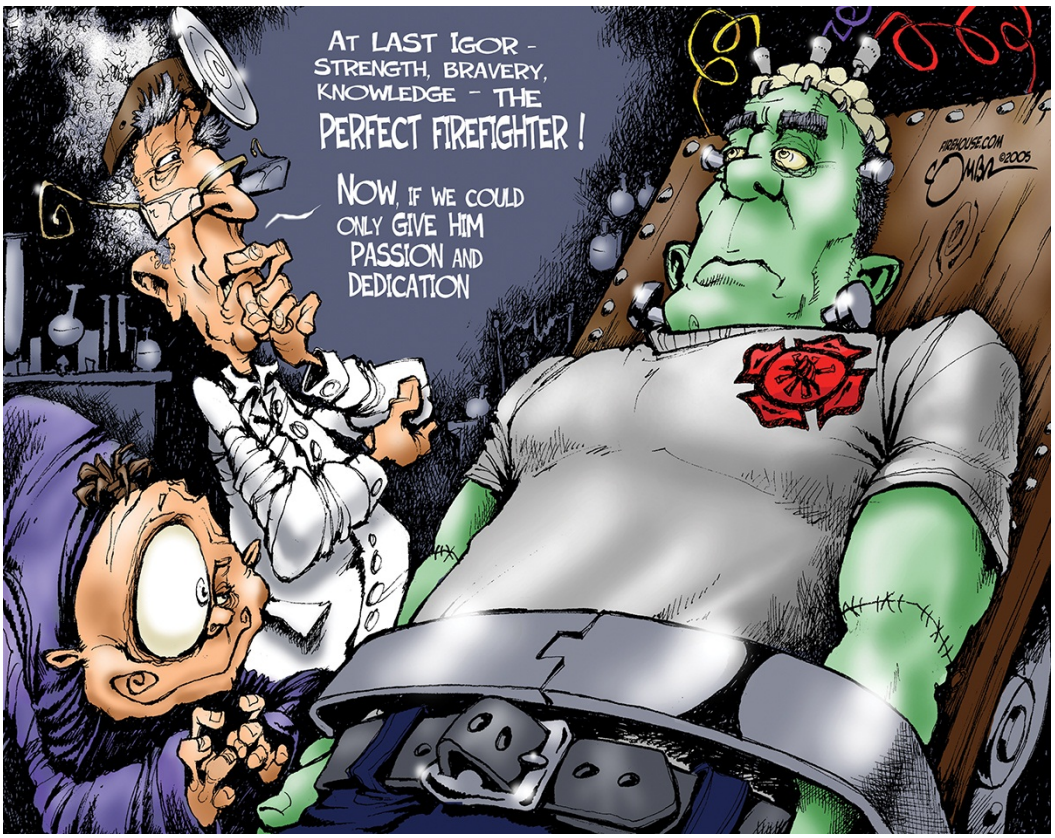
Perfect Firefighter



Last Alarms

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TCOoO Update

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Last Alarms

The USFA reported 39 deaths to date in 2014. The following line of duty deaths were reported since we published our last issue:

Hugh Ferguson ♥
Damon, TX

Charles Goff ♥
Falls of Rough, KY

Jeffrey Newland ♥
North Port, FL

David Millett ♥
Norway, ME

Ted Drake ♥
Newcastle, WY

2014 Totals

♥ 29 (74%) 🚗 2 (5%)

♥ Indicates cardiac related death
🚗 Indicates vehicle accident related

Taking Care of Our Own

Check with your Fire Chief if you wish to make a leave donation.
There are currently 28 DoD firefighters in the Taking Care of Own program.

Name	Location	Point of Contact
Joey Tajalle	NAVBASE Guam	Julie.Quinene@fe.navy.mil
Dana Picard	Westover ARB, MA	Diane.Lessard@us.af.mil
Billie Edwards	March ARB, CA	Melinda.Miller.2@us.af.mil
Wilson Humphries	USAG Camp Parks, CA	Alexis.A.Rivera8.civ@mail.mil
Peter Giles	Kirtland AFB, NM	Curtis2.Ray@kirtland.af.mil
Christopher Lumpkin	Fort Belvoir, VA	Joyce.R.Peck.civ@mail.mil
Chris Burke	Fort Wainwright, AK	David.Halbrooks@us.army.mil
Christopher Matthews	Portsmouth NSY, NH	Marc.J.Smith@navy.mil
Annie Sands	Altus AFB, OK	Nils.Brobjorg@altus.af.mil
Mark Davis	JB Langley-Ft Eustis, VA	Dale.E.Hankins.civ@mail.mil
Michael McClure	Niagara Falls, NY	Peter.Stein@us.af.mil
Russell Reynolds	Niagara Falls, NY	Peter.Stein@us.af.mil
Richard Jefferson	Kirtland AFB, NM	Curtis2.Ray@kirtland.af.mil
Thomas Trost	Wright Patterson AFB, OH	David.Warner@wpafb.af.mi
Eric Schafer	Eglin AFB, FL	Kevin.Remedies@eglin.af.mil
Jeff Noel	Ft Campbell, KY	Charlotte.M.Epps.civ@mail.mil
Stephen Garman	Fort Detrick, MD	Katherine.M.Szamier-Bennett.civ@mail.mil
Robert Meola	DES Susquehanna, PA	Henry.Hoffman@dla.mil
David Gill	NAS Fort Worth JRB	Allen.Almodovar@navy.mil
Melvin Wilson	NAS Fort Worth JRB	Allen.Almodovar@navy.mil
James Johnson, Jr.	NWS Indian Head, MD	Mike.Carroll@navy.mil
Phillip Booren	MCB Quantico, VA	Raymond.Loving@usmc.mil
Brandon Fines	Fort Belvoir, VA	Erika.M.Nieves.civ@mail.mil
Dana Woods	NAS Oceana, VA	Marc.J.Smith@navy.mil
Nathan Cerulli	DLA San Joaquin, CA	Dewey.Rose@dla.mil
Patrick Campbell	NAVBASE Ventura County, CA	Paula.Hays@navy.mil
Robert Morris	MCAGCC 29 Palms, CA	Darlene.Hull@usmc.mil
Derwin Jones	Pine Bluff Arsenal, AR	Paul.A.Jarrell2.civ@mail.mil

DoD F&ES Awards

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Calendar Year 2013 DoD F&ES Awards

Large Fire Department of the Year

Marine Corps Base Camp Pendleton, CA

Medium Fire Department of the Year

Naval Station Rota, Spain

Small Fire Department of the Year

Mountain Home AFB, ID

Fire Prevention Program of the Year

Navy Region Southwest F&ES

Fire Service Instructor of the Year

TSgt John Deese
Goodfellow AFB, TX

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DoD F&ES Awards (Cont.)

