

THE

# MOBILITY

THE MAGAZINE OF AIR MOBILITY COMMAND | SPRING 2016

FORUM

Spring  
Break  
Survival:

## Booze n' Binging



2015 Safety Award **WINNERS**

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Volume 25, No. 1

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## AIR MOBILITY COMMAND

Gen Carlton Everhart II



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*Don't drink and drive. When you go out, choose a designated driver or be one yourself.*

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# Lt Gen Cox on Rapid Global Mobility

By MS. KIM BRUMLEY, Staff Writer

**A**s commander of 18th Air Force, Lt Gen Samuel Cox is unmistakably clear about how AMC meets its number one priority of rapid global mobility.

“18th Air Force and our subordinate units along with the AMC’s expeditionary wings and groups make rapid global mobility happen every day,” Cox said “Every time a T-tail delivers pallets, or a J-model Herc executes a combat aerial resupply, or a tanker refuels strike aircraft ... **that** is rapid global mobility.”

As Commander of Air Mobility Command’s sole warfighting numbered air force, Lt Gen Cox is responsible for overseeing the command’s worldwide operational mission of providing rapid, global mobility and sustainment for America’s armed forces through airlift, aerial refueling, aeromedical evacuation, and contingency response.

“Every day, the 18th Air Force is responsible for operationalizing the forces—people and equipment. When a validated requirement arrives from USTRANSCOM, we in the 18th turn the conceptual into air power.” Cox said. “General Everhart (AMC Commander) has provided the necessary authorities to allow 18th Air Force to make his number one priority a reality—execute and sustain rapid global mobility.”

Cox said he is fortunate to lead superb commanders who know that rapid global mobility start with safety and understand the inherent risks from manmade and environmental threats.

“They know that they are empowered to raise the flag any time their risk/reward calculation comes out wrong,” he said. “Our people are too precious—our resources too scarce—for us to operate any other way.”

When Cox entered the Air Force in 1980, he was glad for the opportunity but did not foresee a

*A C-17 Globemaster from Joint-Base Lewis McChord, Wash., receives fuel from a 92d ARW KC-135 Stratotanker over Washington state.*

USAF PHOTO BY A1C TAYLOR BOURGEOUS

military career that has now lasted over 30 years.

“My father served in the Air Force for 30 years, working up from an enlisted member all the way to a major,” he explains. “I attended the U.S. Air Force Academy after high school but without clear direction of what I wanted to do with my life. I knew the Air Force provided opportunities for my dad and for our family, so I joined for the opportunity.”

However, Cox was not looking at a long career in the Air Force.

“I wanted to do my best as a professional aviator, but I didn’t fully appreciate the impact and importance of what we were doing,” he says. “When I finally did



*Airmen from the 379th Expeditionary Aeromedical Evacuation Squadron treat an injured Airman at an undisclosed location in Southwest Asia.*

USAF PHOTO BY TSGT NATHAN LIPSCOMB



*SSgt Shawna Sims, a 92d Air Refueling Squadron KC-135 Stratotanker boom operator from Fairchild AFB, Wash., refuels a B-52H Stratofortress from Minot AFB, N.D.*

USAF PHOTO BY SSGT BENJAMIN W. STRATTON



*Airmen deployed to Al Udeid Air Base, Qatar, deliver cargo to Incirlik Air Base, Turkey, in support of Operation Inherent Resolve.*

USAF PHOTO BY TSGT NATHAN LIPSCOMB

understand, I became committed to making the Air Force my career.”

In the decades since, he calls his career “a great series of significant positive activities,” such as Special Operations in the C-141; Squadron Command in the 14th Airlift Squadron; Wing Command at Dover; Commandant of Cadets at the U.S. Air Force Academy; and Command of Tanker Airlift Control Center (TACC). Cox adds that each tour had “fantastic high points,” including:

- Operation Just Cause in the C-141; flying with folks like Capt Doug Hetzel and Capt Mike Speer; and being led by squadron commanders of the highest caliber: Lt Col Jim Norris and Lt Col Duncan McNabb;
- In the 14th AS, working with staff sergeant and tech sergeant loadmasters who are now chief master sergeants, or working with captains who are now group and wing commanders;
- At Dover, seeing the C-5 mature to the M-model; and

- At TACC, living through the infamous 2011 “March Madness.”

“The most important commonality in these experiences,” he explains, “was working with, and for, great people. For example, none of the former 18th AF commanders performed the job exactly the same way, but they all wanted the same outcome: operational effectiveness.”

Lt. Gen. Cox intends to carry on that effectiveness, adding he is proud that joint and coalition partners are confident in AMC’s mobility capabilities. He credits the professionalism of mobility Airmen for that confidence.

“Our Airmen are the greatest asset to the mobility mission,” he said. “I am dedicated to ensuring that they understand their value to the mobility enterprise, and I am dedicated to providing them the tools they need. That includes clear expectations from the top down, along with my promise to seek feedback at all levels.”

The general noted that ongoing efforts exemplify how well 18th Air Force leverages the capabilities of the Total Force to conduct its mission.

“The Mobility Air Force is the standard when it comes to Total Force integration, and that is not by accident.” he said. “We practice and train as an integrated team every day, and that pays off in our execution of operational missions. Participating in exercises provides Active Duty, Air National Guard, and Reserve forces the opportunity to perfect our interoperability.”

Cox said leveraging the interoperability of every facet of the mobility enterprise is the key to the MAF’s success.

“Eighteenth Air Force is the collective capability of the operational wings, matrixed AMC staff, and the 618th AOC,” he said. “Together, the pieces of the mobility machine merge under the 18th Air Force umbrella to execute AMC’s number-one priority – rapid global mobility, delivered at the right place and the right time.” 🇺🇸

# Chief of Safety Shares Vision

By MS. DARLENE Y. COWSERT,  
Air Force Safety Center Public Affairs

**M**aj Gen Andrew M. Mueller has been the Air Force chief of safety for less than six months but describes himself as a product of safety for 30 years.

“Lessons learned 68 years ago are just as applicable today,” Mueller said. “We learn from the experiences of each other and that enables us to decrease our chances of repeating mistakes that impede safe operations and increase our consistency in repeating sound practices.”

The master air battle manager with more than 4,000 flight hours knows that safety is integral to every task necessary for the Air Force to fly, fight, and win in air, space, and cyberspace.

“It sounds obvious, but we can’t forget that safety touches every task,” he said. “Safety is critical to our combat readiness and enables us to succeed in every mission.”

Mueller took the reins of Air Force safety on July 24, 2015, on the heels of the safest year in Air Force manned aviation history. Fiscal year 2014 ended with only seven Class A mishaps, which produced a rate of 0.43 Class A’s per 100,000 flight hours for manned aircraft. By comparison, there were 19 Class A’s in fiscal 2015 with a rate of 1.12 per 100,000 flight hours. Aviation mishaps resulted in fewer deaths with six in fiscal 2015, compared to 10 in fiscal 2014.

Ground fatalities also increased in fiscal 2015. On-duty ground fatalities rose from one in fiscal 2014 to four in fiscal 2015, while off-duty ground

fatalities increased from 42 in fiscal 2014 to 47 in fiscal 2015.

Fiscal 2015 aviation Class A total mishaps were nearly identical to the 10-year average of 18.5. On-duty ground fatalities were slightly above the 10-year average of 3.8, and off-duty fatalities were slightly below the 10-year average of 49.4.

“A change in mishaps from one year to the next doesn’t mean we got it right one year and relaxed the next,” Gen Mueller said. “It’s important to look at trending data and see the larger picture rather than focus only on changes from one year to the next.”

Some mishaps result from circumstances beyond our control, the general said, while a rising trend can underscore an area that requires emphasis or a process change.

“There is no end-state for mishap prevention. Regardless of the number of mishaps over a period of time, we remain focused on preventing the next mishap. If we get it right, we’ll spend 95 percent of our safety efforts before a mishap.”

The general describes his role as chief of safety as an enabler of a sustained safety-conscious culture across the Air Force. That culture, he said, safeguards Airmen, protects resources, and preserves combat capability.

“A sound safety culture across the Air Force is one that’s just, fosters learning and reporting, and is flexible,” Mueller said. That culture must be imparted to every new accession, and it must be protected, he added.



**“Leadership involvement, focus on compliance, and decision-making at the right level are all essential to a successful safety program.”**

“We have to protect our safety culture by guarding against normalization of deviations, for example, to the point that future leaders don’t recognize the risk they are accepting and delegating to the lowest levels.”

Most Airmen, from senior leaders to youngest recruits, understand the value of safety, the general said, but leaders have to commit to providing the resources, training, and tools they need, and leaders should emphasize personal accountability to ensure every Airman, from top down, is compliant and uses risk management in every activity, every day, on and off duty.

“Leadership involvement, focus on compliance, and decision-making at the right level are all essential to a successful safety program,” he said.

While safety is a commander’s program at all levels, the general emphasized that the safety experts at AFSEC are there to support the commanders in the execution of their mishap prevention programs through subject matter expertise and the safety management system framework. 



# Words of Wisdom from a Lifer

**M**y goal as Command Chief for Air Mobility Command (AMC) is to get every Airman to understand what it means to be an Airman in our United States Air Force. When asked what they do, I want them to proudly and confidently say, “I am an Airman in the United States Air Force,” as opposed to half-heartedly telling me what their specific duty may be. I am extremely proud and, at any moment, can whole-heartedly say that I am an Airman in the United States Air Force.

Lean in and take full advantage of the wonderful opportunities to be a better you and to give back so that others can be better.

The pride I have to serve this great nation was instilled in me long ago by my uncle, a dedicated Army Soldier who inspired me immensely. I remember speaking with him about the military and the Army, but he was adamant that I could only join the Air Force! At that time, I was still not quite sure about what military life really meant and didn’t have any friends who were signing up, so I decided to join the Air National Guard. Five months later, I was at Basic Training; by the time I completed Tech School, I was ready to go on Active Duty. Once on Active Duty, I knew this was where I wanted to be, so I came in with a “lifer” mindset. I spent my first year as an Admin Troop (702) working in the Consolidated Base Personnel Office. I was asked to fill in for the Senior Enlisted

Advisor’s (SEA) Admin Airman. The third time I was asked to fill in, it became my permanent position. While working in the SEA, I truly fell in love with the Air Force and being an Airman.

From that moment to this day, I have had the privilege of being mentored by the Air Force’s finest Chief Master Sergeants. It is impossible to name them all, but among the most notable are CMSgt Roy Boudreaux (Air University SEA), CMSAF Jim Binnicker (9th CMSAF), and CMSAF Eric Benken (12th CMSAF). Those extraordinary mentors taught me to communicate, communicate, and communicate some more so that I can fully understand needs and provide the best guidance. I want to look Airmen in the face, and I want them to know that I am truly LISTENING. I may not always say what they want to hear, but I will communicate “guidance” and Gen Everhart’s vision.

Joining the Air Force may not be the best thing you’ll ever do in your life, but it was the best decision you made at the time. Lean in and take full advantage of the wonderful opportunities to be a better you and to give back so that others can be better. One day, you’ll look back and realize you made a difference! I am excited to be an AMC Airman and I want to continue to instill that pride and excitement in our Total Force Airmen – AIRMAN UP!

– Command Chief Shelina Frey,  
HQ AMC, Scott AFB, IL



*Command Chief Shelina Frey is greeted by 387th Expeditionary Support Squadron Civil Engineer Flight Commander 1Lt Andrew McPherson at an undisclosed location in Southwest Asia.*

USAF PHOTO BY MSGT CHRIS CAMPBELL

# ASAP Scoreboard Provides Valuable Hangar Flying Topics

By MR. TIM GROSZ, HQ AMC/A3TO  
Chief, Operations Risk Assessment and Management System (Ops RAMS)

The Aviation Safety Action Program (ASAP) is an identity-protected, self-reporting program that is an integral part of AMC's efforts to reduce mishaps and improve operations and training focus. The program is designed for Airmen to report information and concepts critical to resolving mishap precursors, and that allows sharing of information across AF aviation communities. Aircrews are encouraged to report any issues they encounter in the system that could lead to an accident/incident so the proper attention can be levied in order to mitigate the risks. In addition, aircrews are encouraged to report their honest mistakes/errors so others can learn from them and not make similar ones in the future. All ASAPs are posted on the ASAP Scoreboard at <https://www.usaf-mfoqa.com>.

We've previously highlighted ASAPs that were used to correct processes, procedures, checklists, the Giant Report, and aircraft systems, to name a few; but we'd also like to highlight some ASAPs from which aircrews can definitely learn from the mistakes of others. The scoreboard can be sorted by Aircraft Type or Keyword Searched for particular topics such as airfields, navigation errors, altitude deviations, etc. This can be a valuable tool for pre-mission planning, instructor preparation for local sorties, and training meeting topics/hangar flying. Here are a few examples.

