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SAFETY AWARD
WINNERS

CONTENTS

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3



12



15



33

FROM THE TOP

- 3** Key Takeaways from Kabul: How Operation Allies Refuge Solidified the Need for a Safety Mindset

AMC NEWS

- 5** TSgt Dominick S. Fugazzi Recognized for Safety Achievement
- 14** FY22 Air Mobility Command Annual Safety Award Winners and Department of the Air Force Nominees
- 15** Safety Office of the Year: 628th Air Base Wing Safety Office, Joint Base Charleston, SC
- 16** 2022 AMC Safety Award Winners

PROACTIVE SAFETY

- 6** Understanding Procedural Safety Barriers, Part 2: Checklist

FLIGHT SAFETY

- 10** The Impact of Fatigue on Threat and Error Management Performance During Line Operations Safety Audit Observations

SAFETY CULTURE

- 12** America's Global Classroom—Education for the Future Fight: Director Ward Discusses Why the Air Force Culture and Language Center Is Needed Now More Than Ever

AMC HERITAGE

- 33** Timeline: Women in the Air Force

HEALTH AND FITNESS

- 35** Ergonomic Health and Your Work Station

REGULAR FEATURES

- 37** Mishap-Free Flying Hour Milestones
- 39** Quickstoppers
- 40** A Day in the Life

ON THE COVER

A C-17 Globemaster III aircraft is refueled by a KC-135 Stratotanker aircraft from Fairchild Air Force Base, WA, over the Pacific Ocean, Nov. 21, 2022.

USAF photo by SSgt Lawrence Sena

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Key Takeaways from Kabul: How Operation Allies Refuge Solidified the Need for a Safety Mindset

BY MS. LAUREN SCHATZ, STAFF WRITER

It is Aug. 13-18, 2021. The Hamid Karzai International Airport (HKIA) airfield in Kabul, Afghanistan, is chaotic. All established essential airfield operations, including safety procedures and protocols, practically cease to exist. The civilians contracted by the North Atlantic Treaty Organization (NATO) to run the essential airfield services have retrograded to a secure compound, leaving operations to in-place and incoming coalition militaries. Thousands of Afghanistan civilians have fled onto the airfield to escape the approaching Taliban forces, and militaries are making security calls that may differ from those of the U.S. Air Force leadership. Every safety threat studied by Airmen seems to arise.

This highly contested environment was the reality Col Gregory K. Cyrus faced as he was deployed to Kabul for Operation Allies Refuge (OAR) as the Joint Air Component Coordination Element to United States Forces Afghanistan-Forward and as Air Forces Central Senior Leader Forward. As senior ranking Air Force officer on the ground at HKIA, Cyrus assisted with securing the airfield and ensuring operations ran smoothly. To do so, the Colonel said he “quickly realized the need to fall back on the basics of safety to ensure the joint and multinational force assembled there would be able

to complete what eventually became the largest noncombatant evacuation operation in U.S. history.”

Thankfully, Cyrus is no stranger to safety measures and contingency response. In fact, both his educational and professional backgrounds are deeply rooted in safety. The colonel excelled in Air Force Safety Center courses and obtained an aviation safety certification from Embry Riddle Aeronautical University. Additionally, he effectively ran a squadron flight safety program, was deployed as a chief of safety for an air expeditionary group, and commanded both a cross-functional squadron and a contingency response group. Currently, he provides special assistance to the United States Air Force Expeditionary Center commander.

These are among a few of his many credentials. Despite being invested in educationally by the Air Force and experienced in protecting resources and enabling mission success through sound operational and personal risk management practices, Cyrus found himself encountering challenges during OAR. Therefore, he shared how his experience confirmed the importance of a safety mindset and the need for a fluid process of implementing safety improvements.

When asked about the challenges he faced, the Colonel explained there were a wide array. “Birds,

Photo above: evacuees wait to board a Boeing C-17 Globemaster III during an evacuation at Hamid Karzai International Airport, Kabul, Afghanistan, Aug. 30, 2021.

USMC photo by SSgt Victor Mancillal

FOD [foreign object debris], CMA [controlled movement area] violations, lasing, small arms, explosives, fatigue, obscuring the airfield environment, lighting, mass ramp personnel movements, you name it, it was an issue we resolved, or more than likely, attempted to mitigate,” he said.

One challenge that proved to be particularly unexpected was the loss of airfield lighting, which was not supplied by an electrical grid as it is at many airfields. Already feeling in the dark about many of the airfield operations, this literal darkness posed a significant risk and hindrance to operations. Thankfully, the Multi-Capable Airmen (MCA) repaired the generator and located a source of diesel fuel that brought the airfield’s generators back on and running.

Because of these issues, Cyrus emphasized the safety mindset, including prioritizing asset protection and ensuring those mission essentials are safely handled. In Kabul, “Two priorities quickly rose to the top: ensure effective air operations through proven safety practices and ensure the safety of every human in the airfield environment,” he said.

This mindset makes room for success in chaotic environments where there may not be time to establish thorough safety procedures—instead, it keeps safety at the forefront of the mind to incorporate into every moment. The Colonel explained that it is essential to recognize the fact that “We may not necessarily have time to establish those essential safety programs that the Air Force has in place when it comes to weapon, ground, or even aviation or aircraft safety.”

LESSONS LEARNED

While there were many successes during OAR, there were also instances from which to learn—as the U.S. Air Force aims to elevate higher to ensure excellence in all efforts.

“We observed lesson after lesson about the left and right boundaries of effective safety strategies in the face of an overwhelming task directed from the highest levels of government,” Cyrus stated.

One lesson was the importance of a safety toolkit. Cyrus explained this is already in place, but he witnessed firsthand its importance. This concept not only can be taken in a metaphorical sense but also as a literal safety toolkit, such as a “go bag.” Having useful items, as well as written knowledge (such as tactics, techniques, and guidelines), can be crucial in times of emergency.

Another lesson is that redundancies play a role in a chaotic environment. Cyrus believes the redundancy in training, such as with MCA, is most important. “We must teach them to have a sound safety mindset and to have their head on a swivel—they cannot just focus on the task at hand—there is always a bigger safety implication. Everyone must know the basics of safety.”

It was also emphasized that unity of effort is important. Many groups supported the mission, as demonstrated by the 82d Airborne out of Fort Bragg, NC, and how they focused on security to allow other Airmen to focus on aircraft

“We must teach them to have a sound safety mindset and to have their head on a swivel—they cannot just focus on the task at hand—there is always a bigger safety implication. Everyone must know the basics of safety.”

operations. Individuals with various skill sets also worked together. “We had a cross-functional team of Airmen, from aerial porters to maintainers to security forces—you name it, we had a capability out there.” Cyrus emphasized that the Airmen on the ground enabled the mission’s success, and without them working together so well, this success could not have been possible.

Lastly, another lesson learned was to have a plan in place for turning facilities over to another host nation, ally, or even a foe—if they are going to continue operating the airfield. In this case, the Taliban was to take over and continue operating the airport to provide evacuative services to the United States and the coalition. Planning for this in advance can help ensure the transition sees optimal success.

Cyrus said he is witnessing these lessons being addressed. He said Air Mobility Command is shifting toward a warrior mindset and reinforcing Air Force readiness. He shared that Air Force leaders quickly came together to assess operations and discuss future implications, which was heartening to see.

One contingency that is now being addressed in planning is providing security in austere environments. Another focus is on mental health. Resiliency does not include ignoring mental health issues; it includes taking care of one’s wellness as well as the wellness of one’s family, Cyrus explained.


One of the biggest takeaways being implemented surrounds the MCA and Agile Combat Employment (ACE) concepts. Although these concepts have been discussed and practiced for

a while, this was a prime opportunity to test them.

“For MCA, we could look at OAR as the Air Force’s first real operational employment of the concept,” Cyrus explained. “It checked the boxes; every Airman became a mobility Airman, learning and employing mobility systems in real time, controlling ramp and aircraft loading operations, and by ensuring the safety and security of coalition military forces and evacuees on the airfield.”

Cyrus emphasized that Airmen demonstrated ACE by being agile and deployed, employed, and redeployed in a short amount of time into a contingency location. “Strategic airlift was the only means of accomplishing the mission, and Airmen supported a proactive and reactive scheme of maneuver inside threat timelines,” he stated.

This environment, paired with the large-scale mission request of supporting the movement of 124,000 people, proved MCA and ACE effective. “Everyone had jobs to do, but in an operationally degraded environment, they worked with joint partners to safely land, download, upload, and launch aircraft on the airfield. These Airmen on the ground set the bar high, showing that MCA and agility are essential to the future fight,” he stated. “Everyone’s focus keyed in on making sure the evacuees, and the crews, and the aircraft would be safe at the end.” The lesson from this is the need to further move these concepts into doctrine and develop them into tactics, techniques, and procedures.

Safety, as an important enabler of OAR, was vital to overall mission success. The nonstop nature of the mission is reflected in the mission itself. The positive changes from it have been nonstop as well. 

Editor’s note: Hamid Karzai International Airport airfield in Kabul, Afghanistan, is now known as Kabul International Airport.

TSgt Dominick S. Fugazzi Recognized for Safety Achievement

BY MS. CHRISTINE WALSH, STAFF WRITER



One way the United States Air Force remains committed to keeping Airmen and Guardians safe in the workplace is by encouraging personnel and units to participate in events like the Occupational Safety and Health Administration's (OSHA) weeklong national safety campaign, Safe + Sound Week, which ran from Aug. 15 to 21, 2022. The Air Force Safety Center partnered with OSHA in the campaign to recognize successes in workplace health and safety programs by providing materials and education to raise awareness for the value and importance of those programs in injury prevention.

TSgt Dominick S. Fugazzi, who participated in the safety campaign, was recognized for going the extra mile when it came to enhancing workplace safety. Fugazzi, the noncommissioned officer in charge of safety for the 733d Air Mobility Squadron based at Kadena Air Force Base in Japan, and his team were behind one of the top three submissions in an Air Force and Space Force challenge to submit before and after photos with a short description of a hazard encountered and how it was remedied. Air Force Chief of Safety Maj Gen Jeannie Leavitt praised them on the Air Force Safety Center public webpage and social media sites, thanking them for what they do to keep safety in the forefront and their

efforts in keeping the Air Force and Space Force world renowned.

Fugazzi is in a one-deep position that manages the occupational, weapons, and flight safety programs for his unit's rapid global mobility operations. "I saw this as a prime opportunity to not only participate in a nationwide event, but to also help raise awareness about workplace safety while aligning Air Force safety regulations with federal standards," he said. "More importantly, it was an opportunity to reenergize our unit safety program by challenging our workers to proactively identify and report workplace hazards before they cause injury or illness."


There are many inherent risks associated with an enroute mobility squadron. "It is my job to serve as a safety advisor, integrate risk management practices into our operations, activities, and planning at all levels to best protect our workers and maintain safe operations," Fugazzi said.

Fugazzi noted that to maintain a safe and healthy work environment, safety must become everyone's responsibility. "Working together as a team, 'embracing the red,' and taking immediate steps toward establishing and implementing corrective action planning is pivotal in resolving safety hazards or deficiencies," he said.

Applying a safety management system construct throughout all levels within the organization is a key element to reducing workplace hazards, according to Fugazzi. "In my opinion, one of the best strategies to help prevent injuries and hazards is by taking a proactive—versus reactive—safety approach," he said.

Fugazzi recommends the following five-step risk management process for building a safety culture:

1. Identify hazards.
2. Assess hazards.
3. Develop controls and make decisions.
4. Implement controls.
5. Supervise and evaluate.

Fugazzi urges other Airmen to maintain a proactive safety approach and not just walk past a problem. He asked, "If we avoid correcting the little things, how can we ever fix the big things?" 

Additional information on the Safe and Sound campaign can be found on the OSHA website at <https://osha.gov/safeandsoundweek/>.

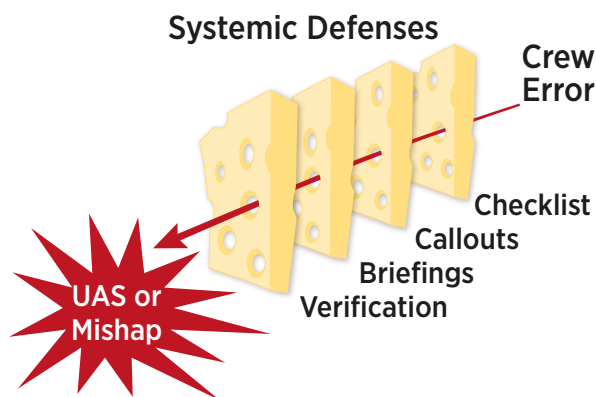
Understanding Procedural Safety Barriers

Part 2: Checklist

BY MR. SEAN BORDENAVE, HQ AMC CRM/TEM PROGRAM MANAGER

Have you ever stopped and wondered about the reasoning behind some of our procedures? Those procedures are there to ensure we properly operate the aircraft. They become our safety barriers. There are many procedures that we utilize while operating an aircraft, but briefings, checklists, cross-verification, and callouts represent some important procedural safety barriers.

As highlighted by Dr. James Reason's "Swiss Cheese" Model, these procedures provide an opportunity to detect and correct errors that we might make while flying. If we omit those procedures or we do not properly utilize them, then they could become "holes" in the Swiss cheese that allow an error chain to continue. In other words, those procedural barriers become procedural errors in the error chain.



The one procedural barrier that we are probably most familiar with is the checklist. It was one of the first procedural barriers implemented to improve flight safety. As a result of a 1935 B-17 accident in which the pilots failed to remove the flight control lock, the U.S. Army Air Corps directed the implementation of the checklist.

