THE MOBILITY FORUM

THE MAGAZINE OF AIR MOBILITY COMMAND | SPRING 2019

Survivors of Operation Babylift Reflect on Horror and Healing from the 1975 C-5A Crash in South Vietnam

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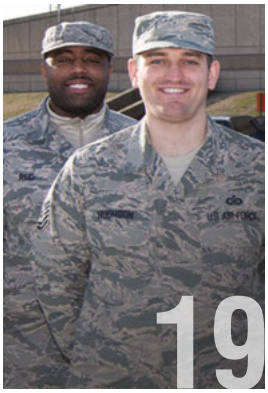

ON THE COVER

Rescue and recovery workers search the wreckage of a C-5A Galaxy transport plane carrying Vietnamese orphans that crashed shortly after takeoff from Saigon's Tan Son Nhut Airport during the initial flight of Operation Babylift, April 4, 1975. About 50 adults and 78 children died in the crash.

AP photo by Sal Veder

Bottom far left: Many of the employees deployed to the Defense Attaché Office Saigon helped escort evacuating Vietnamese orphans from Saigon during the collapse of South Vietnam in April 1975.

Photo: www.dia.mil

Bottom middle left: Some of the older children sitting on the catwalk with their adult escorts strapped to the cargo floor.

Bottom middle right: Actual photo of C-5A 80218 taking off from Tan Son Nhut, RVN, on April 4, 1975 approximately 30 minutes prior to the crash.

Bottom far right: Sister Ursula Lee holding Aryn Lockhart as a baby.

Photos courtesy of Ray Snedegar

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18th AF Commander Maj Gen Barrett Talks Readiness and Squadron Vitality

BY MAJ RYAN DECAMP, 18TH AIR FORCE PUBLIC AFFAIRS

When Maj Gen Sam Barrett took the reins of 18th Air Force last summer, he outlined full-spectrum readiness and squadron vitality as two focus areas for the command.

"Full-spectrum readiness highlights the need to be ready for anything," Barrett said. "Our Air Force has been engaged in steady-state operations since the early 1990s. However, defending America in the future may involve threats such as advanced air defenses, cyber warfare, or chemical, biological, radiological, or nuclear effects, so we need to prepare for a wide range of possibilities. We are refining our tactics based on what we've seen in the Middle East and on what near-peer adversaries may bring to the table."

He said squadron vitality allows Airmen to focus on the mission, support their teammates, and have fun in the process, which creates a cohesive team that meets challenges head on. That atmosphere subsequently supports military families and improves retention.

"We are adding Airmen to help meet mission needs and support our squadrons," he continued. "We have roughly 321,000 active-duty Airmen today and expect to grow to 350,000 by the middle of the next decade."

The 'Air Force We Need' plan, as outlined by Secretary of the Air Force Heather Wilson last fall, called for increasing operational squadrons by more than 20 percent and adding another airlift squadron and 14 tanker squadrons by 2030.

The goal is to build well-manned and healthy squadrons to bring out the best in each Airman, helping each find innovative ways to accomplish the mission.

Photo above: Airmen assigned to 43 AMS, Pope Army Air Field, NC, and Airmen assigned to 14th, 15th, and 16th Airlift Squadrons, Joint Base Charleston, SC, load DAGOR Ultra-light Combat Vehicles onto C-17 Globemaster IIIs at Pope Army Air Field, NC.

USAF photo by A1C Gracie I. Lee

The two priorities—full-spectrum readiness and squadron vitality—help create healthy squadrons and are equally important, according to Barrett.

"We provide Rapid Global Mobility (RGM) around the world, and we can best do that when our readiness levels are high," he said. "The healthier squadrons are, the higher readiness levels will be. Plus, healthy squadrons help support families when loved ones are called away from home. This provides peace of mind for Airmen, allowing them to focus on the mission and give our collective team the best opportunity for success. The demand for global mobility takes us to every

continent on earth. We need healthy, prepared squadrons, but we don't want to overwork our teams."

Senior leaders are addressing concerns about how overworked teams affect families—again, in line with the 'Air Force We Need' plan to increase the number of operational squadrons and the number of Airmen.

"We must overcome those challenges and remain ready now and in the future. Here at 18th AF, we have begun to see the effects of how senior leaders addressed manpower concerns. The Air Force added about 10,000 active-duty Airmen the last three years, and the recent budget should fund another 4,700 Airmen, many of whom will support the RGM mission.

"This budget invests in key areas—Airmen, readiness, nuclear deterrence, and air superiority, among others. It funds additional KC-46 aircraft and more research into technologies that help our operational mission down the road."

Barrett looks forward to continue bringing KC-46s into the fold, as McConnell Air Force Base, Kansas, received the service's first Pegasus January 25.

"For every Airman and aircraft to operate safely, we must take care of our people and resources. When we focus on safety, readiness improves—helping us respond to any threat."

"In 2018, the Mobility team refueled over 103,000 aircraft," he continued. "To put that in perspective, that is enough to have provided fuel to every serviceable aircraft on the planet nearly four times. The KC-46 will help us continue fueling joint and international partners. The steps we're taking will ensure we remain the greatest Air Force on earth while helping Airmen gain balance in their lives."

Additionally, Barrett encouraged every Airman to make safety a priority.

"The RGM team launches an aircraft every 2.8 minutes. Airmen make that possible, and we need them at their best physically and mentally. We work in dynamic, changing environments. Healthy personnel and vibrant squadrons help divide the mission demand equally and create balance that reduces the chance for safety issues in demanding situations. For every Airman and aircraft to operate safely, we must take care of our people and resources. When we focus on safety, readiness improves—helping us respond to any threat."

In closing, Barrett shared his confidence for the future.

"The United States is a superpower because we can touch any corner of the globe," he said. "RGM makes that possible, whether we are responding to crises or moving patients, cargo, or fuel. We do not know where or when the next conflict will occur, but we will be ready. Vibrant, healthy squadrons support readiness and our families, who, in turn, support our ability to be ready and complete the mission. That teamwork gives us the best opportunity for success."

Maj Gen Sam C. Barrett

A C-17 Globemaster III receives fuel from a KC-10 Extender over the Pacific Ocean during Talisman Saber 17. The C-17 aircraft flew from Alaska to Australia in a single continuous, 17-hour flight.

USAF photo by A1C Zachary Martyn

Air Mobility Command Welcomes New Command Chief Master Sergeant

CMSgt Terrence A. Greene

CMSgt Terrence A. Greene is the Command Chief Master Sergeant for Air Mobility Command, Scott Air Force Base, Illinois. He is the principal adviser to AMC Commander Gen Maryanne Miller and her senior staff on matters of health, welfare and morale, professional development, and the effective utilization of more than 83,300 total force enlisted personnel assigned and contributing to the command. He ensures the combat readiness of the command through sound policies, practices, and training.

Greene entered the Air Force in October 1988 as a vehicle operations specialist and has served in a variety of duties in the career field, including two tours as superintendent of gun truck and cargo line haul detachments supporting operations in Iraq and Kuwait. Greene also completed several tours in the Air Force Attaché Affairs, Defense Attaché System, and multiple command chief assignments with extensive exposure to joint basing.

Prior to his current position, Greene previously served as the Command Chief Master Sergeant for United States Forces Japan and Fifth Air Force at Yokota Air Base.

CMSgt Terrence Greene, new Command Chief of Air Mobility Command, Scott AFB, IL, shakes hands with SSgt Anthony Kieswetter, 436th Civil Engineer Squadron Airman Dormitory Leader, at Dover AFB, DE. Also pictured: MSgt Amber Lawrence and SSgt James Hernandez, both from the 436th CES.

USAF photo by Roland Balik

McConnell Air Force Base, Kansas Welcomes

First KC-46A Pegasus

BY A1C MICHAELA R. SLANCHIK, 22D ARW PUBLIC AFFAIRS

Total Force crews delivered the first two KC-46A Pegasus aircraft to McConnell Air Force Base January 25.

The 22d Air Refueling Wing and 931 ARW marshalled in the newest addition to the Air Force's strategic arsenal.

"This day will go down in history as a win for Team McConnell and the Air Force as a whole," said Col Josh Olson, 22 ARW Commander. "With this aircraft, McConnell will touch the entire planet."

Since being selected as the first main operating base in 2014, McConnell Airmen have been preparing to ensure their readiness to receive the Air Force's newest aircraft.

Contractors constructed three new KC-46 maintenance hangars, technical training dormitories, an air traffic control tower, fuselage trainer and many other facilities specifically for the Pegasus' arrival. These projects brought $267 million to the local economy by employing Kansas workers and using local resources.

Aircrew members simulated KC-46 flights, boom operators practiced cargo loading, and the 22d Maintenance Group created a training timeline for the enterprise.

Working with aircraft manufacturer Boeing, McConnell maintenance Airmen have been developing new technical orders for three years. They streamlined processes and got hands-on exposure to the jet in Seattle.

"Some of us have been involved in this program for years and it has given us time to become experts as far as the technical data goes," said SSgt Brannon Burch, 22d Aircraft Maintenance Squadron KC-46 flying crew chief. "Knowing it is one thing, but having hands-on experience on our flightline is what we all crave. We're just happy the wait's over and we finally get to get our hands dirty on the Pegasus—it's almost surreal."

The KC-46 team at McConnell AFB is comprised of Airmen with a variety of backgrounds from other aircraft who bring different aspects of expertise to the multifaceted new tanker.

"Every Airman who was transferred to the KC-46 team was hand-selected specifically to bring this airplane to the fight," said Lt Col Wesley Spurlock, 344th Air Refueling Squadron

Commander. "They are versatile maintainers, pilots, and boom operators who are prepared for any learning curve that comes with a new aircraft."

Active duty 344 ARS and Air Force Reserve 924 ARS will be the first units in the military to operationally fly the KC-46.

"This airplane has a wide variety of capabilities that we haven't seen here before," said Spurlock. "We're going to get our hands on it, then expand on those abilities and see how we can employ them operationally."

Once Airmen in the Total Force squadrons have perfected their craft on the new aircraft, they will pave the way for the entire KC-46 enterprise and other bases receiving the aircraft in the future by developing tactics, techniques, and procedures to share with those units.

"I have never been a part of a unit that is more excited about the mission before them and the legacy they're going to leave," said Spurlock.

Today, the waiting ends and integration begins for the next generation of Air Mobility that will be a linchpin of national defense, global humanitarian assistance, and disaster relief operations for decades to come.

"For those of us who have spent years watching this process happen, it's enormously humbling to finally see it come to a close," said Col Phil Heseltine, 931 ARW Commander. "We are grateful to everyone who is joining us as we fulfill the potential of this amazing new aircraft.

"We are honoring the rich culture that we have been gifted by those who came before us," said Heseltine. "That culture continues today. For example, the forward fuselage section of the KC-46 is built by Spirit AeroSystems right here in Wichita. This aircraft literally came home today."

With the KC-46 on the ground at McConnell AFB, the Air Force will begin the next phases of familiarization and initial operations testing and evaluation.

"McConnell Air Force Base is ready!" said Olson.

The KC-46A Pegasus is revealed next to the KC-135 Stratotanker during the KC-46 arrival ceremony at McConnell Air Force Base, KS, Jan. 25, 2019. The KC-46 will serve alongside the KC-135 for years to come supplying critical aerial refueling, airlift and aeromedical evacuation for America's military and its allies around the world at a moment's notice.

USAF photo by A1C Alexi Myrick

MacDill AFB, Florida
BASH Reports Findings on
Vulture Tagging Project

Studying Vultures to Keep MacDill Aircraft Safe

BY SRA ADAM R. SHANKS, 6th AIR MOBILITY WING PUBLIC AFFAIRS

During the winter months, tens of thousands of people flock to Florida to escape frigid temperatures in their home states in the North.

The urge to seek warmer weather in the Sunshine State isn't an idea exclusive to humans; feathery, talon-wielding scavengers like the sound of it too!

The team with the Air Force's Bird/Wildlife Aircraft Strike Hazard (BASH) program—a special program that aims to keep MacDill's aircraft, Airmen and local wildlife safe—conducted a study on black vultures and turkey vultures seen throughout South Tampa.

"We decided to conduct a study on the vultures that frequent MacDill to better understand their flight patterns and migratory routes," said Kory McLellan, the BASH program manager at MacDill. "With an idea on how (and when) the vultures behave, we can anticipate activity much more accurately and prevent aircraft bird strikes from occurring."

The Federal Aviation Administration ranks vultures as the second-most hazardous species to aircraft operations. From January 1, 2015 to June 30, 2018, a total of 35,266 vultures were dispersed from MacDill's airfield operations area.

"To better understand daily vulture movement and habit usage, we captured black vultures and turkey vultures to attach uniquely coded cattle ear-tag transponders to them," said McLellan.

