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Story of this accident on Page 18



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- ✓ 9 runways
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Message from the Chairman



RONNIE KRUSLESKI

Welcome to the November/December 2020 issue of **ARFF News**.

While reflecting on 2020, COVID-19 has brought many tribulations, but these trials have not defeated us. We have grown stronger by working together and have adjusted our guidelines to protect our crews. The seriousness of COVID-19 and the health impact it can have on our members caused us to cancel two conferences, but it did not stop us from focusing on our mission. As it is our mission to educate Fire Fighters, the Board of Directors stayed connected with our membership and industry partners, i.e., Airports, FAA, CDC, AAAE, IPA, IFAPLA, IATA, GoCrisis (to name a few.) Using video conferencing, teleconferencing, and webinar technology we shared information throughout the world in just a few seconds. Our monthly FAA airport index calls grew in attendees and these calls have proven to be a valuable tool. We upgraded our website server which gave us the ability to upload more training programs, videos, and articles. This upgrade also improved the speed of the website.

Our first educational webinar was scheduled for November 18th with our 2020 Legend James “Jim” Nilo presenting. On December 14th, Marc Tonnacliff and Keith Bagot will be presenting on FAA updates. Webinars are a great tool to stay connected. These two webinars are just the first of many to come. Without conferences and due to the social distancing requirements at airports and fire departments, our Sustaining members were not able to showcase their products. To help with getting their product information out to our members, we are in communication with our Sustaining members to schedule product webinars. On December 1, 2020, at 1pm CST, Emergency Reporting Records Management and Reporting SaaS Solutions will present at our first Sustaining member product webinar. This is our time to give back to our membership, so the webinars will be free for our members to attend and no fees to our Sustaining members to showcase their products. If you are unable to attend one of these

webinars, still register because you will receive a video link to view the webinar.

After surveying the membership and the limitations COVID-19 has placed on the Pechanga Resort in Temecula, CA, regretfully, the 15th Annual ARFF Working Group and AAAE Leadership Conference is canceled. We will not let the cancellation of our 3rd conference stop us from delivering valuable information to you. We will be requesting the 15th Annual Leadership presenters to present at future webinars and our 31st Annual Conference, August 29th – September 1, 2021 at the St. Louis Union Station Hotel, St Louis, MO.

Fluorosurfactant products are a hot topic and there are many studies of the effects they have on Fire Fighters. The law firm of Cossich, Sumich, Parsiola & Taylor, LLC, served us a subpoena to produce documents, information, or objects or to permit inspection of premises in a civil action. The subpoena was issued from the United States District Court for the District of South Carolina. Civil Action No. 2:18-mn-2873, Aqueous Film-Forming Foams Products Liability Litigation. The subpoena required us to produce 18 documents which included our members' personal information. The Board of Directors did not feel we should provide your personal information. We contacted our attorney, E. Troy Blakeney, for legal advice. Mr. Blakeney protected your information and negotiated that we only had to submit every article from **ARFF News**, videos of conferences and PowerPoints that dealt with AFFF. I want to personally thank Mr. Blakeney for protecting the best interest of the ARFF Working Group and our members. If you have any questions, you can email Mr. Blakeney at troy@troyblakeney.com.

The end of 2020 and the holiday season is rapidly approaching. I ask that we all stop and reflect on this year and how it has reminded us of what truly matters to us. I pray for those who have lost their life to COVID-19 and that their families will find comfort that we are all here for each other.

The future of the ARFF Working Group depends on us working together, sharing information, presenting at conferences, growing our membership, writing articles, and thinking of new ways to educate Fire Fighters. We are a "Working Group," and we need everyone's help.

If you have any questions, comments or concerns, please email me at Chair@arffwg.org.

Be safe, Happy Holidays and Merry Christmas

Ronnie



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COVID-19 Pandemic Impact to ARFF Emergency Services

by Tracy Young

During the past few months we have been experiencing a pandemic, which has created many challenges for emergency services. Local and statewide business closures along with stay-at-home orders were implemented to slow the spread of the virus and prevent an overload of health care systems. What impact did the pandemic have on emergency services and specifically, what impact did the pandemic have on Aircraft Rescue & Fire Fighting departments (ARFF)?

The impacts of the pandemic have

created challenges for ARFF departments at our nation's airports. Each ARFF department is different - some provide multiple services, while others provide the absolute minimum to meet FAA Part 139 requirements. ARFF departments who provide emergency medical services have the highest risk of encountering COVID-19. To avoid this threat measures must be in place to protect ARFF personnel from the virus and to prevent contact spread. Wearing the appropriate personal protective equipment, such as N95 masks, eye protection, gloves and gowns are vital. Equally



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important is interaction with the patient at the scene. When possible, having the patient meet the crew in an open area (outside or in a large open space, etc.) is ideal. The crew should send a “scout” to initiate patient contact and obtain information. Additional crew member(s) may be needed to help with vital signs and more. If the ARFF unit is a transport unit, then care must be taken to avoid unnecessary contact while transporting the patient. Once the call is complete, decontamination of the crew and their PPE must be performed. While taking off the PPE, the crew must be extremely careful not to become exposed by using improper doffing techniques.

Although ARFF crews who perform EMS services are at a higher risk of exposure, ARFF departments who do not provide these services are not immune to the virus. Careful consideration must be taken to protect ARFF personnel, including putting measures in place to disinfect the station(s) and apparatus weekly, or as needed. Practicing social distancing in the station, however difficult, should be exercised. For example, not all shift personnel need to eat their meals at the same time. Mealtimes should be staggered to reduce the number of personnel in the kitchen and eating areas. Wearing of masks inside the station is a management decision that should be made based on the local threat and social distancing capabilities. Training sessions should be held outside or in the apparatus bay due to space needed for social distancing. Lastly, while in public, ARFF crews should wear a mask and practice social distancing.

Under extreme measures, the following should be considered:

- * No visitors in the station (required visitors should wear masks and social distance);
- * Crews should respond to emergencies in jumpsuits, which will be donned and doffed in the apparatus bay. This reduces cross-contamination inside the station living quarters;
- * Temperature checks should be taken twice daily, at roll call and in the evening;
- * Disinfecting the apparatus after each response – all inside and outside touchpoints.

ARFF management teams play an integral role in establishing policy and implementing measures to protect the workforce. It only takes one ARFF member who tests positive for the virus to have a ripple effect throughout the department. Management needs to have a contingency plan in place should a large number of the workforce be placed in

quarantine due to exposure. Since ARFF certification is so unique, the traditional mutual aid back-up support will not usually suffice. Firefighters must be trained to FAA Part 139 requirements, which is not the case in most support departments. Not having enough personnel to staff vehicles could result in a reduced index level capability, which could adversely impact airport operations.

ARFF managers also need to develop good policies and practices based on federal, state, and local guidelines. Having a pandemic plan or operating procedure in place will help with decision making and establish a formal operating policy. At a minimum, the plan should establish risk levels based on data provided by health departments, personal protective equipment to be worn in emergencies, station preventive measures, disinfection/decontamination and personnel exposure procedures. Along with a formal policy, there should also be a strategy to provide direction for the department.

In order to deal with the virus crisis at the Lee County Port Authority, I developed a strategy for our department, which is based on the following four pillars:

» Immediate: This pillar covers the immediate concerns for the department, including day-to-day operations that deal with the pandemic and other emergency responses, daily staffing and tactical operations.

» Compliance: This pillar covers the need to maintain FAA Part 139 requirements. The pandemic has been a disruption to the normal organizational rhythm for the year, but training still needs to continue and all Part 139 requirements need to be completed.