More importantly, the implementation of checklist procedures represented a standardized approach to operating an aircraft:

In the 1930s, the quality of aircrew performance was improved by a simple, effective form of standardization: the checklist. Like a recipe, a checklist consisted of written, step-by-step procedures that ensured Airmen performed their duties in the correct manner and sequence. Even experienced pilots benefited from this tool.

Where did checklists come from? <https://www.acc.af.mil/News/Article-Display/Article/200135/where-did-checklists-come-from/>

CHECKLIST—A STANDARDIZED APPROACH

Before we get into specifics regarding checklist errors and their impact, understanding the different underlying checklist philosophies and designs are critical to how we implement this procedural barrier.


"READ-DO" CHECKLIST PHILOSOPHY VS. "FLOW & CHECK" CHECKLIST PHILOSOPHY

Checklist philosophy and design are best understood when we look at Mobility Air Forces aircraft from the perspective of a legacy Major Weapon System (MWS) versus a newer MWS. This perspective is valuable as checklist philosophy and crew complement have evolved over time. We can see those differences depending on the age of the MWS. Legacy aircraft, such as the KC-135, C-5, and Legacy C-130, procedures applied a "read-do" checklist style, which meant "read" a checklist step, "do" a checklist step; thus checklist verification was applied as the checklist step was performed. *Additionally, every step was verified by a checklist.* For those legacy systems, the checklist protocols have evolved some, but the underlying philosophy still remains, most notably, verifying every procedural step. With newer aircraft, such as the KC-10 and the C-130J, the procedures show the evolution to scan/flow and check philosophy. In this checklist philosophy, the crew performs the procedural steps without direct reference to the checklist (unless desired) in a geographical panel flow and then afterward *verifies only critical procedural items using a checklist.*

Despite the differences in checklist types, the intent of all checklists is to ensure (verify) that critical aircraft systems and flight controls are properly set for the given phase of flight. Unfortunately, all checklists are vulnerable to complacency, distraction, interruption, and rushing, because a human is utilizing the checklist for verification.

VULNERABILITIES TO OUR PROCEDURAL DEFENSES

Unfortunately, our procedural defenses are susceptible when events disrupt our normal habit patterns or when our own mental awareness or state of mind impedes our teamwork or response.



Checklists are universal in their intent—verification that a procedure is completed correctly.

As you will see in the following Aviation Safety Action Program (ASAP) examples, threats—such as marginal weather and aircraft malfunctions—play a role in distracting or interrupting the crew’s habit patterns or procedures, which will lead to crew error. In these events, Crew Resource Management (CRM) becomes our next layer of defense.

ASAP CHECKLIST ERROR EXAMPLES

As we go through these KC-135 ASAPs, which focus on checklist errors, keep in mind that although the examples might be KC-135-specific, the lessons learned apply to all MWSs. Checklists are universal in their intent—to provide verification that a procedure is completed correctly.

ASAP #20687 SUMMARY [KC-135 AIRCRAFT]

Incident aircraft was a KC135R. The morning of [the] incident was high temperature, high humidity, and a tail swap was involved which were potential contributing factors. All checklists were thought to be completed normally and the aircraft was cleared for takeoff. PF [Pilot Flying] was left seat and PM [Pilot Monitoring] was right seat. The PF called for gear up. NLG [nose landing gear] did not retract, MLG [main landing gear] retracted normally. The gear handle was left in the up position and the PM was instructed to set up a hold with ATC [air traffic control] at 10,000 feet to allow the use of autopilot and start looking for the appropriate checklist. PM set up the hold and confirmed with the PF. While still climbing out to 10,000 feet, PM found the checklist Nose Gear Extended, Both Main Gear Retracted, and neither the PM or PF realized the checklist was a subset of Preparation for Gear Up Landing. Referencing the Nose Gear Extended, Both Main Gear Retracted, the crew read accomplish steps 1 through 12 of the preparation for gear up landing and decided that checklist was not appropriate. PF told PM to keep looking for something more appropriate. Both PM and PF failed to find Retraction of Landing Gear with Nose Gear Ground Downlock & Release Handle Installed located under Non-Critical Procedures on the next page of the Table of Contents. After the crew leveled off at 10,000 feet and turned on the autopilot, the PF asked if the NLG downlock was installed. Crew then realized that the NLG downlock handle was still installed, a missed checklist item. PF directed gear down and removed the downlock, and then the gear was retracted normally. Aircraft flew to destination without further incident. Full NLG inspection was completed with no defects noted.

While the submitter focused on the crew actions after the nose gear failed to retract, our analysis will focus on the NLG downlock missed by the Boom Operator (BO) during preflight duties. Using Threat/Error Management (TEM), the submitter describes the missed action (removing the NLG downlock) and the resultant Undesired Aircraft State (UAS). The application of TEM then helps us think about how we would “trap” or detect this error before it becomes a UAS. How we detect or trap an error is our procedural defenses (callouts, briefings, cross-verification, etc.). In this case, the procedural defense is the checklist. During preflight duties, Technical Order (TO) 1C-135(K)R(II)-1 directs the BO to remove, stow, and check the NLG downlock three times in the procedures/checklist:

BO PREFLIGHT

*6. Nose Gear Ground Downlock and Release Handle—Remove and stow

Failure to remove the nose gear ground downlock and release handle prior to retracting the landing gear may cause damage to the downlock and release mechanism which could render the nose gear emergency extension system inoperative. An Air Force Technical Order (AFTO) Form 781 entry is mandatory.

BO MISCELLANEOUS DUTIES

Sequence may be varied and be accomplished any time prior to engine start.

*2. Safety Locks—Stow

Ensure the nose gear ground downlock and release handle, nose gear external downlock, nose gear steering lockout pin, two main gear external downlocks, two main landing gear door external downlocks, and the nose gear inflight downlock pin are stowed prior to engine start.

BEFORE TAKEOFF

6. Takeoff Report—Complete (BO, N [navigator], CP [copilot])

BO reports, “Safety locks stowed, boom ready for takeoff.” At this time the BO will monitor ATC frequency.

These procedures represent three opportunities to remove, stow, and verify the NLG downlock. As the submitter mentioned in the ASAP, high temperature, high humidity, and a tail swap most likely contributed to the missed NLG downlock. Tail swaps (threat), which can lead to mission pressure and rushing, are scenarios where crews will look for procedural short-cuts, or quickly “gloss over” the checklist items to get back on the timeline. Unfortunately, a missed checklist item represents a potential UAS, which should be avoided. Remember, slow is smooth and smooth is fast.

Note: The number of times T.O. 1C-135(K)R(II)-1 directs the BO to verify that the NLG downlock is removed and stowed

does not indicate that the procedure is that much safer or more effective because it is checked multiple times. The number of times is simply the number of opportunities that the procedures require verification of correct configuration.

ASAP #18533 SUMMARY [KC-135 AIRCRAFT]

After level off at FL290, a climb to FL320 was requested. The PF autopilot did not respond as expected. The PF gave multiple commands to autopilot, suspecting issue with autopilot. After verifying differences between PF and PM instrumentation, both pilots analyzed that the PF data was incorrect. Flight controls were switched to the other pilot. The autopilot was turned off and the autopilot flight systems were switched to the other system. The altitude [altitude alerter] was labeled at FL310. The pitot heat switch was off. After it was turned on, systems returned to normal. Normal operation after [the] pitot switch turned on, and flight continued.

What is your recommended corrective action [Submitter's comments]?

Checklist discipline and missed verification of switch placement where verified.

T.O. 1C-135(K)R(II)-1

STARTING ENGINES AND BEFORE TAXI (Cont)

17. EXTERNAL POWER, AGE, FIRE BOTTLES & CHOCKS - REMOVED (P, GC)

Clear the ground crew to disconnect external power (if used) and remove all AGE, fire bottles, and chocks. Ground crew will also ensure airplane is clear of all obstructions and then report: "External power, AGE, fire bottles, and chocks removed. Airplane in taxi configuration and clear of all obstructions."

During alert response, the ground crew will comply with SCRAMBLE paragraph under ALERT PROCEDURES, this section.

NOTE

- Items 18, thru 29, may be accomplished while waiting for the ground crew report.
- Rollover chocks need not be removed prior to taxi.

18. BATTERY POWER SWITCH - NORMAL (P)

NOTE

If battery power switch is allowed to remain OFF for more than 2 seconds, engines will accelerate to flight idle.

19. STANDBY ADI - UNCAGED AND ADJUSTED (P)

After uncaging, adjust airplane symbol to match pilot ADI pitch indication. Minor variations in panel angle will appear as a slight drifting of horizon ball once uncaged. Corrections for panel angle are made by adjusting the airplane symbol by turning the knob without caging the instrument.

NOTE

If the instrument is caged by pulling the knob, the adjustment for panel angle correction will need to be made after the self erection cycle is completed, approximately 2 minutes.

20. PITOT AND Q-INLET HEAT - ON (CP)

21. ENGINE ANTI-ICE - AS REQUIRED (P, CP)

Excerpt, T.O. 1C-135(K)R(II)-1

As written in the recommended corrective action by the submitter, this ASAP shows another checklist error, in which the pitot heat was not verified as being "on" per the checklist. Verification is an important delineation as a checklist error. A skipped or missed checklist item is different from failing to visually "verify" the setting. In this case, the checklist item may be called (challenge/response) or reviewed, but the crewmember does not actually look and verify the correct setting. This failure makes the checklist an ineffective procedural barrier. Additionally, as shown in the previous T.O. 1C-135(K)R(II)-1 excerpt, this critical checklist does not

require verification by both pilots so visual verification is essential by the copilot to detect an incorrect setting.

From a TEM perspective, this ASAP highlights several other factors. First, the ASAP initially demonstrates that the pilots were unaware of the root cause of the issue—the pitot heat being off. Next, the ASAP gives us insight into how long the pilots were unaware that the pitot heat was off. The Pitot Heat, a step on the checklist, is contained in the STARTING ENGINES AND BEFORE TAXI procedure in T.O. 1C-135(K)R(II)-1. Thus, from engine start, taxi, takeoff, and climb to FL290, the pilots were unaware the pitot heat was off. Since all procedural safety barriers were exhausted, the omission of the pitot heat went undetected for approximately 37 minutes (from last engine start until when the crew recognized the issue) before the crew detected the incorrect setting. These two factors indicate that the end result was a UAS. While the crew did a good job troubleshooting the issue, determining the root cause, and recovering from the UAS, the event still represents a reduction in safety margins.

CHECKLIST VULNERABILITIES

Unfortunately, like other procedural safety barriers, checklists are not "pilot proof." Our human vulnerabilities such as fatigue, complacency, and overconfidence can degrade our ability to effectively utilize a checklist. Likewise, events, such as mission changes and aircraft malfunctions, also degrade checklist effectiveness by disrupting our normal habit patterns or increasing our workload. The next ASAP example will showcase one of these vulnerabilities. Additionally, the situation allows us to examine how CRM would have been an effective resource in managing the situation.

ASAP #19512 SUMMARY [KC-135 AIRCRAFT]

After a low speed abort due to an airspeed mismatch, the decision was made to try the takeoff a second time. The before takeoff and normal checklist/safeties were called and we were cleared for takeoff. The airspeed indicated normal so the takeoff was continued. During rotation we noticed the speed brakes were still extended and the warning horn failed to sound. The speed brakes were promptly stowed and the climb out was continued without issue. Mx [maintenance] was notified of the issue after landing.

What is your recommended corrective action [Submitter's comments]?

Better guidance on checklist direction after an abort to ensure configuration or an addition to the before takeoff checklist.

While the submitter addresses a critical issue with a safety system (i.e., warning horn failing to work), there are most likely also checklist errors in this sequence, which led to the subsequent takeoff with the speed brake deployed (the UAS).

ABORT

Perform Steps 1 and 2 simultaneously.

1. **THROTTLES – IDLE (P, CP)**
2. **BRAKES – APPLY (P, CP)**
3. **SPEED BRAKES – 60 DEGREES (P, CP)**
4. **Speed Brakes – 0 Degrees (P)**
5. Pressurization and Air Conditioning Panel – As required (CP)
6. Starter Switches – As required (P)
7. Lights – Set, as required (CP)

(S) If Hot Brakes Are Suspected, Continue Checklist With Step 8. Otherwise, Perform Step 11. And Follow The Procedures In BRAKE LIMITATIONS, Section V.

8. Runway – Clear, if possible; do not set brakes (P, CP)
9. Tower – Request fire coverage (P/CP)
10. GROUND EVACUATION Checklist – Accomplish (time permitting) (this section) (ALL)
11. Brake Energy Limits – Checked (CP)

Excerpt T.O. 1C-135(K)R(II)-1CL-1

CREW COORDINATION

An emergency requires the full, coordinated effort of each crew-member. Emergency procedures should be practiced at every opportunity so the crew will become proficient in every procedure. A well trained crew will know the problem and if properly indoctrinated, will react correctly and effectively under any condition.

NOTE

The urgency of certain emergencies requires immediate and instinctive action by the aircrew member. These checklist items are depicted in bold print. Crewmembers must be able to demonstrate correctly the accomplishment of bold faced procedures in the published sequence without directly referring to the checklist. Following completion of the bold print items, the remaining portion of the checklist will be completed in its entirety - time permitting.

Excerpt T.O. 1C-135(K)R(II)-1CL-1

BEFORE TAKEOFF

1. Flaps – Set for takeoff (P, CP)
2. **Speed Brakes – 0 degrees (P)**
3. Stabilizer Trim – Set for takeoff (P, CP)
4. Fuel Panel – Set for takeoff (P, CP)
5. Starter Switches – IGNITION (P)

(S) WHEN CLEARED ONTO THE RUNWAY:

- (S) 6. **[BLK45]** N1 RPM Index – Verified TARGET N1 set on EEID (P, CP)
7. Lights – Set, as required (CP)


Excerpt T.O. 1C-135(K)R(II)-1CL-1

Furthermore, the submitter stated that the Before Takeoff Checklist was also completed. The Before Takeoff Checklist does include a speed brake verification step. While the ASAP is unclear why the checklist procedure failed (e.g., incomplete checklist, missed checklist step, or failure to visually verify the speed brake setting), the disruptive nature of an abort takeoff stresses the importance of checklist discipline.