Based on the four vultures tagged, three black vultures stayed around the South Tampa area, while a lone turkey vulture migrated to southern Ohio for the summer. Once winter approached, this turkey vulture returned to Florida, crossing MacDill AFB once again.

"The data we found coincided with data taken from MacDill in regards of harassment of vultures during the period between December 2016 and May 2018," added McLellan. "However, during this time only 2,797 black vultures were harassed from the airfield compared to 18,816 turkey vultures in that time."

McLellan and his team believe that this is due to black vultures being year-round residents of the MacDill area, and preferring the more urban, developed areas north of MacDill AFB.

"Another possibility is that the black vultures, having been harassed multiple times, learned to avoid the airfield operations area," remarked McLellan. "The turkey vulture we studied migrated to Ohio, returned to MacDill but also flew to southern and central Florida as well."

After migrating, the turkey vultures fly back to Florida and tend to pass over MacDill AFB in search of food. However, their search for food poses a huge risk to the KC-135 Stratotanker fleet especially during takeoffs and landings.

"The information that Kory and his team gathered goes into helping Airfield Managers and aircrew understand the risks, and aid us in maintaining safety on all of the operations we conduct," said Link Collier, 6th Operations Support Squadron Airfield Manager.

The vulture studies McLellan and his team perform will be neverending, because of the migratory nature of turkey vultures.

Kory McLellan, the Bird/Wildlife Aircraft Strike Hazard program manager at MacDill AFB, FL, uses pyrotechnics to disperse birds away from the airfield. The loud noise of the pyrotechnics provides an effective tool to disperse birds and prevent bird strikes.

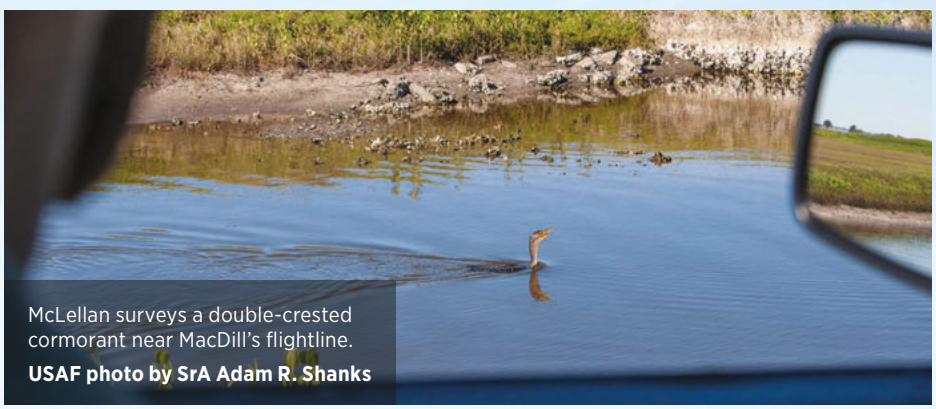
USAF photo by A1C Mariette Adams

"Since so many turkey vultures fly in and out of MacDill's area, our harassment and dispersion techniques might be learned by a few birds, but they'll be replaced by new birds the next day," said McLellan. "It's a constant cycle of scaring away these birds and making MacDill an annoying place for them to stay."

Aircraft collisions with wildlife cause millions of dollars in damage annually resulting in the loss of combat capability, aircrews, and aircraft. At MacDill, from 1990–2018, there have been four strikes with turkey vultures causing more than $179,000 in damages.

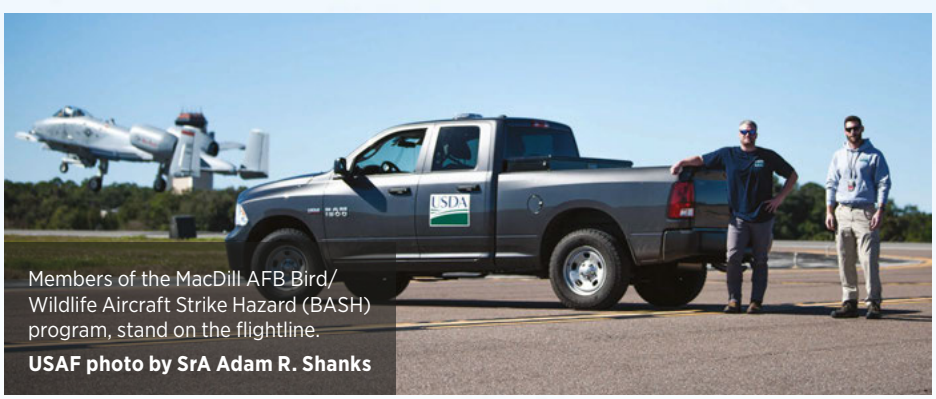
Wildlife strike hazards to aircrew and aircraft, as well as operations and maintenance expenditures, may be significantly reduced by utilizing an integrated pest management approach, resulting in substantial savings of Air Force resources.

"Our yearly salaries pale in comparison to the total cost some bird strikes cost to repair," added McLellan. "Just by harassing the wildlife and keeping them out of the airfield, we're able to save MacDill and the Air Force countless amounts of taxpayer dollars."



McLellan surveys a double-crested cormorant near MacDill's flightline.

USAF photo by SrA Adam R. Shanks



Members of the MacDill AFB Bird/Wildlife Aircraft Strike Hazard (BASH) program, stand on the flightline.

USAF photo by SrA Adam R. Shanks

Vulture tagging at MacDill AFB: https://www.youtube.com/watch?v=YyvnloOWzWU

Mentorship in Aviation:

Enhancing Squadron Culture through **Real** Stories

BY MAJ JOSHUA MILLER, AMC FLIGHT SAFETY

When was the last time you shared a flying story with your squadron mates? Hopefully, it was recently. Storytelling has become a lost art in flying squadrons. Years ago, Air Force aviators were much better at finding informal leadership opportunities to tell a story. Unfortunately, many of them have become too busy with additional duties to be the aviation mentors that our squadrons need them to be. Often, distractions in the squadron leave little time for an important facet in an aviation culture: mentorship.

Storytelling is a pillar of aviation mentorship that has many useful benefits. It can reaffirm knowns, such as operating limitations and weather requirements, as well as reveal situations that young aviators may not have thought about or experienced in their limited aviation journeys.

All generations of aviators deserve quality mentorship. The future success of our squadrons depends on it! Here are a few tips for aviators in helping foster the ideal environment or culture in aviation mentorship.

"Here is where I screwed up." This is one of the most important, yet most difficult obstacles to overcome. Our aviation culture demands perfection; admitting a mistake can be difficult in front of leadership, subordinates, and especially peers. Being candid while mentoring sets a tone that allows others to comfortably admit when a mistake was made along the way.

As a mentor, set an example from the beginning by expressing a certain amount of openness. The next generation of aviators needs to understand that flying is a constant series of corrections at the most basic level and mistakes will be made. Experience is the best teacher, but learning from the experiences of others may often be a useful teaching moment.

"There I was, in the weather, at night..." As we all know, every great flying story starts just like this. It is human nature to embellish a story, and we all do it. The venerable 10 percent truth rule is a known tactic throughout the aviation community and adds to a story. Of course, take care with this—no one wants to listen to a completely fabricated story.

Experienced mentors, tell the stories about where you made a mistake. Show our next generation of aviators that you, too, are fallible and that it is okay to make mistakes. Ensure the fledgling aviators that you lead will not make the same mistakes you have. This culture can only be built by the leaders (formal and informal) of a squadron. Squadron Commanders and Ops Officers must foster this culture!

Not everyone is comfortable telling a story, especially if the person made mistakes. A mentor can use many resources to start a conversation. Try reviewing the most recent ASAP submissions in your airframe; this will surely spark some great conversation. Additionally, a unit safety representative or flight safety officer can gather significant mishaps for review. These documented mishaps will hopefully teach a lesson to you and those you mentor.

> **A healthy flying culture starts with formal leaders fostering a positive culture, then the squadron body carrying the mentorship torch.**

Before you enlighten your flying mates of your perilous flight, submit an ASAP! Help the entire community learn the lesson you experienced. The ASAP program is the perfect way to tell your story. Remember, the AMC OpsRAMS team works tirelessly to ensure the ASAP you submit is non-punitive. Submit the ASAP!

Humor matters. There is value in making the story funny. Humor helps keep the ideal mentoring environment informal, relaxed, and comfortable—perfect to learn and grow as aviators. Self-deprecating humor can be the perfect tool for getting a group of young aviators to open up about their experiences.

"Bar talks" are sacred. Hanging around the squadron and talking about thunderstorm avoidance or the last ILS flown to minimums is priceless mentorship. Use a squadron heritage or social room for this. A conference room or office can sometimes seem too formal, stifling an open communication environment. Consider using a common area where people can come and go as they please. Be the mentor that initiates the conversation around the popcorn machine to help your squadron culture grow!

"This mentorship thing is nothing new." Aviation mentorship has been a part of the aviation culture since man first took flight. Reference the excerpt from the *MATS Flyer* (*The Mobility Forum's* predecessor) published in August 1958. It is part of an article titled The Turning Point, which focuses on the importance of transforming from a mentee to a mentor in the flying community. The "1950s speak" is humorous today, but the message is the same—mentorship in the aviation arena is important!

On occasion, we recount adventures at "two for one" gatherings and, though we "belong" because we have had our share of narrow escapes, we begin to realize that most were caused by our own ignorance and inexperience. We may even pause to reflect occasionally that had we paid heed to the advice available we would not have had nearly so many highly adventurous, but unnecessary close calls with disaster.

A healthy flying culture starts with formal leaders fostering a positive culture, then the squadron body carrying the mentorship torch. For the most part, the Air Force does a great job developing proficient and intelligent aviators. Flying squadrons, however, may fall short in fostering the intangible areas such as informal mentorship.

One of the simplest and most natural things in a flying squadron should be mentorship through storytelling. Through these, squadrons will continue to develop the next generation of aviators and ensure we will remain the greatest and safest Air Force the world has ever seen.

Fly safe and mentor often!

From left, Capt Blake Jones, 3 AS pilot, Lt Col Edward Szczepanik, 3 AS commander, and Chaplin (Capt) Kevin Pugh, 436 AW, pre-flight for an Arlington National Cemetery, VA, flyover at Dover AFB, DE.

USAF photo by TSgt Laura Beckley

What Does **Big Data** Say?

BY MR. BILL KROUSE, OPS RAMS STAFF

The most important feature of the software used in the Military Flight Operations Quality Assurance (MFOQA) program is the capability to aggregately look at data for a fleet of aircraft; i.e., Big Data. MFOQA software is unbiased and nonjudgmental—it provides just the facts. MFOQA analysts use this software to sift through mountains of flight data collected by AMC aircraft, looking for events and trends that may lead to a mishap, which are then communicated to commanders and AMC Staff in order to modify potentially hazardous conditions and maneuvers. The analysis allows commanders to calculate their crews' risks and affords commanders the capability to evaluate the challenges surrounding an en route airfield on their itinerary.

The software has highlighted many concerning trends across the MAF related to airspeed control. For example, it appears, and I emphasize "appears" because MFOQA software tells analysts *what* actually happened not *why* it happened, C-17 crews tend to drop airspeed out of their cross check as they transition to land. Also, it seems KC-135 crews have challenges transitioning from approach speed to threshold crossing speed when they are landing 40 flap. Not to be outdone, it looks like C-130J crews are slowing to 100 percent flap speed, while still configured at 50 percent flaps.

MFOQA analysis shows these airspeed control issues are not widespread; however, the ramification of these events have led to hard landings, runway excursions, and tail strikes. No loss of life, yet, but Class A and B mishaps have resulted. If your aviation professional gene is piqued, read on!

C-17

The C-17 is a technical wonder with a full suite of automation tools available to the crew to improve safety, reduce stress, and decrease human errors. The key is to understand how the automation functions and the assumptions made in the development of the systems. Aggregate analysis has shown C-17 crews have made significant strides in improving the stability of flying approaches using backside power techniques (Figure 1). The percentage of unstable approaches (UA) has dropped from the mid-twenties to single digits. As a single line, it is clear to see the improvements have plateaued (Figure 2) at around 9 percent. To meet the commercial UA norm of 2 percent, an in-depth look at all UAs was needed. Moving forward, MFOQA analysts examined the components of the UAs over the last year, finding airspeed control was the primary driver (Figure 3). Deeper analysis showed over a third of the UAs did not go unstable until the aircraft was below 300' AGL (Figure 4). Of the crews that were unstable below 300', over 85 percent were not following AMC directive to go around from UAs (Figure 5). The AMC staff does not believe the crew force is deliberately violating the command directive, leaving the only explanation that crews, including the pilot monitoring, are allowing airspeed to drop out of their cross check as they transition to land.

