Bringing firefighters into the fold

More than 3,300 fire protection and prevention (firefighter) personnel work daily at Army installations and deployment sites worldwide. Classified in the GS-0081 job series, these employees provide fire and emergency services to protect people, property and support the installation’s mission. Civilian firefighters are an essential element of the military’s emergency response and safety services system.

Firefighters provide specialized emergency service mitigation and education support for Soldiers, Families and communities through a variety of resources, including structural fire response, aircraft rescue firefighting, specialized rescue services, hazardous materials response, wildland response, fire prevention, public education, code enforcement, emergency dispatch services, and administrative services and training. These professionals are fundamental in maintaining the Army’s overall readiness.

The 0081 series has been identified as a mission critical occupation imperative to the Army’s safety and health.

Firefighters work with installations and units and are responsible for defending the safety and integrity of the workforce and facilities, both CONUS and OCONUS. Their role in a deployed environment is to preserve the safety and sanitation of troops at war. Firefighters must be prepared to avoid unpredictable dangers and identify and mitigate hazardous situations.

We recently welcomed 0081 professionals into the CP-12 Career Program, and they have proven to be a fantastic addition to the team. Efforts to further professionalize the firefighter career series are ongoing; you can read about some of these initiatives in the early pages of this newsletter. I thank you all for your patience as we continue this process and look forward to working with you in the days ahead!
Fire safety professionals — part of the team

Readiness is at the forefront of accomplishing the Army Mission, and accidental injury and death are devastating to overall readiness. The loss of a Soldier has a deep impact on unit morale, fellow Soldiers, Family members, the community and nation at large.

Fire prevention and protection cannot be taken for granted; it must be what every member of the Army Team strives for on a daily basis. Fire prevention and protection begins with you!

Commanders have an invaluable and indispensable asset in the firefighter and fire prevention specialist. These dedicated men and women use professional engineering knowledge, skill, abilities and experience in identifying, analyzing and controlling occupational fire hazards. Their expertise increases safety in our Army's activities, reduces injuries and losses due to accidents, and enhances our readiness and warfighting capability.

Fire protection and prevention personnel are highly trained and qualified to bring a firefighter's perspective to the risk management process. In addition to meeting Office of Personnel Management professional firefighter qualifications, Army CP-12 fire personnel are required to complete core, functional and continued training and education. They are an integral component of the Army safety and occupational health program and the Army's strategy for loss prevention.

Be sure to thank your fire safety professionals for a job well done!

Army Safe is Army Strong!
Where are we?
Dr. Brenda Miller
Senior Safety Advisor, CP-12 Functional Chief Representative
334-255-2959, brenda.g.miller.civ@mail.mil

The fire chief is the installation’s senior incident commander and conducts all command and control functions in accordance with the National Incident Management System. Fire fighters control and extinguish fires, rescue persons endangered by fire, and reduce and/or eliminate potential fire hazards.

Professionals in the 0081 series must possess knowledge of firefighting and fire prevention theory and techniques, along with fixed and mobile firefighting equipment operations. Other skills include planning, directing and executing fire protection and prevention programs and operations. Firefighters also engage in practice drills and ongoing fire prevention and control training.

Firefighters must complete substantial training, education and certifications to respond to emergencies effectively. Initial training includes classroom and practical (hands on) training in firefighting techniques, fire prevention HAZMAT control, local building codes and emergency medical procedures. Additional training includes use of fire extinguishers, fire hoses, chain saws, ladders and other rescue equipment. Upon course completion, students undergo a “developmental” probation period of on-the-job training.

Fire professionals must conduct 120 hours of proficiency training. However, it is not uncommon to reach 200-plus hours because of the substantial certification requirement. Training may include classes, seminars, practical exercises and professional development to further enhance and expand knowledge of fire hazards and emergency response protocols.

All 0081 series personnel must complete the Department of Defense Firefighter Certification Program in accordance with DoD 6055.06M. This program is nationally and internationally accredited through the International Fire Service Accreditation Congress and National Professional Qualifications Board. The 0081 career map, which includes additional training requirements, occupational development, leadership competencies, certifications and career resources, can be found at https://actnow.army.mil.
The primary function of Army Fire and Emergency Services is to create public awareness of the fire problems, enlist the active aid of the Army Community and rally support from Army leaders for fire safety.

We will strive to comply with and enforce all building codes and fire prevention ordinances in all facilities, urge fire prevention education as an integral part of the school curriculum, and be on alert for all new fire hazards resulting from the use of new materials, process or methods.

