

THE

MOBILITY FORUM

THE MAGAZINE OF AIR MOBILITY COMMAND | SPRING 2021



**Multi-
Capable
Airmen:
*Smarter.
Faster.
Stronger.***

**Short Notice
Aerial Refueling
Planning at
the 618th Air
Operations Center**

2020 AMC Safety Award Winners

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Volume 30, No. 1
Spring 2021

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ON THE COVER

A 914th Air Refueling Wing KC-135 boom is extended while a 157th ARW KC-46 gets closer for refueling over the Atlantic Ocean on April 28, 2020. The aircrew was conducting a 10K offload of fuel to a KC-46 and continuation training.

USAF photo by Peter Borys

The Mobility Forum (TMF) is published four times a year by the Director of Safety, Air Mobility Command, Scott AFB, IL. The contents are informative and not regulatory or directive. Viewpoints expressed are those of the authors and do not necessarily reflect the policy of AMC, USAF, or any DoD agency.

Contributions: Please email articles and photos to info@schatzpublishing.com, fax to (580) 628-2011, or mail to Schatz Publishing, 11950 W. Highland Ave., Blackwell, OK 74631. For questions call (580) 628-4607. TMF editors reserve the right to make editorial changes to manuscripts.

Ⓧ denotes digitally enhanced photo.

Subscriptions: U.S. Government Publishing Office: 2021-545-100/60003. For sale by the Superintendent of Documents, U.S. Government Publishing Office. Internet: bookstore.gpo.gov. Phone: toll free (866) 512-1800; DC area (202) 512-1800. Fax: (202) 512-2104. Mail: Stop IDCC, Washington, DC 20402-0001.

AMC RP 91-2. Dist: X

ISSN 1559-159X

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Multi-Capable Airmen: *Smarter. Faster. Stronger.*

BY MS. KIM KNIGHT, STAFF WRITER

MULTI-CAPABLE AIRMEN

Airmen accomplishing tasks outside their core Air Force Specialty. Specifically, these personnel train as a cross-functional team to meet and provide combat support to aviation force elements conducting dispersed and dynamic operations. They are enabled by cross-utilization training and are able to operate independently to accomplish mission objectives within acceptable levels of risk.

AGILE COMBAT EMPLOYMENT

An operational concept that leverages networks of well-established and austere air bases, Multi-Capable Airmen, pre-positioned equipment, and airlifts to rapidly deploy, disperse, and maneuver combat capability throughout a theater.



SSgt Kate Vojtko, 921st Contingency Response Squadron, provides perimeter security Jan. 16, 2020, at the Geronimo Landing Zone at the Joint Readiness Training Center on Fort Polk, LA. Vojtko and the rest of the contingency response element from Travis Air Force Base, CA, have ascended on the Joint Readiness Training Center to gain experience working with joint and multinational partners. (Vojtko is now a technical sergeant and is an Air Traffic Controller and Ramp Coordinator.)

USAF photo by TSgt David W. Carbajal

The U.S. Air Force Expeditionary Center (USAF EC) has diverse purposes for individuals who find themselves at Joint Base McGuire-Dix-Lakehurst, NJ. But, for many Airmen, it is the last stop on American soil before deploying to a potentially hostile environment, major conflict, or even war. To prepare them for a possible face-off with an adversary, vital skills are taught in courses like Field Craft-Uncertain, Field Craft-Hostile, Field Craft-Contingency Response, and the intense Phoenix Raven program. Taking the training a step further, a new course is quickly gaining momentum for Multi-Capable

Airmen (MCA) who support the future fast-paced warfighting concept of Agile Combat Employment (ACE).

Maj Gen Mark Camerer, Commander of the USAF Expeditionary Center, said that he encouraged "Competitive, courageous, and curious action-oriented Airmen. Those are the ones who drive change inside the Expeditionary Center or on the frontlines that we need and that's how we are going to outpace our adversaries."

In addition, he said that the MCA concept has proven successful with the 621st Contingency Response

Wing (CRW) for many years because the Airmen have a robust set of expeditionary skills that enable them to work together in smaller, tight-knit teams. The teams are formed with selected Airmen who have a variety of skills and training in addition to their core Air Force Specialty Code (AFSC). In these specialized groups, they are able to move in quickly, complete a mission, and return to home station faster than a large team and without as much airlifted equipment.