C-17 UNSTABLE APPROACHES

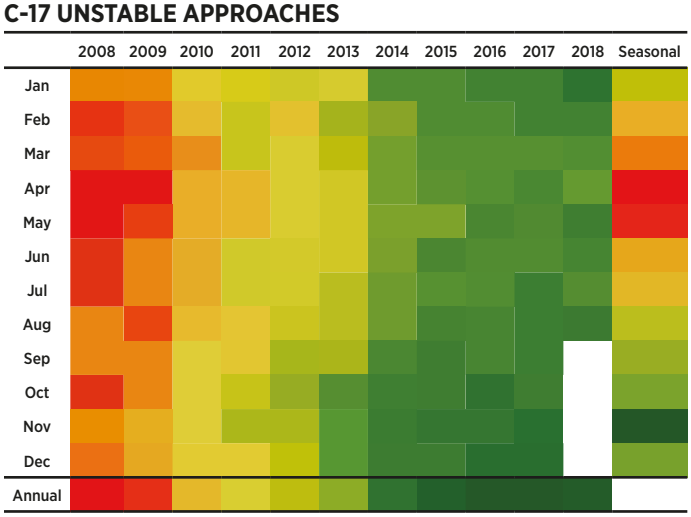


Figure 1. C-17 Monthly UA Rates Since 2008

C-17 UNSTABLE APPROACHES TABLEAU FORECAST

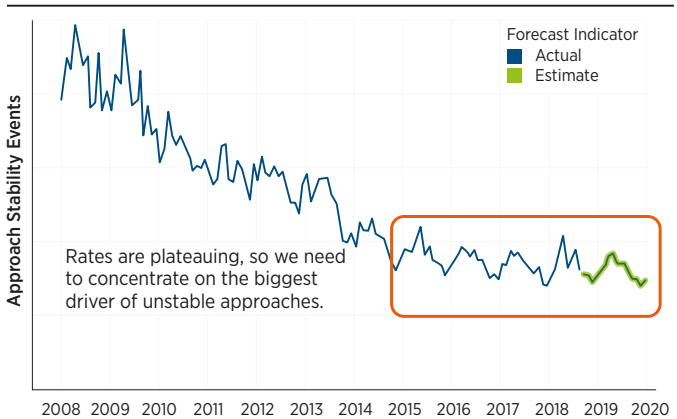


Figure 2. C-17 Annual UA Rates Since 2008

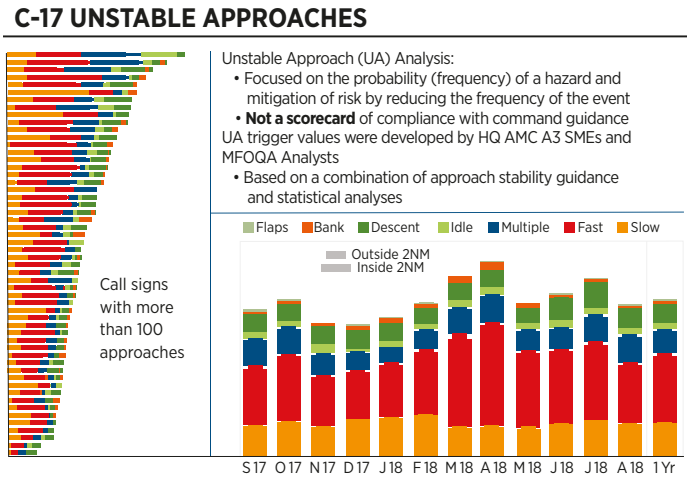


Figure 3. C-17 Breakdown of UA Trigger Components

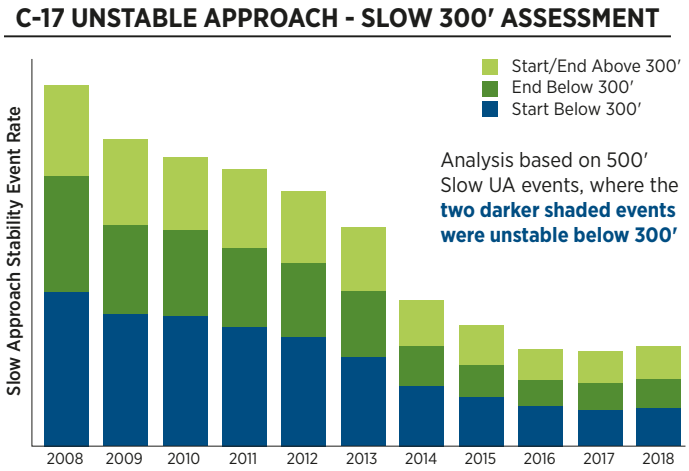


Figure 4. C-17 Rates for Approach Speed Slow

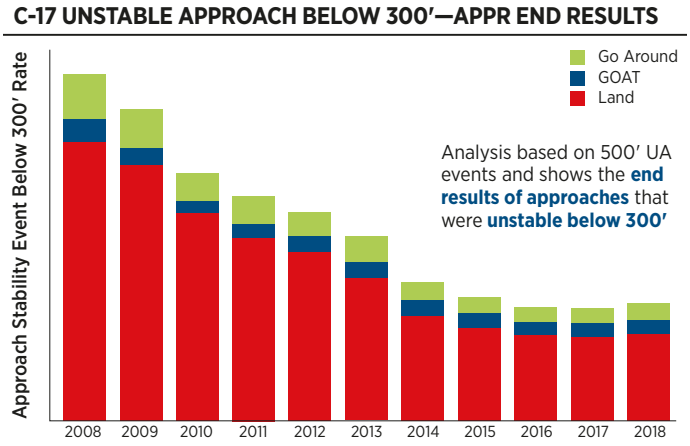


Figure 5. C-17 UA End Results

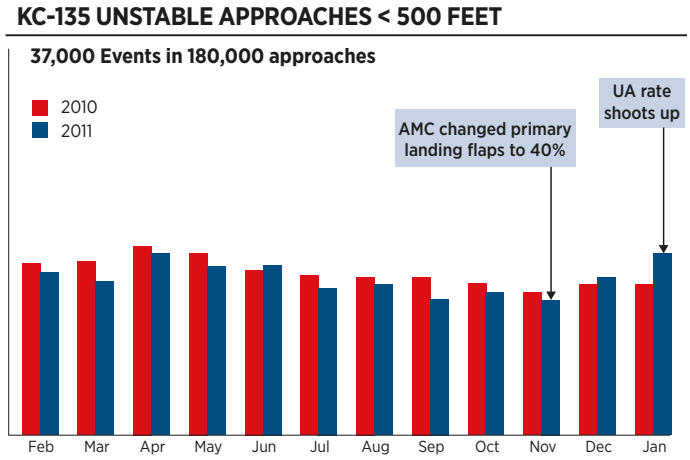


Figure 6. KC-135 UA Rate at 500′

Consequently, AMC Staff is looking for automation upgrades, like adding a speed-deviation indication in the heads up display (HUD), but like any aircraft modification, it will take time (estimated delivery in 2024). In the meantime, the MFOQA analysis team is looking at the use of Pitch Attitude Command Attitude Hold (PACAH), when it is selected, how dynamic the flight path is when activated, the pitch angle when it is engaged, and trimming techniques used during approach. AMC Staff is coordinating an extensive analysis package, but until it hits the field, discuss the techniques of airspeed control with your fellow pilots and instructor teams to ensure airspeed does not drop out of your cross check. Only you can prevent loss of UA SA!

KC-135

The KC-135 is to AMC like Queen Elizabeth II is to England: both are elegant, refined, and have been leading the way for a very long time. As a KC-135 pilot, I am a little biased. When I started flying the tanker, it was still designated as an A-Model water wagon. Due to the smaller engines and because of the required higher approach speed, we landed 40 percent flaps all the time thus improving the stability of the dihedral wing configuration, and improved spool-up time for go around capabilities. However, once we transitioned to the R-Model, power and spool-up time became minimized and focus was redirected at landing distances caused by the abundant residual thrust put out by the CFM-56 engines. With time, it appears the techniques for landing with 40 flaps went the way of the dodo bird. For the sake of fuel savings, AMC changed the KC-135 Dash-1, altering the primary flap setting for landing from 50 to 40 flap. As Figure 6 illustrates, this quasi-small change caused a spike in UA rates from 17.5 percent to 20.4 percent two months later.

The large fleet size of the KC-135 has a tendency to plateau changes, so a spike means something significant has occurred. MFOQA analysts dug deeper into this shift and noticed the location in the approach when crews are going unstable is during the transition from approach speed to threshold crossing speed. Figure 7 is a snapshot at 300′ for

KC-135 VAPP AT 300 FT.

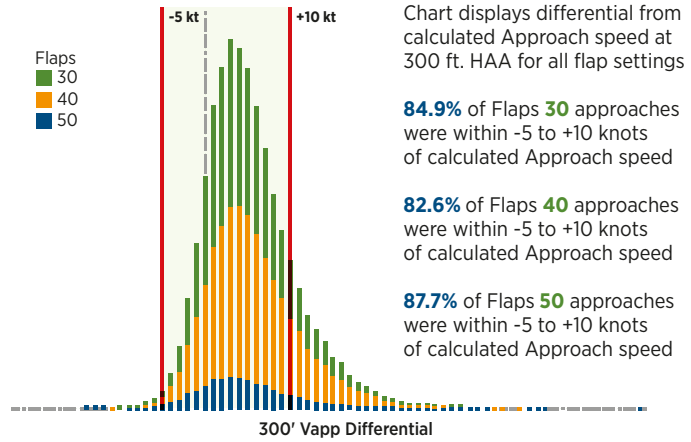


Figure 7. KC-135 Approach Speed Differential (Charted vs. Actual) at 300′

KC-135 VTH AT 50 FT.

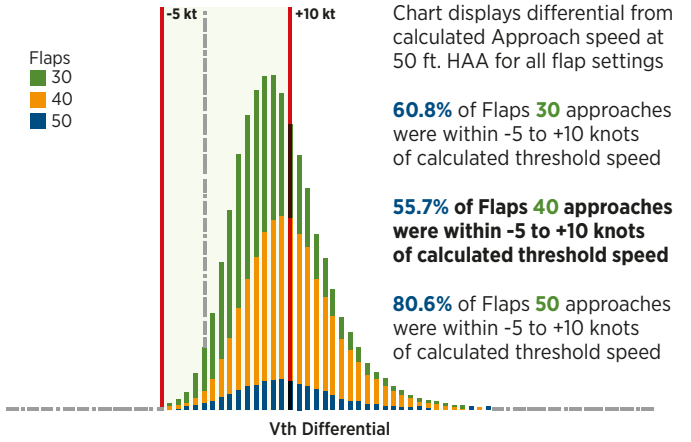


Figure 8. KC-135 Threshold Speed Differential (Charted vs. Actual) at 50′

all approaches in a one year period showing 82.6 percent (40 flap) and 87.7 percent percent (40 flap) and 87.7 percent (50 flap) of crews are maintaining Vol 2 check-ride criteria for airspeed control. However, at 50′ approximate threshold crossing height (Figure 8), the percentage of crews on speed significantly drops to 55.7 percent for 40 flap, but only slightly dropped to 80.6 percent for 50 flap. The MFOQA CASE STUDY: KC-135 Threshold Speed Analysis (completed December 2015) provides all the details to support this article and can be found in your EFB. The numbers in the case study are a little different because it was completed December 2015. Figures 7 and 8 were created using flight data from a recent year, showing the issue is still alive and well.

Why the huge change between 40 flap and 50 flap landing configurations? Naysayers will say that MFOQA analysis is not taking into account wind corrections, like the additional airspeed crews are required to hold for mean ground reference speed. I counter with the fact that Figures 7 and 8 are the same approaches so whatever speed correction was added to the approaches in Figure 7 is probably the same amount added to the approaches in Figure 8. Discussions among the AMC Staff stressed there was little instruction in the way of Tactics, Techniques, and Procedures Guidance (AFTTP 3-3.KC-135) available as of November 2012 for adapting landing techniques for the new flap setting. The AMC Staff requested Boeing's assistance to review two techniques for landing 40 flap. Boeing's reply, Response to Inquiry (RTI) #246, included pros and cons.

1. Pull power to idle early (well before runway threshold), and let the aircraft decelerate with engines at flight idle all the way through touchdown.

PROS

- Crosses threshold at flight idle
- Minimizes trim changes
- Generally more stable

CONS

- Increased engine spool up
- If power pulled too early, potential for hard landing (at a minimum)
- If power pulled too late, unplanned increase in threshold speed and longer flare and landing ground roll.

The Boeing RTI also stated a single smooth reduction in power to idle to cross the threshold at threshold speed would likely lead to the most stabilized approach.