Aircrews are encouraged to report their honest mistakes/errors so others can learn from them and not make similar ones in the future.

## LANDING AT THE WRONG AIRFIELD/RUNWAY

**ASAP 1592 - Nearly Landed at the Wrong Runway in Djibouti**  
On approach into Djibouti-Ambouli International Airport (HDAM), we were heading north to the initial approach fix of runway (RWY) 09. Lined up for direct entry into a Holding in Lieu of a Procedural Turn. Initial approach fix altitude was 3700'. Subsequently acquired visual with airfield and called "field in sight" and requested the visual. We made a right turn direct for the airfield and aggressive descent to the runway. At 1000', we were about 30 knots (kts) fast and slowing to approach speed fully configured to land 3/4 flaps. At 500', we were stable at approach speed. At that time the HDAM tower controller called and asked us to confirm that we were lined up for final on HDAM and not neighboring

Chabelley Airport (HDCH). The crew executed an immediate go around, climbing to 1500' AGL. Ran another Approach and Before Landing check and landed uneventfully on RWY 09 at HDAM.

## ASAP 1334 - Landing on Wrong Runway at al Asad

I was the pilot flying and the Pilot in Command making a tactical approach to Ayn al Asad Airbase (ORAA) runway 09L. The approach was a planned penetration descent to 1000 AGL for a right base for landing 09L. Tactical clearance for the approach was given by the joint terminal attack controller (JTAC) working in the ORAA tower, and we were restricted to enter via a southern sector. Upon our descent through 7000 AGL, the JTAC restricted our descent to give way to a C-17 departing from 27R, opposite direction, on our intended landing runway. I established an orbit from north to south until the departing C-17 was clear of the area. When cleared in by the JTAC, I reestablished a penetration to enter a right base for 09L landing. I misidentified runway 09R to be runway 09L. I configured for landing and landed on 09R without the proper clearance. Thankfully, no damage was noted to the aircraft and I taxied toward the ramp where we planned to ERO our cargo and passengers.

Several factors contributed to my misidentification and loss of situational awareness during this

RISK MANAGEMENT

approach and landing. Barrage fire from light air defense artillery was observed to the east of our descent path off of our right wing. Additionally, ground fire was observed to the north and east. Initially, we were cleared for an unrestricted descent and landing. When that descent was restricted by the JTAC to allow for departing traffic, it caused some confusion and loss of situational awareness within my aircraft. ORAA airfield is a pitch black field at night. Although the entire crew was utilizing night vision goggles, due to low ambient light and lack of contrast between the runway and the rest of the airfield, positive identification of the landing runway is not assured until approximately 1/2 mile short of final. Also, when making an approach from the south, there is a South Helo Training Strip parallel to 09R/27L that is possible to misidentify as runway 09R. This may set you up to think that runway 09R is actually runway 09L. This was my first time into ORAA during this rotation and the first time I made a tactical approach from the south to land on runway 09L. Lessons learned from other aircrews that have made this approach were that the AMP lighting was barely visible or not seen. Therefore, when I did not see AMP lighting on short

final, it did not cue me to go around. An SCNS centerline was utilized and flown to help with this approach. Unfortunately, so much attention was dedicated by the crew to visually acquiring the runway environment and scanning outside for threats that my crosscheck with SCNS centerline fell off on short final.

A thorough debrief and passing of lessons learned to local aircrew will help them avoid this mistake in the future. SCNS data should be cross-checked and could be better utilized for this approach and landing.

**ASAP 961 - Aircraft Lined Up on the Wrong Runway**

During visual/tactical pattern work at home station, we had just completed a low level, followed by a low-level ingress and arrival to a full stop and combat offload. The only pilots on board were one instructor pilot (IP) (PM for the pattern below) and a first pilot (PF). Before departing for our AR event, we elected to fly one visual flight rules (VFR) pattern then depart using instrument flight rules (IFR) after the planned touch and go. We were cleared for the option on the “right” runway, but we were lined up on the “left” runway. At approximately 400’, air traffic control asked us to

confirm that we were lined up on the “right” runway. At this time, the IP directed a go around, followed by the tower supervisor also directing a go around. The crew departed to the AR with no further complications for the sortie.

**Aircrew’s Suggestion:**

- Stick with your plan. We should have just burned six more minutes on the ground before departing instead of trying to squeeze in an extra pattern.
- Don’t let complacency sneak up on you. We typically fly VFR patterns to the “right” runway, so we were used to that view on final.
- The “left” (improper) runway had full approach lighting on, but the “right” runway did not. This contributed to us focusing on the improper runway.
- PF should focus more on the nav display map to follow course to proper runway. PM should

*A C-130J prepares to land as a parked C-130J is prepped for departure at Little Rock AFB, Ark.*

USAF PHOTO BY SRa HARRY BREXEL



delay switching MFD off the nav display map until lined up on final for the proper runway.

- If possible, provide third pilot for local training sorties to help back up and keep SA high during task saturated times, especially in a busy pattern.

### ASAP 1421 - Crew Shot Approach to and Almost Landed at Wrong Airfield

While flying VR 1801 in daytime VFR conditions, we exited the low level early after some observers on board were not feeling well. We slowed to 250 kts, squawked VFR, climbed to a VFR hemispheric altitude (6500 MSL) and stated our intentions on 255.4. We then contacted approach and advised them of our intention to land at KXXX RWY 22 on a visual approach and requested flight following. Approach gave us a squawk assignment and stated “radar contact, proceed direct KXXX.” I directed the PM to send the jet direct to the KXXX/360/001 and he built the PBD, executed the ‘direct to’ and confirmed LNAV engaged. He also verified the MC approach page had a two-mile FAF at KXXX. We zoomed in using the MFC and gauged our distance from the field. A clearing with runways that looked very much like KXXX appeared straight ahead and seemed to check out with the magenta FAF, so I directed the PM to ask for an approach clearance and to switch us to Tower. Approach cleared us a visual approach, handed us off, and we checked in “right base, gear down” with Tower while configuring and descending for a visual approach to RWY 22. Tower cleared us to land. We then got a Master Caution, EFCS MCD cue, and Flaps Fail Op annunciation.

We discontinued the approach and asked tower for permission to overfly the field and orbit while

“There were three pilots, and we all were convinced that we were approaching the correct airfield.”

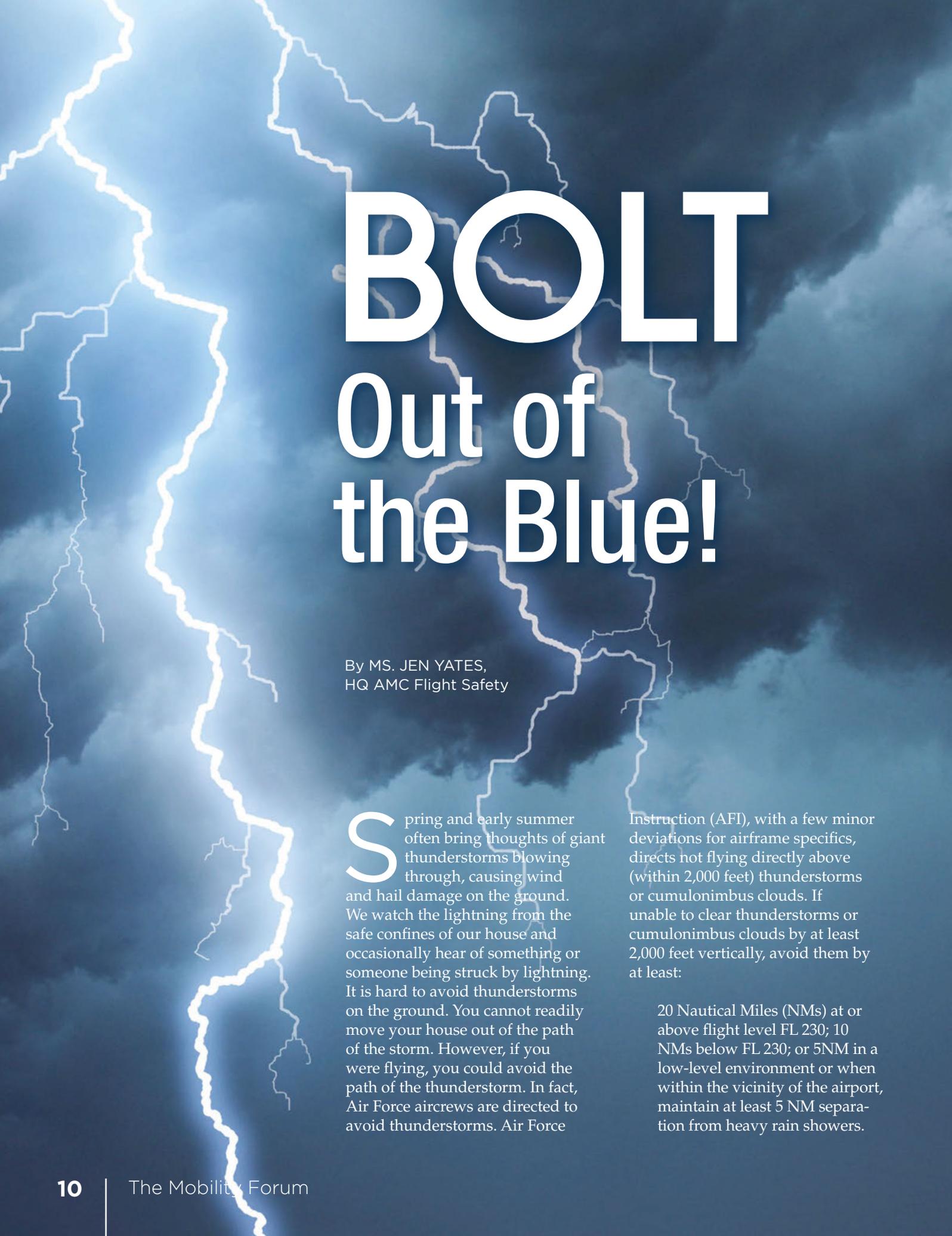
we ran checklists. Tower told us to report initial. We ran our checklists and reported initial. Tower continued to talk to us like we were in his pattern. We said we were ready to continue to land, and Tower told us to maintain heading while he departed some aircraft. We are thinking the landing runway was now behind us and continued to track on a 220 heading waiting for Tower to direct us to the crosswind turn. The PM then said, “That’s weird, it looks like the FAF moved and the runway is over there” (pointing to our 10 o’clock). I looked as well and was surprised that the magenta FAF looked so far away. I was convinced the RNAV was lost or had shifted, as it does sometimes after a sim reset because I had just overflowed the runway. I asked him to pull up other instrumentation. There is no TACAN/VOR/DME at KXXX and the ILS goes to RWY 4. I then asked Tower to confirm where he had us in relation to the field and point us at the runway. Tower stated we needed to continue on a 170 heading and we would be able to enter a right base to RWY 22.

I couldn’t believe that I was locked onto the wrong airfield on the initial approach, especially since we were looking at the magenta lines and trusting “the magic.” We landed uneventfully at KXXX. After looking at charts and airfield diagrams, we discovered that the airfield we had lined up on was a different airfield. It has a similar runway orientation with RWY 23, and the clearing in

the trees and airfield layout looked just like KXXX from 15 miles out. After identifying that runway and truly believing it was KXXX, I was focused on looking through the HUD and putting the aircraft down safely. There were three pilots, and we all were convinced that we were approaching the correct airfield. We tried to analyze what possible errors took place. The PM may have sent us to the KXXX/360/010, but we don’t think so. The PM may have put a five-mile FAF instead of two miles. We approached the airfield from a completely unplanned direction and didn’t look at airfields on the sectional, but we did make sure we were free of MOAs and restricted areas. I did not have airfields displayed on the MFD, and the misidentified airfield is in the database. Tower was talking to us as if we were in the pattern. We had very good reasons to believe we were going to the right place.

**Aircrew’s Suggestion:** Display airfields on the MFD to the maximum extent possible. Add a note to FLIP or IFG about the proximity of the misidentified airfield to KXXX and the similar runway configuration. As PF, I should have verified that PBD01 was built one mile from KXXX. Although I had landed at KXXX a couple of times in the past, the other pilots had not been there. We should have accomplished a more detailed sectional study and, since we were planning a VFR return anyway, should have asked for an IFR clearance to the field.