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Heroism

Fort Leonard Wood, MO
For heroic actions related to rescue of 16 persons in a response to a flash flood on August 6, 2013

Naval District Washington, DC
For heroic actions related to the shooting incident at the Washington Navy Yard on September 16,2013

Shaw AFB, SC
For heroic actions related to the rescue of a downed firefighter in a burning building during response to a building fire

Military Firefighter of the Year

SSgt Michael Mullis
Malmstrom AFB, MT

Military Fire Officer of the Year

TSgt Michael Nalley
Aviano Air Base, Italy

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DoD F&ES Awards (Cont.)

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Civilian Firefighter of the Year

David Lewis
Marine Corps Base Camp Pendleton, CA

Civilian Fire Officer of the Year

Peter Sorenson
Navy Region Japan F&ES

DoD F&ES Hall of Fame

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Military Fire Heritage Foundation Inducts Five

The Military Fire Heritage Foundation established the DoD Fire & Emergency Services Lifetime Achievement Award and the DoD F&ES Hall of Fame to recognize the heritage of the DoD F&ES. The purpose behind these awards is to recognize members of the DoD for accomplishments that directly impacted DoD F&ES. The Hall of Fame recognizes those who have given their time and service for many years after retirement. The Lifetime Achievement Award is presented to an individual who has contributed significantly to the improvement of the fire service.

The DoD F&ES Hall of Fame Class of 2014 are; John Robinson, John Arruda, and Augustus Bowling of the U.S. Navy F&ES, and William Bennyhoff and Raymond Porter from U.S. Air Force F&ES.

Retired CMSgt George F. Hall was recognized with the DoD F&ES Lifetime Achievement Award. Congratulations to each of these deserving individuals.

For more information visit dod-firefighter-hof@googlegroups.com.

Back in the Day

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SLEP Apparatus

Photos and story by Tom Shand

The U.S. Navy and other military agencies have utilized Service Life Extension Programs (SLEP) to upgrade and advance technology and component systems for aircraft, ships and heavy vehicles in an effort to extend their useful life cycle. Fire vehicles can also be candidates for SLEP, however, this requires a comprehensive set of specifications defining the scope of work and components to be rebuilt or replaced. Many apparatus that were produced during the decade of the 1970's suffered from premature rust and corrosion due to inferior steel and fabrication methods that were employed during that era. These issues were not restricted to any one manufacturer and as a result many fire departments were operating with five to eight year old vehicles that had extensive rust, leaking water tanks, cracked frame rails and other cosmetic problems.

The early rebuild projects consisted of cutting out the damaged metal panels which were replaced with new material, welded in place and then repainted. While this style of repair solved the immediate problem, within a short period of time rust and corrosion would surface in another area on the cab or body and the process would start all over again. It soon became apparent that low cost repairs often accomplished by local body shops with little experience in fire apparatus repairs was throwing good money after bad.

In order to extend the life cycle of the apparatus it became apparent that more extensive rebuilding work would be required and as a result some vehicles were rebuilt with new aluminum or stainless steel bodies. As the practice began to expand companies which specialized in apparatus rebuilding projects came about which over time produced a number of excellent rebuilt apparatus. Some vehicles received new cabs, four door enclosures, rebuilt and overhauled aerial devices as well as compartment upgrades and new warning lights. Those departments that utilized the SLEP process had better success than those which threw money at the problem while hoping for the best results that rarely were achieved.

Back in the Day (Cont.)

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Tom Shand

While departments such as FDNY maintained their apparatus in front line service for ten years and did not have to conduct extensive rebuilding work, others such as Baltimore, Washington D.C. and Arlington County, Virginia during the period had many vehicles rebuilt which enabled them to maintain their fleet until such time that new replacement apparatus could be placed into service.

With today's technology apparatus is rebuilt when the mission of the apparatus has changed or enhancements are required in order for the unit to carry the needed tools and equipment. Four door cabs have been required on all units since 1991 and while many of us may recall the days of riding on the back step or driving an open cab apparatus the safety and operational capabilities of current units are unmatched.

Both the Navy and Marine Corps Fire Services have utilized SLEP apparatus to maintain and improve the safety and operational capabilities of engine, truck and special service vehicles. The Great Lakes Naval Training Center once operated with a 1984 Seagrave HR model 100 foot rear mount aerial that was rebuilt with a four door cab enclosure and other upgrades. This unit carried property number 74-00059. Camp Pendleton Marine Corps Base operated four 1987 Pierce Arrow 50 foot Tele Squrt pumpers that were rebuilt with four door cab enclosures and warning light upgrades. SLEP units will continue to serve with installations to enhance the safety and operational capabilities for all personnel.

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Corrections

What the Editor Meant to Say…

We made some mistakes in reporting the service component annual F&ES award winners last month. What we meant to say was;

Small Fire Department of the Year for US Air Force was Mountain Home AFB, ID not Mountain H9ome AFB, MT

Military Firefighter of the Year for Army was A1C Kevin Alfonso from Joint Base Lewis-McChord, not Joint Base Elmendorf-Richardson.

Our sincere apologies.