2. Reduce speed to Vth, and then add power to hold that speed until reaching threshold, followed by pulling power and setting the landing as one would in a 50 flap landing.

PROS

- Decreased engine spool up
- "Guaranteed" to cross threshold at threshold speed

CONS

- Not at flight idle at threshold crossing
- Multiple power changes (less stable approach)

The Boeing RTI added that setting threshold speed at some point prior to the threshold would require a power reduction to idle 50′ above the runway and a corresponding adjustment to pitch to keep the nose from pitching down.

MFOQA analyses show that AMC crews have steadily improved their skills for flying approaches, and it highlights speed control close to the ground as an issue for crews to focus on.

Using the Boeing RTI, AMC Staff updated the AFTTP 3-3 as follows:

> 40-degree flaps – (1) Pull power to idle when HAT equals fuel weight plus 100 feet (example, 20,000 lbs. of fuel, pull power at 120 feet, (2) crossing 500 feet HAT, adjust power to cross the threshold at target threshold speed. Accomplish a normal flare and landing. It is important to manage aircraft energy with reference to winds, gross weight, available thrust, and aircraft speed trend.

Unfortunately, MFOQA shows little to no change in the approach stability rate. This issue is still open and requires further discussion.

C-130J

If you were impressed by the KC-135's longevity, the C-130 is the longest continuously produced military aircraft (over 60 years), with the updated Lockheed Martin C-130J Super Hercules currently being produced. Since 1956, the Herc has participated in almost every military, civilian, and humanitarian relief mission that the United States has been involved in—the true definition of a work horse! As with the C-17 and KC-135, MFOQA analysis has highlighted an airspeed control issue with the C-130J. Aggregate analysis indicates many C-130J crews are slowing to 100 percent flap approach speeds, and even further to 100 percent threshold speeds prior to lowering the flaps to 100 percent.

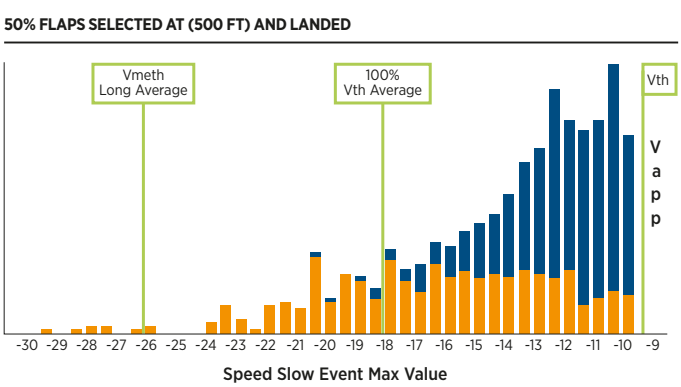


Figure 9. C-130J Approach Speed Differential (Charted vs. Actual) for 50% and 100% Flaps Configuration

According to *T.O. 1C-130(W)J-1*, pg. 2A-62, during a visual approach, "maintain no lower than approach speed for the existing flaps setting." By slowing to 100 percent Flap Threshold Speed (V_{THR}) while still configured at 50 percent flap, crews are disregarding published procedures, thereby assuming an increased level of risk. Additionally, although rare, some crews are even failing to lower the flaps to 100 percent prior to touchdown. Detailed MFOQA analysis, coupled with feedback from the field, suggests the reason for the high number of "speed slow" events was a widespread C-130J flying community technique of slowing to 100 percent flap V_{THR}, and at times as slow as Max Effort V_{THR}, while remaining at 50 percent flaps, and then selecting 100 percent flaps to avoid over-speeding the flaps—especially when at heavier gross weight (GW). Unfortunately, this technique has a tendency to bleed over into lighter GWs as well. This crew force technique most likely developed in reaction to a real or perceived threat of unit-level disciplinary action for over-speeding the flaps.

MFOQA analysis was also combined with C-130J mishap trend analysis, which identified "speed slow" in several recent "tail strikes." Perhaps the most severe discovery was a Class B "tail strike" mishap that resulted from the crew slowing to Maximum Effort V_{THR} with 50 percent flaps selected and continued to land with 50 percent flaps resulting in a tail scrape with major structural damage. In support of the crew force, discussions among the AMC Staff highlighted that the existing flight manual and *AFTTP 3-3.C-130J* guidance does not definitively address the flap over-speed issue. Fortunately, the AMC Staff is working with Lockheed Martin to evaluate the flap limit airspeed and developing techniques to prevent over-speeding them. There is a great case study posted in your EFB that outlines all the sources, analysis assumptions and conclusions (MFOQA CASE STUDY: *C-130J Speed Slow at 500' Analysis* – 16 Jan 18). While the AMC staff coordinates with Lockheed Martin and the C-130J SPO to address the flap speed limitations, it is important for crews to follow established T.O. to the best of their abilities.

In summary, MFOQA analyses show that AMC crews have steadily improved their skills for flying approaches, and it highlights speed control close to the ground as an issue for crews to focus on. The AMC Staff is at work to address this issue from a technique perspective and hardware upgrade. Look for changes in the near future. In the meantime, fly safe, forward your concerns through your safety office, and let us know what else out there is a threat to operations!

Cockpit and flight deck of the airplane lying on its side.

Vinh Long Convent in Vietnam

Older children were seated downstairs in the aircraft along the wall.

Survivors of **Operation Babylift**

Reflect on Horror and Healing from the 1975 C-5A Crash in South Vietnam

BY MS. KIM KNIGHT, STAFF WRITER

Long after the United States signed a cease-fire with Vietnam, the war between North and South Vietnam raged on. Da Nang fell after a North Vietnamese assault on March 30, 1975, which left thousands in South Vietnam terrified and fleeing for safety from the communist regime. Saigon faced an imminent threat as the country's defenses collapsed. The situation for the helpless people was deteriorating swiftly, so the United States began evacuating planeloads of refugees out of the Tan Son Nhut Air Base near Saigon by the thousands.

Sadly, an estimated 70,000 orphaned children were trapped in the hostile territory. To rescue the innocent children, President Gerald Ford announced on April 3, 1975 that Operation Babylift would evacuate the children from the war-torn region to the United States and allied countries on 30 humanitarian airlifts.

In great haste, the first official American flight, a C-5A Galaxy, planned to depart Tan Son Nhut Air Base at 4 p.m. on April 4, 1975. The precious cargo was quickly loaded. Inside the cabin, there were benches along each interior wall where older children and toddlers were seat belted in. Large cardboard boxes, each containing two or three babies, were placed down the center of the plane and were secured in place by long straps. Nuns from the orphanages, volunteers, and Air Force personnel did their best to calm the fearful or crying children before departure.

Only 12 minutes after takeoff, tragedy struck as an explosion blew off the rear door of the massive C-5. The aircraft crashed two miles from the base, killing more than half the passengers on board.

With the fall of Saigon near, Operation Babylift could not halt in the aftermath of the crash. It was reported that all other remaining flights in the Babylift were without incident. The mass evacuation continued until April 14, 1975, when it was too dangerous for flights to go in and out of Tan Son Nhut Air Base. Saigon fell to the North Vietnamese forces 16 days later, which ended the war.

> **"We are seeing a great human tragedy as untold numbers of Vietnamese flee the North Vietnamese onslaught. The United States has been doing and will continue to do its utmost to assist these people."**
>
> *President Gerald R. Ford, April 3, 1975*

Photo, above: Sister Ursula Lee holding Aryn Lockhart as a baby.

Photo, right: Aryn Lockhart and her husband, Martin, CMSgt (Ret.) Ray Snedegar, and Col (Ret.) Regina Aune visiting a children's home in Vietnam.

Photos courtesy of Ray Snedegar

CMSgt Ray Snedegar (Ret.), chief loadmaster on that first Babylift flight, survived the crash. He and his C-5 crew were scheduled to depart Clark Air Base in the Philippines for Japan, and then he planned to go home. However, due to his combat loading experience, Snedegar and the crew were sent to Vietnam to assist with Operation Babylift instead.

Snedegar had already spent three years in Vietnam and had survived two plane crashes when he arrived to help with the operation. However, he had never combat loaded a C-5A with babies.

When he arrived at the Tan Son Nhut Air Base, Snedegar said there was a lot of turmoil escalating in Saigon. He worked quickly strapping precious cargo—women and children—to whatever he could inside the C-5A.

"We put babies upstairs because they couldn't take care of themselves," he continued. "I remember having 145 little babies in 75 seats. Others—5-, 6-, and 7-year olds—were downstairs along the side of the wall. It took 3 or 4 hours to load them all. I had never seen such chaos. I was supposedly in charge of loading, but I didn't feel in charge of anything."

Shortly after the aircraft left Tan Son Nhut Air Base, an apparent explosion tore apart the lower back fuselage, ultimately causing rapid decompression and descent. The crew struggled to maintain control. Instead, the plane touched down briefly in a rice paddy and went airborne before hitting a dike and breaking apart. Sadly, 138 people perished, including 78 of the young orphans and 11 crewmembers.[1]

"I've been in other plane crashes in Vietnam," recalled Snedegar, "but they happened so fast that I didn't have time to be frightened. But this was like slow motion, and I knew we were in trouble. Everything started flying around me—the tail was in one section, the cargo compartment full of people was shredded away, and the troop compartment with 145 babies broke off and slid like a sled. I was in the cockpit, which broke off and tumbled upside down."

Snedegar remembers wishing the plane would just stop.

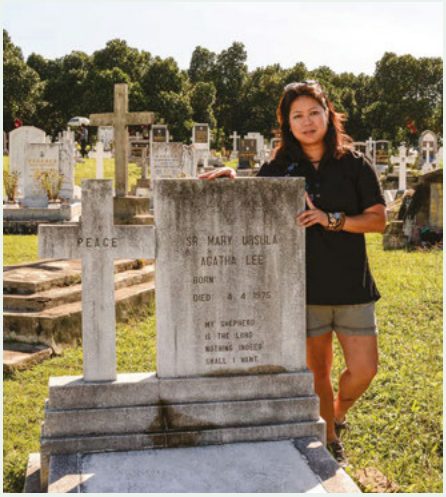
"But we just kept going," he said. "When we finally did stop, I was hanging upside down. I released my seat belt and fell to the floor, which was actually the ceiling. I stood up and had no idea where I was."

The wings came off in the accident and burned. Still disoriented, Snedegar thought the fire ahead of him was the front of the airplane and that pilots had burned to death. Turns out, they were behind him and didn't get hurt.

[1] The number of survivors and fatalities varies, depending on the source. Figures here are from *The Chronological History of the C-5 Galaxy* at **https://www.amc.af.mil/Portals/12/documents/AFD-131018-052.pdf**.

Photo, left: Ray Snedegar, visiting kids in a children's home in Vietnam. Photo, right: Regina Aune, Aryn Lockhart, Carrie Camenga Briggs (who is also a survivor of the Babylift crash and was four or five years old at the time), and Ray Snedegar.

Photos courtesy of Ray Snedegar



Aryn Lockhart, visiting Sister Ursula Lee's grave in Malaysia.

"Even in the horrible moments of war, [Sister Ursula] gave love, kindness, and protection. She was my first mother figure, yet I never knew her. I could finally thank her, though."

Those who could began searching and quickly found survivors, as well as casualties. Help also came from an Air America crew that had packed to leave Vietnam and from South Vietnamese Army helicopters.

Col Regina Aune (Ret.), a nurse on board that day, evacuated children from the wreckage until she could no longer continue due to her own injuries—a broken foot, leg, and vertebra. She coauthored a book years later about the experience with Aryn Lockhart, one of the young passengers rescued that day. Lockhart told me how the incident shaped her life, as well.

"I grew up knowing Operation Babylift was part of my history," she said. "My sister and I are Asian but my parents are Caucasian, so we were obviously adopted. They always said that a nun—Sister Ursula Lee—chose me for my parents from the orphanage in Vietnam."

Sister Ursula died in the crash, and records for the children on board were destroyed, so Lockhart was unable to find out how she wound up at the orphanage. After college, she tracked down Aune and gradually forged a close relationship with her. When the duo decided in 2014 to write the book, they invited Snedegar to join them. They eventually traveled to Vietnam.

"That was a big thing," Snedegar explained. "We stood at the crash site while a civilian airplane was landing. When it made a left turn toward the runway—the same turn we were making that fateful day—we held each other and cried. It somehow recreated what we went through years before." Later, they visited kids in nearby orphanages.

"The writing and photography were my outlets to get through the experience there," added Lockhart. "I choked back tears constantly because I was overwhelmed." During the journey, she met Sister Ursula's family and visited her grave. "I wasn't sure how I would feel standing in front of a gravestone stamped April 4, 1975. She was responsible for me being alive, and I deeply felt the gravity of that. Even in the horrible moments of war, she gave love, kindness, and protection. She was my first mother figure, yet I never knew her. I could finally thank her, though."