These are just a few examples of lessons that can be learned (but hopefully not repeated in the future) simply by reviewing the ASAP Scoreboard. We encourage all crews who commit an error that others can learn from to submit an ASAP. Your report could prevent the next accident (or AMC mishap)! 🌍



# BOLT

## Out of the Blue!

By MS. JEN YATES,  
HQ AMC Flight Safety

Spring and early summer often bring thoughts of giant thunderstorms blowing through, causing wind and hail damage on the ground. We watch the lightning from the safe confines of our house and occasionally hear of something or someone being struck by lightning. It is hard to avoid thunderstorms on the ground. You cannot readily move your house out of the path of the storm. However, if you were flying, you could avoid the path of the thunderstorm. In fact, Air Force aircrews are directed to avoid thunderstorms. Air Force

Instruction (AFI), with a few minor deviations for airframe specifics, directs not flying directly above (within 2,000 feet) thunderstorms or cumulonimbus clouds. If unable to clear thunderstorms or cumulonimbus clouds by at least 2,000 feet vertically, avoid them by at least:

20 Nautical Miles (NMs) at or above flight level FL 230; 10 NMs below FL 230; or 5NM in a low-level environment or when within the vicinity of the airport, maintain at least 5 NM separation from heavy rain showers.

... lightning can occur in the clear air around the top, sides, and bottoms of storms and still strike crews flying miles away, hence the “bolt out of the blue” phenomenon.

Just because aircrews follow the guidance does not mean they are in the clear. *Air Force Handbook 11-203 Volume 1* states lightning can occur in the clear air around the top, sides, and bottoms of storms and still strike crews flying miles away, hence the “bolt out of the blue” phenomenon. Additionally, aircraft can actually trigger electrostatic discharges, similar to natural lightning. Electrical charges build up on the aircraft while flying through clouds, dust, haze, or precipitation and then the aircraft’s electrical field interacts with the charged areas, causing a discharge. The term “St. Elmo’s fire” refers to this static electricity building up on the windshield, wings, and engines. Reddish color indicates a positive charge and blue indicates a negative charge. St. Elmo’s fire is a warning sign of a potential static discharge or lightning strike.

The following stories highlight some of the unpredictable characteristics of electrostatic discharges and lightning.

The first incident involves an aircraft leveled out at 15,000 feet mean sea level (MSL) and cleared direct to the destination. Approximately 20-30 minutes into the flight, the aircraft entered an area of turbulence and precipitation. The navigator picked up weather about 15 miles in front of the aircraft, still meeting the 11-2x-Volume 3 requirements of

avoidance by 10 NMs below FL 230. At this point, there was a large flash of light from the right side of the aircraft and a noticeable shudder in the plane. The Loadmaster noticed a loud noise coming from outside the aircraft that sounded like “popcorn.” The crew determined that the noise was actually the HF antenna hitting the side of the aircraft and elected to shut down the #3 engine so the antenna would not get caught in the spinning propeller. The crew safely executed a three-engine landing and taxied to park without further issues.

The second incident occurred on approach to the airfield. Following a missed approach and passing through 4,000 feet MSL, the aircrew heard a loud pop, followed by a blue and white colored flash on the nose of the aircraft. The crew assumed they were struck by lightning and discovered the weather radar failed due to the lightning strike. The crew requested and received radar vectors back to the airfield and landed uneventfully. Post flight inspection revealed damage to the radome.

The third incident occurred during climb out, approximately 15 miles south of the airfield. Weather personnel reported no thunderstorm activity. The aircrew observed moderate rain showers while crossing through 20,000 feet and subsequently observed a lightning

strike entering and exiting the right wing of the aircraft. Post flight inspection revealed small holes in the right wing tip.

The final story encompasses the phenomenon of St. Elmo’s fire and electrostatic discharge occurring from the aircraft. The navigator used radar techniques to avoid the thunderstorms and painted cells at 35 and 50 NM from the aircraft. The crew began having trouble with static on the secondary radio and noted St. Elmo’s fire build up on the front windows and wiper blades. Shortly after, the crew experienced a bright flash outside the aircraft; assessment of the electrical equipment found no discrepancies or damage. The St. Elmo’s fire was no longer visible. After an uneventful landing, the post flight inspection revealed a small hole in the right wing tip.

These are just four of the hundreds of lightning strike/electrostatic discharge incidents that occurred across the Air Force in the past decade. Luckily, these four incidents accrued minimal damage, relatively low repair costs, and no injuries. Remember, always follow guidance but be aware that lightning strikes and electrostatic discharges can still occur. Be prepared with emergency procedures, sound judgment, and solid risk assessment at all times. 



2015

# AMC's ANNUAL SAFETY AWARD WINNERS

## FLIGHT SAFETY

### Director of Safety Aircrew of Distinction

Crew of Jill 14 (C-130J), 317 AG, Dyess AFB, TX

Capt Ryan N. Lewkowicz

Capt Brendan K. Wier

SrA Korey A. King

SrA Deniek C. Mitchell

A1C Jared W. Gough

### Aviation Maintenance Safety

TSgt Ryan R. Williams

99 ARS, 6 AMW, Birmingham, AL

### Safety Officer of the Year (Primary Duty)

Maj Emanuell N. Vega

375 AMW, Scott AFB, IL

### Safety Officer of the Year (Additional Duty)

Capt John T. Powers

21 AS, 60 AMW, Travis AFB, CA

### Flight Safety NCO of the Year (Primary Duty)

MSgt John O. Willard

436 AW, Dover AFB, DE

### Flight Safety NCO of the Year (Additional Duty)

SSgt Daniel N. Monge

50 AS, 19 AW, Little Rock AFB, AR

## WEAPONS SAFETY

### Explosives Safety Individual of the Year

MSgt Shane A. Dhayer

6 AMW, MacDill AFB, FL

### Nuclear Surety Individual of the Year

SSgt Michael C. Roberts

22 Logistics Readiness Squadron, 22 ARW  
McConnell AFB, KS

## GROUND SAFETY

### Distinguished Ground Safety (Large/Composite Wing)

436 AW, Dover AFB, DE

### Distinguished Ground Safety (Small Wing)

628 ABW, Joint Base Charleston, SC

### Distinguished Ground Safety (Associate/Tenant Organization)

721 APS, 521 AMOW, Ramstein AB, Germany

### Distinguished Ground Safety (Geographically Separated Unit)

726 AMS, 521 AMOW, Spangdahlem AB, Germany

### Ground Safety NCO of the Year (Primary)

TSgt Justin R. Musall

735 AMS, 515 AMOW, JB Pearl Harbor-Hickam, HI

### Ground Safety NCO of the Year (Additional Duty)

TSgt Richard S. Smith

19 Maintenance Group, 19 AW, Little Rock AFB, AR

## OTHER AWARDS

### Risk Management Achievement

22 ARW, McConnell AFB, KS

### Outstanding Safety Civilian of the Year (Primary)

Ms. Lorie A. Bellamy

436 AW, Dover AFB, DE

### Outstanding Safety Civilian of the Year (Additional Duty)

Mr. Michael G. Ritter

87 Logistics Readiness Squadron, 87 ABW

Joint Base McGuire-Dix-Lakehurst, NJ

### Safety Office of the Year

6 AMW, MacDill AFB, FL

### RiderCoach of the Year

TSgt Derek L. Copeland

436 AW, Dover AFB, DE

### Distinguished Motorcycle Safety Award

436 AW, Dover AFB, DE

# Safety Officer of the Year

375 AMW, Scott AFB, IL

## MAJ EMANUELL N. VEGA



**MAJ EMANUELL VEGA** is the Chief of Wing Flight Safety for the 375th Air Mobility Wing, Scott AFB, Illinois. He is responsible for the safe execution of the 375th AMW's 14,500-hour flying program for the C-21A, C-40C, and KC-135R fleet at Scott AFB. He is also a C-21A instructor pilot and flies for the 458th Airlift Squadron at Scott AFB.

As Chief of Wing Flight Safety, Maj Vega pioneered a new format for quarterly flight safety meeting presentations, tailoring them based on actionable metrics and trends that directly contributed to zero class A, B, and C mishaps. He also executed an iPad inspection program, which revolutionized the Annual Safety Inspection process. Maj Vega also revamped the Midair Collision Avoidance program; the changes to seminars he led at local university aviation programs resulted in zero mishaps to date.

Maj Vega also teamed with the United States Department of Agriculture (USDA). Joint efforts reduced bird strikes by 25 percent with the installation of bird netting on two taxiway bridges. Combined efforts between Wing Flight Safety and USDA also dispersed over 1,200 wildlife and mitigated danger to wildlife strikes. Lastly, Maj Vega managed the Aviation Operational Risk Management Tier 1 to Tier 4 evaluations with 92 percent, best in AMC, and secured a "Highly Effective" on their Flight Safety Unit Effectiveness Inspection.

A native of San Juan, Puerto Rico, Maj Vega enlisted in the Air Force in 1996. He began his career as a C-5 A/B/C Aviation Maintenance Apprentice Crew Chief and completed his enlisted tour at Travis AFB as a Quality Assurance Assessor for C-5 and KC-10s. After he completed his bachelor's degree in Professional Aeronautics from Embry-Riddle Aeronautical University, he commissioned and completed Undergraduate Pilot Training at Vance AFB.

Maj Vega was selected to pilot the world's most advanced airlifter, the C-17A, at Charleston AFB, where he flew over 1,000 combat hours in support of Operation Enduring Freedom and Operation Iraqi Freedom. Subsequently, he instructed in the C-17A in Dover before volunteering to fly the C-21A at Scott AFB.



## Flight Safety NCO of the Year

436 AW, Dover AFB, DE

### MSGT JOHN O. WILLARD



**MSGT JOHN WILLARD** is the Flight Safety NCO for the 436th Airlift Wing, Dover AFB, Delaware. He is responsible for implementing and managing the wing's flight and weapon safety program on Dover AFB, which consists of 22 units, including several tenant organizations. MSgt Willard works closely with commanders, supervisors, and Unit Safety Representatives, providing them with the guidance to ensure safe flying and explosive operations. His background includes C-5 maintenance, tech school instructor, motorcycle safety instructor, and section chief.

Over the past year, MSgt Willard led several initiatives that resulted in zero Class A or B mishaps, including leading the \$98M runway project ORM where he identified factors to increase minimum runway availability and updated strategic airlift simulator visuals, reducing impacts on operations. He also led a wing SAV team to Joint Base Andrews, where he established a solid trend tracking tool resulting in the first "O" discrepancy AMC UEI for 2015.

MSgt Willard's enterprise focus highlighted a chronic dropped slat panel problem to higher headquarters. He synchronized maintenance investigations at Travis and Dover, pressuring engineers to change the bonding process and compound at the depot level to eliminate a dropped object trend. He completes regulatory reviews and annual inspections on 11 units. MSgt Willard is a force multiplier for the ground safety section, leveraging his maintenance experience during flight line and back shop investigations. Under his leadership, the motorcycle safety program has won best large wing in AMC six of the last eight years and best Rider Coach four of the last eight years.

A native of Jacksonville, Florida, MSgt Willard earned degrees in aircraft maintenance and instruction, as well as a bachelor's in Industrial Engineering and a master's in Business Management.



## Ground Safety NCO of the Year

735 AMS, 515 AMOW,

Joint Base Pearl Harbor-Hickam, HI

### TSGT JUSTIN R. MUSALL



**TSGT JUSTIN MUSALL** is the Safety NCOIC for the 735th Air Mobility Squadron, Joint Base Pearl Harbor-Hickam, Hawaii. TSgt Musall is responsible for implementing the commander's safety program and providing safety program oversight and support to AMC's busiest en-route squadron in the Western Pacific, including detachments in Australia and New Zealand. He monitors the annual movement of over 110,000 passengers and 20,000 tons of cargo over 9,000 missions.

This past year, TSgt Musall revitalized his commander's safety program after inheriting a position that was vacant for the greater part of a year; within six months, he had reduced the squadrons Wing Inspection Team findings by 96 percent. He led many successful safety initiatives and was named Outstanding Performer in two higher headquarter inspections. Additionally, TSgt Musall attended the new NCOA-ILE course at Keesler AFB, Mississippi, where he garnered his second Distinguished Graduate award. His dedication to service earned him the FY15 AMC Ground Safety NCO of the Year Award.

Born in Crawfordsville, Indiana, TSgt Musall joined the USAF in June 2004. After basic training, he attended electronic principles school at Keesler AFB in Mississippi and technical school at Sheppard AFB in Texas. He has served at Cannon AFB, New Mexico; Kunsan AB, Republic of Korea; Aviano AB, Italy; McEntire Joint National Guard Base, South Carolina; Al Udeid AB, Qatar; and Shaw AFB, South Carolina. While at Shaw AFB, TSgt Musall earned the 9th AF Ground Safety Special Achievement Award and contributed to the 20 FW/SEG office winning the 9th AF Safety office of the Year 2013 and ACC Chief of Safety Outstanding Achievement Award 2014.

Over the years, TSgt Musall has earned numerous other awards and honors for his many achievements, both within and outside the safety arena.