Army installation fire departments have on-going, fire prevention educational seasonal campaigns to educate Soldiers, Families and Civilians. Our objectives are to inform the community as to the seriousness of fire prevention and to enlist the active cooperation of every man, woman and child to accept his or her responsibility in preventing fires. We ask all commanders to eliminate every possible fire hazard, comply with building codes and fire prevention measures to provide maximum fire safety, and make fire prevention education an integral part of school curriculum.

The United States Army Fire and Emergency Services organization is dedicated to the prevention of loss of life and property through an aggressive fire prevention and suppression activities worldwide. The primary responsibility for fire safety rests with everyone.

HQ, IMCOM Fire and Emergency Services are committed in keeping Soldiers and their families prepared and safe, whether deployed or at home.

Since fiscal 2009, IMCOM fire departments have responded to 2,263 structural fires in family housing, with 1,210 of these emergency incidents being cooking-related fires. IMCOM needs commander and manager support in increasing fire prevention educational sessions targeting personnel whom reside and work in structures where cooking is approved and being accomplished.

Army leaders are committed in keeping Soldiers and their families prepared and safe, whether deployed or at home.
The Department of Army employs 3,300 firefighters across 75 Garrisons around the world. These career professionals deploy emergency response and mitigation strategies through choreographed resource deployment methods 85,000+/- times annually.

In addition to the significant number of emergency responses to the Military Community, these same men and women amass over 700,000 hours annually of proficiency and upgrade training in order to maintain a national certification standard. Every year the Bureau of Labor and Statistics publishes a series of reports outlining fatal occupational injuries and firefighting almost never makes the list however, as a professional occupation, firefighting is considered one of the most dangerous jobs in the world. How is this possible?

We train! We train to become resilient to the personal tragedies we encounter on a daily basis and we train to mitigate catastrophes (no matter how large or small); therefore, our injuries come in the form of training events; 49 percent of all injures to a firefighter occur during training, 6 percent occur while responding to or coming from an incident. Additionally, firefighter injuries peak in July (one of the hottest months a year).

The National Fire Protection Agencies Standard on Fire Department Occupational Safety and Health Program (NFPA1500) is the National Consensus Standard in which we follow to build, track, and gather trending data to ensure we are building the safest programs for our firefighters. NFPA 1500 is an all inclusive document that provides the framework for your department to build an all inclusive safety program. The problem is that NFPA 1500 is often seen as a map without a compass. Previously the Army made valiant efforts in leading the way for a web-based self inspection and evaluation program that provided the toolbox for any department to enact on the framework provided by NFPA 1500 however, there was no way to sustain the program on a global scale.

Today we are working with the Army Safety Center and the Safety Program Managers and educators at the University of Texas, Austin to fund, build, and deploy a program that will revitalize the efforts of the previous program while encompassing training and accredited certification platforms for our Army’s network of first responders; from beta-testing to multiple version applications, our leaders will be able to obtain immediate department safety data as well as Common Level of Support (CLS) data to support future budget requests or bulk purchases.
We have come a long way in forging alliances with the Army Safety Center. The team has worked hard to promote and professionalize our services to Senior Army Leadership. Additionally, the team has funded $250K for the last two years to ensure our careerists are getting the opportunities to excel within their chosen profession and seek opportunities to branch out beyond the walls of the fire service to other career opportunities. These have come in the way of our personnel spending 30 days with NORTHCOM; Firefighters obtaining their Masters Degree in Safety Engineering; or attending one of over 100 in residence courses at the Department of Defense Fire Academy.

We are in a profession of being a servant to the community at large and in a profession where professional dedication often leads to injuries. Take the time to train and build a better service; the opportunities presented to you to build a safer working environment are within your reach and will soon be at your fingertips.
Firefighter Communication Training increases safety and security in Quad Cities

EAST MOLINE, ILL. (June 27, 2013) – Quarterly training conducted on Blue Card communication techniques gathered firefighters from the Rock Island Arsenal and other fire departments around Quad Cities in East Moline, Ill.

“The Blue Card training standardizes communication and puts everybody on the same page,” said Joe Heim, deputy fire chief Rock Island Arsenal Fire Department. “The theory is high repetitions then standard conditions, equal standard actions, equal standard outcomes; if everyone talks the same and everybody understands the same, then it makes the incident run smoothly.”

According to its website, the Blue Card Incident Commander Training and Certification program, commonly known as Blue Card training, is based on Fire Chief Alan Brunacini’s Fire Command and Safety textbooks, which have been used globally in the fire service for more than 30 years.

The training is designed to manage local National Incident Management System type 4 and 5 incidents. These incidents make up 99 percent of a fire department’s incident activity. NIMS type 5 incidents are small-scale events such as single vehicle accidents, car fires, missing person search, a limited hazardous materials spill and a police traffic stop. The only NIMS position required is the Incident Commander.