"Many people don't want to put themselves out there—to be vulnerable," said Lockhart. "But every time I do, I see the benefits of the story. It's bigger than Ray, bigger than Regina, and bigger than me. We all do engagements individually, but appearing as a group brings the whole story together."

And what a story it is.

★ AMC's Annual 2018 ★

Safety Award Winners

Safety Office of the Year
436th Airlift Wing, Dover Air Force Base, DE

AMC Director of Safety Aircrew of Distinction Award
MOOSE 63 Aircrew
436th Airlift Wing, Dover Air Force Base, DE

Safety Officer of the Year
Capt John-David Webb
305th Air Mobility Wing
Joint Base McGuire-Dix-Lakehurst, NJ

Flight Safety NCO of the Year
MSgt Daniel B. McQuistion
62d Airlift Wing
Joint Base Lewis-McChord, WA

Outstanding Achievement Award for Weapons Safety
Mr. Robert M. Brown
436th Airlift Wing, Dover Air Force Base, DE

RiderCoach of the Year
MSgt Michael Patterson
305th Air Mobility Wing
Joint Base McGuire-Dix-Lakehurst, NJ

Distinguished Motorcycle Safety Award
436th Airlift Wing, Dover Air Force Base, DE

AMC Safety Enlisted Professional of the Year
MSgt Justin Musall
735th Air Mobility Squadron
Joint Base Pearl Harbor-Hickam, HI

AMC Safety Civilian Professional of the Year
Mr. Gary L. Ash
60th Air Mobility Wing, Travis Air Force Base, CA

Outstanding Achievement for Occupational Safety (Cat II)
436th Airlift Wing, Dover Air Force Base, DE

Outstanding Achievement for Occupational Safety (Cat III)
375th Air Mobility Wing
Scott Air Force Base, IL

Outstanding Achievement for Occupational Safety (Cat IV)
721st Aircraft Maintenance Squadron
Ramstein Air Base, Germany

Outstanding Achievement for Occupational Safety (Cat V)
724th Air Mobility Squadron
Aviano Air Base, Italy

Director of Safety Aviation Maintenance Safety Award
721st Aircraft Maintenance Squadron
Ramstein Air Base, Germany

Koren Kolligian, Jr. Trophy
SrA Nicholas W. Sowder
92d Air Refueling Wing
Fairchild Air Force Base, WA

Risk Management Achievement
19th Airlift Wing, Little Rock Air Force Base, AR

Aero Club Safety Certificate
436th Airlift Wing, Dover Air Force Base, DE

Director of Safety Special Achievement Award
87th Air Base Wing
Joint Base McGuire-Dix-Lakehurst, NJ

SAFETY OFFICE OF THE YEAR:
436th Airlift Wing, Dover Air Force Base, DE

Lt Col John Habbestad, 436th Airlift Wing (AW) Chief of Safety at Dover Air Force Base, DE, received a nice surprise recently. He was at a holiday party when he learned the 436 AW won AMC's Safety Office of the Year award.

"I can't take any credit because I got here about when the package was submitted," he said. "But I can tell you they deserve it! I inherited a great organization that is accustomed to recognition. This was wonderful for them because of their hard work."

According to Habbestad, many safety offices (even at Dover) deal with the unexpected most days—along with projects worked on regularly and some only occasionally. Regardless, all safety efforts pay dividends.

"A big recurring event is our annual Motorcycle Safety Day," he added. "It receives many accolades. Another is the Line Operations Safety Audit [LOSA], where folks go observe other flight crews, get familiar with operations and get feedback, and take notes on safety operations."

SSgt Kenny Reid, Occupational Safety Journeyman, was quick to talk about the stellar motorcycle safety record.

"Dover AFB riders, the local community, and vendors work together on Motorcycle Safety Day," he explained, "to provide training, presentations, equipment, speakers, and more. We have had zero Class A/B accidents and can see how effective our program is over the last five years."

While it is hard to know how many accidents they prevented, Reid feels sure there would be more accidents without Motorcycle Safety Day each year.

Left to right: MSgt Philip Camp, Lt Col John Habbestad, SSgt Kenneth Reid, TSgt Lance Hughson, Carl Palmer, Timothy Hahn, Lorie Bellamy, Alexis Lynn, Capt Ricardo Morales, Robert Brown, and Maj John Trombetta

"Other bases doing different programs have more accidents," he said. "I think our record is rare among riders and the whole Air Force."

Occupational Safety Manager Lorie Bellamy agreed the motorcycle safety piece is critical.

"We have done Motorcycle Safety Day for about 13 years now, and I suspect it is one reason we won the motorcycle award repeatedly," she said. "Even though I represent Occupational Safety, vehicles and motorcycles are the number one killer of our Airmen. Like Kenny said, I wish we could measure what we have prevented."

Indeed, Habbestad admitted it is hard to quantify a program's impact sometimes. But ridership at Dover, especially in the summer, indicates their motorcycle safety efforts make a big difference.

Maj John Trombetta, 436 AW Chief of Flight Safety, is equally and deservedly proud of the Safety Office of the Year award.

> **"The ultimate goal of everyone in this room is to make sure Airmen get home safely."**

"We sent pilots, engineers, and loadmasters to train with a company run by a former commercial pilot who won the contract to execute this LOSA," he said. But they first invited the man to Dover and introduced him to air refueling and many other functions for a better understanding of LOSA training needs.

"Those folks are now out flying the line with and capturing data from crews all over the world. They pick out the highest threat or abnormal occurrences and assess how the crews handle it to see if we need changes to tech manuals or publications."

Habbestad also noted several Weapons Safety projects last year; one concerning land adjoining Dover AFB. He then described one of the biggest events: the Operational Safety Assessment, an event pertaining to the "health" of the wing in terms of safety.

Robert Brown, Weapons Safety Manager at Dover AFB, agreed the last few years were busy for his folks—due in part to a munitions storage area issue.

"Our explosive arcs go beyond the base boundary," he explained, "so the government does not allow civilian landowners to do anything there. Yet we found people building things in easements and wanted to buy the lands back. Plus, we can use the land for incoming shipments so trucks are not parked alongside the highway. Getting them off the road to secure spots is a better way to handle explosives."

A separate concern was ongoing work by contractors. When Mr. Brown arrived, he found a fuel facility site being built inside the arcs, so he negotiated with contractors and the Corps of Engineers to move it and avoid violations. He then developed a waiver for workers in the area for the duration of their contract, thus ensuring Dover continued its mission. Weapons Safety also did a Nuclear Surety Training exercise last year—the first of its kind for AMC.

"People may not like Safety coming around, but it is a necessary evil," he continued. "The ultimate goal of everyone in this room is to make sure Airmen get home safely."

Perhaps the greatest accomplishment at Dover AFB was the Operational Safety Review. About a month before, Trombetta said they requested an Operational Safety Assessment from the Air Force Safety Center.

"They came and reviewed our ops and maintenance relationship, looking at publications, culture, and leadership," he said. "It got everyone on the same page, and we adopted many of their recommendations. At the Operational Safety Review about a month later, we had met most of the requirements so we just put everyone in a room and looked for gaps and seams. We discussed safety issues within units by sampling different ranks and career fields. Then we broke into groups and captured data we pushed out to AMC and up to Chief of Staff of the Air Force."

Habbestad closed by giving a heartfelt nod to the 512th Safety Personnel co-located at Dover.

"We could not do what we do without them. I want to give them credit and thank them," he said. "Many great things happen here at Dover. A lot of initiative and internal leadership occurs with these programs. The people here all count on each other to come up with good ideas. It is no coincidence this team earns these accolades year after year, and I am really proud of them."

436th AIRLIFT WING SAFETY OFFICE PERSONNEL

Lt Col John Habbestad, Chief of Safety
Maj John Trombetta, Flight Safety Officer
Maj Shannon Murphy, Flight Safety Officer
Capt Ricardo Morales, Flight Safety Officer
MSgt Philip Camp, Flight Safety NCO
Lorie Bellamy, Occupational Safety Manager
Timothy Hahn, Occupational Safety Specialist
TSgt Lance Hughson, NCOIC Occupational Safety
SSgt Kenneth Reid, Occupational Safety Journeyman
Robert Brown, Weapons Safety Manager

512th SAFETY PERSONNEL (RESERVES)

Lt Col Harlan Nelson, Chief of Safety (deployed)
Lt Col Anne Lueck, Flight Safety Officer
Alexis Lynn, Occupational Safety Manager
Carl Palmer, Weapons Safety Manager

AMC Director of Safety Aircrew of Distinction


Capt Benjamin Bertelson


Capt Todd O'Brien


TSgt Robert Hayes


SrA Peter Simpson

September 13, 2018, was busy for the crew of **MOOSE 63**, flying a 12-hour day in support of Operation Inherent Resolve. The mixed crew from three squadrons readied for their last offload, which included two high mobility artillery rocket systems (HIMARS). After smooth offload of passengers, pallets, and one HIMARS, the Aerial Port Squadron personnel moved on to the final HIMARS—only to find it wouldn't start.

With the supervision of the two Loadmasters, they drove their truck into the cargo compartment. They attached jumper cables, stationed one Aerial Port member each at the HIMARS and the truck, and again tried to start it. Again, nothing. Expecting the battery would charge while connected to the idling truck, they elected to wait. Suddenly, the truck battery burst into flames. The Instructor Loadmaster heard "FIRE!" and turned to see the truck's engine compartment engulfed in flames. He reached for a fire extinguisher and dashed over to the fire.

The Mission Loadmaster notified the flight deck crew and called Command Post to send emergency personnel. Once finished with the flight deck items in the Emergency Ground Egress Procedure, the Pilot and Copilot ran to the cargo compartment to find the fire out and everyone safe. Emergency vehicles quickly approached, and—with the fire extinguished—the crew turned the aircraft over to ground personnel and departed.

Their teamwork and emergency equipment knowledge prevented the loss of a $5.1 million HIMARS and a $225 million aircraft. More importantly, it safeguarded the lives of all personnel. The actions of MOOSE 63 reflect great credit upon them, the 3rd and 21st Airlift Squadrons, 860th Aircraft Maintenance Squadron, Air Mobility Command, and the United States Air Force. Crew that day included Capt Benjamin Bertelson, Aircraft Commander/Pilot; Capt Todd O'Brien, Copilot; TSgt Robert Hayes, Instructor Loadmaster; TSgt Skye Thompson, Flying Crew Chief; and SrA Peter Simpson, Mission Loadmaster.

Moose 63

436th Airlift Wing, Dover Air Force Base, DE

Safety Officer of the Year

CAPT JOHN-DAVID WEBB is the Chief of Flight Safety for the 305th Air Mobility Wing, Joint Base McGuire-Dix-Lakehurst, New Jersey. He oversees the KC-10A Extender and C-17 Globemaster III flight safety programs and serves as an advisor to the 305 AMW Commander on safety matters concerning over 2,500 active duty and Reserve Airmen and two geographically separated airfields. He also maintains proficiency and readiness as a KC-10A instructor pilot, flying with the 305th and 514th Air Mobility Wings at the Joint Base.

As Chief of Wing Flight Safety, Webb spearheaded a final overhaul to McGuire Field wildlife management practices. In addition to leading a targeted wildlife management event and coordinating a vegetation management plan, he led a rewrite of the Joint Base Bird/Wildlife Aircraft Strike Hazard plan, paring down the outdated document from nearly 200 pages to 22. Both airfields were cited as the worst managed (regarding wildlife) in 2015. However, in 2018, Headquarters Air Force Safety Center lauded the efforts of the 305 AMW Safety Office and cited the Joint Base as a "best management practice."

Webb also teamed with the Inspector General (IG) and served as the sole flight safety officer for Joint Base Exercise JERSEY DEVIL, providing immediate mishap response oversight during the largest exercise of the year. He gave support to 496 personnel over four wings during the most extensive winter storm of 2018. AMC's IG praised the exercise as "the most robust in AMC."

A native of Dallas, Webb attended Texas A&M University and earned a bachelor's degree in kinesiology. Upon completion of Undergraduate Pilot Training at Laughlin AFB, Texas, he was selected to fly the most capable strategic multirole tanker aircraft, the KC-10A, and assigned to the 2d Air Refueling Squadron, Joint Base McGuire-Dix-Lakehurst, New Jersey.

Capt John-David Webb

305th Air Mobility Wing, Joint Base McGuire-Dix-Lakehurst, NJ

Flight Safety NCO of the Year

MSGT DANIEL MCQUISTION is the Flight Safety Non-Commissioned Officer for the 62d Airlift Wing, Joint Base Lewis-McChord, Washington. He is responsible for implementing and managing the AW's flight safety program for five units.