Those Airmen with exceptional expeditionary skills, who are smarter, faster, and stronger than the



Airmen from the 621st Contingency Response Wing (CRW) work together to roll and pack up a deflated air beam tent for camp tear-down during the redeployment process of Exercise Turbo Distribution at Fort Stewart-Hunter Army Airfield, GA, Feb. 14, 2020. All 621 CRW Airmen are trained in skills such as tent building to aid the set-up of a bare base as well as redeployment and post-deployment reconstitution. Members of the 621 CRW have partnered with the U.S. Army 689th Rapid Port Opening Element and Defense Logistics Agency Rapid Deployment Team to become a Joint Task Force-Port Opening unit capable of deploying to provide mobility options and facilitating humanitarian and disaster relief assistance.

USAF photo by SSgt Sarah Brice



SSgt Paul Arnold, an Aircraft Maintainer, and other Airmen from the 621st Contingency Response Wing place transition plates onto tent flooring July 19, 2019, in North Vernon, IN, as part of exercise Turbo Distribution 19-03. For this exercise, the 621 CRW has teamed up with the 689th Rapid Port Opening Element and the Defense Logistics Agency to provide humanitarian relief following a simulated major earthquake in Southeast Asia.

USAF photo by TSgt David W. Carbajal

opposition, are the heart of Agile Combat Employment. At this time, Mobility Airmen have an extensive global reach by serving in 55 different locations in 24 countries and territories. In a time of conflict, while united with joint partners, the matrix equates to a vast reinforced network of warfighting channels. “Agile Combat Employment is the concept to not rely on our main operating bases but to train to the element of unpredictability and flexibility, so our enemy won’t know where we are striking from or recovering to so we can extend our advantage,” Camerer said.

Maj Jeffrey Van Guilder, Chief of Operations Branch, added that “Adversaries have developed their capabilities to inhibit our ability to project power from standard bases such as Al Udeid and Al Dhafra, but by providing our Airmen expeditionary skills across various AFSCs, this enables us to shrink the size of the teams down and make our Airmen more agile. By making them more agile, we can project power from different locations. With different locations, now we are able to complicate the enemy target cycle.”

With highly trained Airmen in strategic or austere locations, Air Mobility Command (AMC) can project power to the joint force through airlift, air refueling, aeromedical evacuation, and global air mobility support. Speed and agility on a global scale is AMC’s greatest strength, and during a highly competitive conflict is a no-fail mission.

In July 2020, due to the need to establish a formal course, a group of 40 met virtually to expand on those known successes from the CRW and developed a training syllabus for MCA in the ACE environment. Highlights of the planned curriculum include setting up entry control points, perimeter defense, and advanced weapons training. With multiple delivery options, one being a USAF Expeditionary Center-taught course, the syllabus sets the standard for training at MAJCOMs and wings. After the syllabus was approved in January 2021, personnel from the Expeditionary Center began speaking with wings about integrating and standardizing the new concept.

Camerer stressed that the MCA concept is not meant to add more duties on an Airman’s shoulders, but is meant to complement existing core skills. He provided an example by saying, “Not every Airman will need MCA training. It is those who will be identified to go forward in the smaller groups in the ACE construct. We do this today with great success in the CRWs so it’s a proven and demonstrated model. We do it to some extent in our AMOWs [Air Mobility Operations Wing] with maintainers. Maybe they were a C-5 [maintainer] but also have the training and capability to work on a C-17, so that those Airmen can work on more than one kind of aircraft. We do that already for the rest of the Air Force and parts of AMC; it’s a new construct, but inside

The Airmen of the USAF Expeditionary Center provide our nation with the strategic advantage that is coveted by our senior leaders, respected by our allies, and cannot be matched by our adversaries.

Expeditionary Center, it's something we have been doing for many years."

"We do have two hats that we wear—the Air Force hat as well as the AMC hat. For the Air Force hat, we led the charge on MCA. What we are finding is that MCA as a whole across the Air Force is a massive cultural shift and we cannot be the be-all end-all for MCA. It requires us to integrate across the MAJCOMs and into the air staff to create linkages, and codify MCA into Air Force policy and career field training plans to make sure there is oversight. The USAF Expeditionary Center is the launching pad to institutionalize MCA. At some point, there will be a natural handoff to the management structure in the Air Force that currently exists," VanGuilder said.