WRAPPING IT UP

The checklist is one of our oldest procedural methods for trapping and correcting errors. Checklists provide a standardized, regimented methodology for crews to operate seamlessly together in a dynamic environment. However, checklist procedures are vulnerable and less effective when crews deviate from standards. Due to repetition and experience level, we quite often become complacent in our checklist usage and discipline. We do things like perform checklists from memory, time ourselves on how fast we can perform a preflight checklist, or deviate from checklist protocols under the “mission accomplishment” banner. Unfortunately, those deviations become accepted practices, which degrade standardization and effectiveness of this vital procedure.

Additionally, we operate in a dynamic environment and sometimes in a high ops tempo. Unusual or demanding events can break down our normal habit patterns. A high ops tempo might impact human factors, such as fatigue, that could erode our mental alertness. Effective CRM should be our next layer of defense to ensure we implement checklist procedures in an effective manner.

Finally, there are aircraft safety systems, which are our final safety nets to detect and correct errors. However, we should not become complacent in our first and second lines of defense simply because there are aircraft safety systems on board. 

As highlighted in the previous excerpt, after completing the boldface items, the KC-135 abort procedures direct the pilot to reposition the speed brake to stowed (0 degrees). Furthermore, after completing the bold face procedures, the crew coordination paragraph emphasizes checklist completion. This crew coordination is crucial as the event is disruptive to the normal habit pattern. In this situation where a subsequent takeoff is plausible, the crew must bring the aircraft under control (perform the boldface), coordinate with ATC for the aborted takeoff and exiting the runway, complete the checklist, troubleshoot the malfunction, and then prepare for the subsequent takeoff. These actions may not occur in a smooth and orderly flow; thus, we can see how checklist completion could have been an issue.

The Impact of Fatigue on Threat and Error Management Performance During Line Operations Safety Audit Observations

BY JEANIE HOOD, AMC/SEF, AND
DR. STEPHEN POWELL, JENNIFER SAGE, AND
BRITTNEY HENDERSHOT, SYNENSYS GLOBAL

Fatigue is defined by the International Civil Aviation Organization as a "... physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety-related duties." Between 2003-2018, 32 crew fatalities were associated with fatigue across the Air Force, with four fatalities attributed to the Mobility Air Force. Fatigue-related mishaps accounted for over \$2.4 billion of medical and material costs. While only 4 percent of all mishaps had fatigue as a factor, these mishaps accounted for over 18 percent of the total cost. More than 25 percent of fatigue-related mishaps were Class A mishaps.

Threat and Error Management (TEM) is the active process of identifying, recognizing, managing, and mitigating threats and errors before they become undesired aircraft states, which lead to mishaps. TEM performance is audited annually by Air Mobility Command (AMC) Safety through the proactive Line Operations Safety Audit (LOSA) process. *Threats* are events or conditions outside the control of the crew that increase operational complexity. *Errors* are crew deviations from intentions or expectations. *Undesired states* are events that degrade the margin of safety—usually the result of a mismanaged error. The

LOSA process focuses on the collection of threats, errors, and undesired states during operational missions. AMC has been conducting LOSAs since 2011 and has collected over 3,000 LOSA observations.

In 2018, AMC Safety began proactively collecting crew fatigue data during LOSA observations to better understand the state of fatigue across different aircraft and aircrew. More than 2,400 crew members from AMC voluntarily completed fatigue surveys during LOSA flights. Crew members included pilots, flight engineers, and loadmaster crew members from the C-5; pilots and loadmasters from the C-17; pilots and boom operators from the KC-135; pilots from the C-40 and C-21; and aeromedical evacuation (AE) crew members, including flight nurses and AE technicians.

The LOSA fatigue survey used was adapted from the Samn-Perelli Scale and the Karolinska Sleepiness Scale, which are validated and reliable fatigue and sleepiness survey instruments used by commercial

aviation and other high-risk transportation operators. *Sleepiness* is a condition of current alertness, whereas *fatigue* is considered a cumulative state of feeling tired. The survey was anonymous, and crews were asked by the LOSA observer to complete the survey prior to the top of descent during a low workload period so it would not interfere with operational duties. This time period for survey completion was selected based on historic LOSA trends that indicate more undesired aircraft states occur during the descent/approach/landing phase of flight than any other phase of flight. **The response rate was very strong at 91 percent.** The LOSA observers collected the paper surveys and entered the data, along with all other LOSA observational data, into the AMC LOSA SafeSight software hosted by the LOSA contractor, Synensys Global. All crew fatigue survey results are presented in Figure 1.

Fatigue results ranged from a low of 7 percent of C-21 pilots reporting being

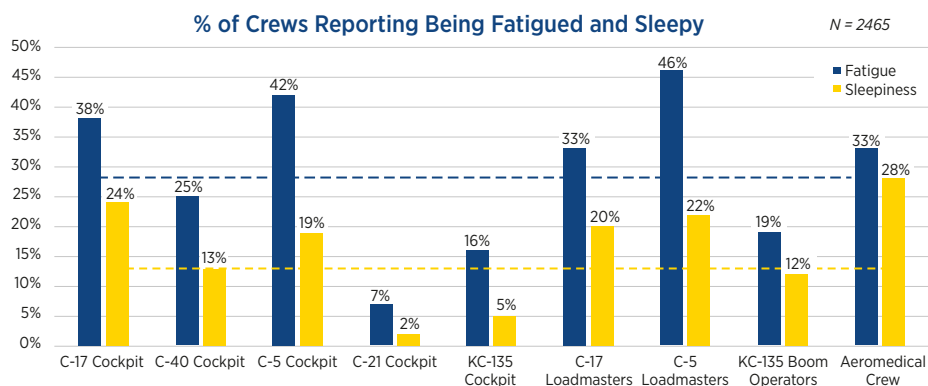


Figure 1. Fatigue survey results from AMC aircrew 2018-2022 during LOSA observations (2,465 total respondents).

fatigued to a high of 46 percent of C-5 loadmasters being fatigued. Only 2 percent of C-21 pilots reported being sleepy at top of descent, whereas 28 percent of AE crews reported being sleepy at top of descent. The blue dotted line represents the average percentage of all crews fatigued (28 percent), and the yellow dotted line represents the average percentage of all crews that reported being sleepy (13 percent). Most of the crews who reported high levels of fatigue and/or sleepiness also had the longest crew duty days (Figure 2).

Our analysis to determine TEM performance differences focused on cockpit crews due to the similarity of duties across aircraft for comparison purposes. Cockpit crews were considered fatigued for the analysis when *one or more* cockpit crew members indicated they were fatigued during the observed flight. A total of 552 LOSA-observed sorties were included in the analysis (245 cockpit crews, or 44.4 percent, reported they were fatigued, while 307 cockpit crews, 55.6 percent, reported they were *not* fatigued). All cockpit crews included in the analysis were reported in Figure 1. Threats, errors, and undesired aircraft states are coded as *managed* or *mismanaged* by the LOSA

observer (e.g., if a crew member is observed successfully managing an *aircraft* threat 80 percent of the time, then 20 percent of the time *aircraft* threats are mismanaged).

The most significant threat, error, and Undesired Aircraft State (UAS) performance differences between fatigued and non-fatigued cockpit crews are provided in the following table.

they may not be aware of how fatigue directly impacts their TEM performance, which is critical to maintaining safe flight operations. Our data suggests that fatigue most negatively impacts pilot *error* management performance and some critical UAS categories.

Long haul (C-5/C-17) crews and AE crews reported the highest level of

Threat, Error, and UAS Management Performance Differences for Fatigued versus Non-Fatigued Cockpit Crew Members

Type of Management	Type	Fatigued Crews Mismanaged %	Non-Fatigued Crews Mismanaged %
Threat Management	Cargo/Passenger Compartment	16%	9%
	Manual Handling	49%	43%
Error Management	Cross Verification	29%	24%
	Pilot Flying/Pilot Monitoring Duties	19%	14%
	Unstable Approaches	20%	9%
UAS Management	Vertical Deviations	21%	14%

The ultimate goal of TEM is to successfully manage threats before they result in errors which if *mismanaged*, can lead to UASs, which are precursor events to aircraft mishaps. While most crew members are aware of the negative performance effects of fatigue,

fatigue across the LOSA sample. These crews also experienced the longest duty days. Implementing TEM strategies to address fatigued crews’ ability to successfully manage all threat and error types (especially those that crews are most vulnerable to mismanaging) is essential to avoiding and mitigating UASs that can negatively impact flight safety.

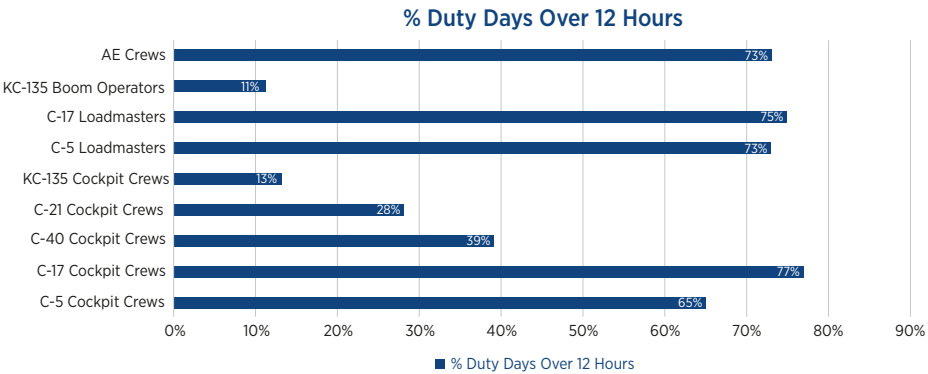


Figure 2. Crew Duty Days over 12 hours during LOSA observed missions (percent).

Future LOSA data collection will continue to include fatigue surveys, Aviation Operational Risk Management fatigue scoring, and other fatigue-related narrative data to develop actionable information for leaders, crews, and teams to use to optimize TEM performance even when fatigued.



THE AIR FORCE'S GLOBAL CLASSROOM



America's Global Classroom—Education for the Future Fight: Director Ward Discusses Why the Air Force Culture and Language Center Is Needed Now More Than Ever

BY MS. LAUREN SCHATZ, STAFF WRITER

“There has never been a moment in history nor in national strategy that has called for language and cultural skills the way these skills are called for today,” said Mr. Howard Ward Jr., director of the Air Force Culture and Language Center (AFCLC) at Air University, Maxwell Air Force Base, AL.

The AFCLC, founded at Air University in 2006, is responsible for culture and language training and education across the U.S. Air Force. Known as “the Air Force’s Global Classroom,” the center strives to prepare Airmen for global missions.

Mobility Airmen have deep roots in global missions, Ward pointed out. Being a Mobility Airman himself with 28 years of active duty, Ward recognizes that they operate an immense global supply chain and continually launch aircraft around the clock.

“Mobility Airmen must have some level of presence in nearly every country with a runway,” Ward said. “The commonality shared by these countries is interaction with people.”

The future fight increasingly warrants the need for effectively connecting with others around the globe. With speeds of events that can be considered unprecedented in U.S. history, Airmen must be ready—and ready quickly—to carry out the needs of the missions that arise.

Afghanistan is a prime example of how rapidly events can unfold. In Operation Allies Refuge (OAR), thousands of Afghanistan civilians fled onto the airfield to evade the approaching Taliban forces. The Afghans were displaced from their homes, frightened, and desperately needing human connection during a time of panic and vulnerability.

Not only that, but Airmen had a tremendous need themselves; tasked with transporting the Afghanistan refugees, the need to communicate effectively and efficiently was critical to mission success.

Thankfully, the AFCLC has the resources Airmen require to meet this need. The center’s Culture Guide app, which is available on Android and iOS platforms, helps Airmen break down cultural barriers through its Expeditionary Culture

Photo above: AFCLC staff

Field Guides (ECFGs). The app offers over 75 ECFGs (adding around 5-7 guides per year) to help Airmen achieve mission success in culturally complex environments.

Each guide is packed with invaluable information on topics such as:

- Political and Social Relations
- Religion and Spirituality
- Family and Kinship
- Sex and Gender
- Language and Communication
- Learning and Knowledge
- Time and Space
- Aesthetics and Recreation
- Sustenance and Health
- Economics and Resources
- Technology and Material

Ward shared that during OAR, the AFCLC advised Airmen to open the Afghanistan guide and learn as much as possible, particularly about



DOD VISION

The Department will have the required combination of language skills, regional expertise, and cultural capabilities to meet current and projected needs.

AFCLC MISSION

Enhance partner interoperability and adversary understanding in Airmen through language, regional expertise, and culture education.

AFCLC VISION

The “Air Force’s Global Classroom”

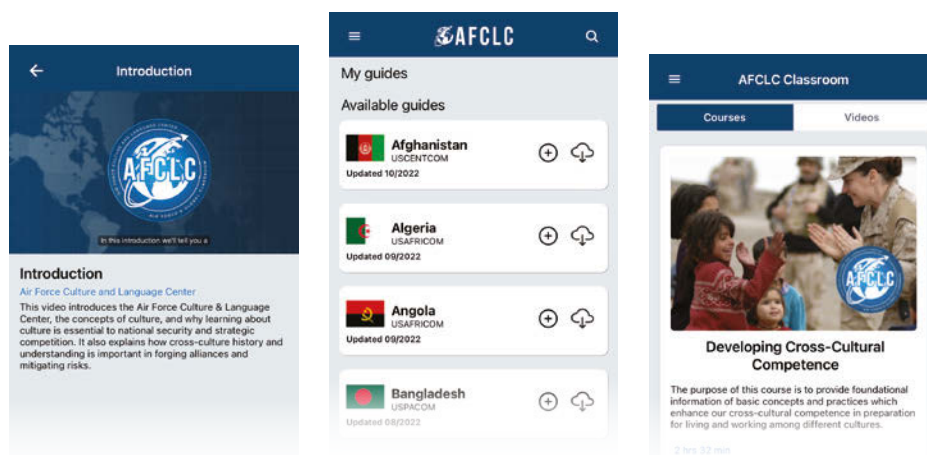
the cultural domains of family and kinship, gender roles, food, and health.