Additionally, he works closely with the 627th Air Base Group, a tenant unit that provides installation support, and the Joint Base Safety Office to develop guidance and policies across the joint base, including Army, Navy, Marines, Air Force, and U.S. Department of Agriculture mission partners. Additionally, McQuistion engages with commanders, supervisors, and unit safety representatives to ensure safe flying and maintenance operations. His background includes five years of C-130 maintenance and 10 years of C-17 maintenance.

During 2018, McQuistion led numerous proactive initiatives, including quarterly maintenance safety briefs, arming supervisors with lessons learned from recent maintenance-related mishaps. He revived the outdated 62 AW Bird Aircraft Strike Hazard (BASH) prevention program and advocated the installation of an airfield wildlife fence to reduce strike hazards. He coordinated multiple Mid-Air Collision Avoidance (MACA) program briefings to local civilian airfields and pushed a multi-agency visit to the 62 AW's auxiliary training airfield, enabling wildlife control demonstrations, airfield inspections, MACA training for a local flight school, and training for airfield firefighters.

McQuistion was key to highlighting several deficiencies to higher headquarters. He identified an installation deficiency with wing root panels that left C-17 brakes susceptible to water saturation and freezing during flight. This discovery resulted in an aircraft modification to prevent future mishaps. He also coordinated with engineering to implement C-17 technical order changes after investigating a corrosion-induced failure of the nose landing gear steering actuator. Finally, he drove a major update to the 62 AW's mishap response plan, synchronizing the mishap response capabilities of 12 DoD agencies across Joint Base Lewis-McChord.

MSgt Daniel B. McQuistion

62d Airlift Wing, Joint Base Lewis-McChord Air Force Base, WA

Outstanding Achievement Award for Weapons Safety

MR. ROBERT BROWN has been the Weapons Safety Manager for the 436th Airlift Wing at Dover AFB, Delaware, from May 2016 to present day, where he has revitalized the 436 AW Weapons Safety program. He provides expert weapons safety oversight and support, ensuring explosive safety compliance for eight assigned and two tenant units, providing protection for over 11,000 personnel and equipment, including 31 aircraft, valued at $8.1 billion in total assets.

While in the 436 AW Weapons Safety Manager position, Mr. Brown flawlessly managed explosive operations for DoD's largest aerial port, overseeing the safe handling and delivery of 12.8 million tons of explosives in support of contingency operations throughout the Area of Responsibility. Additionally, he was integral in gaining AMC/CD explosive safety waiver approval, providing vital safety measures to contract workers constructing a new hydrant fuel system facility worth $23 million.

Furthermore, Mr. Brown was key in the ongoing purchase of 11 acres of easement land valued at $186,000 located near Dover's explosive storage areas. This land reclamation is vital for potential allocation of future AF explosive projects.

Originally from Centerville, Ohio, Mr. Brown honorably served over 24 years in the Air Force. He began his career as a Munitions System Specialist serving in numerous positions and later as a Weapons Safety Manager at wing and numbered Air Force levels. Mr. Brown's military journey prior to arriving at Dover AFB upon retirement includes five separate assignments to Osan AB, Korea; two to Spangdahlem AB, Germany and Eglin AFB, FL; and one each to Minot AFB, ND and RAF Lakenheath, United Kingdom. He has deployed in support of Operations Southern and Northern Watch, as well as Iraqi and Enduring Freedom.

Mr. Robert M. Brown

436th Airlift Wing, Dover Air Force Base, DE

RiderCoach of the Year

MSGT MICHAEL T. PATTERSON of the 305th Maintenance Squadron at Joint Base McGuire-Dix-Lakehurst (JBMDL) in New Jersey has been named Air Mobility Command's RiderCoach of Year. As a Certified Motorcycle Safety Foundation RiderCoach, he completed an 80-hour course, met all New Jersey on-the-job training requirements, was awarded a New Jersey Department of Motor Vehicles stamp, and raised coach capabilities by 10 percent at JBMDL.

During fiscal year 2018 Patterson revamped the JBMDL Motorcycle Safety Representative program. He identified old standards and recertified 49 riders. Additionally, he restored 100 percent of the Motorcycle Unit Safety Tracking Tool documents. Thanks in part to those efforts, Patterson aced the 87th Air Base Wing inspection. Perhaps his greatest achievement was to ensure JBMDL incurred no motorcycle fatalities at all during fiscal year 2018.

Patterson also led the Joint Base McGuire-Dix-Lakehurst mentorship ride. This involved coordinating 53 riders for 300 miles, during which he enforced hand signal rules and mentored riders' basic skills. He then returned all participants from the ride with zero mishaps.

His dedication to fellow Airmen is evident. He advocated the Basic Rider Course at the installation during the year. It involved teaching five two-day courses, requiring 110 hours of time and successfully qualifying 32 riders. Indeed, he mentored one-third of all new riders at Joint Base McGuire-Dix-Lakehurst.

MSgt Michael Patterson

305th Air Mobility Wing, Joint Base McGuire-Dix-Lakehurst, NJ

Distinguished Motorcycle Safety Award

★ ★ ★

SSgt Kenneth Reid and TSgt Lance Hughson

The 436th Airlift Wing Motorcycle Safety Program at Dover Air Force Base, Delaware has earned the 2018 Distinguished Motorcycle Safety Award. The safety program is a success because of the combined efforts of the Unit Motorcycle Safety Reps, RiderCoaches, mentors, and Green Knights. However, SSgt Kenneth Reid and TSgt Lance Hughson from the 436 AW Safety Office Occupational Safety Division are key to the success of the program and assist in managing the program for the entire wing. The Motorcycle Safety Program as a whole worked tirelessly to incorporate innovative training and maintain exceptional rapport with rider coaches. Combined with their phenomenal record of **zero** Class A or B mishaps for the fifth consecutive year, it is easy to understand why they deserve this honor.

This group at the 436 AW led its 12th Motorcycle Safety Day and hosted the Delaware Office of Highway Safety with 250 riders and 11 vendors. They developed a mentorship morale ride during Safety Day, through which they heightened awareness for more than 150 riders. They also constructed a skills course, promoting safe riding techniques to 28 attendees. The wing safety office and motorcycle safety reps are already planning the 13th Annual Motorcycle Safety Day.

Dover's more than 50 Green Knights members participated in four group tutor rides during the year. They provided continued learning and experience of fellow riders. The Green Knights also contributed to a highly effective presentation that ultimately reached 250 riders. As a group, the 436 AW inspected 18 unit programs involving 328 riders. The MSR training at 436 AW is a unique one-stop shop for requirements, enabling 11 representatives to manage their programs more efficiently. The training of seven new sportbike riders helped advance AMC's safety culture. In addition to all of the training accomplished, the 436 AW Motorcycle Safety Program members also conducted Personal Protective Equipment checks at gates during safety send-offs, ensuring all riders were compliant with requirements.

436th Airlift Wing

Dover Air Force Base, DE

AMC Safety Enlisted Professional of the Year

MSGT JUSTIN MUSALL is the Safety Superintendent for the 735th Air Mobility Squadron, Joint Base Pearl Harbor-Hickam, Hawaii. He implemented the commander's safety program and provided safety program oversight and support to AMC's busiest enroute squadron in the western Pacific, including detachments in Australia and New Zealand. He monitored the annual movement of over 110,000 passengers and 20,000 tons of cargo over 9,000 missions.

Musall guided his unit to a perfect Air Mobility Command Safety inspection for a third consecutive year, the first ever enroute to accomplish this feat. Additionally, he coordinated with three base agencies to merge Air Force and Navy standards and authored a new Joint Base Traffic Instruction, reducing base traffic mishaps 84 percent. He also identified inadequate 60K Tunner tire-changing procedures and synced Air Mobility Command and Air Force Materiel Command policy, driving a DoD technical order change.

Furthermore, Musall developed a "safety first" culture, which was evident when his unit Airmen took home two Air Force, three Air Mobility Command, and eight of ten Group/Wing safety awards. He was additionally recognized as one of the Top 40 Under 40 Safety and Health professionals worldwide, receiving a National Safety Council Rising Stars of Safety Award. During this time, he also was able to complete his master's degree in occupational safety and health.

Born in Crawfordsville, Indiana, Musall joined the United States Air Force in June 2004 and spent his first 8 years as an Electronic Warfare technician before retraining into Safety. His dedication to service earned him the fiscal year 2018 Safety Enlisted Professional of the Year Award, which joins numerous other awards, honors, and achievements he has amassed within and outside the safety arena during his career.

MSgt Justin Musall

735th Air Mobility Squadron, Joint Base Pearl Harbor-Hickam, HI

AMC Safety Civilian Professional of the Year

MR. GARY ASH serves as the Chief of Occupational Safety and Risk Management Advisor for the 60th Air Mobility Wing, Travis Air Force Base in California. He directly advises the Chief of Safety on the status of the installation safety management system and helps leadership at all levels meet organizational visions and mission objectives. His responsibilities include resource advisor and safety oversight for 16,000 personnel and $98 million of infrastructure supporting the C-5, KC-10, and C-17 airframes.

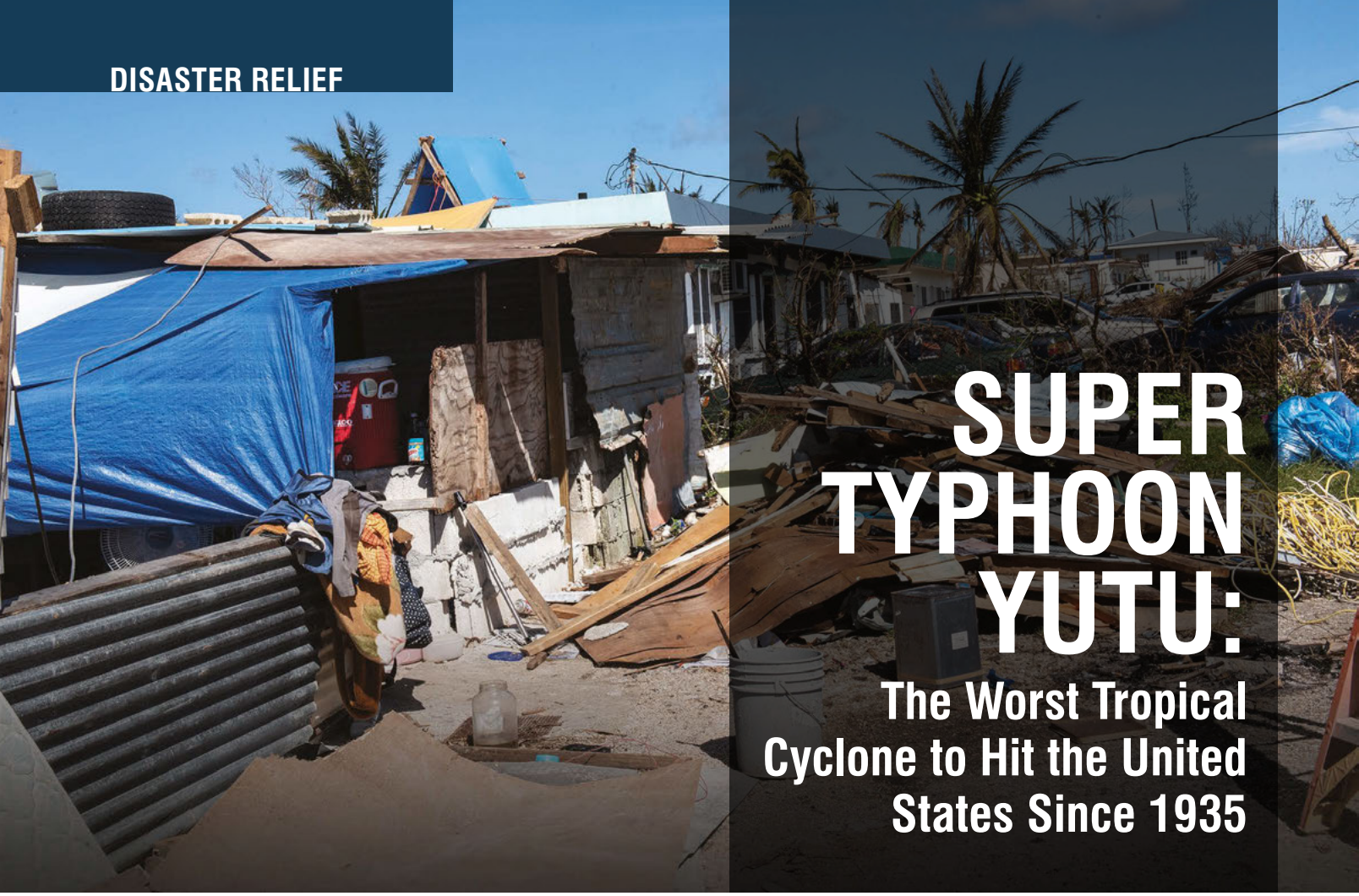
Accomplishments this past year include securing a safety cordon during a security incident and developing a streamlined safety management system, thus increasing productivity and risk management efficiency. Ash did this while obtaining the CalOSHA Certified Safety Management Specialist credential and other OSHA-certified courses. His impact—and that of all Wing Safety Staff—on the community encouraged innovative thought for continuous improvement.