“The training is normally three consecutive days,” said Heim. “This time we are doing three days of day one, then the next week three days of day two and the final week three days of day three. Everyone will have an opportunity to train without sacrificing the mission and saving on the budget and manpower.”

“The training is a communication drill,” said Heim. “It helps limit the amount of people talking and getting the incident to a manageable level. When new units arrive, at an incident, they are assigned to a specific staging area and they answer to whoever is in charge of that area. If the IC needs something from that area, they talk to who is in charge. We use this format to make the IC job a whole lot easier. It also makes it easier to attack the fire and to take care of your people.”

“We have done this training five times since May 2012,” said Heim. “There is a 50-hour online training program that must be completed before the classroom portion of the training. Once the training is complete, the firefighter receives a three-year certification that can be updated using continuing education courses.
“This is great for career enhancement and just making you better at your job,” said Heim. “RIAFD sends all the members of its command staff to this course. Each fire department makes its own decision on who they send to the class. In some cities, insurance carriers will reimburse the city half the cost of the classes due to the firefighters attending. It reduces risk, liability and adds safety to fire response. It also gives the cities an incentive to provide these classes for their fire departments.”
Fort Bragg Fire and Emergency Services

Fort Bragg Fire and Emergency Services provides child passenger safety seat services to all personnel on Fort Bragg and support the surrounding communities with additional safety seat clinics.

North Carolina is widely recognized for its efforts to train and sustain a large cadre of professionals and highway safety advocates assisting and educating parents and caregivers in the area of child passenger safety seats. These individuals come from business and industries, child care/development, civic/community groups, education, emergency services, and a variety of state agencies.

Fort Bragg Fire & Emergency Services first started providing Child Passenger Safety Seat (CPSS) services in 2001. We are the lead agency on Fort Bragg for Child Passenger Safety Seats and play an active role in the partnership with Cumberland County Safe Kids.

Since 2001 we have checked and/or installed over 1,500 child seats and all of our fire stations are permanent checking stations. By becoming a permanent checking station it is advertised that you can stop by any fire station on Fort Bragg and we will have personnel and the equipment on site to check and/or install a seat for you. If we find that your seat has been recalled or is not suitable for the child, we have seats in stock that we can replace it with. These seats are donated to us through various grant programs within the state of North Carolina.

We promote our program all over Fort Bragg and we assist our county and city partners when called upon. We participate monthly in our expectant mothers program at our on-base hospital. At this class, we work with expectant mothers and demonstrate the components associated with correct safety seats for their infant children and provide them with the information on installations. We participate in the bi-annual maternity fairs, military safety events and play an interactive role at the NC State Fair where a large display is set up from various agencies across the state in an effort to promote child safety.

Another program on Fort Bragg that we are very proud of is the CPSS diversion program. We, along with local law enforcement and the local JAG office, have instituted a program that allows for a CPSS violation to be dismissed if the violator visits one of our checking stations to have their child properly fitted in a seat and to hear our short program on child passenger safety. This is great benefit to the young families as it not only relieves them of the monetary cost associated with the citation, but it also educates them to the proper safety procedures necessary for their children to ride safely.
Fort Bragg has been recognized four times since 2009 for our CPSS services. In 2009 and 2011, we were awarded program of the year, and in 2010 and 2012, we received the technician of the year award from the state of North Carolina.
The U.S. Army Firefighting Apparatus

As the Army continues to modernize its firefighting apparatus, new technology and safety features are incorporated into each new vehicle. But backing of firefighting apparatus continues to be a dangerous endeavor. Backing accidents can and have occurred both on the fireground and at our stations. These accidents lead to costly damage, unnecessary injuries, and tragically, even death. The most tragic fact is that each accident is 100% preventable. Every Fire Chief Officer and Firefighter should consistently be aware and practice safe backing procedures. Here is a list of 10 basic tips to implement into your emergency vehicle training program and continuously put them into practice.

1. Firefighters First! Before backing up your vehicle, account for your people, ensure they are in a safe position and are aware you are preparing to back the vehicle. One loss is one too many.

2. Focus! The fire station or the scene of an incident is a busy place. Focus on the safety of your crew and the apparatus.

3. Slow Down! There’s no advantage to rushing to back your vehicle into position or the station.

4. Don’t be distracted! Don’t get distracted by radio traffic, cell phones, or even other firefighters.

5. Never back up alone! Sure, you’ve backed that Type I into the station each day for the past 10 years; it only takes one moment to cause an accident. Use spotters every time and all the time.