Airmen focused on these areas and thus identified the need to keep families together for stability in the encampments. By learning about proper dietary provisions, Airmen created a sense of comfort and gained trust among the evacuees, Ward said.

“We like to think we really made a difference, and it came down to Airmen embracing the technology and learning that in that way.”

This format offers many benefits that traditional guidebooks cannot—it allows what Ward emphasized as “velocity and scale.” The app not only saves money but also the logistical hassle of printing and shipping guidebooks every time an update is needed. Instead, updates to the app are made quickly, and information is readily available.

Airmen have embraced this format, with nearly 32,000 downloads of the app so far, and this number is rapidly increasing.



Screenshots of AFCLC app

The app is inherently accessible, allowing Airmen to access pertinent information on the fly. This is incredibly useful in Agile Combat Employment (ACE), in terms of Multi-Capable Airmen (MCA) and host nation integration. Cultural preparation via technology boosts readiness and adds a strategic advantage.


“Building a force integrated by design with partners and allies starts with education,” Ward said.

Ward shared the many educational resources, beyond the app, that AFCLC offers. For example, the Language Enabled Airman Program (LEAP) is a career-spanning program to develop a cadre of Airmen across all specialties with working-level foreign language proficiency (covering 95 languages). To be mindful of limited time, the AFCLC assessed the gaps in knowledge that can be filled. The program is a volunteer program with active duty officer and enlisted Airmen and Guardians in most career fields. “I think members of LEAP are exemplars of MCA, central to the concept of ACE, because of their Air Force skills and knowledge of culture and language,” Ward stated.

In addition to the Culture Guide app and LEAP, the center reaches its roughly 210,000 Airmen per year through online training, Community College of the Air Force-accredited courses, officer professional military education, General Officer pre-deployment training, and media operations.

“When an Airman is ready to learn, we are here to teach,” emphasized Ward. “The time is now to dive into cultural and language training.”

Ward explained Airmen must understand adversary decision-making and be able to connect with partners and allies without letting barriers due to culture and language get in the way. He says education is the solution and putting the Air Force’s Global Classroom in every Airman’s pocket is the key to unlocking success in today’s environment.

“As a Mobility Airman with deep roots in a global mission, I consider it a privilege to have a leadership role in an organization working to enhance the effectiveness of not only my beloved Mobility community, but all Airmen globally that are engaged with partners in deterring adversaries,” Ward said. 

To learn more about the tools AFCLC offers for navigating the globe and supporting mission demands, visit: <https://www.airuniversity.af.edu/AFCLC/>.

FY22 Air Mobility Command

ANNUAL SAFETY AWARD WINNERS AND DEPARTMENT OF THE AIR FORCE NOMINEES

AMC Safety Office of the Year (AMC-Level Award Only)

628 ABW Safety Office
Joint Base Charleston, SC

AMC Safety Special Achievement Award

60 AMW Safety Office
Travis AFB, CA*

AMC Safety Civilian Professional of the Year Award

Mr. Billy A. Sewell
60 AMW/SE, Travis AFB, CA*

AMC Safety Noncommissioned Officer of the Year Award

TSgt Nicolas A. Barrena
627 LRS, Joint Base Lewis-McChord, WA*

AMC Safety Senior Noncommissioned Officer of the Year Award

MSgt Melinda E. Martinez
89 AW/SE, Joint Base Andrews, MD*

AMC Safety Officer of the Year Award

Capt Linnea B. Pugh
305 AMW/SEF, Joint Base McGuire-Dix-Lakehurst, NJ*

AMC Aircrew of Distinction Award

Crew of STOKÉ 11
39 AS, 317 AW, Dyess AFB, TX*

AMC Aviation Maintenance Safety Award

92 ARW/SE
Fairchild AFB, WA*

AMC Flight Safety NCO of the Year Award (AMC-Level Award Only)

TSgt Shane Baker
92 ARW/SEF, Fairchild AFB, WA

Aero Club Safety Certificate

Dover Air Force Base Aero Club
436 AW, Dover AFB, DE*

AMC Outstanding Achievement Award for Occupational Safety, Category II

436 AW Occupational Safety
Dover AFB, DE*

AMC Outstanding Achievement Award for Occupational Safety, Category III

6 ARW Occupational Safety
MacDill AFB, FL*

AMC Outstanding Achievement Award for Occupational Safety, Category IV

62 AW Occupational Safety
Joint Base Lewis-McChord, WA*

AMC Outstanding Achievement Award for Occupational Safety, Category V

735 AMS/SE
Joint Base Pearl Harbor-Hickam, HI*

AMC Weapons Safety Award

Mr. Hector S. Alcazar
436 AW/SEW, Dover AFB, DE*

AMC Risk Management Achievement Award (AMC-Level Award Only)

19 AW Risk Management Office
Little Rock AFB, AR

AMC RiderCoach of the Year (AMC-Level Award Only)

Mr. Brian Donley
92 ARW, Fairchild AFB, WA

AMC Distinguished Motorcycle Safety Award (AMC-Level Award Only)

92 ARW/SEG
Fairchild AFB, WA

**Denotes AMC Submission to Department of the Air Force Level*

Back row, left to right: SSgt Tyler Jones, Mrs. LaurieAnn Dickson, Mr. Stephen Dulaney, Mr. Justin "JT" Taylor, MSgt Jacob Allen, Mr. Christopher Anderson, and TSgt Joseph Marsden. Front row, left to right: Mr. Edward Boggio, Ms. Lisa Davis, MSgt Sean Schaffer, and Mr. Phil Russell. Not pictured: Mr. Frank Endaya and Mr. Lance Frazier.

★ SAFETY OFFICE OF THE YEAR ★

628th AIR BASE WING SAFETY OFFICE

JOINT BASE CHARLESTON, SC

THE 628th AIR BASE WING (628 ABW) SAFETY OFFICE (SE) at Joint Base Charleston has been awarded the 2022 Air Mobility Command (AMC) Safety Office of the Year Award.

The 628 ABW Safety office supported a strategic mobility triad involving two airfields, 41 C-17 Globemaster IIIs, two ports, 30 ships, three subs, a 35-mile rail, three trains, and three piers—this resulted in no Class A mishaps.

They hosted an AMC safety staff assistance visit to identify potential safety program deficiencies or negative COVID-19 impacts. The Wing Commander approved and funded the visit, and the base earned an "effective" rating during the Unit Effectiveness Inspection.

The Safety office assisted with U.S. deterrence strategy and

executed Department of Energy atomic material and President of the United States program transfers; these actions supported a 33-year nuclear pact with Japan.

The 628 ABW/SE supported the Department of Defense's sole Air Force-led rail operation, which included 25,000 pounds of ammo loaded for Coast Guard Cutter James counter drug missions, in which 51,000 pounds/\$1.1 billion worth of narcotics were seized.


The Safety office safely synchronized with Naval Munitions Command for the United States Naval Ship Lewis and Clark upload, which included 992,000 pounds of arms, ammunition, and explosives.

The 628 ABW/SE was the No. 1 base for combatant commander airlift. They also teamed with the Unmanned Aerial System

Working Group, city sheriff, and Security Forces Squadron during the Security Forces Counter Drone System deployment to identify safety issues and ensure the system was Hazards of Electromagnetic Radiation to Ordnance-safe.

The Safety office ran an electrolyte popsicle truck for those working in the Carolina heat; the storage freezer was stocked, and morale was boosted.

They championed an Environmental, Safety, and Occupational Health Council and Qualified Recycling Program fund for hazard abatement and purchased a chemical dispenser and fall protection equipment.

The 628 ABW/SE crew led AMC's busiest multiservice air/sea/rail mission, protecting 23,000 acres and 22 miles of shoreline, demonstrating global support. 

2022 AMC SAFETY AWARD WINNERS

AMC SAFETY SPECIAL ACHIEVEMENT AWARD

60th AIR MOBILITY WING SAFETY OFFICE

Travis Air Force Base, CA



Left to right: Lt Col Dominik Niziol, MSgt Daniel Torrio, SSgt Jory Carulli, Mr. Gary Ash, Capt David Burleson, Mr. Gabriel Barton, SSgt Victor Gould II, Mr. Michael Jeffery, MSgt Richard Taylor, MSgt Briana Miller, Mr. Billy Sewell, and Maj Marc Beckius. Other FY22 team members not in photo: Capt Andrew Parris, Capt Paul Dibenedetto, Capt Cam Potts, Capt David Yi, Capt Tyler Moore, MSgt Mark Kenyon, and SSgt Ingrid Ramirez.

THE 60th AIR MOBILITY WING (60 AMW) SAFETY OFFICE, Travis Air

Force Base (AFB), CA, earned the 2022 Air Mobility Command Safety Special Achievement Award.

The team's safety program safeguarded Air Mobility Command's (AMC) largest wing, supporting 56 units, 403 facilities, 16,000 personnel, 58 aircraft, 27,700 flight hours, and 75.6 million pounds of cargo.

They inspected 50 units, abated 207 hazards, and guided 94 mishap reports. AMC nominated the team's Occupational Safety Manager for the Air Force Distinguished Civilian Service Award.

The team secured Travis AFB's largest munitions move to date with 10 million explosive assets positioned, which ensured President Joe Biden's requirement was met in support of Ukraine.

They perfected the wing's Bird/Wildlife Strike Hazard program and teamed with the U.S. Department of Agriculture (USDA) and the Maintenance Group to develop a custom forward-looking infrared mount for enhanced night operations, ensuring safety of flight for 2,600 missions.

They readied the "Gateway to the Pacific" by developing permits for 110 explosives site plans to store 1.1 million pounds of explosives and 8.4 million pounds of munitions cargo.

The team wrote a fall protection guide, which provided guidance to seven squadron commanders and trained 14 unit safety representatives. They ensured compliance with Occupational Safety and Health Administration standards, and AMC ultimately adopted the program.

The wing advised Travis AFB's major accident response exercise, teamed with seven agencies, and evaluated 45 items and 80 total force members' capabilities. They validated the joint emergency response for the Travis Air Show. They also developed a safety intern program by teaming with the Air Force Personnel Center to onboard occupational safety interns.

The team oversaw a chronic back injury study with assistance from the U.S. Department of Veterans Affairs (VA). The findings of the study resulted in the redesigning of equipment and a long-term VA claim reduction.

AMC SAFETY CIVILIAN PROFESSIONAL OF THE YEAR

MR. BILLY A. SEWELL

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



MR. BILLY A. SEWELL, a Safety and Occupational Health Specialist for the 60th Air Mobility Wing at Travis Air Force Base (AFB), CA, has been awarded the Air Mobility Command (AMC) Safety Civilian Professional of the Year Award for his work in safeguarding AMC's largest wing.

Sewell supported 56 units, 403 buildings, 442 riders, 16,000 personnel, and 58 aircraft, which enabled 27,000 flight hours and the transport of 75 million pounds of cargo.

He kept safety at the forefront of his tasks; he audited 37 mishaps, conducted 36 inspections, and consulted with 82 personnel. Sewell validated 34 risks and developed 70 mitigation plans, assuring mission readiness for 21 units.

Sewell guided a \$477,000 multiyear wildlife hazard plan and synchronized with the United States Department of Agriculture (USDA) and the U.S. Navy to secure Joint Chiefs of Staff alert missions and saved an \$8.5 billion four-Model Design Series fleet.

Sewell built a first-of-its-kind mishap kit. He procured mobile data capability and a \$35,000 modular storage for emergency vehicles, preparing the wing for mishap response. Sewell teamed up with the USDA and Maintenance Group to develop a forward-looking infrared mount for night operations, which provided flight safety for 2,600 missions.

Additionally, Sewell managed AMC's largest motorcycle rider population and invested \$18,000 in motorcycle safety training for 442 total force riders.

He fortified base safety by coordinating 1,200 training hours in five Occupational Safety and Health Administration courses, and that investment in Airmen netted zero on-duty Class A or B mishaps.

Sewell oversaw the wing's air show safety, which achieved zero mishaps for Travis AFB Wings Over Solano. He guided a safety intern program and teamed up with the Air Force Personnel Center to onboard an occupational safety intern. He developed more than 800 hours of training.

Sewell also identified an elevator hazard and crafted a mitigation plan to prevent potential entrapment or death to installation personnel and visitors, alongside a host of other accomplishments and safety mitigations.

AMC SAFETY NONCOMMISSIONED OFFICER OF THE YEAR

★

TSGT NICOLAS A. BARRENA

627th Logistics Readiness
Squadron, Joint Base Lewis-
McChord, WA



TSGT NICOLAS A. BARRENA, 627th Logistics Readiness Squadron, Joint Base Lewis-McChord, WA, has received the Battalion Risk Manager of the Year Award as well as the Air Mobility Command Safety Noncommissioned Officer (NCO) of the Year Award.

As Squadron Safety Representative, Barrena led 15 personnel through 500 inspections with zero discrepancies.

He drove the squadron's Occupational Safety and Health Administration (OSHA) "Star Site" recertification, the highest level of recognition that the agency's Voluntary Protection Programs offers, which goes to the nation's top 0.03 percent of eligible worksites.