Mr. Ash served 28 years in the U.S. Air Force and Arkansas Air National Guard as the Occupational Safety Manager for the 189th Airlift Wing. He received the ANG Outstanding Individual Ground Safety Award for 2008 and the Arkansas Exceptional Service Medal for outstanding service. In April 2011, he retired to pursue civil servant duties as Safety and Occupational Health Specialist at Travis AFB. In 2018 he was hired as an Occupational Safety Manager.

Raised in an Air Force environment, Mr. Ash considers Bridgeport, West Virginia, his hometown. He holds a degree in radio and television communications from Fairmont State College and another in safety from the Community College of the Air Force. His duty locations prior to Travis include Bergstrom AFB, Texas; Palmerola Air Base, Honduras; RAF Chicksands, United Kingdom; Little Rock AFB, Arkansas; and Istres-Le Tubé Air Base, France.

Mr. Gary Ash

60th Air Mobility Wing, Travis Air Force Base, CA



SUPER TYPHOON YUTU:

The Worst Tropical Cyclone to Hit the United States Since 1935

BY MS. RITA HESS, STAFF WRITER

Innovation and flexibility—two qualities in Mobility Airmen that pay big dividends during storm season. In October 2018, Lt Col Rusty Gohn, 734th Air Mobility Squadron Commander at Andersen AFB, Guam, was part of a team effort that depicted those traits perfectly after Super Typhoon Yutu devastated the Northern Mariana Islands, a U.S. commonwealth in the Pacific Ocean and home to tens of thousands of Americans.

"Much of the base is bomber centric," he said, "which means Navy—thus, [there is] less focus on logistics as an entity. When the typhoons kicked up repeatedly last fall, as they do about every three years with El Niño cycles, we sheltered gear and then reemerged afterward. But Typhoon Yutu was the worst tropical cyclone to hit the United States since 1935. It was about 86 miles north of this base and barely missed us. Still, it hit us hard, and we started cleanup and recovery efforts right away."

Gohn added that PACAF (Pacific Air Forces) was exceptional about getting C-130 and C-17 loads of needed supplies into the area. However, it was challenging to energize the U.S. Naval Construction Battalions (better known as the Seabees), the National Guard and Reserves, Army, Air Force, as well as local Civil Engineering (CE) RED HORSE (Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer) squadrons.

"Many of them hadn't deployed in a long time, and the Logistics Readiness Squadron [LRS] here is a contracting entity. Also, the Cargo Deployment Function is a civilian contract that runs 10 hours a day. So a user takes equipment to them and they help get it up to speed and bring it to us. We prepare it for shipment and get it on the aircraft."

Photo above: A picture taken in the southern part of the island of Saipan, Commonwealth of the Northern Mariana Islands, Nov. 3, 2018, illustrates the destruction caused when Super Typhoon Yutu struck on Oct. 25, 2018.

USAF photo by MSgt JT May III

He added that everybody assumes if they bring a truck, it magically gets on an airplane and goes where it is needed. But many things occur to make it actually happen—hazardous declarations and Atlas certifications, among many others.

"The civilian contract is not designed to work through the problems of that,"

Members assigned to the 36th Contingency Response Group at Andersen AFB, Guam, wait to push pallets of water in Tinian, CMNI, Oct. 31, 2018.

USAF photo by MSgt JT May III

A family poses for a picture in Saipan, CMNI, Nov. 3, 2018. Many families lost their home during Super Typhoon Yutu, but not their spirit.

USAF photo by MSgt JT May III

Gohn added. "The first few days after Yutu hit, we helped everybody we could but quickly realized we could not sustain such a frantic pace. Our people are pros at doing this, so we reached out to the LRS and the Contingency Response Group here on base. We got them all together in the same room of a freight terminal where they could work together."

The makeshift movement control center and mobility control center shrunk the turnaround timeline from the usual 48 hours down to 6.

"We told FEMA to just bring us their supplies—truckloads of water, food, and meals—which they did. We built pallets for them, prepped them for shipment, and did all the documentation. We also worked with PACAF to get additional help and had people work overnight so shipments were ready in the morning."

At one point, Gohn also explained that the vice president was coming through, which involved a heavy airlift tail, and another day saw 22 C-17 events.

"I think only one other squadron within the wing had that many events in a month. We had it in a day. It was a heavy flow for about a week and a half, with some personnel working double shifts. But it is what we do here."

In addition to the challenges associated with Typhoon Yutu and a visit from a dignitary, a third effort occurred on the heels of the first two—Operation Christmas Drop. Begun as a training mission in 1952, Operation Christmas Drop became the Department of Defense's longest-running humanitarian airlift operation.

"Just as the relief efforts from storm season ended, personnel began preparing for Operation Christmas Drop, donating 143 boxes of goods," said Gohn. "We managed event on top of event on top of event, safely—all within the same small footprint here."

Gohn shared a motto he and those he works with at Andersen adopted: *Safely, by the book, done on time*. As a pilot of C-5s, C-21s, and KC135s, his pride in air mobility was evident.

"What we did last fall and we do every day is overcome challenges; it is finding the best way to accomplish a mission with the resources available. In fact, our squadron recently won nomination at the wing level for the Verne Orr Award, which recognizes efficient use of manpower. We are strategically located but do not have the staffing of Joint Base Pearl Harbor-Hickam or Yokota Air Base. At times, though, we eclipse everyone else with fewer people. We accomplished those missions without any vehicle or personnel safety mishaps, which is phenomenal considering the ops tempo."

He concluded by rightfully bragging about the safety record there, saying some people think Andersen AFB's monthly safety statistics are wrong because they accomplish so much with so little and so few incidents.

"Motivating my folks, leading and managing my people and my mission—that is my focus," he said. It appears that even a powerful tropical cyclone can't stop that.

DID YOU KNOW?

Under Joint Region Marianas, the U.S. Naval Base Guam and Andersen Air Force Base each maintain commanding officers that oversee their respective mission requirements and operations. It symbolizes the historic partnership between the Navy and Air Force on Guam, bridging the approximate 30 miles between the two bases.

Personnel assigned to the 445th Aeromedical Staging Squadron, Wright Patterson AFB, OH, 932d Aeromedical Staging Squadron, Scott AFB, IL, 910th Aeromedical Staging Squadron, Youngstown, OH, and the 349th Aeromedical Staging Squadron, Travis AFB, CA, transport a simulated casualty using a four-man litter on to a U.S. Army HH-60M MEDEVAC helicopter during exercise Patriot Warrior at Young Air Assault Strip, Fort McCoy, WI, Aug. 12, 2017.

USAF photo by TSgt Efren Lopez

"We keep 'em movin', we keep 'em livin'"

BY CAPT CHRISTINA HEWETT, 349th AEROMEDICAL STAGING SQUADRON

Here at Bagram Airfield, Afghanistan, our En Route Patient Staging System (ERPSS) motto is "We keep 'em movin'." This we proudly chant at role calls and our wing command events back at Travis Air Force Base. However, upon boots to sand in April 2018 at the Craig Joint Theater Hospital, Bagram Airfield, our team of 16 from the 349th Aeromedical Staging Squadron quickly learned that this motto was only part of the mission and only part of why our role is so vital to the deployed environment.

In only a few weeks, we have learned more about our mission, our team, and ourselves. These invaluable lessons have guided us to a better understanding of the deployed environment and the true meaning of "I will never leave an Airman behind."

This is my first deployment, so my expectations were the result of stories from other deployed United States Air Force members and from what I saw on television. The real thing is nothing like those stories.

After being here for 15 days, I was part of one of the largest mass casualty events Bagram has seen in a while. We all donned our Interceptor Multi-Threat Body Armor and stood in the hot morning sun. We waited on the ramp that connects the hospital to the flight line for the medical evacuation helicopter to arrive with what we thought would be nine patients.

We heard the angst in the voices coming over the radio. Ground forces were still taking fire and it was not safe to land. We waited some more. I knew in my gut today would be a milestone event for me.

The ERPSS team was ready at the ramp. We knew we would soon receive soldiers injured in the preservation of peace in Afghanistan. I was part of a team to receive the first patient from the helicopter. We transferred our patient to the NATO gurney and wheeled toward the next team for a quick weapons safety check, as the ERPSS team cut away clothing and checked for emergent injuries. A patient trauma name was assigned, and I glanced back to see the remaining ERPSS team, EMS team, and volunteers lined up—getting patient after patient after patient. I quickly understood that our original count of nine patients had multiplied.

My heart rate increased just a bit at the sense of urgency to move these patients through the hospital doors quickly. We stopped under the massive American flag that canopied the triage

A medical team transports a patient by stretcher to Craig Joint Theater Hospital.

USAF photo by SrA Kaylee Dubois

Medical Airmen administer life-saving maneuvers on a moulaged "patient" during a mass casualty training exercise at Travis AFB, CA. The 349th Medical Group conducted a week-long medical training course for the 349th and 129th MDGs that culminated in a mass casualty training scenario.

USAF photo by SSgt Daniel Phelps

Every medic focused on ensuring that each patient who arrived with a pulse stayed alive. This was the day all of us would carry with us in some way, shape, or form for the rest of our lives.

area. Our patient arrived at the threshold of safety.

As the trauma nurses and physicians assumed care of my patient, I returned to the MEDEVAC ramp. The number of patients had almost doubled. Every hand was on deck. Every skillset utilized. Every brow damp with sweat. There was no idle conversation. Every medic focused on ensuring that each patient who arrived with a pulse stayed alive. This was the day all of us would carry with us in some way, shape, or form for the rest of our lives.

As I washed blood off my gloved hands to go and get the next wounded soldier, the course of events was not lost on me. I continued on, as did every member of the ERPSS team, and tended to the next patient, then the next, and so forth.

At the end of the day, the effects of what happened were easy to see on all of our faces. Walking back to our dorms in blood-stained uniforms, we knew we made a difference in this mass casualty.

I removed my bloody clothes and realized as an ERPSS nurse, I do not just keep 'em movin'. I play an immense and unique role in keepin' 'em livin'. The ERPSS team does much more than simply move patients from one place to another. We are not the Uber of the desert. We are an essential link in the chain of survival for our wounded and critically ill Airmen, Sailors, Soldiers, and Marines.

Our hospital has an outstanding role in this process, and one of our chants is "No one dies today. They live to fight another day!" I realize now that everyone here—no matter the job or title—plays a fundamental role in getting our wounded and critically ill brothers and sisters safely back home. So, the next time I hear, "We keep 'em movin'," I will know deep down that ultimately, "We keep 'em livin'!"

Lightning Can Strike in a Flash!

BY MS. ARYN KITCHELL, STAFF WRITER

I'm not scared of flying. The first time I got on a plane, I was only stressed about being 15 years old and going through security by myself. Although I'm sure if I had ever been on a plane while it was struck by lightning, I would start having second thoughts about traveling in the air.

According to experts, a commercial airplane is struck by lightning more than once each year. Most of the time, passengers don't even notice. In fact, engineers have developed safety features to keep the planes working and the people inside safe.

An airplane can often trigger lightning when flying through a charged cloud. When lightning strikes, it will usually attach to the nose or a wing tip. Then, as the plane continues to move through the flash, the lightning travels and can attach to the fuselage or other locations. The electric current travels through the conductive "skin" of the airplane and exits off an extremity, like the tail.

To make sure the current remains on the exterior, skins are made up of conductive material, such as aluminum, or embedded with a layer of conductive fibers and screens. The computer systems on aircraft can be susceptible to power surges from lightning strikes, so grounding and surge suppression devices protect the equipment. Engineers also take precautions to protect the fuel system from sparks, because even a tiny spark could have disastrous consequences. The skin around the fuel tanks is thick enough to withstand a burn through, and all of the pipes and fuel lines are protected against lightning. Also, fuels today produce less explosive vapors.

The largest U.S. aircraft disaster directly related to lightning happened in 1963 when a Boeing 707-121 was struck, and the lightning caused an explosion in a reserve fuel tank. The plane crashed in Maryland, and all 81 people on board died. After that, the Federal Aviation Administration developed safety features, and the last confirmed commercial airplane crash here due to lightning occurred in 1967.

Unlike in an aircraft today, lightning is never safe for those on the ground. According to a study done by the National Weather Service, between

2006 and 2017, lightning struck and killed 375 people in this country, and almost two-thirds of them were participating in outdoor leisure activities when struck.