6. Roll down your windows! This allows your spotters to verbally communicate and warn the driver of an impending accident.

7. Don’t assume anything! You know what they say about “assume”. Just because your apparatus fits into your station doesn’t mean it will fit into all of them.

8. Look up! Backing accidents could have been avoided if the backers had only looked up. Always be aware of overhead obstructions, such as low-hanging tree limbs, power lines, or even station exhaust systems which may strike and damage the top of the truck, putting you out of service.

9. Light it up! Use the rear spotlights during nighttime operations or when backing into a shaded stall on a sunny day. The better the lighting, the safer you are.

10. One honk for safety! A short sounding of the truck’s normal horn will warn spotters and others in the immediate area that you’re starting the backing process.

Backing an apparatus isn’t just the responsibility of the engineer. Safety is everyone’s job. Pay attention, Focus on the task, and ensure safe backing procedures are practiced and followed. Incorporate these tips into your safety program to help ensure that the next backing accident isn’t yours.
Fire Doors

Fort Bragg Fire and Emergency Services as of 14 August 2013, has received Accredited Agency status with the Commission on Fire Accreditation International (CFAI) for meeting the criteria established through the CFAI's voluntary self-assessment and accreditation program. The department is one of 185 agencies worldwide and one of 33 agencies within the Department of Defense (DoD) to achieve Internationally Accredited Agency status with the CFAI.

Last year at the Senior Safety Symposium, I was fortunate enough to give a presentation regarding fire doors. Since then, I have received several emails and questions about fire doors, the code requirements, maintenance and testing, etc., so I thought this would be a good time to include this topic in this edition of the CP-12 Safety Newsletter.

Significant fires in the past have led to major revisions in the model codes and standards related to fire doors, which as fire or safety professionals we need to keep aware of. Fire rated doors are a key and essential part of a building’s passive fire-protection design in the built environment. The principal means of passive fire protection in structures is to completely enclose or “encapsulate” an area/s with fire barriers. Fire barriers include fire doors, walls, ceilings, and floors. Fire barriers play an integral role in managing a fire by interrupting the spread of smoke, other toxic gasses, and the fire itself by confining the fire in the area/room of origin, thus keeping the fire from spreading from one fire zone into another.

Fire doors are fundamental to the integrity of fire barriers because any time there is an access portal (such as a doorway) to a compartment, a fire barrier is broken temporarily. To minimize the break in protection, fire doors must be self-closing and have proper latching devices in order to provide as much resistance as possible to the spread of fire, smoke, and toxic gasses.

As a fire or safety professional you are aware of the need to protect occupants from devastating and tragic incidents such as fire and other panic related emergencies that require people to quickly evacuate out of a building or structure. Building elements such as an accessible means of egress and areas of refuge or employee assistance within a building must be continuously protected and maintained with fire-resistant construction. Fire exit doors that are often held open for the convenience of employees and visitors create a significant fire hazard for all of the buildings occupants because of the break created in the fire barrier. Doors that are designed to be fire exit doors can be held open, but only if they automatically release when building fire alarms are activated and they are properly installed, tested and maintained.

Since the American with Disabilities Act (ADA) became law in 1990, designers, building owners, and AHJ’s have struggled with the need between fire door assemblies to completely close and latch and the requirements of the ADA. More specifically, the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and ANSI/ICC A117.1 Accessible and Usable Buildings and Facilities comprise the two main standards for accessibility requirements that restrict the opening force of accessible door assemblies to no more than 5 pounds of force. Hydraulic door closers with reduced opening forces do not have adequate closing power to reliably close the fire doors in many installations. Both ADAAG and A117.1 specifically exclude the reduced opening-force requirements for fire door assemblies in deference to their fire-protection requirements.

Passive fire protection is designed to incorporate safeguards from fire by building the protective features into the buildings construction. Each different fire assembly has a specific purpose and generally relies on active fire protection systems to be effective.
Fire assemblies and components in a building can be made up of vertical assemblies, horizontal assemblies, and structural frame members. Passive fire protection features of a building can be fire rated/resistive structural members, fire walls that compartmentalize large areas of square footage, fire barriers that separate different hazard classifications within the same building, shafts, horizontal assemblies, penetrations and opening protection. Fire-blocking and draft-stopping are also included as passive fire protection.