On the Job - Guam

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Naval Base Guam Firefighters Share Experiences

http://www.pacificnewscenter.com

Firefighters and fire inspectors from U.S. Naval Base Guam (NBG) Fire and Emergency Services met with students from Pedro C. Lujan Elementary School in Barrigada to discuss fire safety and share their experiences during the school's career day 30 April 2014.

"It's just great to come out here and represent the fire department with the Navy and educate the kids on what fire is all about, that it's dangerous," said Fire Inspector Anthony Lizama. "If we start them out early, teaching them, educating them about fire then they'll be safer as they get older."

Lizama and his fellow firefighters gave the children important tips on fire prevention and allowed them the opportunity to see a fire truck up close and interact with NBG's Fire and Emergency Services mascot Sparky. "The take-away from this is we hope they'll educate themselves more (about fire prevention) and become firefighters," he said. "It's always good to get out into the community to interact to show the camaraderie between the local and federal side."

Career day coordinator Vera Elliott thanked firefighters for meeting with students and explaining what they do to help keep Navy installations and the public safe. "They have been part of our school's career day for the past four years and they've been a wonderful agency, always willing to participate and help out our kids," she said.

Elliott added that career day is a meaningful program as it shows different types of opportunities available and can spark interest in students as young as kindergartners.

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CPSE News

Professional Credentials Awarded

The Commission on Professional Credentialing met on 6 May 2014 and conferred/re-conferred a number of DoD officers;

Chris Miller, Cheyenne Mountain AFS, CO, Chief Fire Officer (CFO)

Shawn Ricchuito, Hurlburt Field, FL, CFO

Mark Giuliano, Eglin AFB, FL, CFO (Re-designation)

Allen Perry, Little Rock AFB, AR, Fire Officer (FO)

Thomas Wieczerzak, JB McGuire-Dix-Lakehurst, NJ, FO (Re-designation)

IAFC News

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Safety, Health and Survival Section Activities

Safety and Health Week: June 15-21

Train Like You Fight is the 2014 Safety and Health Week theme, brought to you by the International Association of Fire Chiefs (IAFC) and National Volunteer Fire Council (NVFC). As the sponsors of this week, we strongly encourage all departments to plan now to stand down each shift once during Safety and Health Week. Check the Safety & Health Week Planning page (http://safetyandhealthweek.org/event-planning/) for all the tools you need, including activity ideas, posters, a press release and social media plan, ads, web banners and more.

2014 Award Nominations Now Open

The annual Safety, Health and Survival Section Awards recognize organizations and individuals within organizations, of any size or composition, who have made a significant contribution to the overall environment of health and safety in their organizations and the fire service.

Awards will be presented during the SHS Section meeting at FRI in four categories:

- Alan Brunacini Fire Service Executive Safety Award, cosponsored by Provident Insurance
- Billy Goldfeder Fire Service Organizational Safety Award, cosponsored by VFIS
- Garry Briese IAFC Safety Performance Award
- Safety Officer of the Year, cosponsored by MSA and FDSOA

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The deadline for submitting nominations is 31 May 2014.

Fire Service Executive Safety Award, the Organizational Safety Award and the Safety Officer of the Year winners will receive:

- One all-access registration to Fire-Rescue International, 13-16 August 2014 in Dallas, TX.
- Travel and hotel accommodations for FRI.

Find eligibility, guidelines and nomination instructions on the SHS Awards webpage; http://iafcsafety.org/awards-4/.

On the Job - Barstow

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MCLB Barstow Trains with Fort Irwin

By Ryan Tworek, Assistant Chief

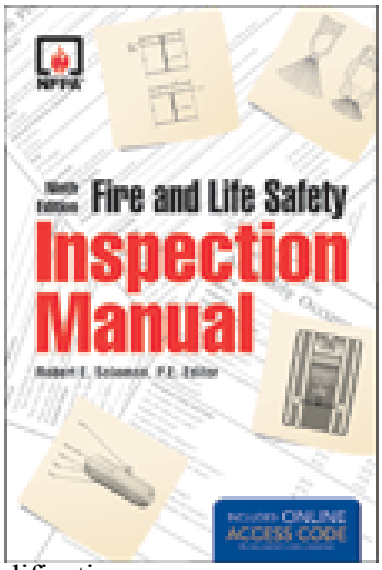
MCLB Barstow Fire & Emergency Services recently conducted joint technical rescue training with Ft. Irwin Fire and the NASA Goldstone Emergency Response Team. Goldstone is one of three complexes around the world known as the Deep Space Network (DSN) established to provide the ability to communicate with spacecraft; not only in orbit around the earth, but also in the farther reaches of our solar system. The Deep Space Network complexes, placed 120° apart, provide constant communication with spacecraft as the earth rotates.

Goldstone and the Deep Space Network recently turned 50 years old. MCLB Barstow provides mutual aid support to both Ft. Irwin and the Goldstone Complex. Joint training is essential to prepare responders for the hazards and challenges within their areas.

For more information visit; http://www.gdscc.nasa.gov/?page_id=245.

FPWG Corner

Features of Fire Protection



The NFPA *Fire and Life Safety Inspection Manual* notes limiting the spread of fire and smoke are critical to both life safety and property protection. One method that limits the spread of fire and smoke in a structure is subdividing the structure into compartments. These may include fire walls and fire barrier walls and rated floor/ceiling assemblies.

Ensuring the integrity of these compartments is sometimes a challenge for the Fire Inspector.

One example of this is when there are attempts in the field to modify fire doors and or their assemblies. NFPA 1.12.4 *Fire Doors and Other Opening Protectives* provide some information on fire door assemblies and field modifications.

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However, according to Unified Facilities Criteria guidance, modifications to fire doors in the field is not allowed.

If the Fire Inspector has any questions or concerns about fire-resistive materials and construction, fire doors and other opening protectives, interior finish, contents and furnishings, fire barriers, smoke partitions, and smoke barriers they should contact their local NAVFAC Fire Protection Engineer for further guidance and assistance.

On the Job – Corpus Christi

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NASCC Special Delivery

Story and photos by Rod Hafemeister and John Morris

The doctor said Beth Kenworthy should wait until she had two hours of contractions before heading to the hospital. "My first child, I was in labor for 14 hours," she said. But this time the baby had other ideas – he didn't want to wait.