As the course evolves and further develops over the next couple of years, there are plans to expand into advanced courses at the USAF Expeditionary Center. In the meantime, major training exercises, like NODAL LIGHTNING, conducted from Ramstein Air Base, Germany, from October 19-24, 2020, focused on strengthening the MCA concept.

"NODAL LIGHTNING is the 521 AMOW's full spectrum readiness exercise that tests the entirety of the eastern route, across 15 countries and two areas of responsibility, in

an integrated peer threat scenario," said Col Adrienne Williams, 521 AMOW Commander. "The exercise tested our ability to perform our core operations under contested and limited conditions. It also tested the ability to execute the enroute mission set at any permissive operation location, all while sustaining Rapid Global Mobility at our current nodal locations."

In what is called a "lift-and-shift," the MCA and ACE training scenario mirrored the relocation of airlift in the event a primary airfield is unusable. "We are training, testing, and shaping how 521 AMOW Airmen can fill each other's roles, so we can send a package of Airmen to different runways and have a team set to support incoming aircraft. It allows us a platform to further hone and refine how we

support Rapid Global Mobility," said Lt Col Matthew Kelley, 521 AMOW Inspector General.

In spring 2021, MOBILITY GUARDIAN, another major AMC exercise, will incorporate learning objectives for MCA and ACE. The much-anticipated event will set the stage for how AMC trains for a future fight.

The Airmen of the USAF Expeditionary Center provide our nation with the strategic advantage that is coveted by our senior leaders, respected by our allies, and cannot be matched by our adversaries. Through innovation and modernization, AMC will move at the speed of war to fly, fight, and win any battle. 



Capt David Chan, 621st Mobility Support Operations Squadron (MSOS) Air Mobility Liaison Officer (AMLO), and Maj Clark Beesemyer, 621 MSOS AMLO, conduct drop zone and landing zone operations refresher training at Joint Base McGuire-Dix-Lakehurst, NJ, July 21, 2020. Chan is traditionally a C-17 Globemaster III pilot. AMLOs are rated mobility officers who are traditionally pilots or navigators.

USAF photo by TSgt Luther Mitchell



The Potential Pitfalls of Automation

BY MR. STEVE PANGER, HQ AMC FLIGHT SAFETY

Back in the day, I flew aircraft that had minimal automation. Pilots flew aircraft manually during many phases of flight. Autopilots were great but used sparingly outside the high-altitude cruise portion of flights. Today's flying environment calls for significantly more use of automation. Although this can ease a pilot's workload, it can also lead to situations in which it degrades or malfunctions, and the pilot is reluctant or unable to recover an aircraft from a hazardous condition manually.

The following unfortunate mishap illustrates that some pilots may be too reliant on automation and unwilling or unable to revert to manually flying an aircraft when events start spiraling out of control.

On February 23, 2019, a cargo company's Boeing 767 was destroyed after it rapidly descended from an

altitude of about 6,000 feet Mean Sea Level and crashed about 41 miles from Houston, Texas. The captain, first officer (FO), and a nonrevenue pilot riding in the jumpseat died. The mishap flight's departure, en route cruise, and initial descent were uneventful. As the flight descended toward the airport, the flight crew extended the speed brakes, lowered the slats, and began setting up the flight management computer for the approach. The FO was the pilot flying, the captain was the pilot monitoring, and the autopilot and autothrottle were engaged and remained engaged for the remainder of the flight.

The analysis determined the aircraft encountered light turbulence, and the airplane's go-around mode was activated. This location and phase of flight were inconsistent with any scenario in which a pilot would intentionally select go-around mode.

Neither pilot made a go-around callout to indicate intentional activation.

Within seconds of go-around mode activation, manual elevator control inputs overrode the autopilot and eventually forced the airplane into a steep dive from which the crew did not recover. Only 32 seconds elapsed between the go-around mode activation and the airplane's ground impact.