Active fire protection is a system that is used to notify the occupants of a building of a fire or to help control the flames and/or smoke and hot gasses. The most common types of active protection are automatic fire sprinklers, standpipes, fire alarms and smoke ventilation systems. Although not considered a part of active fire protection it should be noted the increased use and acceptance in the fire codes for some type of “mass-notification” capability, or the ability to warn building occupants of other hazards besides fire. Fire door assemblies are primarily designed to provide time for building occupants to safely egress from the burning building or to stay protected inside an “area of rescue or area of evacuation assistance” – both areas must meet strict construction requirements per the LSC 101. Fire door assemblies also help to protect the structural integrity of the building long enough to give firefighters time to conduct offensive operations or defensive operations.

Most people never get to witness the actual stresses and amount of force a door assembly must endure under fire conditions. Most people have misconceptions of what exactly a fire door is required to do, and how well it performs its job. When a fire door is exposed to heat either from direct flame contact, or by convection or radiant heat, the metal begins to expand rapidly on the fire side of the door. This expansion causes the door leaf to deform as it deflects twists and warps toward the heat of the fire. If the fire is on the pull-side of the door enormous stress is exerted on the hinges and the latching hardware. As the intensity of the fire increases, the door leaf deflects farther, exerting more stress on the hinges and latching hardware. Fluid in the hydraulic door closers will eventually reach its boiling point and begin to leak. At this stage the closer has performed its intended task and the door leaf is closed. The closer can literally fall off the door and assembly frame without causing the complete assembly to fail. Other door features such as door knobs, levers and fire exit hardware devices are designed to become inoperable and fall away from the door when temperatures reach a certain point, ensuring they do not inadvertently release the latching hardware and cause the complete assembly to fail.

The latching hardware and hinges must be designed to withstand an unbelievable amount of stress during a fire, but the assembly also has to withstand the stress and changes imposed on it by a cold water stream being applied against it from the opposite side of the fire. Cold water causes the metal to begin to contract almost as rapidly as it expanded from the heat, exerting more force and stress on the hinges and latching hardware. No matter what happens to the assembly the latching hardware and hinges absolutely have to keep the door leaf closed and latched in place.

After a fire, a fire door assembly may not even look like an assembly. The door leaf will have expanded, and possibly starting to delaminate. The paint on the metal has burned off or the wood veneer has been consumed by the fire. The hardware has melted, warped or otherwise been destroyed by the fire. All that remains is a frame and a door slab that if installed, and maintained properly has helped to compartmentalize a fire on the other side and left the unexposed side with little or no damage. Consider the consequences of the fire door assembly not working, being blocked open by a door wedge, or failing to close with enough force to securely latch the door closed.

Something to keep in mind as you inspect a door is that not all doors are fire doors.
Fire doors must be certified by recognized testing laboratories (such as UL) and must have the laboratory’s certification label. OSHA regulations require that fire doors are not held open unless equipped with a device that releases the door upon activation of the fire alarm system. [29 CFR §1910.36 (a)(3)] The Life Safety Code places very stringent regulations respecting fire doors and their closures because of their importance as passive fire protection devices and how it affects the means of egress for occupants exiting the building, or who can’t exit and must shelter in place. Generally speaking, fire doors are required if there is an EXIT sign on or around it, where the door leads to an exit stairwell or is part of a horizontal egress route. Doors that lead to hazardous areas such as a flammable storage room, or a door that leads to a hallway, or from one fully enclosed room to another are common areas that you would see a fire door installed.

Fire doors should never be tied open or held open by unapproved devices, such as door wedges or kick stand devices. Fire doors can only be held open by a device that automatically releases when the fire alarm is activated (such as an electromagnetic hold open device) Even when closed, fire doors should never have their latch taped over; during a fire, hot gases can easily build up enough pressure to cause fire doors to blow open. Besides being familiar with NFPA 80 Standard for Fire Doors and Other Opening Protectives, you should become familiar with and review Unified Facilities Criteria (UFC) 3-600-01 Fire Protection Engineering for Facilities and UFC 3-601-02 Operation and Maintenance: Inspection, Testing, and Maintenance of Fire Protection Systems. Both UFC’s have sections that apply to fire rated doors. UFC 3-600-01 specifies when fire doors have to be used in limiting interior fire spread, and UFC 3-601-02 specifies the inspection frequencies of the rated assemblies. Most inspectors and safety inspectors are not fully aware that fire rated doors or door assemblies are required to be inspected as part of the overall building inspection, on an annual basis or after the 1st year of construction and every 6 years thereafter.