## Explosives Safety Individual of the Year

6 AMW, MacDill AFB, Florida

### MSGT SHANE A. DHAYER



**MSGT SHANE DHAYER** is the Weapons Safety Manager for the 6th Air Mobility Wing, MacDill AFB, Florida. MSgt Dhayer is responsible for ensuring the safe operation of 63 explosives operation and storage facilities with 27,000 pounds of explosives. He ensures compliance of all explosives, missiles, nuclear surety, and directed energy safety standards for 38 base tenant units, including United States Special Operations Command and United States Central Command. MSgt Dhayer conducts explosive safety inspections and oversees 44 unit weapons safety representatives to ensure regulatory compliance protecting 31,000 personnel and \$3.3 billion in assets. He is the solitary advisor to the Wing Commander and senior leadership on vital weapons and explosive safety matters.

Over the past year, MSgt Dhayer gained a live munitions waiver/Combat Aircraft Parking Area plan for 12 United States Navy aircraft, allowing certification for pilots' use of live ordnance. He spearheaded a munitions storage building redesign worth \$670,000 to ensure a critical fire suppressant was installed. MSgt Dhayer also assisted in the training of 21 Transportation Security Administration employees, allowing training on different types of explosives that they may encounter and what damage they can produce. Furthermore, he was the course director and lead wing representative to host the Air Force Safety Center Risk Management roadshow where 39 members from five bases were trained on risk management application and integration fundamentals.

MSgt Dhayer is a native of Pittsburgh, Pennsylvania, and joined the Air Force in 1996. He began his career as a Munitions Systems Apprentice at Seymour Johnson AFB, North Carolina. His munitions assignments include Seymour Johnson AFB; Kunsan AB, Korea; and RAF Lakenheath, United Kingdom. MSgt Dhayer has deployed numerous times in support of Operation Southern Watch, Operation Iraqi Freedom, and Operation Enduring Freedom.



## Nuclear Surety Individual of the Year

22 Logistics Readiness Squadron,  
22 ARW, McConnell AFB, KS

### SSGT MICHAEL C. ROBERTS



**SSGT MICHAEL ROBERTS** is a Unit Safety and Motorcycle Safety representative for the 22d Logistics Readiness Squadron, McConnell AFB, Kansas. SSgt Roberts is responsible for implementing the commander's safety program and providing safety program oversight for 221 military and civilian personnel.

Over the past year, SSgt Roberts led many successful safety initiatives. He led the 22d Mission Support Group on the 18th Air Force directed safety down day, coordinating with five squadrons and affecting 1,300 personnel. He conducted 448 spot inspections, identifying 47 discrepancies and preventing any serious mishaps.

SSgt Roberts also investigated and tracked 40 mishaps, providing timely, valuable reports to Wing Safety. He conducted eight re-writes of Job Safety and Training Outlines from seven varied Air Force Specialty functional areas to meet requirements of new Air Force Instructions. SSgt Roberts has won numerous safety awards and has been coined multiple times by the Wing's Chief of Safety for outstanding achievements.

A native of Columbia, South Carolina, SSgt Roberts joined the Air Force in 2003. His primary Air Force Specialty Code is 2FOX1, and he began his career as a fuels apprentice. His fuels assignments include RAF Mildenhall, United Kingdom; Fairchild AFB, Washington; Osan AB, Republic of Korea; and McConnell AFB, Kansas. He has deployed numerous times in support of Operation Enduring Freedom and Operation Iraqi Freedom.



## Outstanding Safety Civilian of the Year

436 AW, Dover AFB, DE

### MS. LORIE A. BELLAMY



**MS. LORIE BELLAMY** is the Occupational Safety Manager for the 436th Airlift Wing, Dover AFB, Delaware. She is responsible for implementing and managing the wing's ground safety program there, consisting of 22 units, including several tenant organizations. Ms. Bellamy works closely with commanders, supervisors, and Unit Safety Representatives, providing them guidance to ensure safe and healthful workplaces. Her background includes management of ground safety programs at several installations, including filling a Deputy Chief of Safety position at an overseas location.

Over the past year, Ms. Bellamy led several innovative safety campaigns, which resulted in zero Class A or B mishaps. Her dedication to vehicle safety resulted in four holiday Safety Send-Offs at the gates where senior leaders spread the safety message to over 8,000 Airmen. Ms. Bellamy also hosted a Child Safety Seat Check at the Child Development Center with the Office of Highway Safety, ensuring the safety of Team Dover's family members.

Ms. Bellamy was chosen to augment the Air Mobility Command Inspector General safety team during a Unit Effectiveness Inspection at another installation. Her vast experience enhanced the effectiveness of the safety inspection. She also assisted a tenant unit with the Occupational Safety and Health Administration Voluntary Protection Program process by providing safety support and guidance, enabling joint mission success. During the year, Ms. Bellamy oversaw 64 ground mishaps, ensuring root causes and trends were identified and ultimately preventing future similar mishaps.

A native of Mt. Clemens, Michigan, Ms. Bellamy began her civil service career in 1984 and her safety career in 1986. Her duty locations include Homestead AFB, Florida, and Kadena AB, Japan. She has a bachelor's degree in Business Management and retired from the Air Force Reserves after 26 years of service.





# 2015 SAFETY OFFICE of the YEAR



The AMC Safety Office of the Year award recognizes the ability to demonstrate combined effectiveness of the overall safety program. The office has worked closely with squadron representatives across the base to promote teamwork and produce very high safety standards.

right: Mr. Kory Mclellan, Maj Zach Davidson, Mr. Ryan Lynch, Lt Col John K. Martin, TSgt Robert Jeffries, Maj Jarrod Scoggin, TSgt Dustin Hayden, TSgt Keturah Reed, MSgt Stephen Taylor, Mr. David Oneil, Mr. Jason Jackson, MSgt Sean Felder, (MSgt Dhayer), Capt Ryland Tecson, and Mr. Donald Washington.

“One of our best programs here is the risk management program. We have trained 46 people across the wing on risk management. By pushing it down to the squadrons, it really helps us spread the word about the program,” said Martin.

“The MacDill Safety Office is a great team,” Dhayer said. “While we each have our own specialties, we gladly help each other in any way possible to accomplish the mission. I think winning this award highlights just that.”

**T**he 6th Air Mobility Wing Safety Office recently earned the 2015 Air Mobility Command Safety Office of the Year Award. After competing against 33 other units within the command, the Safety Office came out as the best unit overall.

Not only did the Safety Office receive recognition for its accomplishments as a team, MSgt Shane Dhayer, a weapons safety manager assigned to the 6th AMW Safety Office, was named AMC Explosives Safety Individual of the Year.

With the efforts the Safety Office has put forward, mishap rates are expected to continue to decrease. To date, the team has standardized 42 processes, which resulted in zero fatalities at AMC’s largest base.

“I am very proud of the team and this huge accomplishment,” said Lt Col John Martin, Chief of Safety assigned to the 6th Air Mobility Wing Safety Office. “Their presence is known around the base because they stay involved, committed, and always actively engaged.”

“I feel humbled to be selected as AMC’s Explosive Safety Individual of the Year,” said Dhayer. “I know the hard work many other weapons safety managers in AMC do every day. So for me to be selected is humbling.” He attributes his achievement to his safety team members, pictured above left to

“We’ll continue to work as a team,” said Martin. “Teamwork is the hallmark of what we do here. We are not just weapons safety, occupational safety, and flight line safety; we consider ourselves the safety office. My team does all the hard work, and I am proud to be their chief of safety.” 

# SPRING BREAK SURVIVAL:

# BOOZE

## Binge Drinking

A pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams per deciliter or above. This typically happens when—



Binge drinkers are **14 times more likely** to report alcohol-impaired driving than non-binge drinkers.



Men are **twice as more likely** to **binge drink** than women.

Binge drinking is associated with many

# health problems

SEXUALLY TRANSMITTED DISEASES **LIVER DISEASE**  
 Neurological damage High blood pressure  
**ALCOHOL POISONING** UNINTENDED PREGNANCY **falls** drowning  
 FIREARM INJURIES **INTENTIONAL INJURIES** BURNS Unintentional injuries  
 Fetal Alcohol Spectrum Disorders Poor control of diabetes **cardiovascular** Sexual dysfunction  
**anxiety** **STROKE** diseases alcoholism  
 DEPRESSION

# IT'S BINGING

## Alcohol Poisoning

 **2,200** deaths related to alcohol poisoning are reported each year in the U.S.

**Binge drinking** typically leads to a BAC that exceeds 0.08 grams per deciliter. Very high levels of alcohol in the body can **shut down critical areas of the brain** that control breathing, heart rate, and body temperature, resulting in death.

### Signs of alcohol poisoning:



**Inability to wake up**



**Vomiting**



**Slow breathing**  
(fewer than 8 breaths per minute)



**Irregular breathing**  
(10 seconds or more between breaths)



**Seizures**



**Hypothermia**  
(low body temperature—bluish skin color, paleness)

If these signs are observed, the intoxicated person should be taken to the emergency room immediately.

## Moderate Drinking

up to

**1** drink per day  
for women



**2** drinks per day  
for men



This definition is referring to the amount of alcohol consumed on any single day and is not intended as an average over several days.

# Who's on First? Learning to **COMMUNICATE** With Your Team

By MS. RUTH ANN REPLOGLE, Staff Writer

In 1953, the American comedian duo Bud Abbott and Lou Costello came out with a live comedy sketch called "Who's on First?"

The sketch is an exchange between a peanut vendor and a baseball team manager. The vendor wants to get to know the team, so he asks the manager for the players' names. The manager tells the vendor that baseball players can have the most peculiar nicknames ...

**Manager:** Nicknames, pet names. Now, on the St. Louis team we have Who's on first, What's on second, I Don't Know is on third—

**Vendor:** That's what I want to find out; I want you to tell me the names of the fellows on the St. Louis team.

**Manager:** I'm telling you: Who's on first, What's on second, I Don't Know is on third.

**Vendor:** You know the fellows' names?

**Manager:** Yes.

**Vendor:** Well, then, who's playin' first?

**Manager:** Yes.

**Vendor:** I mean the fellow's name on first base.

**Manager:** Who.

**Vendor:** The fellow playin' first base for St. Louis.

**Manager:** Who.

**Vendor:** The guy on first base.

**Manager:** Who is on first.

**Vendor:** Well what are you askin' me for?

This goes on back and forth for several minutes, and in the end, the vendor is more confused than ever. The manager was unable to get his message across and the miscommunication caused frustration for the vendor.

Ever felt like the vendor at work?

Lack of communication is the No. 1 reason for mishaps on the ground and in the air. The underlying problem is a failure to transmit, receive, or provide information either accidentally or intentionally;



in other words, neglecting to pass on information or thinking the information was not important enough to relay.

For example, Airman A thought that Airman B checked the gear, while Airman B thought that Airman A had done it. They didn't talk so the failure to communicate caused a serious mid-flight incident.

It is easy to get complacent and so engrossed in daily repetitive tasks that small flaws can be overlooked and not reported. But small flaws can have huge repercussions, which is why communication is crucial between team members. The purpose of communication is to express and exchange knowledge.

Communication involves planning and preparedness. Benjamin Franklin once said, "By failing to prepare, you are preparing to fail."

To improve communication within your team:

- **Talk.** In this age of technology, the art of conversation has gone by the wayside. Sure, it may be easier to rely on email, social media, and texting to get your message across, but there is something to be said for face-to-face connections. In-person talks do wonders for morale and help convey the correct message that could otherwise be misconstrued.
- **Respect differences.** Airmen come from all different backgrounds and therefore have different perspectives and cultural and/or religious beliefs. It might be wise to have sensitivity training so everyone can get to know each other better and understand where each person is coming from.
- **Give feedback.** It is hard to know what expectations are if they are not well-defined. Each unit, squadron, and/or wing should ensure Airmen know

exactly what the standards are and what their goals and responsibilities are within the group. Every Airman has a role in the big picture. Feedback—constructive or positive—will let Airmen know if they are on the right track or need to modify behavior.

- **Motivate.** Praise and recognition—monetary or not—is a great motivator. A sense of accomplishment goes a long way in helping Airmen do well.
- **Encourage camaraderie.** Bonding between team members is essential. If Airmen feel they belong, they will naturally communicate with one another.
- **Trust.** Airmen are the best of the best, otherwise they wouldn't be in the Air Force! Trust gives Airmen a sense of control and purpose in their work, which means they will be invested. That investment breeds innovation and job

satisfaction. Micromanaging is just the opposite—it makes them feel they are incompetent and causes discord, which leads to a breakdown of communication.