On 22 March 2014, the Naval Air Station Corpus Christi Fire and Emergency Services crews were conducting shift change when they were dispatched to the Kenworthy home on base with an "obstetric emergency."

Firefighter/EMTs Michael Melgar and Glenn Helwig found Helen with a baby coming out.

"They walked in the door and it was going on," said Brandon Kenworthy, the expectant father and a maritime enforcement officer with the U.S. Coast Guard. "I just got out of their way and told them I'd get anything they needed."

Close behind Melgar and Helwig was Firefighter/EMT Jeff Frawley. Frawley was the only one who had been through this before; he delivered a baby while stationed at Fort Hood in 2003. "His head was out and he was coming. I grabbed for him; he was a slippery little sucker," Frawley said.

In minutes, Chase Kenworthy was born. Soon after, mother and baby were on their way to the hospital in a city ambulance. Most calls, the EMTs are working to save a life or deal with someone's injuries. This time, they brought a life into the world.

"In my whole career, this is the first time it's happened," said Fire Chief John Morris.

On 15 April 2014, the Fire and Emergency Services team formally inducted little Chase and his family into "the Fire Department family" and made Chase an honorary member of the Fire Department – with Fire Department logos on a onesie for him and a shirt for 3-year-old brother William.

"He's going to have a story to tell for the rest of his life," Helen Kenworthy said.

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Legislative News

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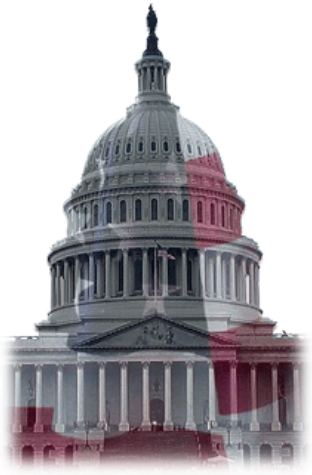

Federal Firefighters Fairness Act of 2014

Senator Tom Carper (D-DE), Chairman of the Homeland Security and Governmental Affairs Committee and co-chair of the Congressional Fire Services Caucus, and Sen. Susan Collins (R-ME), co-chair of the Congressional Fire Services Caucus, introduced a bill that ensures that firefighters who were harmed in the line of duty or contracted certain diseases are covered by federal worker's compensation. The "Federal Firefighters Fairness Act of 2014," S.B. 2266, addresses the difficulties federal firefighters face when they attempt to prove that injuries were a result from serving in the line of duty.

"Firefighters are among the bravest individuals in our community. Nearly every day, these men and women are sent into some of the most difficult and dangerous environments to tame blazes, save lives, and protect properties," said Chairman Carper. "Our federal firefighters put themselves in harm's way every day, which can sometimes result in serious injury, including disability and certain diseases. This measure would help provide a better path to the care that these men and women need as a result of their work. I am proud to join Senator Collins in introducing this important bill."

"Federal firefighters put their lives on the line each day to protect our nation's most critical assets and infrastructure, and these brave men and women deserve the same occupational safeguards and benefits as their colleagues at the local level," said Senator Collins. "Our legislation would allow federal firefighters to receive the badly needed benefits that they deserve when they fall ill as a result of their service to our nation."

Under current law, the Federal Employee Compensation Act (FECA) provides federal employees injured in the performance of duty with workers' compensation benefits. This bill would amend FECA so that if a federal firefighter dies or becomes disabled from a specified list of diseases, the disease will be presumed to have been caused by the employment, and the death or disability will be presumed compensable. The bill is intended to address the difficultly that firefighters who suffer from these diseases face in obtaining compensation under current law, which requires proof that the illness resulted from the line of duty. It would align the federal government with a number of states, which have various forms of such laws.

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Highway Humor

Hesitant Driver

The hesitant out-of-state driver, waiting for traffic to clear, came to a complete stop on a freeway ramp.

The traffic thinned but the intimidated driver still waited.

Finally an infuriated voice yelled from the car behind, "The sign says to YIELD, not give up."

Value of Critiques

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Monday Morning Quarterback

By Michael N. Ciampo

With the evolution of the Internet and various Web sites, it's very easy to watch a fire video and begin tearing it apart even though you have no idea of what the crew was faced with. Then there are those videos that you sit and watch in awe of the procedure, tactic, or tip being shown. All of this is part of the learning curve, but we need to be careful with just using this as a learning mechanism. We must take what we watched out to the apparatus floor or to the training tower and let our mind coordinate with our hands and perform the tactic. Doing it in a practice run is much better than trying to teach yourself in a pressure situation.

Arriving as the second-due truck at a predawn top-floor fire in a five-story multiple dwelling, we made our way to the top floor. Our primary concern was to search the adjoining apartments for life and for any fire extending into the cockloft (the area above the top-floor ceiling to the bottom of the roof sheathing) or adjoining walls. We also focused on searching the large public hallway for victims. Forcing the adjoining door with multiple locks engaged made us think that there still could be endangered occupants inside the heavily smoke-filled apartment.

As we proceeded into the apartment, the can man was ordered to immediately get a hole in the ceiling to see if the fire was concealed overhead. As he thrust his tool into the ceiling and began pulling in zero visibility, small pieces of plaster and lath came raining down on us. Pointing the thermal imaging camera toward the inspection hole revealed only a small swath of heat or white image on the screen. The camera didn't pick up any fire or a high level of heat exiting the hole or across the ceiling in either direction, indicating that the fire hadn't penetrated into the cockloft in our vicinity yet.

We proceeded farther into the apartment with our primary search and kept making inspection holes in the ceiling to check for extension. In addition, we were able to quickly remove the thermal pane windows using the clip releases on top of their sashes. This prevented glass from falling out onto the street, reducing the possibility of injuring other firefighters or civilians below but, more importantly, reducing the chances of piercing the hoseline.