» Family: This pillar covers family life. There is a need to be aware of our families and how they are dealing with the pandemic stress. Simple things, like grocery shopping, have created a great deal of concern. First responder family members need to be aware of the facts and risk. Support of peers and their families is very important.

» Support: This pillar covers the support from federal, state and local government departments, including submitting and tracking resource requests, managing 214 forms for reimbursement and staying engaged with local emergency operating centers on current data and governing policy.

Even the best policies and strategies will not prevent pandemic fatigue. The longer measures are taken such as isolation, wearing a mask and practicing social

distancing, the more fatigue it will have on personnel and, eventually, that fatigue can lead to complacency. The opposite of pandemic fatigue is pandemic anxiety. Not all personnel will react the same to the pandemic - some will take a measured approach, while others, due to anxiety, will push for extreme measures. It will be up to the ARFF management team to implement measures that match the threat for their departments.

About the Author: Tracy W. Young is the Fire Chief for the Lee County Port Authority, providing ARFF services for Southwest Florida International Airport



his career as the Deputy Fire Chief for Wright-Patterson AFB Fire Emergency Services, a position he held for 9 years. ■

and Page Field in the Fort Myers Florida area. Chief Young is designated Chief Fire Officer through CPSE and Master Airport Firefighter through AAAE. He holds a BAS In Fire Science and AAS in Fire Administration. Chief Young has been serving for the Lee County Port Authority since February of 2018. Prior to his employment with the Port Authority Chief Young served 23 years as Federal Firefighter ending

Widespread COVID-19 Restrictions Spark Creativity for MLI Full-Scale Exercise

by Jeff Swan

How do you conduct a full-scale exercise in a state with some of the strictest COVID-19 measures in the U.S.? The short answer is: it wasn't easy. The long answer will hopefully give other ARFF departments ideas on how to think creatively and use their resources in new ways.

In January 2020, I began planning for the full-scale exercise which was supposed to take place in June. The exercise would involve as many mutual aid departments as possible. Illinois uses the Mutual Aid Box System (MABAS) and by February, almost every service on the MABAS box card agreed to participate.

A tabletop exercise took place in-February with city police and fire departments in attendance, and the two major hospital networks in the area and private ambulance companies.

On March 13, the governor of Illinois issued a stay-at-home order which shut down most workplaces and businesses, other than those deemed essential. The initial order was expected to last a couple weeks. However, a long-term 5-phase plan for gradual reopening was enacted which is still in place today. Phase 1 prohibited gatherings of 10 people, making the full-scale exercise impossible to conduct. In the past, we have had over 150 people involved. I requested an extension from the FAA inspector in May and June and

was denied both times. Instead, I was told to contact them again in late July.

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In the meantime, I met with our Human Resources and risk management team who strongly opposed holding the exercise under the existing conditions as local emergency services could no longer fulfill their roles in the exercise. Police officers could attend, but not leave their squad cars. Every fire department declined to participate. Ambulances also declined to avoid contaminating their rigs, and the hospitals agreed to a modified transport simulation.

Clearly, the exercise was not going to happen as planned.

Just over two weeks out from the original date of the exercise, the FAA inspector proposed 4 options:

- 1) Provide an extension through Feb. 2021 and if headquarters allows, approve a 1-year extension at a later date.
- 2) Wait until the end of August and then provide the extension if headquarters doesn't provide a 1-year extension.
- 3) Take a 'ding' on our compliance and extend it for a year.
- 4) Select option 1 and if HQ doesn't approve a 1-year extension, the FAA inspector will give us a compliance item to complete the exercise a few months after Feb. 21.

None of these were particularly appealing, so a creative approach was needed.

The state moved to Phase 4 of its reopening plan June 26, which provided some additional options for group gatherings up to 50 people. A full-scale exercise needs fire, police, security, ambulances, and victims. Rather than using outside resources, airport employees were asked to participate, many of whom had never participated in an exercise. This approach, using only internal resources and personnel, was shared with the FAA inspector in advance who agreed to allow the airport to move forward with this plan.

Prior to COVID-19, custodial staff were given the added responsibility of assisting with staging until emergency personnel arrived. Their task is to stand by the gate and send in emergency services when requested. Once a first responder arrives, the custodial or building maintenance worker becomes the escort or security for the gate.

For drill purposes, building maintenance employees role-played as local police departments. The building maintenance manager played the role of law enforcement officer and reported to the unified command post. He delegated tasks to his employees, such as closing specific intersections and carrying the wounded to the triage area.

Airfield maintenance played the role of ambulance services. Airport vehicles transported victims in 5-minute increments to the cargo building which acted as the hospital.



Twenty-two staff members would role play as victims to help meet the required number under FAR Part 139 regulations. Each employee played two scenarios, doubling the victim count. A local fire department also loaned 22 CPR mannequins to fulfill priority zero roles.

At the start of the exercise, ARFF units were staged at the landing runway in pre-designated positions. The exercise began as an Alert 2, approximately 5 minutes later a makeshift prop was set on fire triggering an Alert 3. The fire was 300 yards from the crash site and victims. Two ARFF vehicles extinguished the fire and responded to the crash site to assess the victims.



When the ARFF unit arrived on scene, the public address system was used to ask the victims to come to the truck. The victims were given a new scenario and asked to return to the hot zone where first responders would begin triage.

Airport public safety officers arrived on scene and were given duties from the incident commander including triage, safety,

treatment, and transportation duties.



Airfield maintenance, role playing as the ambulances, assisted with setting up the treatment area before going out to the field. I arrived on scene within 15 minutes of the start of the exercise and took over as incident commander, setting up a unified command post at my emergency vehicle. The former incident commander transitioned to operations command from the warm zone.



We simulated our emergency operations center, coroner, and some other responses such as post-crash airfield inspections. The exercise lasted just over one hour.

While certainly a non-traditional approach, the Quad City International Airport completed a full-scale exercise using existing resources creatively while still following strict COVID-19 guidelines. The after-action report was submitted to the FAA inspector and approved in October 2020.

About Quad City International Airport Public Safety

Quad City International Airport is located in Moline, Ill., and governed by the Metropolitan Airport Authority of Rock Island County. The public safety department consists of 12 certified officers, four full-time dispatchers and five part-time dispatchers. The department is responsible for fire, police, security, and some operations duties.

About the Author: Chief

Jeffrey M. Swan currently serves as the Public Safety Manager for the Metropolitan Airport Authority of Rock Island County. In this role, he works with a team of 12 officers and 9 dispatchers to implement programs, procedures and practices to maintain the safety and security of passengers, employees, airport tenants and the general public.



Swan also manages the enforcement of federal, state and local statutes, ordinances and regulations. Swan has been with the MAA since 2000, where he served as a public safety officer, he was promoted to Lieutenant in 2005, and promoted to Chief in 2019. Swan holds a bachelor's degree in fire science from Columbian Southern University and attended the Police Training Institute at the University of Illinois.