- **Teach.** Provide the tools necessary to get the job done. This can mean access to information, training or conferences, briefings, and/or actual tools. Lack of resources can hinder tasks being done properly, thus creating safety risks.
- **Listen.** Sound trivial? How many times have you been part of a conversation in which you were thinking about something else and not paying attention to the Airman talking? At the end of each conversation, give yourself a mental quiz so you can recall what was said. Another helpful hint: repeat what was said back to the Airman. Listening is the linchpin to communication.

Everyone has the power to communicate. Doing so consistently and effectively can save lives and—who knows—might help if you ever need to explain “Who’s on first.” 



# Building a Home for the New KC-46A

By MS. AMANDA HILLES, Staff Writer

Introducing the KC-46 Pegasus, an aerial tanker flying in as one of the top three acquisition priorities of the U.S. Air Force. In the years ahead the KC-46 will replace the current aging tanker fleet. According to Deborah Lee James, Secretary of the Air Force, total program completion is projected in 2028; by that date, approximately half of the current tanker fleet will have been replaced.

The KC-46 is the most important step in recapitalizing a tanker fleet that has led air refueling for decades; the Air Force plans to acquire 179 KC-46s to modernize the fleet with close to 12,500 pounds more fuel capacity, 92,500 pounds more maximum flight weight, and double the cargo and aeromedical evacuation capacity of the 1950s era KC-135s.

McConnell Air Force Base, Kansas, is anticipating the completion of six

new full-in hangar slots, including a one-bay maintenance hangar, a two-bay corrosion hangar, and a three-bay general purpose hangar to accommodate the acquisition of the Air Force's newest refueling aircraft. McConnell was chosen in 2013 to be the first active duty-led main operating base for the KC-46s, and contracted construction and field crews have been hard at work on the safe construction of the hangars.

These goliath steel structures are built with 79 percent recycled materials from Kansas and offer the capability of painting entire aircraft—something McConnell has never had before. Completion of the one- and two-bay hangars is scheduled for February 2016 with total project completion anticipated for February 2017. The construction project grosses \$197 million, which includes significant efficiencies



*Photo, top left: Steel beams that will hold the roof of Hangar 1126 at McConnell AFB, Kan. are erected. The hangar is being built in preparation for the arrival of the KC-46A Pegasus.*

*Photo above: An LPR construction worker walks along a steel beam.*

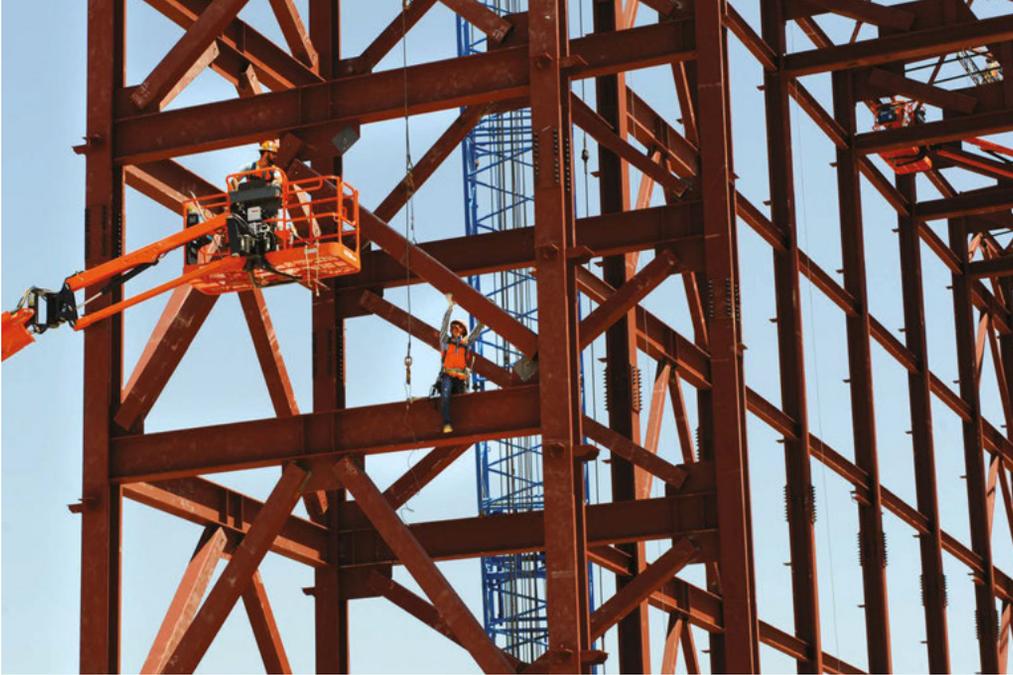
USAF PHOTOS BY A1C CHRISTOPHER THORNBURY

gained by grouping the six projects together.

An older four-bay hangar was demolished to make way for the six new steel bays. Construction of the new hangars was required to accommodate the longer, wider, and taller KC-46A, a plane too large for any of the current airfield hangars.

Aircrew training devices include simulator buildings converted from three KC-135 Operational Flight Trainers and one Boom Operator Weapon System Trainer to three KC-46 Weapon System Trainers, two Boom Operator Trainers, one Part Task Trainer, and one Fuselage Trainer. Formal training for the KC-46 is expected to begin in 2016.

Safety is, of course, the highest priority of the construction project. Weekly airfield project meetings



*Steel workers maneuver a steel beam into place on the bay door pocket of Hangar 1124 at McConnell AFB, Kan. In preparation for the KC-46A Pegasus, 16 construction projects totaling \$276 million are scheduled for completion by the end of 2018. McConnell AFB is scheduled to receive its first KC-46A in August 2016.*

USAF PHOTO BY SSGT RACHEL WALLER



*Construction continues on the new hangar at McConnell AFB, Kan.*

USAF PHOTO COURTESY OF 22 ARW/PA

involving safety, project review, cost, and construction oversight ensure that construction and field crews stay abreast of the latest construction status, as well as review any pending safety issues. Early on, McConnell resolved safety concerns related to vehicle and foot traffic in and around the hangar construction area, creating a hazard-free travel zone and ensuring the safety of 800 personnel. On-site staff conduct risk analyses of the ongoing construction, identifying tight schedule requirements, and mitigating impact to

daily operations. U.S. Army Corps of Engineers “lessons learned” conferences are held to offer base-level solutions to AMC and AFCEC in preparation for the arrival of the KC-46A.

Workers six feet or higher from the ground are at increased risk for serious injury or death should a fall occur. Careful breakdown of rules, discussion of daily tasks involved, and understanding of what safety equipment will be needed to complete each task ensures

the maximum safety of construction crew members.

Different ladders and scaffolds are appropriate for different jobs, and personal fall arrest systems provide a safety harness for each worker. Harnesses are secured to an anchor and are custom fit for each worker. The harnesses are regularly

inspected for condition and usability. Training for each piece of equipment is conducted before any crew member begins construction work. Decisions about how a particular task of the construction job will be accomplished are made before workers are in the air. Workers are trained to think about all the different fall hazards, such as holes and leading edges, and are trained to think ahead with preventative safety maintenance in mind that fulfills the type of work they are doing when high off the ground. 🇺🇸



*A B-2 Spirit from Whiteman AFB, Mo., conducts an aerial refuel by a 9th Air Refueling Squadron KC-10 Extender.*

USAF PHOTO BY SRA LAUREL CUMMINS

## Aerial Refueling: The Solution Without a Problem

By MSGT JULIE MEINTEL, 655 Intelligence, Surveillance, and Reconnaissance Group, (AFRC) Wright-Patterson AFB, OH

**J**une 27 marks the 93rd anniversary of the first-ever aerial refueling flight.

Aerial refueling, commonly known within the aviation community as AR, is widely understood as an invaluable piece of the airlift puzzle. Mission planners rely on it to provide flexibility and agility in projecting military power and reach all over the world. But the ability to refuel an aircraft in flight wasn't always viewed in quite the same way. In fact, aerial refueling was once considered a useless stunt with no practical military application. Let's take a little walk down history lane, shall we?

On June 27, 1923, two U.S. Army Air Service de Havilland DH-4B single-engine aircraft flew 500 feet off the deck at Rockwell Field on San Diego's North Island. The crews

managed only one connection in six-plus hours, passing 75 gallons of gasoline through a 50-foot rubber hose with manually operated quick-close valves on either end. There was no way for the tanker to direct the hose to the receiver; it was a matter of throwing the dice, and the hose. The tanker crew held one end and dropped the other end to the receiver crew, and both hoped for the best. Engine trouble terminated that first flight after 6 hours and 38 minutes. It wasn't spectacular but it was a start.

The next attempt was composed of three aircraft: a tanker, a receiver, and a third DH-4 as an additional refueler. This second AR mission took place over two days, August 27-28, 1923. It totaled 37 hours and 25 minutes of flying time over the refueling track, encompassing nearly 3,300 miles and setting a world record for endurance. In October 1923, these "experienced" refueling aircrews wanted to prove that AR had practical military applications, so they planned and flew a mission from Suma, Washington, near the U.S.-Canada border, to Tijuana,

Mexico, where they flew around the customs house and headed back north to Rockwell Field. The aircraft was refueled twice in 12 hours, and the border-to-border 1,280-mile mission demonstrated how an aircraft with a range of roughly 275 miles could see that range quadrupled by in-flight refueling.

In spite of the success of these historic flights, aerial refueling became known as a "solution without a problem," especially after an attempted airshow demonstration on November 18, 1923, turned deadly. At the time, the U.S. Army was still grappling with the fallout from a chaotic demobilization in 1919, along with a tightened military budget, so new initiatives—especially those with no apparent legitimate purpose—were not a high priority. Around the same time, British and French air forces were experimenting with AR, too, but no one could seem to figure out how the capability might serve a military purpose.

Then, in 1928, Belgium conducted a test aerial refueling flight that lasted

A C-17 can take off from Afghanistan fully loaded with cargo, passengers, patients, and enough fuel to fly for an hour, meet a tanker, and then make it to Ramstein AB, Germany, without having to land for fuel.

just over 60 hours, and news of this mission was enough to inspire 1Lt Pete Quesada back in Washington, DC. He wanted to do better than Belgium; he wanted to prove once and for all that AR would be useful to the U.S. military. The mission that came to be known as Operation Question Mark was originally planned with the U.S. Marine Corps, but Capt Ira Eaker, working in the office of the Assistant Secretary of War, convinced 1Lt Quesada to work with the Army Air Corps. The Army wanted a practical military application for AR just as much as Quesada did.

So on January 1, 1929, Quesada's plan came to life: Operation Question Mark began, using modified Fokker C2A tri-motor aircraft as receivers and Douglas C-1 single-engine aircraft as tankers. In all, Operation Question Mark totaled 43 takeoffs and landings, and crews flew 150 hours and 40 minutes and transferred 5,660 gallons (33,960 pounds) of fuel. The mission turned out to be a huge success; crewmembers were awarded Distinguished Flying Cross medals and were publicly lauded by the Army Air Corps.

Research and experimentation continued in fits and starts, with varying levels of support from the Army Air Corps and later the Air Force, and aerial refueling was a dance of two steps forward and one step back for nearly 75 years. Operation Question Mark was ultimately responsible for kick-starting not only American research but British and European experimentation as well.

Lt Col Steve Schnell, Chief of Current Operations for the 445th

Airlift Wing at Wright-Patterson Air Force Base, Ohio, listed several ways in which aerial refueling capability is currently a crucial asset to the airlift mission as a whole.

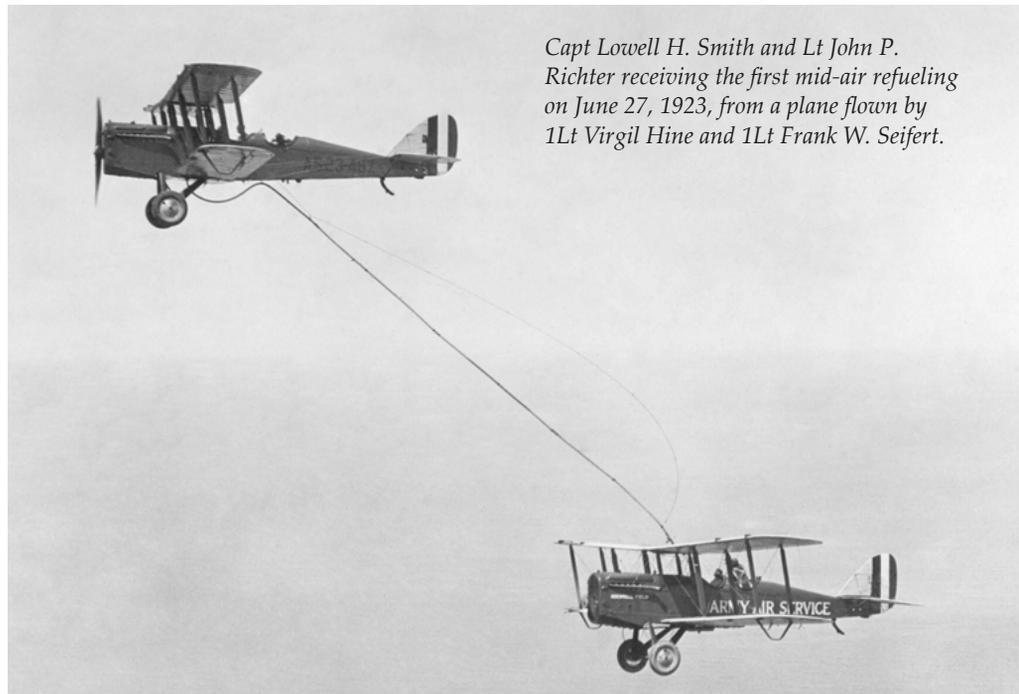
AR makes direct flights between today's battlefield in Afghanistan and Germany possible, and this is important for a couple of reasons. A C-17 can take off from Afghanistan fully loaded with cargo, passengers, patients, and enough fuel to fly for an hour, meet a tanker, and then make it to Ramstein AB, Germany, without having to land for fuel. Ramstein AB is the major European hub and staging point for going into and coming out of the AOR (Area of Responsibility).