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As we were operating in this apartment, we heard on the radio that there was fire extension into the cockloft. We continued to make quick inspection holes with the butt end of the hook in numerous ceiling bays to check for extension while awaiting the second hoseline.

As the smoke began to lift in this apartment because of the complete removal of the top-floor windows, something became apparent on the ceiling: Those initial inspection holes we made in the complete darkness didn't do what they were supposed to do at all. With our luck, the cockloft area had blown-in insulation, which was at least 12 inches deep. When the holes were made, some of the insulation funneled out, but it regained its position and sealed the hole over, getting caught up on some of the hanging lath for support.

Critiques (Cont.)

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Michael N. Ciampo

A bell went off that this insulation could have covered up the conditions in the cockloft and that the camera might not have picked up the actual fire extension.

After the fire, we critiqued our operations and stressed the importance of many of our actions, including the following:

- The complete removal of the top-floor windows ensures complete ventilation, allowing fresh air to draw back toward the roof ventilation opening. Then if a smoke explosion occurs, the fire will possibly blow out of the windows and not down on the members.
- Even though there is zero visibility, when you make an initial inspection hole, when a hook penetrates a ceiling, pull it open to expose a hole big enough to read the conditions above. When you make this hole, use the hook to remove any insulation or rotate it in a circular motion to assist in releasing the blown-in insulation.

Riding back to quarters, many of us still critiqued ourselves on the actions we performed at this fire. Most of us reviewed in our minds the "What- ifs" and the "Why didn't I do this or that?" scenarios while growing a little frustrated at our actions. How could simple blown-in insulation cover up those first holes? After all, we were following an aggressive and smart tactical game plan, but somehow the circumstances went against us.

It all worked out in the end, but another on-the-job learning experience was etched into our minds. Sure, it's easy to critique yourself for days after a fire; if you didn't find at least one thing that you wished you could have done a little better, easier, or faster, you're probably not going over the fire with a fine-tooth comb.

When you go to a fire or an emergency, you better realize that no two incidents are exactly alike and the actions you take at one you may not take at another. The situations you encounter will always dictate or prescribe a course of action for you to follow. There are a lot of choices to make, and you have to make them in a split second. Luckily for us, learning from past experiences and training will assist us in our choices. Sure, it's easy to voice your opinions on others' misfortunes and say, "Well, we would have never done that!" Unfortunately, you will have one of those moments in your career. Never pass up the opportunity to learn from it because you don't want to be the one who is being Monday morning quarterbacked in every firehouse across the nation. Instead, strive to be your own personal MVP (most valuable player).

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MICHAEL N. CIAMPO is a 26-year veteran of the fire service and a lieutenant in the Fire Department of New York. Previously, he served with the District of Columbia Fire Department. He has a bachelor's degree in fire science from John Jay College of Criminal Justice in New York City. He is the lead instructor for the FDIC Truck Essentials H.O.T. program. He wrote the Ladder chapter and co-authored the Ventilation chapter for *Fire Engineering's Handbook for Firefighter I and II* (Fire Engineering, 2009) and is featured in "Training Minutes" truck company videos on www.FireEngineering.com.

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Web link: http://www.fireengineering.com/articles/print/volume-165/issue-4/departments/on-fire/monday-morning-quarterback.html

SA Matters!

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Multiple Awarenesses

By Rich Gasaway, PhD. http://www.samatters.com/

The mission of this website and my personal passion for situational awareness is to help first responders see the bad things coming in time to change the outcome. Consistent with that mission, I try to help responders understand how various aspects of the job - from training, to human factors, to command competence and everything in between – can influence situational awareness in high-stress, high-consequence decision making environments.

Now I want to introduce you to the concept that you have multiple situational awarenesses, three in fact. Each dimension of situational awareness requires you to capture clues and cues, comprehend those clues and cues into meaning and to predict future events. Let's explore the three dimensions of your situational awareness.

Personal Situational Awareness

This is your awareness of yourself, your abilities, inabilities, knowledge, skill set, fitness, stamina, fears and phobias. This SA is the comprehensive assessment of you, conducted by you. Technically, and I suppose literally, no one should know you any better. This should make you uniquely qualified to conduct an accurate assessment of what you are able to do. But there are a few things that can get in the way, namely, biases, assumptions and perceptions. As you assess yourself you have certain perceptions about yourself and your abilities.

I have seen many firefighters (myself being among them) who have inflated their perception of their physical abilities in spite of their age and declining physical conditioning. The mind can get stuck on the perception of the 21 year old, physically fit specimen that you once were. Unfortunately, time has a way of eroding the physical abilities but the mind can cling to the mental perception of stamina that has long since departed.

Some responders tend to be exceptionally generous in their self assessments, thinking they know more than they can actually recall, thinking they can perform better than they actually can perform, and believing there is no incident that can beat them. These individuals have a flawed personal situational awareness and this can be dangerous for themselves and others operating at the incident.

Personal situational awareness also includes an awareness of the individual's role to be performed at an incident scene. It is one's assessment of their familiarity with tools and equipment, ability to assess changing environmental factors, and the ability to remain calm and task-focused in a dynamic environment. In summary, it means knowing yourself realistically, demons and all.

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Team Situational Awareness

This dimension of situational awareness involves your assessment of your team, or company. The components of this assessment are the same only you're evaluating fellow team members – their abilities, inabilities, knowledge, skill set, fitness, stamina, fears and phobias. You've heard it said that a team is only as strong as its weakest link. Team situational awareness ensures you understand, in advance, the strengths and weaknesses of team members before engaging in high-risk, high-consequence tasks.

It stands to reason that the better you know team members the better you will be at developing situational awareness of the team. It's hard to assess someone you don't know very well. What do you base your assessment on? Assumptions perhaps. That can be OK so long as the assumptions are accurate. Making assumptions of team members abilities can result in bad outcomes. This goes for both assuming their abilities are better or worse than they actually are. The only way to really know your team is to get to know your team. This requires an investment of time and it starts with communications. With time the communication develops a relationship and the relationship builds trust. Once you trust someone, you can confidently put your life in their hands.