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ARFF Working Group ARFF Officer Program

by Jason Graber

In September of 2018, the ARFF Working Group (ARFFWG) Board of Directors, in partnership with the Federal Aviation Administration (FAA), submitted its final submission responses to the proposed recommendations to the National Transportation Safety Board (NTSB) regarding the San Francisco Asiana 214 crash. These submissions included recommendations on building a staffing model at an airport, preventing ground strikes of passengers and crew who evacuated a crashed aircraft, training and operational procedures for high-reach extendable turrets (HRET's) and command and control training guidelines for commanding officers responding to an aircraft accident. As part of the command and control training guidelines, the ARFFWG demonstrated a need for multiple programs to be developed that would help enhance the skill sets of personnel who respond to aircraft related emergencies and are in command on a daily basis of airport fire departments and mutual aid resources. From this, the ARFF Officer program was developed to help provide a skill set for ARFF Unit and command officers in the management of an airport related incident, while also providing knowledge for them to better do their jobs. This article will introduce the program and provide a background for the program's utilization for ARFF departments and their personnel as well as training of mutual aid responders to your respective airports.

In past articles and presentations, I have discussed the lack of formal training opportunities that our industry (in the United States anyway) possesses respective to advanced ARFF or command and control, incident management training, and education. I am hopeful that we can turn the corner and formally implement programs that are reasonably uniform within our ARFF departments and across the globe that address our needs. It would be great to have a national standard (like NFPA) which lays out our command and control, incident management training, and associated job performance requirements (JPR's). Having a framework or program that allows for the training to be implemented that is specific to our respective departments but also isn't widely different from airport to airport or region to region should be the end goal. This is also important as no mandate

currently exists to include this into our respective training programs but will hopefully be forthcoming with an amendment or new guidance document to address this. The only real command and control or incident management training that we are required to complete are the various National Incident Management System (NIMS) courses for levels of responsibility that our members possess.

The goal of the ARFF Officer course was to create and establish coursework in both classroom and practical applications that provides instruction to students to further advance their knowledge base above the basic (or initial) ARFF curriculum levels. The end game of this program was to provide the students skills that allow them to think in the role of an officer, even if they are not an officer. The program is built for ARFF responders who may find themselves in a multitude of situations or roles on an incident scene. The course material also includes other topics that may not necessarily be a part of the emergency scene but help with the day to day management of the ARFF station (customer service, PIO functions). The ultimate hope is that this program spreads across the country and becomes a mainstay in the industry in the coming years.

The syllabus of the ARFF Officer course states:

Aviation related incidents and accidents have the potential to be the most complicated and disastrous events that first responders may encounter during their careers. With the potential for massive amounts of people and the potential for a hazardous material event to emerge from an aircraft accident, first responders to these events need to have unique skill sets to help in the management of an ARFF based fire department. Even before an incident, personnel need to possess knowledge that can ensure the safe and efficient operation within the airport community. The purpose of this program is to prepare experienced aviation-based firefighters with operational actions associated with an airport emergency. The program will focus on the Airport Emergency Plan, coordinated actions with governmental agencies, and incident

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specific actions to help bring an incident to a successful closure and ensuring that society is restored on the airport as quickly as possible. By the end of the course, participants will have a much deeper understanding of operations in an ARFF department in both emergency and administrative functions.

The course objectives of the ARFF Officer course include:

- Describe and demonstrate the applicable regulatory standards that exist for ARFF departments in the United States and globally.
- To discuss the elements of preplanning as it relates to the ARFF department and how impactful it can be when emergencies strike the airport or surrounding area.
- To discuss and demonstrate the necessity of mass casualty incident management with respect to an aircraft accident or incident and the need to ensure that structure is established and patients are moved from the scene to a medical care facility.
- To discuss the Incident Command System (ICS) and the National Incident Management System (NIMS) and how an ARFF department utilizes the tools of ICS and NIMS to successfully mitigate the event.
- To describe the hazard's present to personnel and the potential risks for crew, passengers and other airport responders.
- To describe and demonstrate the appropriate tactics and strategies used when dealing with aircraft accidents and incidents.
- To describe and demonstrate the requirements for preserving the scene of an aircraft accident or incident.
- To discuss the role of media and the impact that it could have on an aircraft accident or incident.
- To describe and demonstrate the elements of post incident critiques so that incident lessons are learned and applied to future events.

In its current framework, the ARFFWG ARFF Officer program was built with eleven modules. These modules include along with a brief description:

- Module 1: Course Introduction/ Regulator Agencies and Requirements – an introduction to the course and a review of the entities and regulations that make up the Aircraft Rescue Firefighting world in the United States and the world.
- Module 2: Airport Emergency Plans – a review of the Airport Emergency Plan and Airport Certification Manual as it relates to the specific airport and the contents that are contained the manual. As necessary,

other mutual aid plans and procedures are discussed.

- Module 3: Customer Service – a discussion on the importance of customer service as it relates to the airport environment and the various people that make up our customer service network.
- Module 4: Incident Command System (Review) & Incident Buildout – a review of the Incident Command System and the terminology that is utilized during an event, regardless of its size. During this incident, personnel will have the ability to build their own incident management framework utilizing the ICS and its terminology.
- Module 5: Mass Casualty Incident Management – a review (or introduction) of the elements of mass casualty incident management and the need to quickly and effectively management an incident where people are injured and need to be triaged, treated and transported from the scene based on local protocols and MCI resources.
- Module 6: Media Interaction/ Public Information Officer – An introduction to Public Information Officer (PIO) functions as they related to the airport and an airport/aircraft related accident.
- Module 7: Incident Safety & Incident Safety Officer Functions – a review of incident safety and incident safety officer functions as they relate specifically to an airport or aircraft related incident. Module goes beyond the basics of incident safety for structural type incidents and works to get personnel thinking in a larger scale of an aircraft crash or hazardous materials type incident.
- Module 8: Airport Emergencies, Incident Management & Tactics/Strategy – a robust review of aircraft and airport related emergencies and incidents that an ARFF Officer may encounter with discussion on how to manage the event to safely mitigate it.
- Module 9: Airport Incident Simulations & Response Scenarios – practical scenarios in which class students will hone their skills to manage the incident and will include building out the incident using ICS, managing the MCI portion of the incident, tracking and maintaining accountability of the on-scene units and other task specific items. This module can be completed in a variety of methods for the students to gain practical experience.
- Module 10: Evidence Preservation at Aircraft Incidents – a review of the necessary steps to ensure that post-crash evidence is preserved so that investigative entities have the ability to conduct a proper and complete investigation of the accident causes and

conditions.

- **Module 11: Post Incident Debriefing & Critiquing** – a review of the necessary elements of conducting debriefings and critiques following an incident. Information on post-traumatic stress disorder (PTSD), and critical incident stress management (CISM) are included in this module and can be a great way to include a department's respective program into the course.

The ARFF Officer program is currently available for download from the ARFFWG website under the Training and Education tab on the member's side of the website. Once downloaded, you can deliver the modules as they are (on the ARFFWG PowerPoint background) or can be customized to your own or department /organization slide deck background if you choose to do so. We are amenable with your department / organization customizing these lessons to fit your specific needs. You can exchange out the pictures and videos to reflect your own airport or response area should you wish to do that. If you modify our program, we ask that you give credit to the ARFFWG for the work that was done putting this program together.

Figure 1 (following this paragraph) : The ARFF Officer program can be found in its entirety on the ARFF Working Group website on

the member's side under the Training/Education tab. Once you click on the tab (orange box), another box will appear to the right of that that will take you to folders for each section. Within that, you can download the files.