Aerial refueling also alleviates the need for international diplomatic clearances. Overflying or landing in a foreign country requires pre-coordinated clearance, and it is

generally much easier to arrange a tanker in case of last minute mission changes than to get a diplomatic clearance.

In the weeks and months immediately following the terrorist attacks of 9/11, the U.S. military was scrambling to place assets strategically, and AR provided critical flexibility to aircrews working within rapidly changing missions. One mission in which AR flexibility was particularly important was bringing captured al-Qaeda operatives to the prison at Guantanamo Bay, Cuba. Carrying the prisoners on board American aircraft meant that landing in foreign countries was impossible due to political sensitivity, so flying direct from the Middle East to Guantanamo Bay was essential.

History once considered aerial refueling useless, but the evolution of the airlift mission and the development of the technology and training have made it an essential piece of mission accomplishment. 



*Capt Lowell H. Smith and Lt John P. Richter receiving the first mid-air refueling on June 27, 1923, from a plane flown by 1Lt Virgil Hine and 1Lt Frank W. Seifert.*

# Do YOU Like Spiders and Snakes?

By MS. RITA HESS, Staff Writer

**A** long time ago (1974, to be exact), a young singer named Jim Stafford had a hit song whose silly lyrics included the line, “I don’t like spiders and snakes ...” Well, most people agree with Jim! But in late spring and early summer—when many creatures come out of hibernation and begin moving around—it is a good idea to know which species you might encounter and what to do if you are bitten.

**First things first:** No matter what part of the world you live in, find out what creepy crawlers are native to the area so you’ll be able to identify them. Local universities, wildlife departments, or Pest Management on base can likely give you an overview of the appearance and behavior of indigenous species, as well as tips to avoid them.

## SPIDERS

The good news about spiders is that most are harmless. Tarantulas are big and scary looking, but the most dangerous are the black widow and brown recluse.

Black widow spiders live throughout North America. Easily identified by the red hourglass figure on the underside of their shiny black body, black widows build what look like irregular, tangled webs between objects and typically bite whatever



*Black Widow*

touches the web. Black widow spider bites leave two puncture marks in the skin, which may not hurt initially. Later, pain and swelling can increase and spread to other parts of the body. Symptoms can include nausea, sweating, cramps, increased blood pressure, convulsions, and (rarely) death.

People bitten by a brown recluse spider may not realize it at first, either. Later, the bite can be painful and disfiguring because the venom begins to rot the tissue where the bite occurred, and then can fester and spread for weeks or months. This spider is common in the Midwest and in southern states; it actually belongs to a family of 11 recluse spiders that are native to the United States. The brown recluse touts a distinct fiddle shape on its body, hence its nickname: fiddle back (or violin) spider.

The best way to avoid a bite from either spider is to stay away from places they frequent—dark, quiet, undisturbed locations outdoors, such as woodpiles, beneath structures, in piles of rocks or



*Brown Recluse*

leaves, and areas where debris has accumulated. Indoors, they prefer dark closets, clothing, boxes, shoes, basements, or attics.

Bite symptoms with either species can range from mild to severe, including fever and/or chills; however, any spider bite can be dangerous for the very young, the elderly, those with a compromised immune system, or those who have a severe allergic reaction to the venom. If you are bitten:

- Stay calm. Identify the type of spider if possible.
- Wash the site of the bite with soap and water.
- Apply a cold washcloth or ice to the area to reduce swelling.
- Elevate the bite area if possible.
- Tell someone what happened.
- Monitor your symptoms and seek professional medical attention if it seems warranted.



Rattlesnake

**SNAKES**

The good news about snakes is that your chance of dying from a venomous snake bite are very low—practically zero in the United States because of our advanced healthcare. According to the Centers for Disease Control and Prevention (CDC), about 7,000–8,000 people per year receive venomous snakebites in America, and only about five of those people die. Still, bites can be very painful.

A snake stores its venom in a gland behind and below its eye. Generally, the bigger the snake, the more venom it has. But not all snakebites deliver venom—even poisonous snakes can deliver a “dry bite,” meaning it contains no venom.

This time of year, people are anxious to get outdoors to hike, camp, or fish—activities that increase the likelihood of encountering a snake. Again, learning about the snake species where you live can minimize those chances and familiarize you with their behavior. For example, not all venomous snakes coil up and hiss before striking. Conversely, some non-poisonous snakes do rattle, coil, and hiss.

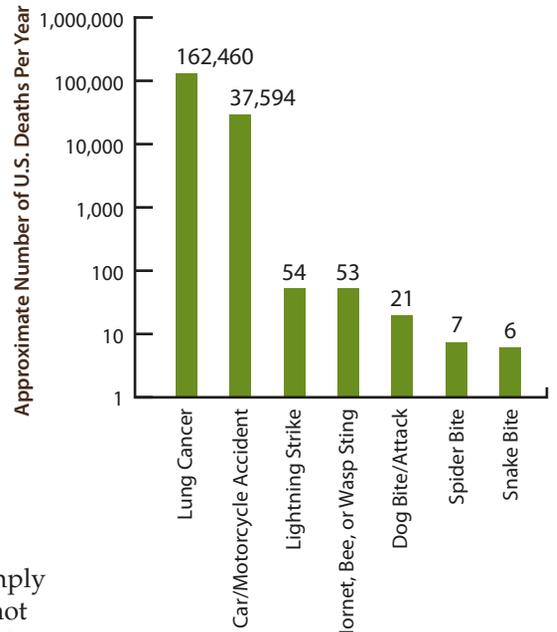
If you come across a snake, simply back away and let it pass. Do not attempt to capture or kill it, and do not tease it. One estimate indicates half or more of all snakebites result from humans trying to scare snakes.

If a snake does bite you, stay calm. Knowing what it looked like may help medical personnel, but it isn't necessary. See a doctor or emergency room physician about your bite. Meantime, **never** try to suck venom from the wound, and **never** apply a tourniquet. Instead, lay or sit down; cover the bite mark with a clean, dry dressing; and keep the wound below the level of your heart if possible.

Depending on the type of snake, symptoms may include

- A pair of puncture marks at the wound;
- Redness, swelling, and severe pain at the site of the bite;
- Nausea and vomiting;
- Difficulty breathing (in rare cases, breathing may stop);

United States Fatality Statistics



- Disturbed vision;
- Increased salivation and sweating; and/or
- Numbness or tingling around your face and/or limbs.

**THE BIGGEST DANGER**

Spiders and snakes certainly aren't the only creepy, crawly things that can hurt you this time of year, but they are the ones you are most likely to encounter. Perhaps the biggest danger associated with them is that people can (and do) hurt themselves trying to get away. Remember, spiders and snakes were here long before us, and the odds that you're going to die from a bite are extremely small.

Your best bet is to calmly do what you do every day: prepare for what could happen, plan how to respond if something does happen, and stick to the plan. 🌍



# Misadventure at the Pump

By MS. KIM BRUMLEY,  
Staff Writer

**R**ecently, while cruising along on a little road trip, I looked down at my gas gauge and thought, *I've got enough gas to make it to my destination, but no need to risk it, I'll go ahead and stop at the station just ahead.* So, I pulled in at the pump, jumped out of the car, and started the gas. I thought, *I'll just run into the station real quick.*

As I walked away, I heard, "Where are you going?" from the Occupational Safety Division Chief for AMC, Mr. Joe Hughes. Standing by the car was also the Director of Safety for AMC, Col Mike Seiler. I knew by the tone of his voice that I had committed some type of safety blunder, so I stopped dead in my tracks. I'm fairly certain I had that *Oh crap, what did I just do?* look on my face (a familiar look to those folks who know me well), as I replied meekly, "Just running in."

Mr. Hughes then said, "Don't you know, you are not supposed to leave your car unattended while getting gas?" Of course, I immediately high-tailed it back to my car.

Due to my haze of embarrassment, I don't remember exactly who asked, but the next question was, "Haven't you read the warnings on the pump?" With the same *Oh crap!* look on my face and wondering if the situation could get any worse, I reluctantly admitted that I had never actually read the warnings on a gas pump. Really, who reads the

warnings on a gas pump? Needless to say, I got an on-the-spot safety lesson from a couple of professionals that is now etched in my memory forever.

Obviously, I needed that little rude awakening because as I stood there and read the warnings, I realized that not only am I a repeat walk-away offender, I have multiple violations! On the rare occasion I do stay by my car, I often talk on my cell phone or text. The sign clearly says to turn off your cell phone or other electronic devices before fueling. The sign also clearly states to discharge any static and to NOT get back in your car while fueling. Yes, another violation because on cold days, I don't just stand there freezing—this lady gets back in her car.

My mindset changed from *Really, who reads the warnings on a gas pump?* to *Really, how have I not died in a fiery explosion at a gas pump?*

One would think I would have had this realization many years before when I tore apart a gas pump as I drove away with the nozzle still in my car ... yes, major violation! It was a cold day and I was rushing around in an attempt to make it somewhere on time, so I started the gas, ran into the store, grabbed a few items, and dashed back to the car. Without a glance at the pump, I threw my car in gear and took off. I only made it a few feet before something crashed into the side of my car, causing me to slam on my brakes. Clueless as to what had

just happened, I looked around thinking someone smashed into my car, but nope, that wasn't it. Then I looked in my rearview mirror and saw the nozzle and hose that had, only moments before, been attached to the pump, now dangling from the side of my car. As I sat there with the same *Oh crap, what did I just do?* look on my face, it didn't take long to figure out that it was the hose that hit my car after being stretched to the max before disconnecting as I drove off.

Thank goodness fuel pumps are fairly idiot proof and have auto shut off mechanisms for such instances or I would have been swimming in gas that day ... or would have died in that fiery explosion I previously mentioned. Feeling like a total moron, I carried the nozzle and hose into the station to ask how much the damages would cost. It was an expensive lesson.

At least I can say my lessons at the pump that have been both expensive and embarrassing are beneficial as my daughter prepares to take her driver's license exam. As she recently pulled up to the gas pump, with me in the passenger's seat, can you guess what my first instructions were? That's right, let's start by reading the warning sign. Of course, I told her about my multiple violations and, although she laughed hard at her uncool mom, I think she will remember what NOT to do (especially in front of the Director of Safety) while fueling up. 🚗



# SPOTLIGHT AWARD

## Ground Safety Award of Distinction

**W**hile performing their normal duties of maintaining electrical equipment while deployed to the 379 AEW, Al Udeid AB, Qatar for the Expeditionary Civil Engineer Force Protection Escort flight on October 2, 2015, SrA Michael T. Munguia and SrA Jacob Marksberry received an emergency call over the radio regarding an electrical fire in one of the guard shelters. The personnel assigned to the satellite communication construction site described how the shelter's air conditioning unit had begun to falter and eventually start smoking.

SrA Munguia immediately directed the site personnel to evacuate the shelter and shut down the generator to eliminate the source of the electrical fire.

Although the electrical fire was extinguished when SrA Munguia and SrA Marksberry arrived, they began investigating its cause and quickly discovered the air conditioning unit's power cable had been hardwired to the generator without first being routed through a proper circuit breaker box, thus rendering the electrical system "fail safes" useless.

SrA Munguia and SrA Marksberry repaired the hazardous situation by running a new electrical cable from the generator to a newly installed breaker box inside the shelter. They further inspected and repaired all electrical outlets in the shelter to allow an air conditioning unit to be properly connected using the power plug.

Following the incident, the pair briefed the assigned escort personnel on electrical power

safety practices and demonstrated the generator emergency shutdown procedures. They also inspected the wiring in 16 other shelters and coordinated with the local HVAC and electrical repair shops to bring all of the wiring up to safety code.