Some deficiencies are easy to correct such as removing a door wedge and then educating the respective tenants on why the fire door must remain closed, other deficiencies may require a service or work order to be initiated to correct the problem, either way a defective fire rated door and/or door assembly can have detrimental effects for the occupants who are exiting out of the building or structure and the 1st responders who have to mitigate the emergency.
Fort Bragg - Center For Public Safety Excellence Accreditation

Fort Bragg Fire and Emergency Services as of 14 August 2013, has received Accredited Agency status with the Commission on Fire Accreditation International (CFAI) for meeting the criteria established through the CFAI’s voluntary self-assessment and accreditation program. The department is one of 185 agencies worldwide and one of 33 agencies within the Department of Defense (DoD) to achieve Internationally Accredited Agency status with the CFAI.

CFAI is dedicated to assisting the fire and emergency service agencies worldwide in achieving excellence through self-assessment and accreditation in order to provide continuous quality improvement and the enhancement of service delivery to their communities. The CFAI process is voluntary and provides an agency with an improvement model to assess their service delivery and performance internally, and then works with a team of peers from other agencies to evaluate their completed self-assessment.

The self assessment provided us a clear understanding of the services we provide to our customers and allowed us to evaluate each. Through this examination we were able to address areas that needed improvement and develop plans to address them. Using data analysis and feedback from both internal and external customers, our department will continue to improve therefore enhancing the services provided to the Fort Bragg community.

Careerists on the Move

Ryan Marvicka, Firefighter / EMT

Ryan Markvicka is a Firefighter/EMT for the Fort Riley Fire Department. He received a Bachelor of Science (B.S.) in Emergency and Disaster Management in 2011, graduating Cum Laude. He has been in the fire service since 2008 having worked the previous eight years in health care serving in various capacities. Ryan has had a strong desire to help people and serve the public, which led him to an interest in emergency services. After graduating he realized almost immediately that he wanted to pursue advanced higher education. He learned of the CP-12 program from my management team and after realizing the benefits it offered it seemed like a perfect fit for him. Growing up in a military household he has lived the Army values for the majority of his life and feel privileged to be able to serve as an Army civilian. CP-12 is allowing Ryan the opportunity to advance his education and serve the Army in a greater capacity by attending the University of Alabama-Birmingham to obtain a Masters Degree in Advanced Safety Engineering and Management. He currently reside in Manhattan, Kansas with his wife Michelle and their two daughters, Gracyn and Kendall.
The Fort Campbell Fire Department now has a new place to prepare for emergencies after the completion of a newly constructed aircraft and structural firefighting and rescue training facility. The $1.8 million project, managed by the U.S. Army Corps of Engineers (USACE) Louisville District, features a CH-47 Chinook aircraft live-fire trainer, a three-story Class-A live fire training building, and a 2,000 gallon liquid propane tank.

“The whole facility offers several innovative features that will not only benefit department members, but also neighboring fire departments and other public safety groups” said Fort Campbell Fire Chief Kevin Baylor. “For the first time in the department’s history, crews will be able to train inside a structure under sustained fire conditions. This capability will undoubtedly prove invaluable for developing or refining fire-stream management skills.”

The Chinook live-fire trainer is the first of its kind produced by Kidde Fire Trainers out of New Jersey. The aircraft trainer will enable firefighters to conduct aircraft egress exercises while combating a combination of engine, gear box, cockpit and cabin fires.

The Class A building’s three-story design reflects multiple features common to several residential structures and facilities on the installation. The layout includes a features two burn rooms that utilizes typical combustible materials for smoke and flame production, multiple rooms on both floors and a roof system with both flat and pitched surfaces. Joist hangers are positioned throughout the building to allow for construction of reusable ceiling and roof props. A perimeter fence along the roof is equipped with multiple gates to facilitate loading and disposing of plywood. Exterior and interior stairways allow for multiple avenues of ingress. Firefighters also have the use of a pitched roof prop, which offers two distinct training options for fighting attic fires: 1) ventilating on an incline and 2) moving across trusses to find a smoldering fire.

A Final Word:
Thanks to the working relationships established with USACE, project contractors and the leadership provided by Chief Baylor, the project was completed 43 ahead of schedule. As the Fort Campbell Fire Department and mutual aid agencies continue to expand their core services, the training area also has the capability to expand and grow to meet additional training needs.

https://safety.army.mil/cp12online
Structural Fires in Family Housing

Since fiscal 2009, IMCOM fire departments have responded to 2,263 structural fires in family housing. A high percentage of these fires are cooking-related. This trend and comparison for periods fiscal 2009 - fiscal 2012 in relation to the top four cause categories, continues to be problematic and is placing lives of firefighters, Soldiers, family members and civilians at risk on a daily basis.

IMCOM needs commander and manager support in increasing fire prevention educational sessions targeting personnel whom reside and work in structures where cooking is approved and being accomplished.

In calendar 2006, a study was accomplished in IMCOM Europe to determine the temperature rating of types of stoves within Army family housing. It was determined that a high number of these fires that occurred involved an American-type stove without a heat limiting thermostat (coil element types).