Barrena revamped the Squadron Safety Document Program, preparing over 2,100 items within 75 folders for inspection with zero findings, which OSHA praised as a "Best Practice."

Barrena was handpicked for the Pacific Coast Safety Fest and wrote the article "Hierarchy on Controls" for the Air Force Safety Center; he was coined by the Army Field Support Battalion Commander.

He established a Voluntary Protection Program newsletter and authored six publications with 30 articles, which boosted safety awareness.

Additionally, Barrena orchestrated the Installation Support Division's first OSHA safety representative course, in which he trained 17 Army and Air Force personnel, priming the Army unit for "Star Site" consideration from OSHA.

Barrena revised a job safety training outline and updated 250 Air Force Forms 55, which are used for documenting the completion of initial and recurring safety training. He established a program checklist, which resulted in unit compliance across five flights, and he was coined by the Squadron Commander.

He orchestrated an OSHA visit, set up 30 interviews, and conducted 19 facility tours and in-person briefings. Inspectors lauded him for a flawless program.

Barrena was selected for the OSHA 511 course and applied his knowledge to the squadron program, acing the wing's 2022 inspection with zero discrepancies. This flawless "report card" resulted in his squadron being declared the "Best McChord Safety Program."

Barrena did not stop there; he launched a Deficiency Response Team and trained 15 representatives. For this, he was awarded the Army Achievement Medal and Air Base Group NCO of the Quarter recognition.

AMC SAFETY SENIOR NONCOMMISSIONED OFFICER OF THE YEAR

MSGT MELINDA E. MARTINEZ

89th Air Wing, Joint Base Andrews, MD



MSGT MELINDA E. MARTINEZ, Wing Safety Superintendent, 89th Airlift Wing, Joint Base Andrews, MD, is the 2022 Air Mobility Command Safety Senior Noncommissioned Officer (NCO) of the Year. As the Wing Safety Superintendent, she directed three Flight Safety NCOs, 617 safety spot inspections, and 112 hazard abatement actions. She protected 78 aircraft across four wings.

Martinez also protected “America’s Airfield” and safeguarded 2,500 sorties and 804 distinguished visitor missions with no Class A or B mishaps. Her team won the Wing Staff Agency’s Team of the Quarter Award.

Martinez established the wing’s first-ever safety munitions account, increasing the Bird/Wildlife Aircraft Strike Hazard (BASH) program capabilities threefold. As a result, 94 deer, 75,000 birds, and canines were relocated, which was key to the wing’s 7,800 mishap-free flight hours. Martinez hosted an Air Force Safety Center operations officer to showcase the top-notch BASH program.

Martinez oversaw a \$481 million airfield construction project and provided operational risk management oversight for 2,000 acres, protecting 250 civilian aircraft and 57,000 transient aircraft.

As the single investigating officer for a foreign aircraft mishap, Martinez gathered evidence, briefed the Wing Commander, and penned seven recommendations for an Air Force-wide technical change. She also drafted a rewrite of the base’s Mishap Response Plan. Martinez aided the host wing Safety office, fixed 38 errors, and cut critical response time by 40 percent.

To further her education, Martinez enrolled in an Aviation Safety Master of Science degree program and completed the Safety Manager Course. She revised six wing programs, which decreased on-the-job training time and saved 300 man-hours a year.

Martinez evaluated the Maintenance Group’s confined space program. She coordinated with four offices and identified three key recommendations and changes, protecting a 280-person maintenance unit. She also updated Joint Base Andrews’ Crash Damaged Disabled Aircraft Recovery program, executed three exercises and inspections, met all regulation requirements, and prepared a 40-member team for mishap recovery operations.

AMC SAFETY OFFICER OF THE YEAR

CAPT LINNEA B. PUGH

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



CAPT LINNEA B. PUGH, Flight Safety Officer, Joint Base McGuire-Dix-Lakehurst (JBMDL), NJ, was named the 2022 Air Mobility Command's (AMC) Safety Officer of the Year for 2022.

A JBMDL leader for KC-10 Extender and KC-46 Pegasus safety, Pugh conducted five squadron annual and spot inspections and was key to safe KC-10 divestment and switching to the KC-46. Pugh crushed the KC-10 and KC-46 quality transition, earning two "commendables" on evaluations. She is JBMDL's first dual-hatted tanker Flight Safety Officer.

Pugh collected evidence, preserved facts, and organized three major commands' data as she led two Class A aircraft mishap responses. She identified six root causes and \$792,000 in aircraft damage while investigating nine Class C, D, and E mishaps and created seven key mishap prevention measures. Pugh also recognized and eliminated a negative flight line operations trend by completing 40 high interest area inspections, which resolved a \$3.3 million damage issue for five AMC airframes.

She was the last JBMDL-deployed Flight Safety Officer for the 380th Air Expeditionary Wing's five airframes and ensured a smooth training transition for the new Flight Safety Officer, securing transfer of the best Air Combat Command/AMC operations strategies. She drove the JBMDL Bird/Wildlife Aircraft Strike Hazard (BASH) working group and analyzed data for two airfields, four wings, and 134 aircraft, validating the joint base's \$1.6 million U.S. Department of Agriculture management plan.

Furthermore, Pugh protected the wing's \$9.3 billion, 35-aircraft fleet by fulfilling 36 days of 24-hour on-call availability and providing an expeditious KC-10 in-flight emergency safety response.

She ensured squadron safety members were 100 percent equipped by authoring a wing safety training plan and liaising with a sister wing for Air Force Safety Automated System account error removals. She also accelerated a runway reopening by attacking an emergency on-call airfield security problem and enabled nine deer removals during a gate system failure.

Among other actions, Pugh increased airfield innovation and compliance in her role as the wing's solo risk management instructor by correcting 12 issues with deliberate risk assessments for six joint construction projects.

AMC AIRCREW OF DISTINCTION AWARD

CREW OF STOKE 11

39th Airlift Squadron,
Dyess Air Force Base, TX



A1C Bryce T. Nelson,
Loadmaster



TSgt Michael P. Gault,
Loadmaster



Capt Seth R. Carozza, Pilot in Command

Not pictured:
Capt Jonathan Stewart,
Aircraft Commander, and
1Lt Sean Coleman, Copilot.

THE CREW OF STOKE 11, 39th Airlift Squadron, Dyess Air Force Base (AFB), TX, earned the 2022 Air Mobility Command Aircrew of Distinction Award by displaying extraordinary airmanship and skill by averting disaster following a bird strike on May 26, 2022. The morning of the mishap, the C-130J Super Hercules departed Dyess AFB as the second aircraft in a three-ship formation conducting low-level, visual flight rules training. The crew commenced the planned training route at 210 knots of indicated airspeed (KIAS), 300 feet above ground level. While maneuvering, the crew spotted a flock of vultures along the aircraft's flight path. The pilot in command (PIC) took immediate evasive action, banking the aircraft to avoid collision. Despite the efforts, a large vulture struck the aircraft's center windshield, penetrating both panes of glass and creating a hole 6 inches in diameter. The impact caused the center windshield to explode, sending glass shrapnel and bird remains throughout the flight deck. The noise caused by wind entering the cockpit rendered communication nearly impossible.

The fractured windshield shook from the high-velocity airflow, throwing glass shards at the crew. Recognizing the risk of the windshield collapsing, the pilot reduced airspeed to 150 KIAS and configured flaps. This action reduced aerodynamic stress to the fractured glass and diminished the wind noise. The crew re-established communication and conducted a damage assessment. Both pilots received minor lacerations from glass, but the crew was otherwise uninjured. In a display of crew resource management (CRM), the pilot proceeded directly to Dyess AFB, the co-pilot declared the emergency to air traffic control, and the jump-seat pilot prepared the aircraft for landing by clearing the debris, obtaining destination weather, and calculating takeoff and landing data. The loadmasters reviewed the applicable Technical Order 1C-130J-1 emergency procedures, backed up the pilots to ensure checklist compliance, and coordinated with the Dyess command post.

While enroute to Dyess AFB, the crew discussed contingency plans should the windshield collapse. The crew chose to recover via a 10-mile straight-in approach to maximize stability. As the aircraft slowed, the PIC encountered throttle binding caused by glass fragments. Through forceful inputs, the pilot managed to free the throttles sufficiently. STOKE 11 touched down safely at Dyess AFB, taxied to parking, and the crew received first aid from emergency responders.

Through their decisive, timely actions and effective utilization of CRM, the crew of STOKE 11 saved the lives of five personnel and a \$75 million aircraft.

AMC AVIATION MAINTENANCE SAFETY AWARD



92d AIR REFUELING WING

Fairchild Air Force Base, WA



THE 92d AIR REFUELING WING (92 ARW), Fairchild Air Force Base (AFB), WA, has been announced as the winner of the Air Mobility Command (AMC) Aviation Maintenance Safety Award for 2022.

Left to right: TSgt Shane Baker, Flight Safety NCO, 92 ARW; Maj Brett T. Neilson, Flight Safety Officer, 36 RQS; TSgt Jared E. Reeves, Aviation Mx Safety Representative, 92 MXG; TSgt Brandon A. Rush, Aviation Mx Safety Representative, 92 MXG; TSgt Daniel L. Fowler, Aviation Mx Safety Representative, 92 MXG; and MSgt Raymond Soto Rodriguez, Flight Safety NCO, 92 ARW.

The team executed a pilot Aviation Maintenance Safety Program within the Air Force's largest tanker operation, which includes a \$4.5 billion fleet of 69 aircraft while demonstrating the Major Command model. They developed the first-ever proactive Aviation Maintenance Safety Program and aligned the AMC test program with the Air Force Safety Center-level vision.

These proactive safety professionals introduced the Maintenance Group to Operations Risk Assessment and Management System, Line Operations Safety Audit, Aviation Safety Action Program (ASAP) lessons and executed 22,600 flight hours with zero Class A or B mishaps.

The team bolstered a major accident response exercise and applied maintenance expertise and safety training as Interim Safety Board members. Not only did they coordinate with flying crew chief management for hot-pit refueling operations, but also reasserted aircraft parking areas and danger zones, which decreased aircraft generation time by 70 percent. The team supported the Air Force Chief of Staff's top priorities by certifying safe practices between three groups for aircraft hot-pit refueling, which was a first in AMC and strengthened the wing in support of Agile Combat Employment capabilities.

Forging Operations Group and Maintenance Group communications, the 92 ARW organized crosstalk for quarterly operations safety and training days to foster safety practices for 450 aircrew and 1,500 maintenance members. By revamping fall protection training, they unified Occupational and Flight Safety programs for 20 total force squadron representatives and supported 15 years with zero Class A, B, or C on-duty occupational mishaps.

They safeguarded the wing's U.S. Strategic Command Operations Plan 801X mission by creating built-in safety observer training for Titan Fury and Global Thunder exercises. Together, they honed the Stripes-on-the-Line effort by integrating experienced leaders with daily maintenance tasks and codified safety topics into mentorship programs. As the mishap response subject matter experts, the team also led review and root-cause analyses for 42 events and armed 1,500 maintenance personnel with vital proactive safety skills.

AMC FLIGHT SAFETY NCO OF THE YEAR

TSGT SHANE BAKER

92d Air Refueling Wing,
Fairchild Air Force Base, WA



TSGT SHANE BAKER of the 92d Air Refueling Wing, Fairchild Air Force Base (FAFB), WA, has been named Air Mobility Command's (AMC) Flight Safety Noncommissioned Officer (NCO) of the Year for 2022.

A few of the many reasons Baker was awarded the Flight Safety NCO of the Year Award include managing the wing's Flight Safety mission for a 5,200 personnel total force team, including a \$4.5 billion aircraft fleet. He not only served as the subject matter expert (SME) at the world's largest tanker base in the Flight Safety Officer's absence, but also as the lead Aviation Safety Division SME.

Baker championed a safety culture by leading the first-ever proactive Aviation Maintenance Safety Program. He also introduced the Maintenance Group to Operations Risk Assessment and Management System, Line Operations Safety Audit, and Aviation Safety Action Program lessons which contributed to 1,900 sorties and 22,600 flight hours with zero Class A or B mishaps.

He primed the Safety division for a Unit Effectiveness Inspection by auditing the safety program, which earned the highest inspection rating and was lauded as one of the "Top 3" programs seen in 20 years. He was also the wing's Interim Safety Board point of contact and directed safety investigations for 69 KC-135R and KC-135T Stratotankers, four UH-1N Hueys, and one C-26A Metroliner aircraft, finalizing 74 total reports.

Baker served as the wing's Mid-Air Collision Avoidance guru as he helmed 17 airfield education programs and briefed the Commander in Chief's Annual Award for Installation Excellence team. This was critical to FAFB being ranked No. 2 out of all Air Force installations, which earned the wing \$750,000 for base renovations.

As the safety advisor for the Inspector General, Baker commanded a team and guided 16 organizations through major accident response exercise requirements, which prepared the wing for FAFB's airshow, Skyfest 2022. As the Skyfest point of contact, he also authored a safety plan for 39 aircraft and 22 aerial displays, which safeguarded 130,000 patrons.

Baker also revamped fall protection training for 20 squadron representatives, helping them to achieve 15 years with zero Class A, B, or C on-duty occupational mishaps. His skill in managing wing safety programs was a critical asset for Global Reach tanker support.



AERO CLUB SAFETY CERTIFICATE

DOVER AIR FORCE BASE AERO CLUB

436th Airlift Wing, Dover Air Force Base, DE

DOVER AIR FORCE BASE (AFB) AERO CLUB of the 436th Airlift Wing (AW) at Dover AFB, DE, was awarded the 2022 Aero Club Safety Certificate.

The Dover AFB Aero Club's safety record reflects the manager's, instructors', and mechanics' professionalism and their determination to serve the base community safely.