The entire program can be delivered in approximately 22-24 hours. The course can be delivered in any setting that your department chooses. The program could also be cut down in any combination you like for the benefit of your members and could be used to help bring other stakeholders into your departments to help introduce or reinforce relationships and partnerships. For instance, if you have an Emergency Manager at your airport or outside of the airport that assists with

An advertisement for TEEX Emergency Services Training Institute. The main headline is 'Real Fires. Real Training.' in large, bold, yellow letters. Below it, the sub-headline is 'Aircraft Rescue and Firefighting'. A list of bullet points describes the training: '5,000-Square Foot Spill Area', 'Each Course can be tailored to meet your needs', and 'Hands-on ARFF Training on full-size fuselage'. The background image shows firefighters in full protective gear battling a large fire on the side of a commercial aircraft fuselage. At the bottom, there are three smaller inset images showing different aspects of the training: a fire truck, firefighters working on a fire, and a large fire on a fuselage. On the right side, the TEEX logo is displayed with the text 'TEXAS A&M ENGINEERING' and 'EXTENSION SERVICE'. Below the logo, a list of 'Certification Courses' is provided: 'TCFP ARFF Academy', '40-Hour Airport Firefighter', 'ARFF Driver/Operator', 'ARFF FAR 139 Hot Drills', and 'Custom Classes'. At the bottom right, the website 'TEEX.org/ARFF' and phone number '866-878-8900' are listed. There is also a QR code and a 'PRO BOARD' logo with the text 'IFSAC/Pro Board Approved'.

emergency management related functions, they could be used to help with Module 2 on Airport Emergency Plans. You could also utilize your organizations Public Information Officer (if you have one that is outside of the ARFF department) to introduce their role and things they do when it comes to media relations in Module 6. You could also use the Airport Incident Simulations and Response Scenarios in a live setting to conduct evolutions such as during an ARFF Basic class or recurrent training. All of these lessons are 100% flexible in that regard and we want each department to utilize them as they see fit with the hope that it will aid in developing skill sets that our personnel need to better do their jobs. These lessons could also count as recurrent training under FAA Advisory Circular 150/5210-17C, until an amendment is made in this area or a new regulatory document is released and fit into multiple categories.

When you access the course information on the website, you will find multiple tools that will help you in building your specific course (if you customize it) or deliver it as is. Each module has a lesson plan that was built in Microsoft Word for all eleven modules with the module objectives, learning outcomes and where each could fit under the current training categories. The lesson plans have the information from the PowerPoint slides as well as information on the videos that can be embedded into the slides (they were left out as they were too large, but you have access to them in the same tab to download). Several of the lesson plans have practical exercises that can be utilized to reinforce the learning objectives for the particular modules. For instance, module 4 on Incident Command Systems has a practical exercise that allows students to build out incident command structures as they see fit and module 5 has an exercise where students triage sample patients (which could be utilized as a starting point for an MCI drill). We have provided a template for mock patients that can be printed off on 3" x 5" index cards from the Avery® Corporation and available from Amazon or Staples like stores. In building my course, I utilized the index cards and zip-tied them to plastic dinosaur toys. For the triage, I purchased black, red, yellow and green small pins to decipher which color they would be. The zip-ties, dinosaurs and small pins were also purchased online for a very small price.

Figure 2: A view of the lesson plan that is available for each module. Each lesson plan has a set of objectives, instructor information,

applicable regulatory standards and the PowerPoint presentation slides laid out in the document.



With the lesson plan, each module has a PowerPoint presentation to go along with it. There are also several practical lesson plans included in the Training and Education section along with several course documents to help manage the program such as a syllabus and templates for MCI cards and aircraft/apparatus for wipe board drills that can be printed on magnetic material. Following the course completion, departments should recognize their personnel for having completed the program by providing a certificate or appropriate acknowledgement. Finally, the program tabs contain command board templates for aircraft and structural incidents should you wish to utilize those for your training and incident operations and currently don't have anything like that in your department. The command boards are in a PDF format but can be provided if you want them—they were created in Microsoft Visio and can be fully customizable as long as you have Microsoft Visio. Reach out to me if you would like them – my contact information is at the end of this article.





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to the successful conclusion of the incident, incident commanders and personnel that fill the various roles within the command structure (command staff, general staff, unit officers, etc.), must be well versed in their job functions and provide leadership to the personnel working within the incident. The Aircraft Rescue Firefighting industry in the United States has struggled to establish its own set of standards and regulations and subsequent training and education opportunities with respect to command and control/incident management functions. With the development of the ARFFWG's ARFF Officer program, we now have an outlet that can be used at airports of all sizes to help better prepare our personnel (you don't need to be a formal officer to receive this program) for a day that we hope never arrives at our door steps. We frequently do not get a second chance to get it right and game day is not the day to have our first experience with this!



About the Author: Jason Graber, AFO/EFO is the current Education and Training Affairs Officer for the ARFF Working Group. He served on the Board of Directors from 2012 to 2018 and as the Chairman during the 2017-2018 year. Graber holds an Associates Degree in Criminal Justice from SUNY Canton, a Bachelor Degree from Bowling

Green State University, a Master's Degree from the University of Nebraska at Omaha and is a 2020 Graduate of the National Fire Academies Executive Fire Officer Program. Graber can be contacted at jasonpgraber@gmail.com.



Alert III – 0 Souls on Board

by Shaun Cookson

It's the call that no airport operator ever wants to get. Of course, the only words you ever remember from that conversation are "Aircraft", "Crash", and "Fire".

I've only been in airport operations and management for about 6 years. For me to be writing this brief for the ARFF Working Group, I feel grossly inadequate and entirely under-qualified. For that, I ask that you bear with me as I bring you through the events of May 15, 2020 at the San Angelo Regional Airport.

Before I can provide the full picture for you, I have to take you back to 2016. Without going into too much detail, U.S. Customs and Border Protection began operating their MQ-9B Predator unmanned aerial systems at the San Angelo Regional Airport (SJT) as part of their air and marine operations. This information has been well documented by local media but doesn't seem to generate much news outside of the local area. In fact, when I had the opportunity to meet Mr. Kirk Shaffer from the Federal Aviation Administration in San Antonio at the American Association of Airport Executives National

Airports Conference, pulling up Foreflight on my iPhone to show him the active temporary flight restrictions and showing him photos of the aircraft on my iPhone were the most tangible things I could do to help promote my airport to the FAA's Associate Administrator of Airports. As Mr. Shaffer's unawareness of the CBP program indicated, we are in a unique situation as there are not many airports, let alone commercial service airports, that have fully integrated unmanned aerial systems with their manned commercial service flights. Yet somehow, through vigorous coordination with the FAA, CBP, and the Airport, this program has been highly successful for CBP and continues to grow at the San Angelo Regional Airport.

San Angelo ARFF and Operations personnel has previous experience with emergencies involving the CBP MQ-9B UAS including incidents such as fuel leaks. I don't know if I'll ever forget my first experience having an "Alert II" with 0 souls on board. I know for a fact I won't forget having my first "Alert III" experience with 0 souls on board either as

was the case on May 15th.

For the basics of our ARFF at SJT, San Angelo is an Index B, primary non-hub airport that has service with American Eagle on the Embraer 145 and Embraer 175 to Dallas-Fort Worth. We have 2 ARFF vehicles, both of which have 500lbs of dry chemical and 1500 gallons of water/foam to meet our index. Our ARFF Station is located on the north end of the airfield, and was built by the City of San Angelo. The ARFF station also houses the local fire station "Station 8" in addition to our ARFF vehicles. All of the city's Fire personnel are paramedics as well. To meet FAA requirements, 1 person from "Station 8" is designated as the ARFF person, whereas all other are designated as "Station 8". When incidents occur on the airfield, Station 8 is able to provide immediate mutual aid to the ARFF personnel, but generally does so in a structure truck and not an ARFF vehicle. Due to San Angelo's location in west Texas, mutual aid is limited to the city's capabilities.