These stoves provides high temperature rating and four types of these stoves would be capable of reached the flash point of peanut oil (539.6°F/282°C) within 80 seconds depending of the type of the stove in use. As a result of changing out these stoves in Army family housing within the IMCOM Europe Region, an 85% decrease of kitchen fires occurred as a result. It is recommended that these top coil element stoves be replaced with newer models with heat limiting thermostats for the prevention of these unwanted kitchen fires.
Various types of stoves within Army Family Housing

Heat points for fats include "flash" and "fire" points at 600 and 700 degrees.
## Time Table of Temperature in Minutes

<table>
<thead>
<tr>
<th>Stove Type</th>
<th>Year</th>
<th>Times</th>
<th>0 min</th>
<th>30 sec</th>
<th>1 min</th>
<th>1.5 min</th>
<th>2 min</th>
<th>3 min</th>
<th>4 min</th>
<th>5 min</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westinghouse</td>
<td>1997</td>
<td>C</td>
<td>16</td>
<td>201</td>
<td>304</td>
<td>405</td>
<td>597</td>
<td>617</td>
<td>617</td>
<td>617</td>
<td>617</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>60.8</td>
<td>393.8</td>
<td>579.2</td>
<td>761</td>
<td>845.6</td>
<td>1106.6</td>
<td>1142.6</td>
<td>1142.6</td>
<td>1142.6</td>
</tr>
<tr>
<td>FRIGIDAIRE</td>
<td>2001</td>
<td>C</td>
<td>22</td>
<td>279</td>
<td>467</td>
<td>574</td>
<td>640</td>
<td>671</td>
<td>690</td>
<td>715</td>
<td>715</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>71.6</td>
<td>534.2</td>
<td>872.6</td>
<td>1065</td>
<td>1184</td>
<td>1239.8</td>
<td>1274</td>
<td>1319</td>
<td>1319</td>
</tr>
<tr>
<td>MAGIC CHEF</td>
<td>2007</td>
<td>C</td>
<td>22</td>
<td>96</td>
<td>187</td>
<td>276</td>
<td>343</td>
<td>403</td>
<td>454</td>
<td>485</td>
<td>540</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>71.6</td>
<td>204.8</td>
<td>368.6</td>
<td>528.8</td>
<td>649.4</td>
<td>757.4</td>
<td>849.2</td>
<td>905</td>
<td>1004</td>
</tr>
<tr>
<td>GORENJE</td>
<td>2000</td>
<td>C</td>
<td>19</td>
<td>82</td>
<td>138</td>
<td>186</td>
<td>268</td>
<td>333</td>
<td>427</td>
<td>588</td>
<td>588</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>66.2</td>
<td>179.6</td>
<td>280.4</td>
<td>366.8</td>
<td>514.4</td>
<td>631.4</td>
<td>800.6</td>
<td>1090.4</td>
<td>1090.4</td>
</tr>
<tr>
<td>SUNRAY</td>
<td>1988</td>
<td>C</td>
<td>14</td>
<td>177</td>
<td>326</td>
<td>381</td>
<td>435</td>
<td>509</td>
<td>551</td>
<td>577</td>
<td>601</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>57.2</td>
<td>350.6</td>
<td>618.8</td>
<td>717.8</td>
<td>815</td>
<td>948.2</td>
<td>1023.8</td>
<td>1070.6</td>
<td>1113.8</td>
</tr>
<tr>
<td>VESTA</td>
<td>1988</td>
<td>C</td>
<td>27</td>
<td>234</td>
<td>373</td>
<td>471</td>
<td>576</td>
<td>584</td>
<td>626</td>
<td>664</td>
<td>664</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>80.6</td>
<td>453.2</td>
<td>703.4</td>
<td>879.8</td>
<td>1069</td>
<td>1083.2</td>
<td>1158.8</td>
<td>1227.2</td>
<td>1227.2</td>
</tr>
<tr>
<td>DEFY</td>
<td>2003</td>
<td>C</td>
<td>18</td>
<td>114</td>
<td>202</td>
<td>274</td>
<td>332</td>
<td>429</td>
<td>502</td>
<td>556</td>
<td>597</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>64.4</td>
<td>237.2</td>
<td>395.6</td>
<td>525.2</td>
<td>629.6</td>
<td>804.2</td>
<td>935.6</td>
<td>1032.8</td>
<td>1106.6</td>
</tr>
</tbody>
</table>

Gerald Adams, HQ, IMCOM Fire Protection Specialist/210-466-0497/gerald.a.adams.civ@mail.mil  
September 2013