The club's Flight Safety program was inspected twice by the wing and twice by the Federal Aviation Administration (FAA). These inspections evaluated compliance with the United States Air Force, FAA, and Department of Veterans Affairs directives governing their operations and safety programs, and the club passed them all with flying colors.

The Dover AFB Aero Club is extremely active, with more than 1,300 hours of mishap-free flying in fiscal year 2022. The 170 flying members of the Dover AFB Aero Club include 10 flight instructors, two ground instructors, and 40 student pilots. Five obtained new pilot certification; two gained certification above private pilot.

Club supervision is intensely focused on safety in day-to-day operations both inside and outside the club. Chief Flight Instructor and Club Safety Officer Joe Nickle, who is an FAA-certified Aviation Safety Counselor, volunteers in the community to counsel pilots the FAA has identified for unsafe practices. Aero Club Safety meetings are also open to the public in conjunction with the FAA Safety Program.

The Dover AFB Aero Club uses Operational Risk Management (ORM) in daily operations, as well as long-term strategic planning. The instructors use ORM to develop crosswind and heat index limitations to benefit pilot trainees. These assessment tools helped instructors consider the level of risk for students based on individual situations and to make confident decisions to keep their students safe while flying aircraft.

Dover AFB Aero Club members remain alert, aware, and safe while off station as they are briefed on procedures to inform air traffic control or airport management of any suspicious activity or potential hijacking issues they may encounter while operating Aero Club aircraft.

AMC OUTSTANDING ACHIEVEMENT AWARD FOR OCCUPATIONAL SAFETY, CATEGORY II

436th AIRLIFT WING

Dover Air Force Base, DE

THE 436th AIRLIFT WING (AW), Dover Air Force Base (AFB), DE, has received the 2022 Air Mobility Command (AMC) Outstanding Achievement Award for Occupational Safety, Category II.

The AW Safety office evaluated the first-ever Dover AFB two-aircraft, 600-Multi-Capable Airmen Ability to Survive and Operate event, which led to the identification of 115 hazards.

As the wing's certified Risk Management advisors, the team identified and managed 15 risk assessments for the wing's Open House and abated hazards for 136,000 visitors and nine aerial acts, which resulted in zero mishaps.

The Occupational Safety team championed traffic safety by developing a local, personal transportation device policy and collaborated with the Security Forces Squadron, which eliminated roadway mishaps and injuries.

By hosting the Dover AFB child safety seat campaign, the Safety office forged an alliance with the Delaware Office of Highway Safety. They exposed and corrected 92 safety seat errors.

The Safety office detected faulty bulletproof glass twice and secured repair prioritization, boosted anti-terrorism force protection measures, and halted life-death hazards.

An action plan to resolve the bird disease threat in hangars was developed by the Wing Safety team, and it piloted a public health training program that curbed biohazards for 600 workers.

The Occupational Safety office identified a negative trend on job safety training outlines, developed and taught a refresher course for supervisors, and enabled critical safety training for more than 100 workers.

Furthermore, the team managed a multifaceted hazard abatement program, tracked 27 hazards, and abated five Risk Assessment Codes (RAC) for aging infrastructure, which resulted in safer work centers.

Wing Safety personnel also resolved a tower safety hazard due to extreme heat by applying a RAC 2 for heating ventilation and air conditioning, and oversaw maintenance and repair, which prevented serious illness and injury to tower personnel.



Members of the 436th Airlift Wing Occupational Safety Office pose for a photo outside the Air Mobility Command Museum at Dover Air Force Base, DE, Jan 5, 2023. From left to right: TSgt Brittany Nowell, Non-Commissioned Officer in Charge, Occupational Safety; Tim Hahn, Occupational Safety Specialist; Lorie Bellamy, Occupational Safety Manager; and TSgt Bryanna Dahl, Occupational Safety Craftsman.

USAF photo by Roland Balik

AMC OUTSTANDING ACHIEVEMENT AWARD FOR OCCUPATIONAL SAFETY, CATEGORY III

6th AIR REFUELING WING

MacDill Air Force Base, FL



Left to right: Ms. Susan Turek, TSgt William Parisse, Mr. David O'Neil, and Mr. Jason Jackson (OSM)

THE 6th AIR REFUELING WING (6 ARW) OCCUPATIONAL SAFETY OFFICE, MacDill Air Force Base, FL, has received the Air Mobility Command (AMC) Outstanding Achievement Award for Occupational Safety, Category III.

The Occupational Safety office directed a Hazard Abatement Plan, in which nearly 400 inspections were completed, and 183 discrepancies were corrected. The wing also zeroed out the hazard abatement log—the first time this has occurred in a decade. Overall, the mishap cost was reduced by 49 percent in fiscal year 2022.

The Occupational Safety team excelled at managing a hangar fire suppression project. They audited a \$1 million design plan and rescue training for personnel, which eliminated three hazards for aircraft totaling \$1.3 billion.

The team of safety subject matter experts evaluated an AGILE COMBAT exercise, in which 53 missions, 23 hot pit refuels, and 643,000 gallons in fuel transfers were evaluated, which crushed the KC-135 operations and maintenance record—all with zero mishaps.

Team members set their sights high when they validated a maintenance safety audit and documented 41 industrial personal protective equipment spot inspections—surpassing AMC's goal by 160 percent.

Occupational Safety members evaluated the Base Civil Engineer Work Request Review Board, and approved and processed 379 projects worth over \$17 million. This action improved facilities and flight line safety for 30,000 personnel.

The Occupational Safety office seamlessly led 24/7, real-world hurricane response team support. It published critical evacuation messages and protected over 30,000 personnel and \$3.3 billion in assets.

Traffic safety efforts continued by the team sponsoring a Critical Days of Summer campaign. It led three commander-directed events with over 30,000 personnel—perpetuating the streak of zero fatalities for nearly two decades.

No stone was left unturned as Occupational Safety personnel shifted their safety mindset toward all-terrain vehicle (or ATV) driving. They approved an ATV driving course and ensured environmental and safety standards were met, which saved 26 man-hours and protected ATV riders.

AMC OUTSTANDING ACHIEVEMENT AWARD FOR OCCUPATIONAL SAFETY, CATEGORY IV

62d AIRLIFT WING

Joint Base Lewis-McChord, WA

THE 62d AIRLIFT WING (62 AW), Joint Base Lewis-McChord, WA, has received the 2022 Air Mobility Command (AMC) Outstanding Achievement Award for Occupational Safety, Category IV.



Left to right: TSgt Anthony Cazares, TSgt Seth Hansen, TSgt Anthony Coleman, Mr. Ken Heath (OSM), and Mr. Ryan Meeks.

The 62 AW Safety office led a benchmark Occupational Safety program with only one Class A mishap in 22 years, two Class B mishaps in 18 years, and zero on-duty Class A or B mishaps in over 30 years.

The Safety office provided a consistent leadership safety message and promoted “aggressive safety,” supporting 3,000 personnel and 40 C-17 Globemaster III aircraft valued at \$8.6 billion.

The wing’s Occupational Safety efforts were highlighted by maximum attention and commander involvement that led to an outstanding 62 AW on-duty reportable mishap rate of only five.

The Occupational Safety team organized a robust Critical Days of Summer campaign, delivering crosstell and guidance to 3,000 personnel, which led to zero summer fatalities in 11 years.

Safety personnel directed 64 safety courses, trained 245 supervisors, and mentored 47 unit safety representatives and 35 motorcycle safety representatives, which was pivotal to the wing’s strong safety culture.

The Safety office coordinated with Public Affairs and published a bi-monthly newsletter covering top safety interest areas.

The 62 AW team members are recognized as safety gurus. The wing provided administrative support for the safety MilSuite site beyond the local level to safety professionals worldwide.

The team captured 166 hours in safety professional development and continuing education units and earned Occupational Safety and Health Administration industrial safety certifications; they applied those lessons to safeguard Team McChord personnel.

The 62 AW converted AMC safety program evaluation checklists into a database program, ached an AMC safety program evaluation with zero findings, and garnered the highest inspection rating.

Occupational Safety personnel evaluated 27 confined space entries and observed time compliance technical order modifications and entry preparation, which was vital to the wing’s 6,940 sorties and more than 27,523 flying hours.

The 62 AW also averted catastrophe by coordinating a lighting protection system hazard fix for roof antennas, preventing more than \$9 million in losses and fatalities in a critical command and control facility.

AMC OUTSTANDING ACHIEVEMENT AWARD FOR OCCUPATIONAL SAFETY, CATEGORY V



735th AIR MOBILITY SQUADRON

Joint Base Pearl Harbor-Hickam, HI



From left to right :SrA Hayden Hughes, SrA Brandon Gonzales, SSgt Paul Sheehan, TSgt Kalin Brandon, and SSgt Christopher Rager.

THE 735th AIR MOBILITY SQUADRON (735 AMS), Joint Base Pearl Harbor-Hickam, HI, has earned the 2022 Air Mobility Command (AMC) Outstanding Achievement Award for Occupational Safety, Category V.

The 735 AMS took ownership as the sole base hazardous communication instructor by providing safety data sheets for untracked hazardous chemicals. The squadron taught 12 supervisors risk management techniques and hazard reporting requirements, which instilled a safety culture for the wing's largest AMS.

The team led with a safety mindset and crafted training plans for reservist safety professionals, which bolstered the host wing's manpower.

Teamed with Passenger Services, 735 AMS created the first-ever Boeing 757 aircraft study, which identified ergonomic issues and cut lost workdays by 37 percent. They also partnered with the Occupational Safety and Health Administration (OSHA) for the Safe + Sound Week campaign.

Clearing a 2-year backlog, the team assessed 62 work orders and restored compliance in alignment with the Americans with Disabilities Act while also preventing OSHA citations and additional injuries. As part of the Wing Inspection Team, they created the unit's Job Safety Training Outline, Emergency Action Plan, and Motorcycle Representative training.

735 AMS abated a Risk Assessment Code 2 light hazard and secured a \$40,000 renovation project. These abatement actions safeguarded 145 maintenance personnel and a \$59 million hangar with zero injuries.

The team also cultivated the Motorcycle Unit Safety Tracking Tool master class and authored a "Fatal Four" campaign for 30 riders that resulted in a 42 percent decrease in noncompliant accounts. They led a fireworks investigation and created an off-duty safety focus training that slashed off-duty mishaps by 38 percent.

They led hurricane exercise safety through inspecting the Natural Disaster Operations Plan and enhanced survival capabilities for \$280 million in resources. The team was also the safety lead for the Rim of the Pacific exercise. This enabled the movement of 187 missions and 25,000 passengers for 26 nations.

AMC WEAPONS SAFETY AWARD

MR. HECTOR S. ALCAZAR

436th Airlift Wing,
Dover Air Force Base, DE

MR. HECTOR S. ALCAZAR, Explosives Safety Specialist for the 436th Airlift Wing (436 AW), Dover Air Force Base, DE, has received the 2022 Air Mobility Command (AMC) Weapons Safety Award.

As the Weapons Safety Manager for the 436 AW at the Department of Defense's largest aerial port, Alcazar expanded explosive operations flexibility and facility usage and was responsible for the safe management and delivery of over 12 million tons of hazardous munitions cargo. Through his efforts to initiate an event waiver, AMC was able to deliver a temporary increase of 313,000 pounds of Hazardous Division 1.1 explosives as military aid to allies of the North Atlantic Treaty Organization. His risk assessment analysis facilitated three local and foreign media visits highlighting the wing's vital role in the Russia-Ukraine War.

He coordinated blueprints and design upgrades for a \$4 million project to safeguard the new explosives magazine facility and increased net explosives weight storage capabilities by 30,500 pounds.

Leading the Recovered Chemical Warfare Materiel program, he coordinated with four wing units and the Chemical, Biological, Radiological, Nuclear, and yield Explosives Analytical and Remediation Activity to allow for the safe destruction of 22 chemical weapons.

He provided expert instruction to personnel for the safe handling of munitions, all with zero Class A, B, or C mishaps in five years. The Wing's first-ever Weapons Safety supplement he authored integrated 18 line items contributing to sustained safety for 5,900 personnel and 31 aircraft valued at \$9.5 billion. As leader of the Wing's Explosives Safety Management Program, he also compiled an extensive 177-line-item program checklist that expanded the technical knowledge of 29 Additional Duty Weapons Safety Representatives. He published quarterly newsletters promoting the Wing's Risk Management culture, and conducted 10 annual and 36 spot inspections to mitigate risk.

Additionally, he served as the key safety advisor to 15 wing agencies and two Delaware State Police districts in active shooter exercises that benchmarked safety for Delaware public schools.



AMC RISK MANAGEMENT ACHIEVEMENT AWARD

19th AIRLIFT WING RISK MANAGEMENT OFFICE

Little Rock
Air Force Base, AR



Left to right: Mr. Chris Gill, Risk Management Program Manager; Risk Management Facilitators: Mr. Deane Duerkop, TSgt Jessica Deal, TSgt Mike Kohrs, MSgt Stephen McFate, Lt Col James Walker, Mr. Dust'n Lunsford, and Capt Nathaniel Sunnekalb.

THE 19th AIRLIFT WING (19 AW) RISK MANAGEMENT OFFICE, Little Rock Air Force Base, AR, has earned the 2022 Air Mobility Command (AMC) Risk Management Achievement Award, not only for its thriving Risk Management (RM) programs but also the many other ways they go above and beyond to ensure safety.

The team coached multiple points of contact through 32 assessments and weapons licenses, and set safety standards for 221 critical tasks with a .01-percent mishap rate for 20,000 personnel. They delivered 49 RM briefs, trained 93 supervisors, 54 safety representatives, and 306 facility managers, which instilled risk planning skills in 28 squadrons. The team also led Stuttgart, North Little Rock, and Benton Mid-Air Collision Avoidance visits and reinforced RM skills in seven agencies and 220 local aviators with zero Hazardous Air Traffic Reports or near mid-air collisions in fiscal year 2022.