Basic information of the MQ-9B is generally not provided on the FAA's Aircraft Characteristics Database, but through the magic of the information superhighway, information is available for the airport operator to use for planning purposes, or the ARFF operator who seeks familiarization of the aircraft. From a non-pilot's understanding of aircraft, the MQ-9B's design puts the engine and propeller of the aircraft to the rear of the aircraft. The main body of the aircraft is generally a series of batteries and fuel tanks, with the wings being more fuel storage. The front of the aircraft is generally the communications and other electronics necessary for flight operations. The wheel base of the MQ-9B is relatively narrow and mimics the F-18's wheel base. The MQ-9B is covered primarily with a carbon fiber housing, which is rapidly becoming more commonplace in all aircraft and poses its own series of problems for airport operators and ARFF personnel when it catches fire.

May 15, CBP was conducting training/re-certification flights for their pilots of the MQ-9B. The wind was approximately 160

degrees at 15 knots, with overcast skies. At 10:26 one of the MQ-9Bs experiences a "porpoise" landing. A porpoise landing is a landing that can be described just as it sounds – the aircraft will "hop" on the runway and look like a dolphin jumping out of water. Based on video of the incident, from the time the aircraft began its landing roll, it only took a total of 7 seconds before the "porpoise" landing turned into an Alert III. From the time the aircraft's nose made touchdown with the runway pavement, it took another 8 seconds for the aircraft to come to rest on the grass safety area next to the runway. During that 8 seconds, the aircraft incurred

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collapsed landing gear, a prop strike event, an approximate 350ft. slide on the asphalt runway that turned the aircraft 180 degrees, and ignition of fire under its right wing. The runway incurred damage from the prop strike that extended for about 20 feet (interestingly enough, it's believed the prop strike occurred within just a few feet, if not directly on the area where the nose touched down). The fire from the MQ-9B continued to produce a heavy black smoke for the next 2 minutes and 34 seconds until ARFF began applying agent (water/foam mix). It was about this time that I received that fateful call from my maintenance supervisor with those three heart-wrenching words.



Ultimately, I contacted FSDO to report the incident and close the aerodrome. Doing so turned the airfield into a non-movement area, which would prove useful for the many contractors CBP had to assist in the ultimate cleanup and recovery of the aircraft. In the post-accident Hot Wash, it was discovered that CBP Contractors were critical in helping ARFF locate and turn off batteries and electrical components (even though the aircraft was "offline", certain components stayed on until they could be turned off). Even after initially putting out the fire, re-ignition was a common occurrence over the next hour.

Much like we learn in FEMA's NIMS courses, one of the goals of emergency management is to return to normal as quickly as possible. The phrase that gets repeated in the 300 and 400 classes, LIPE, is a great tool for airport operators who don't regularly go into emergency management mode. LIPE (sometimes known as LIPSE) generally give the order of priority for response: Life, Incident Stabilization, Property Protection, and Environmental Protection.

Because this was a UAS, no life was in imminent danger. The dangers of the carbon fibers burning into the air always pose a risk for people if they inhale the carbon fibers. In a way, inhaling burnt carbon fibers works much like asbestos in your lungs. I've been well aware of the dangers for burning carbon fibers ever since I watched a video

on AAAE's ANTNDigicast.com from the Fire Chief of Virginia Beach talk about these dangers after their F-18 accident that landed into apartments. The one thing that I still vividly remember was the use of bowling alley wax to capture all of the carbon fibers floating around and to prevent fibers from floating off the aircraft. In this sense, it probably wasn't the best idea for the 20+ people from CBP to be standing 100 feet away (but upwind) of the aircraft. In an effort to also reduce exposure to these carbon fibers, I asked air traffic control to route vehicle and pedestrian traffic through an upwind taxiway to better avoid the smoke. This taxi route would prove to be critical to appropriately mark and barricade when non-impacted runway operations commenced as to avoid surface incidents between aircraft and vehicles.

Incident Stabilization was a continuous battle with the fire re-igniting back up every couple of minutes. By the time the fire was completely out and did not re-ignite, I had received requests from CBP and American Eagle to expedite opening of the runways for their aircraft en route to SJT. After coordinating with ARFF, the decision to man the second ARFF truck was made to allow commercial operations to resume on the non-impacted runway. The aerodrome was closed for a total of an hour and fifteen minutes, and the airfield was re-opened under single runway operations.

Damage to the runway consisted of a series of cuts generally about one inch deep, two inches wide, and two feet long from the propeller strike. The area of the damage was about 20ft. long and located in the center of the runway. While these types of cuts don't meet the proverbial "3/5/45" rule (non-compliance pavement holes are typically 3 inches deep, 5 inches in diameter, and have edges at a 45 degree or greater angle), this damage pattern left unrepaired could have led to directional control issues for future aircraft. It became critical for airport maintenance to repair the runway prior to opening the runway for operations. Fortunately, materials were available on hand, and work would be completed after all other foreign object debris from the accident was documented and removed (after receiving permission from the FAA and NTSB). Aside from burnt grass in the safety area, there was no other damage to the runway from the accident. During the removal process, a CBP tug operator found that areas recently covered with 500 gallons of agent from the fire truck don't have the dexterity to hold the weight of a tug on

Texas's red clay, and required its own "rescue" of sorts. The runway would open up after all these repairs were completed. Altogether, the runway the accident happened on was closed for a total of seven and a half hours.



Finally, the Texas Department of Environmental Quality was contacted to inform them of the accident and asked to advise us on what they required from us as the airport operator. The direction we were given was simply to take measures to reduce the amount of fuel that would leak from the aircraft in transport. Considering the transport was taking the aircraft to a designated area near the CBP hangar a half mile away, this may have been the easiest part of cleanup. Secondary containment was

utilized during and upon completion of the aircraft's transport, and tarps covered the aircraft to prevent the aforementioned carbon fibers from going rogue.

I asked ARFF, CBP, and ATC if they would all be willing to participate in a "Hot Wash" following the recovery of the aircraft. All parties were willing to participate and provided discussion that has already proven helpful at the airport. The Hot Wash was very cordial, and all parties had very positive things to say about each other. Information provided by ATC was clear and direct, the ARFF response of two and a half minutes from the time of the accident likely prevented a larger environmental issue for the surrounding community and salvaged the aircraft for CBP's investigation, and the coordination between the airport and ARFF allowed the airport to re-open to aircraft operations in a timely manner. However, even with all the good that came from the accident, there is always room for improvement. Admittedly, SJT uses a unique emergency notification system that consists of a series of chime noises followed by an air raid siren. When the siren ends, ATC is able to give details and instructions to the ARFF personnel who by this time should be geared up and mobile in the ARFF truck. Two issues that were discussed were the issue of the raid siren drowning out the ability of the controllers to pass along information to ARFF in a timely



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manner, and ARFF not being given enough time to hear the full transmission from ATC. Both issues were as simple to resolve as a discontinued use of the raid siren (chimes remain in place), and for ARFF to initiate the request for information from ATC. Since the incident on May 15th, we've had three emergency alerts. All three alerts used the new method for emergency notification and have been noted as being a more efficient operation with less chaos and stress. From CBP, they realized that there was a greater need for ARFF inclusion with aircraft familiarization and has begun to plan for drills and exercises with ARFF focusing on the MQ-9B. CBP also recognized the need to complete the airport's movement area driver training for aircraft recovery purposes. Since May 15th, CBP has successfully certified 13 people through the airport to operate unescorted on the movement area for recovery purposes. From the airport, we recognized our need to better understand the concerns and solutions of burning carbon fibers to help protect the surrounding community.