The decisive actions of SrA Munguia, deployed from 319 CES, Grand Forks AFB, and SrA Marksberry, deployed from 60 MXS, Travis AFB, prevented the potential injury of fellow Force Protection members and loss of mission essential generators and air conditioning units valued at \$401,200. Furthermore, their preventative measures improved the electrical reliability of the shelters for future rotations.

Good work, Airmen! 



# Looking Back: **Riders Helping Riders**

By MS. RITA HESS, Staff Writer



**A**s a rider, you know that balance and coordination are crucial to keeping your motorcycle upright—and keeping you safe. The problem is that some riders think it's okay to have a drink (or two, or six), fire up their bike, and go. Even if you don't engage in such behavior, would you stop someone else from doing so?

In Georgia, the percentage of intoxicated motorcycle riders in fatal crashes was so alarming at one point—when nearly a third of all motorcycle fatalities involved alcohol—that the National Highway Traffic Safety Administration (NHTSA)<sup>1</sup> funded a program called *Riders Helping Riders* to encourage motorcyclists to prevent other riders from drinking and riding.

The program began with focus groups in five U.S. cities, asking riders about their attitudes and

*TSgt Donald Jones, 551st Special Operations Squadron, rides a motorcycle while performing stop-and-go maneuvering near the Landing Zone at Cannon AFB, N.M. The safety course training is required by Air Force Instruction for all active duty personnel who ride a motorcycle on or off duty.*

USAF PHOTO BY A1C XAVIER LOCKLEY

behaviors. The results were not surprising: motorcyclists considered themselves a close-knit community and willing to help a fellow rider in need. But it also revealed that most riders would NOT try to prevent someone they did not know from drinking and riding.

Participants then attended a 30-minute class that included ways to spot impaired riders and ways to intervene—and potentially save a life. Here is a snippet of what they learned.

## **The Effects of Alcohol**

We've all seen (or experienced) the effects of alcohol. It's one thing to throw back a few brews while sitting

at home enjoying a football game, but it's something else entirely to consume that same amount of alcohol and then get on a motorcycle. While riding, people who have had too much to drink may drift or weave, become unbalanced at a stop, have trouble getting on or off a motorcycle, experience problems while turning (such as unsteady correction, late braking, and improper lean angle), follow too closely, drive the wrong way on a street or highway, and/or simply display reckless behavior.

Considering the complex skills and judgment needed to operate a motorcycle safely, even a relatively low blood alcohol concentration



(BAC) can be dangerous to riders, even those under the “legal limit.” Also, alcohol affects people’s ability to assess their own impairment, so just because people say they are okay to ride, that may not be true.

It is important, in any setting, to recognize the signs of impairment in others. A great way to do that is to use the letters BAC a different way.

- B - Behavior** - How a rider acts
- A - Appearance** - How a rider looks
- C - Coordination** - How a rider moves

When *slightly* affected by alcohol, people may seem more relaxed and outgoing. But when *moderately* affected, their behavior, appearance, and coordination are affected (as is their riding ability), and the chance of an accident increases. If you see any one of the following signs of impairment—even if you don’t know the person—try to prevent

him from drinking more and becoming *severely* impaired.

- **Behavior.** This person may be loud, dominate conversations, talk into someone’s face, exaggerate gestures, and/or use suggestive language or profanity. The person may be physical (hugging, touching, poking, or thumping people) during conversations and/or show a lack of inhibition or outright rudeness.
- **Appearance.** This person may appear warm (sweaty, rosy complexion) and loosen his clothing (roll up sleeves, remove shoes); eyes may appear tired, red, or bloodshot. The person may also appear unusually relaxed (spreading out in a chair) and have a silly or self-satisfied glow.
- **Coordination.** This person may show poor dexterity (have problems coordinating hands, arms, and body), slouch or lean on things, and be unable to speak clearly.

### How Can You Help?

If you know the person, express sincere concerns that he may sustain serious injury in an accident or go to jail if pulled over. Also, remind him that if stopped, he may lose his license and/or face thousands of dollars in fines and fees.

If you don’t know the rider, enlist help from his friends. Take them aside, point out the signs you see, and suggest they intervene. If

nobody knows the rider, ask a few folks to go with you to approach him, as people are sometimes more inclined to listen if several people make a suggestion. In places where bartenders are serving alcohol, tell them the rider appears to have had enough and suggest they stop serving him.

In any case, providing an alternative to riding under the influence is important. Find a place for the person to stay overnight, and secure a safe place to keep the motorcycle, too. Riders will be more likely to get a ride home if they know their motorcycles will be okay. If overnight accommodations are not possible, offer to transport the motorcycle and rider home if necessary.

Intoxicated drivers may make excuses and say they are fine. Remember, people can be under the legal limit but still face legal charges if their behavior indicates impairment. Remember, too, that a person who has been drinking awhile has lost the ability to judge his own condition.

If all else fails, you may have to try getting the keys. This is not a good situation, but it’s worth it to protect a fellow rider from arrest, injury, or death.

Some people may ride despite your best efforts. But let’s all do what we can to make a difference in the number of people who are arrested, injured, or killed due to drinking and riding. 🌍

<sup>1</sup> *Riders Helping Riders* was developed with the assistance of instructors from the South Carolina Rider Education Program and pilot tested by instructors of Georgia’s Department of Driver Services, Motorcycle Safety Program.

# TWISTER!

Yes, It Happens!

By MS. RITA HESS, Staff Writer

**T**ornadoes are nature's most violent storms. I should know. I live in Oklahoma, which is in Tornado Alley, and one of these wicked storms nearly stole my family a few decades ago.

In the late 80s, I lived 100 miles east of my parents, and one day I saw on television that they might experience severe storms in the afternoon and evening. My younger sister still lived with them, and when she called me late that night, I jokingly asked, "Did everything blow away?" I was horrified when she told me that everything they owned was indeed gone. Thankfully, she and my parents had ducked into the storm shelter with seconds to spare and survived.

I was stunned at what I saw there the next morning. We dug through piles of rubble and found a few mementos, but most of their possessions had been ruined or carried away in the wind. They rebuilt, but my mother never overcame her fear of storms.

So, there's my real-life story about tornadoes. Now, here are the

scientific details—and the stuff YOU need to know to stay safe.

## The Power Within

Tornados are rotating, funnel-shaped clouds that extend from a thunderstorm to the ground with winds that can reach 300 miles per hour. **Caution:** you don't always see them. Low clouds sometimes obstruct the funnel, or it can be "rain wrapped" and look eerily similar to a heavy rainstorm. Worse yet, tornadoes sometimes strike at night when it's dark or develop so fast there is little warning.

Before a tornado hits, the wind may die down and the air may become very still. Depending on the size of the funnel, damage paths can be more than a mile wide and 50 miles long. Tornadoes generally occur on the back side of a thunderstorm, and you may see clear, sunlit skies behind the storm.

Administration (NOAA) says tornadoes have hit in **every one** of the United States, with an average of over 1,000 tornadoes each year. Florida's tornado rate is high because of its almost daily thunderstorms and because tropical storms (and hurricanes) often move onshore and spawn twisters. Tornado Alley generally means the region from central Texas, northward to northern Iowa, and from central Kansas and Nebraska east to western Ohio. But a number of super-violent tornadoes have occurred outside of Tornado Alley, and several of them occurred at times of the day or year not normally associated with violent tornadoes.

### Preparing for a Tornado

While improved forecasting and early warning systems have resulted in fewer deaths over the years, tornadoes are still unpredictable forces of nature. A

grim reminder of that was the loss of three professional storm chasers in 2014, when a tornado near El Reno, Oklahoma, suddenly took an unexpected turn and scooped up the vehicle in which they were riding.

The Ready.gov website at [www.ready.gov/tornadoes](http://www.ready.gov/tornadoes) has detailed information about what you should do before, during, and after a tornado. Please check it out.

Above all else, stay tuned to a NOAA Weather Radio, commercial radio, or television for information. The two terms you need to know are **Tornado Watch** and **Tornado Warning**. A *Watch* simply means tornadoes are possible, so remain alert for approaching storms. A *Warning* means a tornado has been sighted or indicated by weather radar, and you should take shelter immediately. 🗹

Tornados are rated on the *Enhanced Fujita* Tornado Damage Intensity Scale, sometimes simply called the Fujita Scale or EF scale, with EF-1 being the weakest and EF-5 being the strongest. The United States sees about 20 EF-3 twisters per year and one that may be EF-5. An EF-5 tornado results in nearly complete destruction.

### Tornado Alley

Depending on where you live, you may think you'll never face a tornado threat. Think again. The two U.S. regions with a high frequency of tornadoes are Florida and what is called "Tornado Alley." But the National Oceanic and Atmospheric

### QUICK TORNADO FACTS

- They may strike quickly, with little or no warning.
- They may appear nearly transparent until dust and debris are picked up or a cloud forms in the funnel.
- The average tornado moves southwest to northeast, but tornadoes have been known to move in any direction.
- The average forward speed of a tornado is 30 mph, but may vary from stationary to 70 mph.
- Tornadoes can accompany tropical storms and hurricanes as they move onto land.
- Waterspouts are tornadoes that form over water.
- Tornadoes are most frequently reported east of the Rocky Mountains during spring and summer months.
- Peak tornado season in the southern states is March through May; in the northern states, it is late spring through early summer.
- Tornadoes are most likely to occur between 3 pm and 9 pm but can occur at any time.

*Quick Tornado Facts courtesy of Ready.gov.*

# Flying Hour MILESTONES

## 12,500 HOURS

**452 AMW, March ARB, CA**  
Lt Col William C. Adelman  
SMSgt William J. Lamela  
MSgt Robert R. Rodarte



## UNIT AWARD

**22d Airlift Squadron,  
Travis AFB, CA**  
**41 Years—231,412 Hours**



## 10,000 HOURS

**452 AMW  
March ARB, CA**  
SMSgt Jose F. Grau



## 8,500 HOURS

**452 AMW, March ARB, CA**  
Lt Col Timothy J. Harris  
Lt Col Scott A. Heidemann  
Lt Col Daniel C. Nichols  
Lt Col Thomas A. Noble  
MSgt Gordon W. Nelson  
TSgt Jose A. Chaidez

## 7,500 HOURS

**3 AS, Dover AFB, DE**  
CMSgt Geraldo Moore

**89 AW, Presidential Airlift  
Group, JB Andrews, MD**  
Lt Col Scott Benton  
Lt Col TJ Cook  
CMSgt Aaron Luthe

**452 AMW, March ARB, CA**  
Col Gerard P. Malloy  
Lt Col Jeffrey E. Faley  
Lt Col Thomas E. Larson  
Lt Col Jeffrey F. Minton  
SMSgt Richard L. Farrow  
SMSgt Esteban Rodriguez  
MSgt Eric M. Brasch

**465 ARS, Tinker AFB, OK**  
Lt Col Joseph Defenderfer  
Lt Col Eric Wilks  
SMSgt Darby Perrin

## 6,500 HOURS

**3 AS, Dover AFB, DE**  
SMSgt Shane Eaton  
MSgt Donny Maheux

**89 AW, Presidential Airlift  
Group, JB Andrews, MD**  
SMSgt Robert Nation

**452 AMW, March ARB, CA**  
Lt Col Antonio A. Astran  
Lt Col Forrest E. Brown  
Lt Col Kenneth H. Goode  
Lt Col Michael P. Goyette  
Lt Col Shane O. Grahn  
Lt Col Nick R. McKenzie  
Lt Col William A. Ormiston  
Lt Col Thomas K. Stottman  
Lt Col Joseph D. Sullivan  
Maj Seth J. Ewalt  
Maj Averie R. Payton  
Maj Ryan C. Van Scotter  
MSgt Daniel J. Beecher  
MSgt Geoffrey E. Parish

**465 ARS, Tinker AFB, OK**  
Col Douglas Gullion

## 5,000 HOURS

**3 AS, Dover AFB, DE**  
CMSgt Robert Johnson  
MSgt John Schaefer  
TSgt Thomas McClanahan

## 6 ARS, Travis AFB, CA

CMSgt Randy L. Kay  
MSgt Jason T. Margolin  
MSgt Edward L. Soto

## 22 AS, Travis AFB, CA

SMSgt Mark R. Larmony  
MSgt Dennis M. Presley  
TSgt Robert E. Vann

## 89 AW, Presidential Airlift Group, JB Andrews, MD

Lt Col Warren Austin  
Lt Col Alexander Miravite Jr.  
CMSgt Charles Gardner

## 92 ARW, Fairchild AFB, WA

SMSgt Thomas H. Ireland

## 305 AMW, JB McGuire-Dix- Lakehurst, NJ

MSgt Ryan Eads

## 452 AMW, March ARB, CA

Col Stephen M. Browning  
Lt Col Thomas J. Episcopio  
Lt Col Gary A. Miller  
Lt Col Richard B. Neitz  
Lt Col Alan R. Thurber  
Lt Col Peter C. Vehlow  
Maj Clifford E. Atherton  
Maj Nathan J. Childers  
Maj Michael C. Costas  
Maj Douglas R. Ferrette  
Maj Creighton A. Goodman