The RM office teamed with the violence prevention integrator to educate Airmen on gun violence and suicide awareness and distributed 200 gun safety locks. They were embedded as members of the Security Forces Resiliency Day, coordinated three safety offices, delivered the mission brief, and supplied 67 defenders with RM and welfare resources.

The team is responsible for 12 published RM articles. These articles joined flight, weapons, and occupational perspectives and distributed analysis and trends to heighten safety for 28 squadrons and 6,000 personnel.

Also, RM personnel ensured tireless oversight for five major accident response and readiness exercises, and safely executed 54 tasks for 593 personnel. They prioritized RM culture by advancing eight Headquarters Air Force safety focus items, and processed seven Well Done Awards, which enabled AMC Safety recognition for 28 members. They also aided in the AMC in-flight harness investigation, which identified a fatal root cause, developed a technical order change, and affected procedures for 428 C-130J aircraft and crews.

AMC RIDERCOACH OF THE YEAR

MR. BRIAN DONLEY

92d Air Refueling Wing,
Fairchild Air Force Base, WA



MR. BRIAN DONLEY, retired Motorcycle Safety Foundation (MSF) Rider Coach for the 92d Air Refueling Wing at Fairchild Air Force Base (FAFB), WA, earned the 2022 Air Mobility Command (AMC) RiderCoach of the Year Award.

Donley led instructors for AMC's largest tanker base, organized 12 Motorcycle Safety Foundation rider coaches for 4,600 Total Force Integration (TFI) members, and expanded AMC's top motorcycle program.

He fostered the TFI program by fusing civilian and Air National Guard instructors with a joint motorcycle range, enabling on-site motorcycle training and eliminating a 150-mile drive for trainees.

Donley revived the Basic Rider Course 2, updated it to pre-COVID standards, led instruction for 10 courses, and certified 50 backlogged personnel while achieving a 36 percent reduction in overdue training.

He optimized safety information distribution by ensuring the execution of critical preseason briefings to dominate the Air Force Safety Center's 100 percent contact campaign goal.

Donley is safety driven and keyed in proper Tires and Wheels, Controls, Lights and Electrical, Oil and Fluids, Chassis and Sidestand procedures to rider coaches and student riders. A total of 50 motorcycles were inspected, and there were zero training mishaps.

He also organized FAFB's first on-base Basic Rider Course, coordinated with nine instructors, and developed a training plan for six riders, which postured the wing for future classes and saved \$2,500.

AMC DISTINGUISHED MOTORCYCLE SAFETY AWARD



92d AIR REFUELING WING

Fairchild Air Force Base, WA



Left to right: Mr. Eric Decker, SSgt Patrick Sullivan, Mr. Robert Flask, TSgt Daniel Reuter, and SSgt Jacob Wells.

THE 92d AIR REFUELING WING OCCUPATIONAL SAFETY SECTION, Fairchild Air Force Base, WA, earned the 2022 Air Mobility Command (AMC) Distinguished Motorcycle Safety Award.

With 4,600 Total Force Integration (TFI) members, this office—primarily responsible for the world's largest tanker base—managed 317 riders and trained 14 motorcycle safety representatives (MSR), which expanded AMC's top performing program.

The office accelerated change by initiating a free Basic Rider Course civilian/military agreement and aligned community support with motorcycle training to achieve \$6,000 in annual savings.

New processes were integrated: 27 MSRs completed 5-year instruction requirements through mentorship ride training, and recertification with riders' unit representatives was streamlined. The office also managed the wing's motorcycle safety program to include training 12 MSRs and six coaches, and tracking 317 riders. They achieved zero Class A or B motorcycle mishaps.

They molded the TFI program and incorporated civilian/Air National Guard instructors with a joint driving range, which enabled on-site motorcycle training and eliminated a 150-mile drive for trainees.

The office optimized safety information distribution by utilizing the Air Force Safety Automated System to execute mass preseason briefings to comply with the Air Force Safety Center's 100 percent contact campaign goal.

They guided squadron motorcycle program management and educated MSRs on the Motorcycle Unit Safety Tracking Tool application to meet training tracking standards across 37 units.

The office updated the Basic Rider Course 2 to pre-COVID standards, coordinated and assisted with 10 courses, and certified 50 backlogged personnel, reducing the number of members overdue for training by 36 percent.

As safety operations defenders, they keyed in proper Tires and Wheels, Controls, Lights and Electrical, Oil and Fluids, Chassis and Side stand procedures to rider coaches and student riders. A total of 50 motorcycles were inspected, and there were zero training mishaps.

Women Air Force Service Pilots (WASPs) in front of a B-17 "Pistol Packin Mama."

Photo Courtesy of the United States Air Force Museum

Timeline: Women in the Air Force

BY MS. LAUREN SCHATZ AND
MS. KRISTINA KUNKEL, STAFF WRITERS

APRIL 5, 1938

Eleanor Roosevelt writes in her daily newspaper column: "I think there is a great future in aviation for women."

SEPTEMBER 1939

Jacqueline "Jackie" Cochran writes to Eleanor Roosevelt to propose a women's flying division in the Army Air Forces (AAF), a predecessor to the Air Force. However, Cochran will have to wait until 1942 to begin training female pilots.

1942

- May 14, 1942: Congress signs a bill that creates the Women's Army Auxiliary Corps (WAAC), but it does not grant members military status. The women of WAAC assigned to the AAF are referred to as the Air WAAC and are considered the first female Airmen.
- Sept. 15, 1942: Cochran establishes the Women's Flying Training Detachment.

1960

CMSAF Grace Peterson becomes the first female with this rank in the Air Force.

MAY 18, 1953

Col Jackie Cochran becomes the first woman to break the sound barrier.²

KOREAN WAR:
JUNE 25, 1950–JULY 27, 1953

- Capt Keil, now one of the most decorated women in Air Force history, flies 175 evacuation flights, inspiring the 1953 Hollywood movie *Flight Nurse*.
- Capt Mary Spivak, another flight nurse, assists in South Korea during Operation Kiddy Car.

1948

- Col Geraldine Pratt May becomes the first female Colonel in the Air Force when she is promoted to the rank as the first director of the newly created Women in the Air Force (WAF) program.
- The Women's Armed Services Integration Act authorizes women to serve permanently in all U.S. military branches but stipulates women can only make up 2 percent of the military.
- Executive Order 9981 mandates equal treatment and opportunity in the military, but female service members are still often thought of as auxiliary.
- SSgt Esther McGowin Blake enlists in the Air Force during the first minute she can, technically becoming the first woman in the Air Force.²

WORLD WAR II: DEC. 7, 1941–SEPT. 2, 1945

- Over the course of World War II, a total of 29,323 women serve in the AAF.
- Capt Lillian Keil, a flight nurse, flies 250 evacuation flights, taking part in the Battle of the Bulge.
- July 3, 1943: WAAC becomes the Women's Army Corps (WAC). This change provides WAC members with new benefits and protections.
- August 1943: Jackie Cochran leads the Women's Airforce Service Pilots (WASP), which trains women to fly and ferry airplanes for the U.S. Army Air Forces (another Air Force predecessor) during a war-time flight shortage.
- Dec. 20, 1944: WASP is disbanded with no military benefits due to political pressures and the increasing availability of male pilots.
- 1945: At its peak, Air WAC boasts over 32,000 women.
- By the end of World War II, women make up about 2 percent of the U.S. military, mostly performing clerical roles.

¹ Denotes rank at the time of her achievement.

² Denotes highest rank obtained.

Continued on page 34



Jacqueline "Jackie" Cochran

NOTABLE WOMEN IN AIR MOBILITY COMMAND

AMC has had two female four-star generals take command in recent years:



Gen Maryanne Miller (left),
Commander, Air Mobility
Command, from 2018 to 2020



Gen Jacqueline Van Ovost,
Commander, Air Mobility
Command, from 2020 to 2021
USAF photos

To watch a virtual tour of the “Women in the Air Force” Gallery Tour at the National Museum of the U.S. Air Force, visit <https://www.youtube.com/watch?v=i4aQThYneJE>.

1971–1973

- Before 1971, women were automatically honorably discharged if pregnant. That changes when expecting mother Capt Susan R. Struck, represented by Ruth Bader Ginsberg (then of the American Civil Liberties Union), appeals her involuntary discharge to the Supreme Court.
- Jeanne M. Holm is promoted to Brigadier General in 1971 and then to Major General in 1973; she is the first woman to be appointed to these ranks in the Air Force.

1975–1976

- After the Vietnam-era draft ends, the Air Force launches a test program to begin training female pilots.
- Capt Jane L. Holley graduates from the Air Force Test Pilot School as its first female engineer.
- 1st Lt Regina Aune assists on the first flight of Operation Babylift.¹
- Department of Defense policy allows women with children to remain in the military.
- WAF ends as the Vietnam conflict draws to a close; women are accepted into the Air Force on the same basis as men.
- Legislation allows women in the service academies.

JUNE 1978

Women begin to take shifts in the missile launch control center, working as combat crew commanders and missile technicians.

1980

Air Force Academy graduates first female officers.

MAY 1983

- An 18th Military Airlift Squadron crew lifts off from McGuire Air Force Base, NJ, to fly the first all-female Air Force transatlantic flight in a C-141B Starlifter.

1991

- Brig Gen Marcelite Harris is the first African American female general officer in the Air Force.¹
- The U.S. Senate votes to allow military women to fly aircraft in combat situations.

2002

A1C Vanessa Dobos becomes the first female aerial gunner in the Air Force.

2001

- Lt Gen Susan Helms is the first woman to inhabit the International Space Station.²
- Sept. 11, 2001: 1st Lt Heather Penney is part of a suicide mission to intercept Flight 93 after it is hijacked by terrorists, but civilian passengers crash the plane before she reaches it.¹

MAY 5, 1996

Col Betty L. Mullis becomes the first woman to command an Air Force flying wing. Four years later, she will become the first female Air Force Brigadier General.

1995

- Col Eileen Collins is the first woman to pilot a space shuttle.
- 1st Lt Kelly Flinn begins B-52 pilot training.

1993

- Maj Susan Helms becomes the first U.S. military woman in space.¹
- 1st Lt Jeannie Leavitt becomes the first female fighter pilot in the U.S. Air Force.¹
- The Combat Exclusion Policy is lifted from most aviation positions, allowing women to serve as fighter and bomber pilots.
- Lt Col Patricia Fornes is the first female to lead an intercontinental ballistic missile unit.¹
- Dr. Sheila Widnall is named Secretary of the Air Force, becoming the first woman to head a U.S. military service branch.

NOV. 2005

Capt Nichole Malachowski is the first female pilot in the Thunderbirds. She retired as a Colonel.

2012

Col Jeannie Leavitt becomes the nation's first female fighter wing commander.¹

JUNE 5, 2012

Gen Janet C. Wolfenbarger becomes the Air Force's first female four-star general.


JAN. 24, 2013

The Combat Exclusion Policy is terminated, making women eligible to serve in frontline combat and complete combat operations.

OCT. 16, 2014

Gen Lori J. Robinson becomes a four-star general. She is the first female officer in the U.S. military to command a major Unified Combatant Command.

2020

- Col Sebrina Pabon is the first woman to assume command of the Air Force Test Pilot School on Edwards Air Force Base, CA.
- Capt Emily Thompson becomes the first female fighter pilot to fly an F-35A stealth plane.
- CMSAF JoAnne Bass becomes the first woman to serve at this rank in the Air Force. 

¹ Denotes rank at the time of her achievement.

² Denotes highest rank obtained.

ERGONOMICS HEALTH

and Your Work Station

BY MS. CHRISTINE WALSH, STAFF WRITER



Applying basic ergonomics is vital to avoiding musculoskeletal disorders wherever you work.

According to the U.S. Bureau of Labor Statistics, in 2018, there were 272,780 musculoskeletal disorder cases that involved missed workdays in the private sector, and in 2019, ergonomic injury cases accounted for 47,280 emergency room visits.

Ergonomics is simply fitting the workplace to the person, according to Kermit Davis, PhD., an expert in ergonomics and a professor in the University of Cincinnati's Department of Environmental and Public Health Sciences, and a certified professional ergonomist.

"So ergonomics impacts everything around you and everything you do," stated Davis. "It impacts you from the time you wake up to the time you go to bed and when you sleep."

Solutions include matching the device or workspace to the worker and factoring in physical measurements of the body, strength, and mental and physical demands, according to Davis. "The most popular ergonomic examples are office ergonomics,

whether that is in the office or at home, manual lifting, which happens in all industries, and safe patient handling," he explained.

Davis identifies the following as five major ergonomic risk factors:

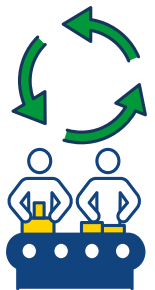
1. Moment. Moment is the amount of weight you are lifting and how far away it is from your body (basically multiplying the weight of the lifted object by the horizontal distance). "Everyone thinks it is about how much weight—don't lift over 25 pounds, which is a good amount—but I can give you situations where you lift the box away from the body, and 10 pounds is too much," Davis explained. "It is the combination of weight and distance from [the] body. You want to keep the box



close to your body and above your knees and below your shoulders."

2. Repetition. Repetition is the number of times you exert a force

or lift something. "The more often you do something, the worse it is," Davis explained. "You need time to recover and not wear out muscles, tendons, and ligaments."



3. Stress and mental demands. "We are getting into a more complex world, where it is not just the moving of material but also simultaneous mental processing," Davis stated. "The dual demands can impact workers adversely. Stress certainly has had a much greater role with COVID, where people are having many demands, and stress levels have increased. Stress makes you more susceptible to pain and even increases the loading on the body."