When incidents like this happen, people understandably grow concerned about the

safety of UAS flying around their home. Airports will always have the inherent risk of an aircraft accident. Having detailed knowledge from CBP about their operations greatly helps us in knowing that their operations are safe and having a fully trained and capable ARFF station will only help future responses to incidents both on and off the airport. We're fortunate at SJT to have such a great working relationship with ARFF, CBP, and ATC to know that we're ready for whatever the future has in store.



About the Author: Shaun Cookson, ACE, IACE, is the Deputy Airport Director at the San Angelo Regional Airport in San Angelo, TX. He has worked in various Airport Operations and Management roles since 2014, and is a graduate of Cedarville University where he received his Bachelor of Arts in Criminal Justice. He has been active in AAAE since first joining in 2017, and holds ASC, ACE, and IACE designations.



Experimental Aircraft Damaged in Elmira

by Andrew Stamp

It is 7:20PM on a Saturday evening. You are on shift alone, because typically Saturdays aren't extremely busy. From the commercial apron, you witness an aircraft based at your airport have a nose gear failure upon landing.

Without hesitation, you run for a crash truck and respond. The tower immediately clears you onto the runway to investigate. Upon arrival, you find no fire, no injuries, and no other apparent hazards beyond a possible unstable aircraft. Easy peasy, or so you thought.

The Elmira Corning Regional Airport is an Index B airport, with ARFF available 24/7. Operations and / or Maintenance staff man ARFF and security, which can vary from one person, to nine people on duty. Two crash

trucks are always at the ready, an Oshkosh Global Striker 1500 which is our primary truck, an Oshkosh TI-3000 and a Ford F550 Danko Rapid Intervention Vehicle. Our ATCT normally operates between the hours of 0600-0000, but due to Covid-19 issues, the hours of operation have changed two times within a couple of months and currently the ATCT hours of operation are 0700-2000.

At 1910 hours, I was excited to see a "Velocity RG" experimental aircraft take off. For a few years, I've seen the pilot working on this aircraft. I wondered if it would ever fly, since it looked like an odd aircraft. A few weeks earlier, I watched him doing high-speed taxi tests on Runway 24. I kept hoping to see him take off. Finally, on that Saturday in mid-August, he took flight. I was standing

on our commercial apron, attempting to video his flight and landing; however, it was outside the zoom range of my cell phone. I'm glad I was there to witness his flight, and after the landing mishap I was especially glad to find the occupant uninjured.



While on a single – Ops Officer on duty shift, I had that “Velocity RG” aircraft experience a nose gear collapse following a bounced hard landing. After ensuring the closure of the runway with ATCT, my focus was directed to

incident priorities such as aircraft occupant condition, aircraft condition, and hazards such as fuel spills, etc. After addressing those issues, it was time to begin aircraft recovery. At some point after conducting my duties, I was walking back to the truck when I noticed a greenish vehicle driving on our parallel taxiway towards the runway. I could see the pilot's realization that his friend who he left in his hangar, was now entering our airfield, unescorted. Luckily, I overheard the tower make contact with the vehicle driver preventing a runway incursion from taking place.

I have now immersed into what had become a multi-federal government agency incident, without extra help on the way. I very quickly dealt with the unescorted vehicle. I needed to get our primary runway reopened as soon as possible. In just over a half an hour, I would lose the tower's assistance, and sunset was fast approaching. After contacting the FAA Regional Operations Center for permission to remove the aircraft, I quickly called the Chemung County Director of Aviation for assistance in notifying the TSA regarding the unescorted vehicle.

After being cleared to remove the aircraft at 1957 hours, the pilot and FBO got to work. Our tower closed at 2000 hours, as scheduled, with an announcement on the tower frequency that Runway 6/24 was closed, the protocol



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would be that the tower was closing for the evening and that the frequency was reverting to a CTAF frequency after tower closure. I assisted with the aircraft removal by lighting the scene and path of travel with floodlights. At 2025 hours, after a long slow drive down the runway checking for FOD, we were clear of the runway. At 2113 hours I was back in service and it was time to handle paperwork.



A day later, while discussing the events with the tower personnel, I was told to make any pertinent requests to “the ROC”, the FAA Regional Operations Center. If I had requested, possibly that the ROC could have kept the ATCT open for the duration of the ongoing emergency. I definitely could have benefited from the tower being open later. Those extra twenty-five minutes on the runway alone after the ATCT closed were a bit unnerving.

This incident was a good reminder that if things can go wrong, they will. Keep your eyes open and don't get tunnel vision. Use your training to resolve your incident priorities. Be prepared for things to change or situations to arise during your incident.

Editor's Note:

We appreciate that Andy took the time to write this article, sharing with all of us what he faced by himself as the lone ARFF, Security, Operations person on duty during an incident at his airport. There is a lot to handle for one airport representative, even for a relatively minor incident. We would also like to take a moment to touch on one other topic brought to light at this incident and that is ATCT radio communications after the closure of an ATCT. It is important for ARFF and other airport personnel to understand the concept of monitoring the airport CTAF or Unicom frequency for all aircraft operations after the ATCT closes and the airfield reverts from Class D ATCT controlled airspace, to Class E airspace with no air traffic control, just pilots announcing their intentions on the CTAF..... This is a big deal for airports that are normally 24-hour ATCT controlled! You may end up having to monitor the frequency to know if aircraft are inbound that may have a conflict with your operations on the field.



About the Author: Andrew Stamp, AMF, is an Airport Security Operations Officer whose duties include ARFF, Terminal and Airfield Security, and Airfield Operations. His experience includes being a volunteer firefighter, a year in Iraq as a firefighter and apparatus driver/operator, and eleven and a half years at the airport, with 16 years in the fire service. His training includes National Certified Firefighter II & ARFF, NYS EMT, and National Certified Fire Officer II.



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Making the Move to Fluorine-Free in Hangar Operations

by John Demyan

Reviewing over 90 years of history, Lehigh Valley International Airport (ABE) is no stranger to being a takeoff point for innovation in U.S. aviation. Recently, ABE embraced another opportunity to be an industry leader, when we decided to make Hangar 11 the first and largest hangar in the nation to protect itself with fluorine-free fire suppressant foam.

In 2018, the Lehigh Northampton Airport Authority (LNAA) was in the process of building a new 54,000-square-foot hangar designed to accommodate general aviation aircraft, modern corporate jets and helicopters. This \$16.3 million facility would be the Authority's eighth bulk hangar at ABE and the first new hangar built since 2006. An important component of this project was the implementation of a fire safety system – using the technology and regulations surrounding fire-fighting foam which had changed over those dozen years.

The Authority worked with C&S Companies of Syracuse, NY in developing the engineering plan for the fire safety sprinkler system. Based on the Pennsylvania Uniform Construction Code (UCC) and various NFPA requirements, the system that was developed featured:

a. Two (2) 2,600-gallon horizontal bladder tanks (one main/one spare).



Two 2,600-gallon bladder tanks containing a total of 5,200 gallons of RE-HEALING 3% Fluorine-free foam.

b. 5,200 gallons of a 3% fire suppressant

foam concentrate.

c. Seven (7) proportioners and hardware supplying foam to the overhead sprinklers and hose reels.

d. Five (5) hose reels located throughout the Hangar for Fire Department use.



Foam-water deluge systems protecting the entire hangar floor space. Each deluge system protected an area over 9,000 square feet each.