Maj Jengi A. Martinez  
Maj Scott A. Meyer  
Maj Eric G. Ozols  
Maj Andrew K. Vandertoorn  
Maj Cynthia A. Welch  
Capt Charles E. Conder  
Capt Atsushi J. Nitao  
CMSgt Deborah M. McGuane  
MSgt Robert A. Haberlein  
TSgt Andrew A. Lucas

**465 ARS, Tinker AFB, OK**

Lt Col Randall Sauer  
Lt Col Michael Toney  
Lt Col Jason Zimmermann  
Maj Mark Povec  
CMSgt Steven Robinson  
MSgt Charles Dalton  
MSgt Mark McGougan  
MSgt Steven Switzer

**3,500 HOURS**

**3 AS, Dover AFB, DE**

Col William Hall  
Lt Col Michael McCoy  
Lt Col Jason Mills  
Lt Col Aaron Oelrich  
Maj Brian O'Connell  
Maj Seth Rann  
Capt Jason Eichenberg  
1Lt Joshua Gorrington  
SMSgt Lori Tascione  
MSgt Arcenio Santiago  
TSgt Ryan Page  
TSgt Christopher Ruzon  
SSgt Matthew Cunningham  
SSgt Darren Doncits

**6 ARS, Travis AFB, CA**

Maj Bobby M. Budde  
SMSgt Jayde D. Langley  
MSgt Kenneth P. Harwood  
MSgt Carl M. Wise  
TSgt Michael L. Rothell  
TSgt Christopher J. Villanueva

**9 ARS, Travis AFB, CA**

Maj Jacob E. Hale  
Maj Gregory R. Miller  
Maj Matthew E. Tarnowski  
Capt Ryan H. Cunningham

MSgt Elton T. Phew

**21 AS, Travis AFB, CA**

Capt Patrick S. Ng  
Capt David L. Plachno  
TSgt Gabriel R. Reams

**22 AS, Travis AFB, CA**

Lt Col Cory F. Bulris  
Lt Col Jonathan A. Burke  
Lt Col Jon A. Sterling  
Maj Cory M. Damon  
Maj Jonathan M. Flowers  
Maj Peter M. Merrill  
SMSgt Erick J. Fierro  
SMSgt Jason D. Nipar  
MSgt Daniel Garcia  
MSgt Adam W. Henrichsen  
MSgt Richardo Montieltorres  
MSgt James B. Thomas  
MSgt Matthew Thomas  
TSgt Jarrod T. Clay  
TSgt Christopher M. Gerber  
SSgt Kenneth C. Frederick  
SSgt Robert M. Schuetz

**89 AW, Presidential Airlift  
Group, JB Andrews, MD**

MSgt John Gilbert

**92 ARW, Fairchild AFB, WA**

Lt Col Matthew J.  
Moneymaker  
Lt Col James J. Murray  
Lt Col David L. Pike  
Maj Richard G. Adams  
Maj Denique G. Asion  
Maj David A. Ornelas  
Maj Ryan W. Satterthwaite  
Capt Timothy McBride  
MSgt Greg Patterson  
TSgt Christopher B. Pedersen

**158 AS, Savannah IAP, GA**

Maj Stephen R. Holt  
MSgt Brian E. Beck  
MSgt Damon B. Webb

**452 AMW, March ARB, CA**

Col Charles D. Planer  
Lt Col Carey D. Efferson  
Lt Col David K. Garon  
Lt Col Nathan R. Howard

Lt Col Jesse E. Ortega  
Lt Col Steven C. Priest  
Lt Col Roland C. Tsui  
Maj David A. Carn  
Maj Brian M. Cernok  
Maj John W. Cramer Jr  
Maj Samuel L. Dixon  
Maj Roberta C. Frantal  
Maj Cullen T. Gallagher  
Maj Amy E. Gangolea  
Maj Derek K. Heath  
Maj Benjamin N. Jody  
Maj Kenneth M. Kirkpatrick  
Maj Jason K. Merrill  
Maj William Morrison  
Maj Ryan C. Pittman  
Maj Jody J. Robertson  
Maj Ryan T. Smith  
Maj Brian H. Weaver  
Capt Sean A. Ferguson  
Capt Michael W. Pope  
Capt Jared B. Temple  
Capt David Vera Torres  
SMSgt Brian D. Sammons  
MSgt Christopher A. Alcala  
MSgt Michael A. Allen  
MSgt Oz Ashkenazi  
MSgt Sebastian M. Faison  
MSgt Alfred A. Montes  
MSgt Diana L. Perez  
MSgt Nina J. Thurston  
MSgt Michael D. Vo  
TSgt Jonathan A. Brown

**465 ARS, Tinker AFB, OK**

Col Brian Davis  
Col Eric Jenkins  
Lt Col Marvin Ashbaker  
Lt Col Benjamin Evans  
Lt Col Kenneth Humphrey  
Lt Col Paul Ihrig  
Lt Col Michael Morrisett  
Lt Col Clifton Vaughn  
Maj Matthew Biggs  
Maj John Gowing  
Maj Jeffrey Milburn  
Maj Jenette Milburn  
Maj Michael Waters  
CMSgt Phillip Brand

**MISHAP-FREE  
FLYING HOUR MILESTONES**

MSgt Scott Montgomery  
MSgt Steven Stanton  
MSgt Ty Taylor  
TSgt Stephen Bowman

**2,500 HOURS**

**3 AS, Dover AFB, DE**

Col Kevin Gordon  
Lt Col Ryan Orfe  
Maj Michael Arnold  
Maj Glenn Garcia  
Maj Dennis Menjivar  
Capt Daniel Davis  
Capt Evin Negron  
Capt Kristen Smith  
Capt Brian Stewart  
Capt William Swoape  
MSgt David Feaster  
TSgt Jason Massey  
TSgt Brendan Proctor  
SSgt Robert Streeter

**6 ARS, Travis AFB, CA**

Lt Col Jeremy R. Reeves  
Maj Nicole C. Foster  
Maj Justin T. Watson  
Maj Adam C. Welch  
Capt Scott M. Crellin  
Capt Nichole M. Grenier  
Capt Travis C. Harvey  
Capt Mark D. McNaughton  
Capt William S. Muir  
Capt John C. Palicka  
Capt Jason M. Ruiz  
Capt Steve L. Sager  
MSgt Scott A. Steinhauer  
TSgt Christopher L. Barletta  
SSgt Arriel K. Bromley

**9 ARS, Travis AFB, CA**

Lt Col Brian R. Tavernier  
Maj Justin B. Malmstrom

Maj Winfield W. Scott  
Maj Aaron D. Sherman  
Capt Daniel C. Helland  
Capt Melissa K. Hughes  
Capt Kevin M. Jenkins  
Capt Christopher O. Johnson  
Capt Joseph P. Joyce  
Capt Justin A. Longmire  
Capt Anthony R. Perez  
Capt James D. Strong  
CMSgt Steve A. Vaughn  
MSgt Eboni M. Hill  
TSgt Van S. Stewart Jr.  
SrA Matthew T. George

**21 AS, Travis AFB, CA**

Capt Charles J. Day  
Capt Kurt J. Degerlund  
Capt John R. Houck  
Capt Robert O. Riggs  
Capt Christopher J. Schlener  
MSgt James D. Davis  
MSgt Ronald E. Strayhorne  
SSgt Ellis D. Perkins

**22 AS, Travis AFB, CA**

Lt Col David L. Taylor  
Lt Col Eric S. Weber  
Maj Paul E. Cameron  
Maj Richard C. Linton  
Maj Christopher P. Miller  
Maj Calford E. Morris  
SMSgt Christopher R. Carson  
MSgt Robert L. Landrith  
TSgt Javier E. Borges-Martin  
TSgt Bryan J. Costerisan  
TSgt Peter F. Lira  
TSgt Raymond L. Montanino  
SSgt Erick Aguilar  
SSgt Kyle A. Dreke  
SSgt Michael W. Lawrence  
SSgt Jarryd A. Morgan

**89 AW, Presidential Airlift  
Group, JB Andrews, MD**

MSgt Kristina Conover  
MSgt Dawn Jones

**92 ARW, Fairchild AFB, WA**

Maj Richard L. Hennies  
Maj William B. Morse  
Maj Tiffany E. Pence  
Maj Timothy R. Sifies  
Maj Joel A. Theisen  
Maj Michael L. Tillis  
Maj Tyler A. West  
Maj Jeremy E. Williams  
Capt Joel K. Darrington  
Capt Michael D. Gaskins  
Capt Ryan M. Jahnke  
Capt Garrett R. Pitts  
Capt Brian J. Sikkema

**155 AS, Memphis TN**

TSgt Stephen E. Gast

**158 AS Savannah IAP, GA**

Maj Danny M. Barton  
Maj Andrew H. Tenenbaum  
Capt James E. Adair  
MSgt Brandi N. Boldon

**305 AMW, JB McGuire-Dix-  
Lakehurst, NJ**

Capt Paul J. Bernards  
Capt Matthew J. Bolado

**465 ARS, Tinker AFB, OK**

Maj Cory Glenn  
Maj John Kearns  
Maj Adam Steichen  
Maj Kelly Timmermann  
Maj Edward Yee  
Capt Clayton Adams  
SMSgt Justin Hopkins  
TSgt Sean Gilson

**SUBMITTING MISHAP-FREE FLYING HOUR MILESTONES**

**To submit mishap-free flying hour milestones, send your request to:  
[mobilityforum@us.af.mil](mailto:mobilityforum@us.af.mil) HQ AMC/SEE, 618.229.0927 (DSN 779)**

*Please submit as shown in the listings above (first name, last name, sorted alphabetically within rank).*





# QUICKSTOPPERS

## Safety Success

By LT COL KEN PICHA  
HQ AMC Flight Safety

**AMC** finished the observation phase of the C-130 H and J models and the C-40. Observer feedback during the C-130 and C-40 Line Operations Safety Audit (LOSA) regarding the receptiveness of crews toward LOSA observations was extremely positive—thank you! AMC gathered over 300 observations throughout the world.

The LOSA program continues to demonstrate the value in highlighting the strengths and deficiencies in our diverse operations. LOSAs positively affect MAF safety, crew training, and operational efficiency while ensuring combat capability. AMC is grateful for the hard work of our Total Force LOSA observers and for aircraft commanders granting access to aircraft. Fly safe! 

For a LOSA to be successful at each phase, we need current and qualified crew members from the MDS variants to participate. The next LOSA phase will be the Data Roundtable Phase, which is expected to begin in March. In this phase, the subject matter experts (SMEs) will cull through the data to determine what is valid or not valid based on AFIs, regulations, and TOs. Not many SMEs are needed, and the amount of time they are out is short; however, their participation is vital to a successful and smoothly run LOSA. Please anticipate messages early February via e-mail or TMT.

**DATA ROUNDTABLE PHASE:** February or March 2016 – (14-day commitment for three SMEs)

**SIB and AMC COMMANDER OUTBRIEF PHASE:** June or July 2016 – (45-day commitment for one O-6 board president and eight SIB members)

After the Data Roundtable Phase, the formal analysis of cleaned data occurs. Then, the contractor will out brief the AMC/ CV, which is the catalyst for the AMC/ CC-convened Safety Investigation Board (SIB). This is the SIB and AMC Commander Outbrief Phase, which will likely occur in June or July 2016. The SIB convenes and reviews the data the 34 observers compiled. SIB members require intense support from the wings due to the manning, expertise, and time out-of-pocket from the squadron. During this phase, the SIB will examine previous LOSA reports and interview key agencies to produce recommendations for the C-130 and C-40 fleet. The results of the SIB will be briefed to the AMC/CC, AMC senior leadership, AMC staff agencies, ARC senior leadership and ARC staff agencies, and all commands and affected wings.

*A C-130J taxis onto the flightline at Little Rock AFB, Ark.*

USAF PHOTO BY SRA SCOTT POE



# A DAY IN THE LIFE



MSgt Patrick Gray, 91st Air Refueling Squadron NCO in charge of aviation resource management, stands with the Airmen of the 91st ARS at MacDill AFB, Fla. Gray was one of 12 Airmen selected as this year's Airlift/Tanker Association Young Leader award winners.

USAF PHOTO BY SRA NED T. JOHNSTON