During that period, there were 34 fishing deaths, 22 beach deaths, 19 camping deaths, and 17 boating deaths. Additionally, there were 12 soccer deaths and 10 golf deaths. Yard work was associated with 14 deaths and ranching/farming with 17 deaths. Men accounted for 80 percent of all fatalities and more than 90 percent of the deaths in the fishing, sports, and work categories. The vast majority happened in June, July, and August, with the weekend (Friday, Saturday, and Sunday) having slightly more deaths than weekdays.

Sadly, many victims were either headed to safety at the time of the strike or moments away from safety—they simply did not head to safety soon enough.

According to the National Weather Service, **if you can hear thunder, lightning is close enough to strike you.**

If a thunderstorm is in the area, no place outside is safe, so moving to a substantial building with electricity or plumbing or to a metal-topped vehicle with the windows up are your safest actions.

While indoors, stay off computers and other electrical equipment that puts you in direct contact with electricity. You also should avoid plumbing and keep away from windows and doors. Don't lie on concrete floors or lean against concrete walls. If you are outside, never lie flat on the ground and stay off any elevated area. Never use an isolated tree, a cliff, or a rocky overhang for shelter. Get out of and stay away from large bodies of water, and avoid any objects that can conduct electricity.

These situations are dangerous because of the different ways lightning can strike people. A direct strike, which can occur when you are in an open area, is not as common as other ways. Another type is a side flash, in which lightning hits a taller object within a foot or two of the victim and then a portion of the current jumps from the object to the victim. A side flash can happen if you take shelter under a tree.

Ground current causes most lightning deaths and injuries, which happens when lightning strikes an object and the energy travels out from the strike in the ground. This can affect a large area; anyone outside near a lightning strike can be a victim of ground current. Because metal provides a path for lightning to follow, conduction over long distances through wires or other metal surfaces causes most indoor lightning casualties. If you are in contact with anything connected to metal wires, plumbing, or metal surfaces that extend outside, you are at risk for a conduction injury.

The least common death is by streamers, which develop as the downward moving leader approaches the ground. While only one streamer makes contact with the leader, all streamers in the area discharge when the main channel does. These strikes can kill anyone outside near the main channel.

If you are in a plane when lightning strikes, you're well protected due to the many safety features developed over the years. The conductive metal in the aircraft's skin ensures the lightning doesn't travel inside the plane with you. People are not equipped with safety features like a commercial airplane, and any time you are outside in a thunderstorm, you risk your safety in a big way. Survivability of a lightning strike is most directly attributed to how soon someone receives medical care, so calling 911 and starting CPR can be the difference between life and death. Most importantly, don't take that risk, and move to shelter immediately if a storm is approaching.

LIGHTNING SAFETY INDOORS

No corded phones. Cellular or cordless phones are OK.

Don't touch electrical equipment such as computers, TVs, or cords. Remote controls are OK.

Avoid plumbing. Do not wash your hands, take a shower, or wash dishes.

Stay away from windows and doors, and stay off porches.

Do not lie on concrete floors or lean against concrete walls.

LIGHTNING SAFETY OUTDOORS

Move inside a well-constructed building, and stay away from electrical appliances and metal surfaces.

If you are caught outdoors and can't get to shelter, then crouch down low, but do not lie flat on the ground.

Avoid isolated trees, and stay away from the tallest trees.

If you are in a boat, get off the water and into a substantial structure.

PROTECT YOUR PETS: Dog houses are not safe shelters. Dogs that are chained to trees or metal runners are particularly vulnerable to lightning strikes.

10 TIPS FOR NAVIGATING LADDERS SUCCESSFULLY

BY MS. RITA HESS, STAFF WRITER

According to the Occupational Safety and Health Administration—otherwise known as OSHA—falls from portable ladders (step, straight, combination, and extension) are one of the leading causes of occupational fatalities and injuries. Sadly, these same incidents occur at home, too.

In fact, several people I know have had ladder accidents. One was sidelined for several weeks after a fall from near the top of an extension ladder (that was perched precariously on scaffolding). Another took early retirement after breaking both legs in a fall from only the second rung of a stepladder.

Ladders are obviously beneficial. They help us reach areas we need to access! So what is it that makes them so dangerous on the job and at home? I have a couple of theories, and then I will give you some solid advice from OSHA.

First, I feel it is human nature to think accidents happen only to other people. We tend to believe we are invincible or too young or too cautious or too experienced or too agile (or insert your favorite excuse here). Truth is, accidents can happen to anyone at any time of day in any season.

I also think we are a bit lazy—or maybe we just don't think things through. After all, if I know I am going to need a can of paint, a paint roller, two sizes of brushes, a tarp, and a hammer when I climb the ladder and reach the eaves, why would I make two trips instead of carrying everything at once? Similarly, once I am 15′ off the ground, why would I climb all the way down and move the ladder over 6″ if I can just lean waaaaay out there and reach that spot with the tip of my brush?

Okay, enough speculation about how we get into these predicaments. Here are some OSHA recommendations to keep you alive and well. Follow them at home and at work!

1. Plan ahead how you will accomplish a task safely. Slow down and take your time gathering what you need to do the job right.

2. Read and follow all manufacturer instructions, labels, markings, or warnings.

3. Inspect the ladder before each use for defects such as loose or missing rungs, bolts, cleats, and screws. Also, make sure its surfaces are smooth to reduce the chance of injuries and snagged clothing, and make sure nothing (e.g., paint or stickers) covers defects or safety information. Remove a damaged ladder from service until it is repaired or discarded.

4. Keep ladder rungs, steps, and feet free of slippery materials.

5. Before starting work, survey the area for potential hazards, such as power lines. Keep all ladders at least 10 feet away from them.

6. Only use ladders and appropriate accessories (ladder levelers, jacks, or hooks) for their designed purposes. For example, do not use a ladder horizontally like a platform.

7. Maintain contact with the ladder at three points (two hands and a foot, or two feet and a hand) when ascending or descending. Keep your body near the middle of the step and always face the ladder.

8. Use extension ladders only on stable and level surfaces with the side rails square to the structure against which it is leaning and both footpads secure.

9. Avoid the temptation to place a ladder on something for added height (e.g., boxes, barrels, etc.).

10. Carry tools in a tool belt or raise and lower them using a hand line. Never carry them in your hands while climbing up or down a ladder, and never leave them on one unattended.

Finally, be a good wingman. Friends don't let friends use ladders improperly … or something like that!

Quick Tips to Jumpstart Your Backup Communication Plan

BY MR. MONTE NACE, STAFF WRITER

Every family needs an emergency communication plan in case a natural or man-made disaster strikes. According to **www.ready.gov**, creating yours starts with a few simple questions:

__What if__ something happens and I am not with my loved ones? How will I know they are safe? Will I be able to reach them? How can I let them know I'm OK?

During a disaster, the communication networks we rely on daily for cell phones and computers may not work. Electricity may also be out, leaving you unable to recharge electronic devices. What then?

Planning for such circumstances is particularly important if you have children or family members with disabilities or special needs. **Ready.gov** recommends starting with three easy steps, which I embellished with a few additional suggestions.

1. **COLLECT** phone numbers and email addresses for family members and other important contacts, such as hospitals, doctors, schools, or service providers. A written copy is vital if you are without your device. Include someone outside your community or state who can act as a central point of contact for your household in case you and other family members are not together when the event occurs. On each device, store at least one contact under the name "In Case of Emergency" or "ICE" This allows someone to quickly figure out the proper person to contact.

If you complete your Family Emergency Communication Plan at **www.ready.gov/make-a-plan**, you can print it onto a wallet-sized card.

2. **SHARE** a hard copy with everyone who may need it in a "What if …" scenario—particularly those in your home. Keep the information current and easily accessible, such as in a backpack, wallet, or handbag. If you complete your Family Emergency Communication Plan at **www.ready.gov/make-a-plan**, you can print it onto a wallet-sized card. You should also post a copy at home on your refrigerator or family bulletin board, and memorize phone numbers if possible.

3. **PRACTICE** how you will implement your plan. Involve children in the exercise, instructing them that text messages may get through when cell phone calls do not because a text uses less bandwidth. Disaster drill discussions should include suggested message content, such as "I am okay. I am at school." Instruct children without cell phones to follow instructions from a responsible adult, such as a teacher, principal, or emergency responder. Based on practice session results, revise your plan as needed. Ensure children know how and when to call 911 if needed. Finally, teach them to adjust their device's screen brightness and close unnecessary apps to conserve battery life temporarily.

None of us wants to be involved in a disaster, but it happens somewhere every day. In a world where we rely so heavily on technology, make sure you and your loved ones are prepared to stay in touch—just in case.

MISHAP-FREE FLYING HOUR MILESTONES

6,500 HOURS

155 ARW, Lincoln, NE

CMSgt Russell Sladky

5,000 HOURS

7 AS, JB Lewis-McChord, WA

TSgt Michael J. Tubbs

155 ARW, Lincoln, NE

Maj Matthew Siemsen

201 AS, JB Andrews, MD

Maj Keith J. Grawert
CMSgt Monique Y. Townsend
MSgt Cary D. Garland
MSgt Shant Paloulian

3,500 HOURS

7 AS, JB Lewis-McChord, WA

Col Mark S. Fuhrmann
Lt Col Timothy R. Garland
TSgt Daniel R. Denman

155 ARW, Lincoln, NE

Lt Col Bryan Clifton
Lt Col Andrew Malousek
Lt Col Kathryn Millwood
Maj Daniel Williams

2,500 HOURS

7 AS, JB Lewis-McChord, WA

Lt Col Sean P. Burke
Lt Col Jamil I. Musa
Capt Patrick B. Sauncy
CMSgt Stephanie A. Northup
SrA Justin W. Pavlicek

155 ARW, Lincoln, NE

Lt Col Karl Duerk
Lt Col Kent Leonard
Maj David Dalmann
Maj Mitchell Ehresman
Maj Matthew Roby
Maj Tyler Sandberg
Capt Tyler Piening
MSgt Brian Gayer
TSgt Isaac Cepek

166 AW, New Castle, DE

Lt Col Bernard Meadows

201 AS, JB Andrews, MD

Lt Col Janet Van Dyke
Maj Rhett O. Gunderson
Maj Brandon C. Splawn
Capt Herschel A. Smith
MSgt Ryonn D. Taylor
TSgt Faith E. Grubb
SSgt Daniel G. Toms

A1C Sagan Fisher, an 816th Expeditionary Airlift Squadron C-17 Globemaster III loadmaster, and maintainers from the 8th Expeditionary Mobility Squadron, perform a C-17 pre-departure check before a mission in support of Operation Inherent Resolve, June 14, 2017, at Al Udeid Air Base, Qatar. The C-17 is capable of rapid strategic delivery of troops and all types of cargo to bases throughout the Central Command area of responsibility.

USAF photo by SSgt Michael Battles

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QUICKSTOPPERS

"Fire in the Cargo Compartment!"

BY MR. LALO MAYNES,
HQ AMC FLIGHT SAFETY

On a recent flight on board a C-17A, after the aircraft reached cruise altitude, the loadmaster called over the intercom that he had smoke in the cargo compartment and then mentioned that there was a fire! The pilot asked the nature of the fire and if it could be put out or had already been extinguished. The loadmaster replied that a passenger's cell phone charger caught fire—probably due to a faulty charger plugged into the sidewall. The loadmaster grabbed the charger and cell phone and quickly put them into the fire suppression bag to smother it.

Fire suppression bag, gloves, and safety glasses.

Photo by Maj Joshua Miller, AMC/SEF

The pilot gave control of the aircraft to the co-pilot and proceeded down to the cargo compartment to assess the situation. The compartment was still smoky from the electrical wire burning, and he noticed the acrid smell associated with an electrical fire. The pilot coordinated with the crew on the flight deck for a divert location and tasked the crew to begin running the SMOKE, FIRE, AND FUMES checklist. The loadmaster instructed the passengers to don their EPOS hoods. The crew declared an in-flight emergency and landed uneventfully.

This was the first use of a fire suppression bag for its intended purpose on an AMC aircraft. In January 2018, HQ AMC/SE provided two fire suppression bags for every AMC active duty aircraft. The bag is designed to extinguish or suffocate and cool down an overheated portable electronic device containing a lithium-ion battery and can be used in vehicles and airplanes.

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A DAY IN THE LIFE

Gen Maryanne Miller (center), AMC Commander, shakes hands with SrA Alexander Tapnio-Williams, 436th Logistics Readiness Squadron Fuels Preventative Maintenance Supervisor, November 6, 2018, at Dover Air Force Base, DE. Miller spoke to and met with members of the 436th LRS fuels flight during her tour of the base.

USAF photo by Roland Balik