## FY09-FY12 Top 4 Structural Fire Causes

### Graph
- **Cooking**: 58% (FY09), 51% (FY10), 49% (FY11), 56% (FY12)
- **Unknown**: 3% (FY09), 2% (FY10), 1% (FY11), 1% (FY12)
- **Incendiary**: 1% (FY09), 1% (FY10), 1% (FY11), 1% (FY12)
- **Suspicious**: 2% (FY09), 1% (FY10), 1% (FY11), 1% (FY12)
- **Open Flame**: 1% (FY09), 1% (FY10), 1% (FY11), 1% (FY12)
Grease fires and procedures to take

- Never attempt to remove the burning pan or pot away from the stove to the outside. Many fires have spread and serious burns occurred by individuals dropping the flaming oil.
- Never, apply water to a grease fire.
- Always isolate the power to the stove, if possible.

Oven fire safety tips

Always turn the controls off and close the door tightly if the fire is in the oven:
- This will smother the flames.
- Always make sure the oven and stovetop are clean, ensuring no grease buildup:
- Ensure there are no flammables stored in the immediate area
- Always keep pot handles turned inward and away from the edge of the stove:
  - Prevents inadvertent tipping and out of the reach of children.
- Always use a pot holder or appropriate utensil to remove lids and coverings from heated containers, which prevents steam or contact burns.
- Always keep flammable fabrics such as towels, dish rags or curtains away from the stovetop and burners:
- Don’t wear long, loose sleeves that can hang over the stove while cooking.

Keep clothing clear of any cooking surface. It can be ignited merely by contact with a burner.

Call the Fire Department first at 911 (Base Phone)

- Always call the Fire Department at 911 regardless of the size of the fire.
- Never assume someone else has made the call.
- Always give correct address, location of fire, AND your name.

Using Fire Extinguishers

Have a portable fire extinguisher handy and know how to use it. Be sure it is charged at all times. All workplaces and Military Family Housing contain portable fire extinguishers.
- Fire extinguishers are designed to combat small fires.
- Never attempt to extinguish a fire if the fire is large or spreading - your escape route may be blocked by the spread of fire. If the fire cannot be extinguished using a fire extinguisher, **DO NOT ATTEMPT TO OBTAIN ANOTHER ONE: EVACUATE TO SAFETY.**

*NEVER LEAVE COOKING UNATTENDED*
<table>
<thead>
<tr>
<th>Functional Points of Contact</th>
<th>Points of Contact</th>
<th>Phone Numbers</th>
<th>Email Addresses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety and Occupational Health, Dr. Brenda Miller</td>
<td>DSN 558-2959 COM 334-255-2959</td>
<td><a href="mailto:brenda.g.miller.civ@mail.mil">brenda.g.miller.civ@mail.mil</a></td>
<td></td>
</tr>
<tr>
<td>Safety Technician Pat Welch</td>
<td>DSN 558-1254 COM 334-255-1254</td>
<td><a href="mailto:clarence.o.welch.civ@mail.mil">clarence.o.welch.civ@mail.mil</a></td>
<td></td>
</tr>
<tr>
<td>Fire Protection and Prevention Gerald Adams</td>
<td>DSN 450-0497 COM 210-466-0497</td>
<td><a href="mailto:gerald.a.adams.civ@mail.mil">gerald.a.adams.civ@mail.mil</a></td>
<td></td>
</tr>
<tr>
<td>Industrial Hygiene Sandy Parker-Monk</td>
<td>DSN 584-3161 COM 410-436-3161</td>
<td><a href="mailto:sandra.parkermonk@us.army.mil">sandra.parkermonk@us.army.mil</a></td>
<td></td>
</tr>
<tr>
<td>Safety Engineer James Patton</td>
<td>DSN 227-1306 COM 703-697-1306</td>
<td><a href="mailto:james.t.patton10.civ@mail.mil">james.t.patton10.civ@mail.mil</a></td>
<td></td>
</tr>
<tr>
<td>Health Physics Gregory Komp</td>
<td>DSN 227-1194 COM 703-697-1194</td>
<td><a href="mailto:Gregory.r.komp.civ@mail.mil">Gregory.r.komp.civ@mail.mil</a></td>
<td></td>
</tr>
<tr>
<td>Air Safety Investigator &amp; Aviation Safety Bruce Irwin</td>
<td>DSN 558-1866 COM 334-255-1866</td>
<td><a href="mailto:bruce.k.irwin.civ@mail.mil">bruce.k.irwin.civ@mail.mil</a></td>
<td></td>
</tr>
</tbody>
</table>