Team situational awareness also means understanding the role the team is supposed to play at the incident. It involves capturing clues and cues of the team's role and environment, processing those clues and cues into meaning and making an accurate prediction of the outcome of the team's performance. What will success look like when the team accomplishes the task? How long should it take for the team to accomplish the task? Does the team have any weak links that will require an adjustment?

Incident Situational Awareness

The final dimension of situational awareness is for the overall incident. This ties all three together. You assess yourself and your knowledge, skills and abilities (fairly, both good and bad) and form personal situational awareness about the job you have to do. Then you assess your team's knowledge skills and abilities (again, both good and bad) and form team situational awareness about the job the team has to do. Finally, you form an awareness of the overall incident. What is the strategy? What is the role of your team in accomplishing the overall strategy? What is the knowledge, skills and abilities of other teams and commanders?

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It is very important to develop incident situational awareness because no individual or team operates in a vacuum. Everyone's role is part of a bigger strategy and awareness of everyone's role helps improve personal and team safety. On occasion I have seen, heard and read about incidents where individuals and teams operate independently. Almost as though they have blinders on, they perform their tasks with little concern or awareness of the overall incident's coordination.

SA Matters! (Cont.)

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Rich Gasaway, PhD.

While it is command's role to coordinate the overall incident, it is every responder's role to develop and maintain personal, team and incident situational awareness.

Chief Gasaway's Advice

Personal and team situational awareness can begin well in advance of an emergency. This may involve conducting an inventory of assets and liabilities. When assessing yourself, be realistic. You have no one to fool but yourself and the consequences to you can be significant if you're not realistic. If you identify shortcomings, develop a plan for self improvement. As difficult as it may be, it may be very beneficial to discuss your shortcomings and personal concerns with fellow team members. If they are aware of them, they may be able to help you overcome them or, alternatively, compensate for them. For example, if you don't like heights it might be good for your team to know that before you end up petrified on a rooftop.

Team assessments can be conducted through practical evolutions and through discussing the results of personal assessments. Perhaps have each team member complete a personal assets and liabilities survey and then share those with each other. Yes, this can be risky and it may lead to guarded responses for fear of ridicule and embarrassment. You can either reveal it in advance to your fellow team members and work with them on a resolution or let it rise to the surface during an emergency incident and put the entire team in jeopardy. The potential consequence is too great to allow assumptions determine fellow team member's abilities.

To develop incident awareness requires understanding about what is happening on the large scale. This is accomplished by being aware that everyone on the incident scenes are, proverbially, actors in a big movie. Everyone has a role and no one's role is independent of anyone else's. It all goes together.

Richard B. Gasaway is a scholar-practitioner with a passion for improving workplace safety. In addition to serving 33 years on the front lines as a firefighter, EMT-Paramedic and fire chief, he earned his Doctor of Philosophy degree while studying how individuals, teams and organizations develop and maintain situational awareness and make decisions in high stress, high consequence, time compressed environments. Dr. Gasaway is widely considered to be one of the nation's leading authorities on first responder situational awareness and decision making. His material has been featured and referenced in more than 350 books, book chapters, research projects, journal articles, podcasts, webinars and videos. His research and passion to improve workplace safety through improved situational awareness is unrivaled. Dr. Gasaway's leadership and safety programs have been presented to more than 35,000 first responders, emergency managers, medical providers, military personnel, aviation employees, industrial workers and business leaders throughout North America, Europe, Asia and Australia.

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Useless Knowledge

What Song is This From?

All of these selections can be found on my iPad. See if you can name the song and artist that includes this lyric, bonus if you don't use the internet;

"I want a girl with the right allocations
Who's fast and thorough
And sharp as a tack"

E-mail your answer to ricky.brockman@navy.mil

Call for Assistance

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To IAFC Federal & Military Section Members

By Fletcher Dahman, Chair, Federal & Military Fire Services section

The Federal & Military Fire Services section of the International Association of Fire Chiefs (IAFC) needs your help. Our federal and Department of Defense section members are leaving, retiring, or being deployed for long periods. All of these, and other miscellaneous reasons, have resulted in our total membership falling below the required number to remain an active section as written in the IAFC by-laws.

Over the last few years, many of our past section members have not renewed their IAFC and Federal Military section membership and that has only exasperated the decline in our total numbers. Many of our active duty members retire at an earlier age than our civilian counterparts. When they separate from military service, we do not always receive forwarding addresses, changes in phone numbers or their non-military email addresses.

Our section members have suffered through sequestration, furloughs, and reductions in force in virtually every branch of the federal and military fire service. Now is not the time to close down our section, any more so than closing down fire stations, which has affected many departments across the country over the last few years. Myself and the other officers of the Federal & Military section still desire to continue working with our IAFC brothers and sisters to Lead, Educate, and Serve.

Major issues involving our members need to be addressed and fought for, that is what the IAFC has been doing since our inception.

In addition to the legislative actions described on page 14, bipartisan legislation introduced in the House would allow federal law enforcement officers and firefighters to access money in their Thrift Savings Plan accounts without penalty when they are eligible to retire. The bill, H.R. 4634, would reform the tax code so that federal law enforcement officers and firefighters, who are eligible to retire earlier than many other federal employees, aren't subject to the 10 percent tax penalty on TSP retirement funds and other 401(k)-type plans tapped before the age of 59 and a half. Federal law enforcement employees and firefighters are eligible to retire after 20 years of service at age 50; that group also is subject to mandatory retirement at age 57 because of the physical demands and hazardous nature of their jobs. Border protection and customs officers would also be exempt from the tax penalty under the bill.

State and local public safety officers have been exempt from the 10 percent tax penalty since 2006; H.R. 4634 would extend that exemption to qualified federal public safety employees.

"There is no reason that federal public safety officials must wait, in some cases, nine and a half years to access the full retirement benefits they have earned and are entitled to," said Representative. Dave Reichert, R-WA, a sponsor of the bill. "This is a straightforward measure to make an obvious fix to our tax code and treat our public safety officials with the respect they deserve." Representative Bill Pascrell, D-NJ, is sponsoring the legislation with Reichert.