In addition, the original design specified six (6) open head foam deluge systems protecting the hangar space from overhead. All the deluge systems were to be identical in size and layout, with each featuring 90 open pendent sprinklers. The overall design required five of the six systems flowing with two hose reels. The total demand was for 7,856 gallons per minute (gpm) - roughly 1,547 gpm for each of the five systems operating and a 120 gpm for two interior hose reels. The system would be connected to the public water system with four 2,500 gpm fire pumps for boosting water pressure. The fire suppressant foam specified for the product was a standard 3% aqueous film-forming foam (AFFF) designed for use with hydrocarbon fuels.

Even after plans are approved, the importance of ongoing research can continue to shine a light on other potential options that deliver an even higher level of safety and service.

Around the world, fire suppressant foams based on certain per- and poly-fluoroalkyl

substances (PFAS) were being replaced due to increased regulatory pressure. The anticipation was that if these materials were to become more strictly regulated, we would be faced with dramatically higher costs to address clean up and disposal moving forward. We noted the actions within our industry in places like Australia and Europe where these foams were effectively banned.



Four 2,500 gpm electric fire pumps were installed and supplied by a new 16" ductile feed into the building.

While regulations in the United States have not reached the point of banning these materials, the Airport Authority decided to study fluorine-free fire suppressant foams for use in our new hangar to see if we could optimize our project operations. Perimeter Solutions, a supplier of fire retardants and suppressants and specifically fluorine-free chemistry recommended their SOLBERG® RE-HEALING RF3 3% Class B Foam Concentrate, which has been on the market since 2010. SOLBERG RE-HEALING foam concentrates are fluorosurfactant, fluoropolymer-free products for use on Class B hydrocarbon fuel fires.

Three questions regarding the use of this technology were examined:

1. Was the performance adequate to the firefighting task?
2. Would these foams work within the systems that were already under design for our hangar?
3. Would there be a dramatic cost difference between the two technologies both in required hardware, foam concentrate price, or replacement cost due to product shelf life?

Addressing the performance and compatibility issues, SOLBERG RE-HEALING RF3 had been tested to the performance criteria of UL Standard 162. UL-162 (Foam Equipment and Liquid Concentrates) is a worldwide-recognized standard for testing firefighting foam concentrates. The main difference with other

standards for foams is that UL-162 not only describes a fire testing method for foam concentrates but also a compatibility confirmation between all the components that are present in the chain from the manufacturing process to the final use of the product; compatibility with drums, proportioning tests, foam quality tests, marking, etc. are subjected to the standard. SOLBERG RE-HEALING RF3 also had extensive UL Listings for bladder tanks, proportioners, foam chambers, foam makers and fire sprinklers including those specified in our original hangar fire suppression system design.

From a hardware and foam cost standpoint, the old technology and the new were nearly identical. The shelf life of the various Class B foams are comparable, however, we also considered that fluorine-free foam is a more long-term sustainable solution.

Our request to switch fire suppression system foams earned unanimous approval from the Airport Authority Board of Governors. As an organization, we are proud of this decision to enhance the protection of our hangar, our people, our firefighters, and the environment, while getting our project done on time and on budget.

The hangar project at ABE was officially completed in July of 2020 with the delivery and loading of 5,200 gallons of innovative environmentally sustainable fluorosurfactant and fluoropolymer-free firefighting foam concentrate from SOLBERG.

About the Author: John



Demyan joined the Lehigh-Northampton Airport Authority (LNAA) in 1991, serving as a full-time firefighter before achieving the ranks of Lieutenant, Captain, and named Fire Chief. The Aircraft Rescue and Firefighting (ARFF) Department at Lehigh Valley International Airport (ABE) employs 6 full-time and 8 part-time

firefighters / emergency medical technician (EMT). John started his emergency services career as a volunteer firefighter over 38 years ago (1982) with the Hanover Township Fire Department while attending classes at Northampton Community College Emergency Services program.



ARFF in the ATC Zero World

by Kevin Garber

As an Aircraft Rescue Fire Fighter, you are trained to listen for the Crash Phone to ring and alert you of an aircraft emergency. What happens now when no one is there to pull the crash phone to alert you! This is Air Traffic Control “ATC Zero”, this occurrence can be predicted as with some of the tower staff reductions, or an unplanned closure which is harder to predict. ATC zero has been occurring more and more around the country, and ARFF departments are not being notified of the situation.

In early March 2020, when the Coronavirus (COVID-19) started to spike in the United States and the economic impact on air travel began to negatively affect airports and airlines, the FAA decided to reduce staffing hours in approximately 100 control towers nationwide. Per an FAA Regulatory Updates due to Coronavirus (2020) website:

These facilities have seen a significant reduction in flights, especially during the evening and nighttime hours, since the pandemic began. Adjusting the operating hours will further protect our employees and reduce the possibility of temporary tower closures from COVID-19 exposures by ensuring enough controllers are available to staff the facilities during peak hours. It also will enable us to allocate difficult-to-source supplies where they are most needed.

Most of the towers are historically closed at night, during which time the radar facility with oversight assumes the airspace. The FAA expects the adjustments will not have any operational effects. The agency plans to begin adjusting facility hours later this month.

The FAA will continue to monitor traffic volume at all of these facilities and may make future adjustments to operating hours as appropriate.

The FAA will continually assess the operating environment throughout the National Airspace System (NAS). The FAA will ensure there is adequate staffing to meet traffic needs. As operational traffic counts and our resource factors associated with COVID-19 change, FAA will make appropriate adjustments consistent with the agency's mandate to operate the NAS safely and efficiently.

The FAA coordinated with airports and

other stakeholders before making any final decisions, allowing airports to plan for the ATC closures and allowing time for ARFF departments to develop how they were going cope with this situation. Some ARFF Departments had to monitor portable tower (FAA) radios to keep their staff abreast of changing situations, other ARFF departments had to change daily schedules to make sure staff were not working long hours to monitor these radios.

How did “ATC Zero” impact the ARFF world? ARFF departments never faced anything quite like this before. The lifeline of the crash phone became null and void in these situations. The crash phone simply could not nor cannot work anymore because there was no one in the tower to relay the emergency information to the ARFF Station. This has occurred at over 100 airports around the country and the number of “ATC Zero” is growing daily. FAA employees are testing positive for the coronavirus, and immediate closures were scheduled to close facilities to deep clean them to help prevent the spread of the virus. These scenarios have occurred at several large airports in the past months with Chicago Midway Airport, Indianapolis, and Las Vegas airports to name a few. On July 6, 2020 the FAA published a safety alert to airport operators, warning them that some airspace may be left uncontrolled, or monitored by a different facility. The FAA recommends pilots, airlines, and aircraft operators take additional safety measures in case an ATC must close due for unexpected reasons. A map of the United States depicts the FAA towers affected by a closure.



The closure of ATC facilities around the world requires nontypical operations for communications between flight crew, airlines, airport operations and ARFF personnel. ARFF Departments and airports have created different ways to alert their ARFF personnel of an emergency. Some airports have placed into service a watch desk to visually watch the field for emergencies. Others now monitor an aviation radio for the air traffic operations on their field and track what is landing and departing to make sure an aircraft emergency does not occur. An ARFF Department's goal is to respond quickly, effectively and efficiently to begin fire suppression and rescue operations at an aircraft emergency. Make sure your department and your airport have plans in place to ensure they can meet these goals during periods of time when their local ATC facility is not in operation.