4. Awkward postures. "The body is best when you work in neutral postures with your arms at the side or directly in front of you, back upright and not twisted or bent sideways, neck in a similar position, wrists not bent or deviated to the

One of the most common mistakes in addressing ergonomics is implementing a change and thinking it fixes everything. “Ergonomics is a process where, if you change something, you have to go back and reevaluate to make sure something else did not become an issue.”

side,” Davis said. “More awkward postures increase the loads on the joint[s], which breaks down tissues, causing cumulative trauma.”



- 5. Insufficient breaks.** “Whether this [job] is on a manufacturing line or in the office, continuous work, especially highly dynamic or even static (not moving) work increases the wear and tear on the body,” Davis explained. “The body likes variation in demands, which means proper breaks (for example, get out of the chair every 30 minutes or have a microbreak on the line to rest) and change in physical demands (for example, why you work out in the gym).”



Ergonomic hazards can be prevented or reduced not only by using better tools but also by remaining in neutral postures, taking breaks, or eliminating high demands, according to Davis. “It is important to make sure people are not lifting too far away from the body, in a twisted posture, or below the knees,” Davis warned. “This

[precaution] means you may need to change the work area.”

In an office setting, an example of a beneficial change is not working on a laptop computer. “These [laptops] are made for short-term usage—1 to 2 hours, not 8 hours,” Davis clarified. “You need to use an external mouse, keyboard, and monitor (top of the monitor at eye level). You can get an office chair, but you can also use pillows and towels to provide lumbar (low back) support and arm support by wrapping [the] armrests.”

Davis also recommends rotating between jobs with different demands. “I see too many companies rotating jobs that are basically the same thing, (for example, high hand-intense jobs to other hand-intense jobs) and just move locations,” he said. A better approach is to switch between a job with high low-back demand, such as an assignment with frequent lifting, to a job with high hand demand, such as a task with a lot of wrist motion, explained Davis.

One of the most common mistakes in addressing ergonomics is implementing a change and thinking it fixes everything. “Ergonomics is a process where, if you change something, you have to go back and

reevaluate to make sure something else did not become an issue,” Davis explained. For example, although an adjustable grocery cart may eliminate bending over, it may result in users twisting their back more often.

If done correctly, there are benefits to a proactive ergonomics approach, according to Davis. “If you can identify problems early, it usually means that they are less serious,” he said. “The longer problems go on, they usually result in disability and time off the job. They could also be more serious with [requiring] surgery.”

To determine what an individual base or wing needs, Davis suggests short surveys. “I would start with a simple visual analog scale discomfort survey to see what kind of symptoms people have,” Davis stated. “I would then either bring an expert to evaluate or look into other questionnaires that can be provided to the personnel.”

Davis explained that ergonomic programs do not have to be expensive to be effective. “You can look into frugal ergonomic solutions, and a good ergonomic program will pay for itself.” 🏆



MISHAP-FREE FLYING HOUR MILESTONES

Texas Guard Unit Achieves 200k Safe Flight Hours

BY MSGT JULIE BRIDEN-GARCIA, 136TH
AIRLIFT WING (TEXAS AIR NATIONAL GUARD)

The 136th Airlift Wing (136 AW) reached 200,000 mishap-free flying hours, Oct. 21, 2022, achieving a historic milestone on a journey that began June 6, 1965.

The title of mishap-free, also referred to as zero Class A mishaps, is not an easy designation to earn, explained Col Matt Groves, 136th Airlift Wing Commander.

"Hundreds of thousands of maintenance hours, tens of thousands of missions, and millions of individual critical supporting actions were required," he said. "This accomplishment is truly a testament to the collaborative hard work of those who served before us, as well as the dedication to safety they instilled through leadership and by example."

According to the Air Force Safety Center, Class A mishaps result in a direct cost totaling \$2 million or more, fatality or permanent total disability, or destruction of a Department of Defense aircraft; having zero Class A mishaps for an extended time is a difficult achievement to attain, according to Maj Nathan Eldredge, C-130J pilot with the 181st Airlift Squadron, a unit of the 136th Airlift Wing.

"As a former Safety Officer, I understand how difficult it is for a single unit to have a long span of no Class A mishaps record," Eldredge said. "It is an incredible achievement and unlikely to be matched by any other unit."



Texas Air National Guardsmen from the 136th Airlift Wing celebrate completion of 200,000 Class A mishap-free flying hours, Oct. 21, 2022, at Naval Air Station Joint Reserve Base, Fort Worth, TX.

USANG photo by SSgt Laura Weaver

Eldredge, the pilot of the plane that reached the final 200,000th hour, said he was unaware they would hit the milestone that day and was surprised when the crew was greeted after landing.

"[This milestone] is a testament to the Airmanship of the aircrews from the 136 AW going back multiple decades," he said.

TSgt Steven Law, 136th Aircraft Maintenance Squadron and Crew Chief of that same aircraft, said he is proud it was his plane that earned this honor, also noting it takes a cohesive teamwork of aircrew and maintenance crews working together.

"It's Ops [operations], the crew chiefs, and maintenance who have done their job very well over several years," he said. "I'm not the only one flying; I'm not the only one taking care of the aircraft. This milestone says a lot about the team we have here that we can pull this off for so long."

Col Dave DeMarque, 136th Operations Group Commander agreed, acknowledging this success was possible because of generations of Airmen who have demanded safety, excellence, and professionalism.


"The monumental achievement is no surprise to the professional men and women of the 136th Operations Group," he said. "Safety is always at the forefront of aircrew decision-

making. Flying isn't inherently dangerous but is ruthlessly unforgiving if one is complacent or careless."

Since June 6, 1965, the 136 AW has been involved in supporting war and peacetime operations worldwide. During the past 57 years, the wing has flown multiple different airframes, including the KC-97, C-130B, C-130H, and now the C-130J models, all while rigorously ensuring the safety of the crew and their aircraft.

In the C-130 Hercules world, the airframe sustains a high ops-tempo supporting worldwide deployments and humanitarian efforts, and the success of a flying unit is a testament to the positive working relationship that exists between the maintainers and the operations group.

"Even though this 200,000 flying hours milestone was sealed in a single flight on Friday, Oct. 21, 2022, it took every 136th Airlift Wing crewmember contributing to a culminated effort for this to happen," Groves said. "We look forward to another 57 years of safe flying in the making."

The Texas Air National Guard 136th Airlift Wing's mission is to provide highly trained, equipped, and motivated military forces for worldwide combat and peacetime tasking supporting the State of Texas and the Nation. 

MISHAP-FREE FLYING HOUR **MILESTONES**

3500 HOURS

22 AS, Travis AFB, CA

TSgt Robin Ogg
TSgt Kevin Robinson
TSgt Kierre Vance
SSgt Anthony Green

164 AW, Memphis ANGB, TN

Lt Col Nicholas Poe
Maj Michael Osgood
Maj Christopher Sampson
Maj Taylor Todd
MSgt Phillip Hendryx

2500 HOURS

22 AS, Travis AFB, CA

Maj Christopher Rinaman
MSgt Armando De La Rosa
MSgt Norterious Jenkins
MSgt Joshua Willim
TSgt Carl Avelino
TSgt Jeremy Bennett
TSgt Jacob Buruato
TSgt Justin Han
TSgt Samuel Richardson
TSgt Daniel Wiggers
SSgt Cody Adams
SSgt Adrian Diaz
SSgt Taylor Stump

164 AW, Memphis ANGB, TN

Lt Col Kristin Ashford
Lt Col Matthew Jones
Maj Eric Baker
Maj Andrew Black
Maj Eric Green
Maj Bradley Lane
Maj David Lang
Maj Jacob Murphy
Maj Ryan Scoggin
Maj Anna Vinsonhaler
Capt Matthew Harmon
MSgt Ryan Satchell
TSgt Dustin Carmack



A C-17 Globemaster III takes off during the Kaneohe Bay Air Show at Marine Corps Base, HI, Aug. 12, 2022. The C-17 from Joint-Base Pearl Harbor-Hickam, HI, was operated by a total force aircrew from the C-17 Demonstration Team and Hawaii Air National Guard throughout the event.

USANG photo by SSgt John Linzmeier



TO SUBMIT MISHAP-FREE FLYING HOUR MILESTONES:

Send your request to: **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).




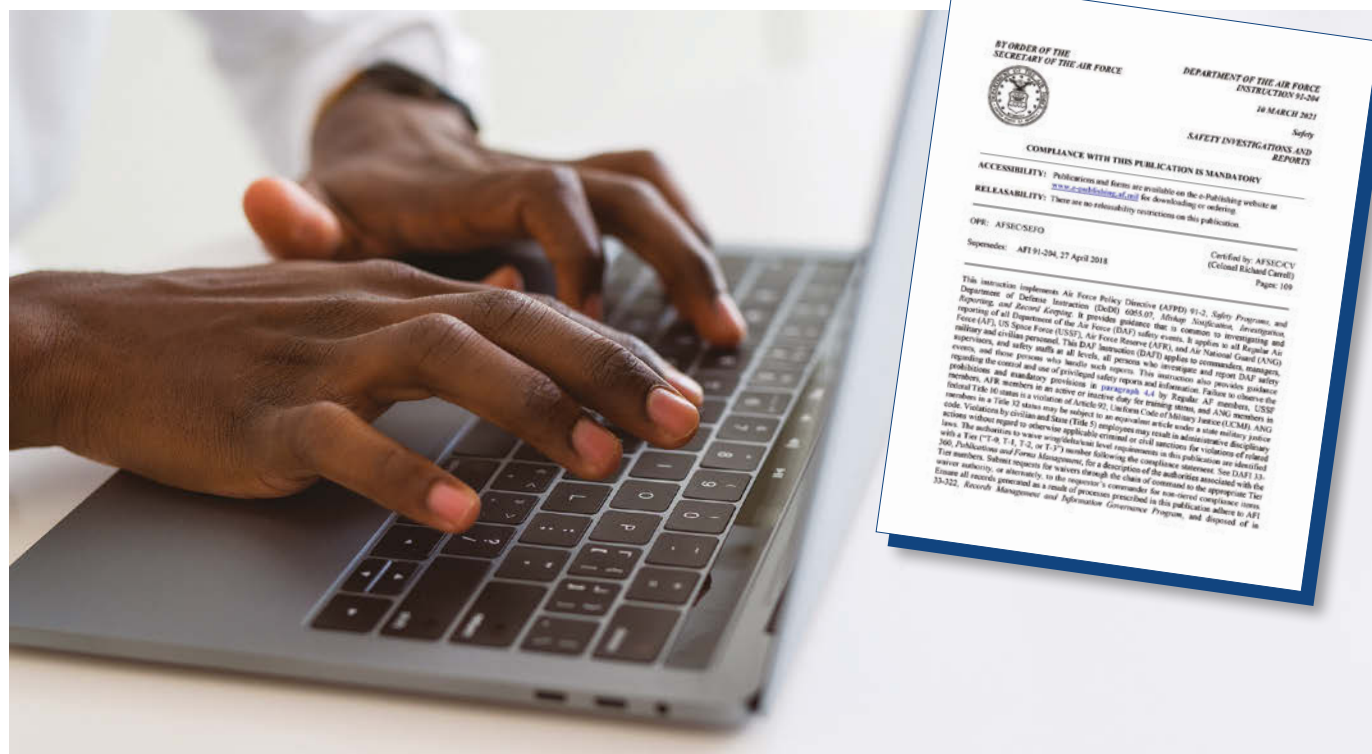
QUICKSTOPPERS

Writing the Report

BY KEVIN SLUSS, CSP,
AMC FLIGHT SAFETY

So, you have finished investigating the event, you have determined what happened and why it happened, and you have ideas for recommendations. Now it is time to write the report. DAFI 91-204, *Safety Investigations and Reports*, contains over seven pages of requirements (paragraphs 8.5. – 8.10.) to provide support. One error seen frequently is the length of the findings and recommendations. Findings and hazard/deficiency statements must only be one sentence long (8.7.5., 8.7.11, 8.9.20). The hazard/deficiency statement is not a repeat of the associated finding (8.9.20), but rather, simply the hazard that the recommendation addresses. New information should not be introduced at that point in the report (8.7.18.), but should be put into a factor instead. Validate findings with the “Findings Test” (8.7.19; especially, 8.7.19.5.). Is the finding supported by a factor? Good examples can be found in DAFMAN 91-223, *Aviation Safety Investigations*

and Reports, paragraph 7.1.2. Recommendation examples in DAFMAN 91-223 (7.1.3.) suggest one sentence for recommendations, and should start with a verb, not “Recommend.” Furthermore, you should not reference an action agency since the Office of Primary Responsibility (OPR) does that (DAFI 91-204, paragraph 8.9.18.). All acronyms must be spelled out in each individual recommendation (DAFI 91-204, paragraph 8.9.15.). If you suspect the OPR is an Air Mobility Command agency, as is likely for technical order changes, contact our office (DSN 779-0930, amc.sef@us.af.mil) so we can refer you to the correct subject matter expert (DAFMAN 91-223 paragraph 2.3.9., and DAFI 91-204, paragraph 8.9.19.2.). For more tips, you can pull the Air Force Safety Center Quality Control checklist from the Safety Investigation Board GO package in the Air Force Safety Automated System, Pubs & Refs, QC & MOFE section. 



A DAY IN THE LIFE



Col Michele Lo Bianco, former 305th Operations Group Commander, answers questions from a young girl inside the cockpit of a C-17 Globemaster III at the 305th Air Mobility Wing's Women's History Month event, March 26, 2022, at Joint Base McGuire-Dix-Lakehurst, NJ. The event was open to all school-aged girls and provided them with information about women in the military and the Air Mobility mission. It included flight simulators and static displays of the KC-10 Extender, KC-46 Pegasus, and C-17 Globemaster III.

USAF photo by 1 Lt Victoria Wright