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Fed Mil Section (Cont.)

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Our section has been tracking and communicating with our IAFC legislation liaison on these and other congressional actions and we do not want to lose this and other opportunities to provide our specific knowledge to the discussions. The IAFC Federal & Military Fire Services Section is an excellent place for us to unite our agendas and move forward in response to the force shaping that is currently occurring in many of our departments. The section has only 98 members to date and participation amongst our ranks within the IAFC is almost nonexistent when compared to our total strength. This is where we can and must make a change for our future.

Now I get to the point of how you can help. Many of our past members have moved on to work in local and DoD departments and may even be sitting next to you in your next staff meeting. Pass the word that we need them back to help us sustain our section and that we value their expertise and insight. What would be just as helpful is for you to talk to your upcoming Fire Officers and Chiefs who may not already be part of the IAFC or our section. There is an amazing amount of reference material and tools to make all of us better at what we do available to members of the IAFC and our section. Consider it an opportunity to provide mentorship and let it be part of your secession planning. You can help us continue fighting for the federal and military firefighters and Chiefs providing fire and emergency services to installations around the world.

Thank you for what you do day in and day out in support of the fire service and those we have chosen to protect.

Navy F&ES Jobs

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Navy F&ES Jobs Available

The recent push to hire to our authorized strength created many job opportunities across CNIC. Please see current open announcements below from USAJOBs https://www.**usajobs**.gov/:

Firefighter
Portsmouth Naval Shipyard, NH: https://www.usajobs.gov/GetJob/PrintPreview/369840800
El Centro, CA: https://www.usajobs.gov/GetJob/ViewDetails/369158800
El Centro, CA: https://www.usajobs.gov/GetJob/ViewDetails/369519300
El Centro, CA: https://www.usajobs.gov/GetJob/ViewDetails/369485700
Kittery, ME: https://www.usajobs.gov/GetJob/ViewDetails/369840800

Lead Firefighter
Indian Head, MD: https://www.usajobs.gov/GetJob/ViewDetails/370031900

Supervisory Firefighter
NAS Oceana, VA: https://www.usajobs.gov/GetJob/ViewDetails/369828200

Fire Protection Inspector
Guantanamo Bay, Cuba: https://www.usajobs.gov/GetJob/ViewDetails/369466300
Bethesda, MD: https://www.usajobs.gov/GetJob/ViewDetails/369532200

Fire Chief
Millington, TN: https://www.usajobs.gov/GetJob/ViewDetails/369902700
Capodichino, Italy: https://www.usajobs.gov/GetJob/ViewDetails/369783400

Wellness Corner

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Introduction to Asthma

What Is asthma?

Asthma is a disease that affects your lungs. It is one of the most common long-term diseases of children, but adults can have asthma, too. Asthma causes wheezing, breathlessness, chest tightness, and coughing at night or early in the morning. If you have asthma, you have it all the time, but you will have asthma attacks only when something bothers your lungs.

In most cases, we don't know what causes asthma, and we don't know how to cure it. We know that if someone in your family has asthma you are more likely to have it.

How can you tell if you have asthma?

It can be hard to tell if someone has asthma, especially in children under age 5. Having a doctor check how well your lungs work and check for allergies can help you find out if you have asthma.

During a checkup, the doctor will ask if you cough a lot, especially at night, and whether your breathing problems are worse after physical activity or at certain times of year. The doctor will also ask about chest tightness, wheezing, and colds lasting more than 10 days. They will ask whether anyone in your family has or has had asthma, allergies, or other breathing problems, and they will ask questions about your home. The doctor will also ask if you have missed school or work and about any trouble you may have doing certain things.

The doctor will also do a breathing test, called spirometry, to find out how well your lungs are working. The doctor will use a computer with a mouthpiece to test how much air you can breathe out after taking a very deep breath. The spirometer can measure airflow before and after you use asthma medicine.

What Is an asthma attack?

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An asthma attack may include coughing, chest tightness, wheezing, and trouble breathing. The attack happens in your body's airways, which are the paths that carry air to your lungs. As the air moves through your lungs, the airways become smaller, like the branches of a tree are smaller than the tree trunk. During an asthma attack, the sides of the airways in your lungs swell and the airways shrink. Less air gets in and out of your lungs, and mucous that your body makes clogs up the airways even more.

You can control your asthma by knowing the warning signs of an asthma attack, staying away from things that cause an attack, and following your doctor's advice. When you control your asthma:

- you won't have symptoms such as wheezing or coughing,
- you'll sleep better,
- you won't miss work or school,
- you can take part in all physical activities, and
- you won't have to go to the hospital.

Asthma (Cont.)

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How is asthma treated?

Control your asthma and avoid an attack by taking your medicine exactly as your doctor tells you and by staying away from things that can trigger an attack.

Everyone with asthma does not take the same medicine.* Some medicines can be breathed in, and some can be taken as a pill. Asthma medicines come in two types—quick-relief and long-term control. Quick-relief medicines control the symptoms of an asthma attack. If you need to use your quick-relief medicines more and more, visit your doctor to see if you need a different medicine. Long-term control medicines help you have fewer and milder attacks, but they don't help you while you are having an asthma attack.

Asthma medicines can have side effects, but most side effects are mild and soon go away. Ask your doctor about the side effects of your medicines.

Remember – *you can control your asthma.* With your healthcare provider's help, make your own asthma action plan. Decide who should have a copy of your plan and where he or she should keep it. Take your long-term control medicine even when you don't have symptoms.

Reprinted courtesy of the Centers for Disease Control and Prevention. For more information, please visit cdc.gov.

Cyber Attack Alert

NMCI Internet Explorer Vulnerability

A significant vulnerability has recently been identified in Microsoft Internet Explorer 6 through 11. This vulnerability allows cyber attackers remote access and control of users' systems through websites hosting malicious code. In order to take advantage of this vulnerability, attackers will attempt to lure users to contaminated sites using phishing attacks.