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About the Author: Kevin Garber is the Interim Fire Chief of Richmond International Airport in Richmond, Virginia. He was hired 15 years ago, as a basic ARFF Firefighter. Garber progressed through the ranks to the current position, also teaches for the Virginia Department Fire Programs as an ARFF Instructor.

Additionally, he was the led along the way by some great Legends of the ARFF Community to help promote the science and improve the ARFF Industry.



FROM MY PERSPECTIVE

Mentors and Mentoring

This is the first installment of a column that I have agreed to write for **ARFF News**. It is in this column that I plan to discuss some topics within ARFF from my perspective as someone who rose the ladder and just retired as Fire Chief. My hope is that what I present to you will assist you at your station or with your firefighting career.

For this column, I requested that Rene Herron write along with me because of her experience as a mentor and her writings about the subject.

While mentoring has been around for ages, it is vitally important within every industry. We all know that mentoring is a form of teaching a junior employee the ropes by way of experience and knowledge from a senior employee. Mentoring is something that comes up often in discussions within the ARFF field rather unknowingly. We've heard ARFF personnel talk about what they

by Charles Lavene & Rene Herron

themselves have done as a mentor, discuss the mentors who taught them, or the need for mentors; but, why is mentoring important and what distinguishes a mentor from a helpful colleague?

Mentors vs Sponsors

Let us delve into the makeup of a mentor themselves. It is universally thought that such individuals are teachers, advisors, and coaches all rolled into one and assist for the good of their group, organization, community, or society. Mentors assist others wanting nothing in return. It is important to point out that desire separates them from someone else who helps and expects payback: a sponsor. Such a relationship is a two-way street in which the sponsor expects a return in their investment from the other individual – a quid pro quo relationship.

Mentors are someone that a person can turn to when they wish to discuss ideas,

provide advice and guidance, or just listen to the venting passing no judgement. All done as a sympathetic colleague who has undergone exact or similar experiences and can assist in uplifting the other individual and allow them to improve.

In turn, the relationship should be symbiotic. The mentor learns from the mentee at the same time. Many times, this happens without either even knowing due to the relationship of trust and sharing that is forged.

Why is this important within ARFF?

The importance of mentoring in the ARFF field cannot be overstated. One common misconception is that the mentor must be, or should be, older. It's the old fire service tradition, right? The well experienced veteran takes the rookie firefighter under their wing.

This premise is not necessarily true in ARFF. The first priority is to look at the ARFF culture, where training and mentoring work in tandem. From the moment a new ARFF firefighter arrives at the station, a mentor/trainer is assigned to that person. This is done for a number of reasons, but most importantly, as my ARFF brethren are aware, the FAA requires every firefighter must meet certain FAA training requirements before they are considered ARFF Firefighters. These requirements illustrate how much ARFF training and mentoring are intertwined.

It is the seasoned employee that has a more robust working knowledge of the airfield, airport operations and airport policies that will make the better mentor. As stated above, the age of the mentor is not as important as the knowledge, and more importantly, the ability to communicate that knowledge, that makes a good mentor. There are a number of times that the mentor is younger than the mentee. This can be attributed to, generally speaking, city firefighters changing from the structural side to ARFF or military ARFF experience and the want to continue working within the civilian sector. The education and knowledge provided by a good mentor sets the foundation for success of the mentee. The hope is a well-trained mentee will use that mentoring experience when they are needed to mentor new ARFF personnel.

The mentee does not need to be new to the fire service or ARFF in order to gain valuable knowledge. The mentee/mentor relationship can happen at any time during a career. It is the employee that has a more robust working knowledge of the airfield, airport operations and airport policies that makes the better mentor. The age of the mentor is not as

important as the knowledge.

How can you establish successful mentoring?

There are many layers to a successful mentoring program. It is important to work with your ARFF shift officers and discuss who they feel would be a good candidate to mentor others. It is important that the mentor not only know ARFF, but that they are willing to listen and not just talk. The individual must also be respected by their fellow firefighters and the management and be able to give respect to their mentee, as well. A successful mentor has a mindset of being a life-long learner who motivates others and provides constructive and honest feedback in a positive manner. No one wants to have a mentor who disregards them, talks down to them, and does not encourage or listen to them. Such a toxic relationship will not be constructive in any manner.

Once mentors are identified, it is a good idea to ensure that the recently hired personnel have received and fully understand the following: fire department standard operating procedures (SOPs), airport operations area (A.O.A.) movement and non-movement drivers training guidelines and FAA Advisory Circulars (ACs). There is nothing worse than finding out that personnel are getting inaccurate information that they comprehend – not only the newbies, but the old guard, as well. One example of this would be A.O.A. movement training. Does the new recruit fully understand the importance of the communication between their vehicle and the ATCT? It is a great idea to have the mentors talk to the mentees about the SOPs, A.O.A., ACs, and other training material. This is also a great way for the two individuals to build a rapport.

An example during my career of mentoring and rapport happened when I was promoted to the deputy fire chief position. The fire chief, who had hired me 14 years earlier, made it a point to discuss each administrative department that I would be engaged with, as my new position was at the level where I would be exposed to these different areas consistently. Additionally, the chief made a point to physically take me to each office and allowed me to introduce myself in order to "break the ice." This experience of being able to talk to each department head and administrator on their turf was instrumental in forging working relationships that lasted until my final day as fire chief.

It is also paramount to emphasize the

importance to personnel of how vital mentoring is - especially in ARFF. By assisting in making sure that people understand the ARFF role and necessity, it can assist with being able to impact a situation positively. Going back to an A.O.A. movement involving an FAA tower, the lack of communication or miscommunication can lead to serious runway incursions and other issues. Related to ARFF, the ability of the recruit, once assigned to a large ARFF vehicle as the Driver/Operator, will need to rely on their training and mentoring when operating the vehicle. Their decisions will be based on what their training and mentoring has taught them.

An illustration of a successful training/mentoring program I can point to during my tenure regards driving large ARFF vehicles. The last thing an ARFF incident commander needs to worry about when vehicles are responding to an emergency is if the driver/operator will position their vehicle in a manner that increases the chance of a positive outcome. This is where training is instrumental. For instance, a driver/operator on a call regarding an inbound aircraft reporting "smoke in the cockpit" will fall back on their training and mentoring. Without getting into strategy and tactics, the first ARFF vehicle arriving on the scene will set the tone for the entire operation. Variables of initial size-up such as the size of the aircraft, size of the ARFF vehicle, and width of the runway and/or taxiway will be processed quickly based on the in depth mentoring the driver/operator received and may be the difference between a successful or negative outcome.

Conclusion

Mentoring needs to be fully embraced and this societal need of tit for tat must be ended. We all have different experiences and viewpoints that lend themselves to the advancement of others. It should be noted that the learning that occurs assists not only within

that realm, but in other aspects of an individual's life. We need to do what we can to share our accumulated knowledge base without expectations, or in keeping with recent political jargon, "quid pro quo." Mentoring is really just teaching and coaching all rolled in together and ultimately it is done to make the mentee better, but in the long term it really makes the entire organization better. By making sure that your ARFF department has a successful mentoring program, you are making the department superior by retaining knowledge, developing new leaders and career growth, and improving personnel satisfaction, retention, and productivity.

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Charles Lavene joined the Eatontown (NJ) Volunteer Fire Department in High School, enlisted in the US Air Force and became a Firefighter Specialist. During his 5 ½ year career, he was stationed at Altus AFB Oklahoma, Comiso Air Station Sicily, Italy and Langley Air Force Base in Hampton VA.

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