REQUIRED ACTIONS: Users must use extreme caution regarding unsolicited email messages and unfamiliar links. If you receive a suspicious email take the following actions:

1. Do not open the suspicious message.

2. If you accidentally open it, do not click any links or open any attachments.

3. Forward suspicious email(s) as an attachment in a new email message to nmci_spam@navy.mil.

4. Delete the message from your inbox and then from your deleted folder.

ASSISTANCE: Contact your local Information Systems Security Manager (ISSM) or the NMCI Service Desk at 1-866-THE-NMCI (1-866-843-6624) and e-mail at ServiceDesk_Navy@nmci-isf.com.

You can find more information on recognizing and protecting yourself against cyber-attacks on Homeport. https://homeport/

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Exposure Study

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Evaluation of Dermal Exposure in Firefighters

U.S. Department of Health and Human Services Report No. 2010-0156-3196, Dec 2013

The Health Hazard Evaluation Program carried out a study at a fire service training facility to determine if airborne polycyclic aromatic hydrocarbons (PAHs) and other aromatic hydrocarbons generated during live fire training contaminate and pass through the skin of fire fighters.

What We Found

- Most fire fighters wore properly working SCBA. The PAHs and benzene likely entered their bodies through their skin.
- We found that PAHs and benzene entered fire fighters' bodies even though they wore full protective ensembles during controlled burns. The biological levels we measured were generally comparable to levels in occupational groups with low exposures to these compounds. Firefighters should wear full protective ensembles during all stages of a fire response and wash hands and shower soon afterwards.

What We Recommend

- Require fire fighters to wear full protective ensembles, including SCBA, during knockdown and overhaul for all fire responses. Provide fire fighters with long hoods that are unlikely to come untucked.
- Provide as much natural ventilation as possible to burned structures before starting investigations.
- Remove SCBA and hood last when removing gear. Take off gear before entering a rehab area.
- Store gear on the outside of the apparatus when riding back to the station. (As a side note, Miami-Dade Fire has just ordered 20+ rescues/ambulances where the firefighter crew's SCBA and PPE are stored in an OUTSIDE compartment, AND NOT accessible from the inside!)
- Wash hands immediately and shower as soon as possible after a fire response.

Dermal absorption of benzene depends on many factors, including its physical state (liquid or vapor), presence and type of vehicle (neat or dissolved in a solvent), and amount of time on the skin, which is probably the rate determining step. Several studies have found that < 1% of benzene applied as liquid to the skin is absorbed, primarily because of a high rate of evaporation from the skin. In a study where investigators exposed rhesus monkey skin (in vivo) to benzene (dissolved in water) and then continuously monitored exhaled breath, the peak exhaled breath concentrations occurred almost 2 hours after topical application. Our data and the data from Laitenen et al. [2009] suggest faster dermal absorption of benzene in humans than in monkeys.

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Exposure (Cont.)

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Humidity is another important factor in the dermal absorption of benzene. Franz [1984] found that dermal absorption of benzene vapor was 2.5 to 7.5 times greater in 100% relative humidity environments than 40% relative humidity environments. Benzene is soluble in water, which is less volatile than benzene. In high humidity environments, benzene vapor could dissolve in moisture that collects on the skin, thereby increasing the amount of time on the skin. For example, Franz [1984] reported that 5% to 6% of the applied dose was absorbed when benzene was dissolved in water versus < 0.20% when it was dissolved in toluene.

Conclusions

We found that fire fighters wearing full ensembles absorb PAHs and aromatic hydrocarbons into their bodies. The PAHs and aromatic hydrocarbons most likely entered the fire fighters' bodies through the skin, with the neck being the primary site of exposure and absorption due to the lower level of skin protection afforded by hoods. Aromatic hydrocarbons could also have been inhaled if they off-gassed from the contaminated clothing and equipment when the fire fighters were doffing their gear. Although the biological levels we measured are similar to or lower than the levels measured in other occupational groups with low levels of exposure, the absorbed dose will vary with ambient air concentrations of contaminants. PAHs were found on the exterior of gear, which could be another source of dermal exposure for fire fighters. Air concentrations of PAHs, VOCs, and particulate during overhaul and investigation phases, along with VOCs off-gassing from contaminated turnout gear, were below applicable STELs or ceiling limits but represent additional exposures during a typical workday. Further study is needed to determine the contribution of all these sources to a fire fighter's overall internal dose.

Knitting Humor

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这是一便宜的盘，但是好

My wife is a knitting expert and designs unique exotic patterns all the time. Not long ago we had lunch in a real Chinese restaurant, where the menu was in Chinese and only the head waiter spoke English.

She was so impressed with the calligraphy on the handwritten menu that she used her smart phone to take a photo. Some time later I saw the result -- a stunning white sweater with Chinese symbols hand-stitched down the front.

The sweater received compliments until one night at a party we met a distinguished Chinese gentleman. He asked my wife, "Where did you get the symbols on your sweater?"

She explained about the restaurant.

"Would you like to know what they mean?"

"I'm afraid to ask, but tell me anyway."

He read, "This is a cheap dish, but good."

F&ES POCs

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Navy Fire & Emergency Services (N30)

Commander, Navy Installations Command
716 Sicard Street, SE, Suite 305
Washington Navy Yard, DC 20374-5140
https://cnicgateway.cnic.navy.mil/HQ/N3/N30/default.aspx
DSN 288

Carl Glover, 202-433-4775, carl.glover@navy.mil

Ricky Brockman, 202-433-4781, ricky.brockman@navy.mil

Gene Rausch, 202-433-4753, gene.rausch@navy.mil

ABHCS Leonard Starr, 202-685-0651, leonard.starr@navy.mil

Lewis Moore, 202-433-7743, lewis.moore@navy.mil

Chris Handley, 202-433-7744, christopher.handley@navy.mil

Adam Farb, 202-685-0712, adam.farb@navy.mil

Dr. Michael Melia, 202-384-9815, michael.melia@med.navy.mil

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