Why did this happen? It is possible that the pilots were too dependent on automation. Automation dependency is a pilot's reliance on aircraft automated systems to the point at which it can lead to a sense of complacency. Pilots may become fully confident in their ability to control the plane only when using such systems' full functionality.

Automation dependency can definitely affect incidents when automation starts to malfunction. Pilots may

Lt Col Eric Wilks and Lt Col Marvin Ashbaker, pilots with the 465th Air Refueling Squadron, Tinker Air Force Base, OK, conduct pre-flight checks aboard the Air Force Reserve Command's first KC-135 to be upgraded with Block 45. Block 45 provides a digital display of engine controls, an updated autopilot, a new altimeter and software upgrades, ensuring that the KC-135 can perform well into the future as the workhorse of the air refueling fleet.

USAF photo by TSgt Lauren Gleason



NTSB investigators and a member of the recovery team retrieving the flight data recorder of Atlas Air Flight 3591, a Boeing 767-300 cargo jet that crashed in the muddy marshland of Trinity Bay, Feb. 23, 2019, about 30 miles from Houston's George Bush Intercontinental Airport.

NTSB photo



NTSB engineers Sean Payne (left) and Joe Gregor, removing the cockpit voice recorder from a cooler used to transport it from the Feb. 23, 2019 accident scene of the cargo jet that crashed in Trinity Bay in Anahuac, TX.

NTSB photo taken by Keith Holloway

be reluctant to voluntarily reduce the extent to which they use full automation capability to deal with any situation—routine or abnormal. If the full automation capability is degraded or no longer available, pilots may tend to partially retain the use of automated systems rather than revert to manual aircraft control. It usually stems from a combination of inadequate knowledge of the automated systems themselves unless all are employed. If pilots do not fully understand the aircraft's automation, it can trigger a degree of task saturation for both pilots and lead to a loss of situational awareness.

Entirely relying on automation can obviously erode basic flying skills. When faced with a situation in which the automation degrades to the point at which the aircraft enters an undesirable state, can pilots reliably disconnect the systems and revert to hand flying?

A related issue with automation is the need for updating flight information. The need to program flight computers and manage them in flight can lead to heads down inside the cockpit rather than looking outside. It can happen during all phases of flight but is especially hazardous when operating

in a busy airfield environment. This can contribute to a loss of situational awareness and, ultimately, an undesired aircraft state if not arrested quickly.

In the previously mentioned mishap, the National Transportation Safety Board (NTSB) determined that this accident's probable cause was the inappropriate response to the inadvertent activation of the go-around mode by the first officer as the pilot flying. It led to his spatial disorientation and nose-down control inputs that placed the airplane in a steep descent from which the crew did not recover. Contributing to the accident was the captain's failure to monitor the airplane's flight path adequately and assume positive control of the aircraft to intervene effectively.

We are all familiar with the two mishaps involving the 737 MAX aircraft, which involved the aircraft entering an undesirable aircraft state, loss of aircraft control, and a considerable loss of lives. It appears the mishaps were the result of a critical software system called the Maneuvering Characteristic

Augmentation System (MCAS) malfunction. The MCAS was designed to activate under certain conditions automatically. It would automatically disengage when pilots overrode the system with manual trim. Did the pilots attempt to disconnect any of the automation and try to recover the aircraft manually? Although it seems that this automation malfunction contributed to these mishaps, the NTSB is still investigating and has not yet released its findings.

Automation errors can occur in almost any phase of flight and should never be totally relied upon without continuous verification and monitoring. Both pilots need to ensure that at least one of them will always fly the aircraft, especially if the other is downloading information in the computer. Automation can be a wonderful thing, but it also can bite you in the end if you become complacent and lose situational awareness. Fly (and monitor) safely! 🇺🇸

Short Notice Aerial Refueling Planning at the 618th Air Operations Center

BY MS. BETTY NYLUND BARR, STAFF WRITER

In the past, the KC-46 Pegasus was exclusively available at McConnell Air Force Base (AFB), KS, which was the first base to utilize the aircraft.

Now, four bases have KC-46s: McConnell; Altus AFB, OK; Pease Air National Guard Base, NH; and Seymour Johnson AFB, NC—the newest delivery site. As Air Mobility Command (AMC) integrates the latest weapons system into the fleet, testing is the primary focus.

Capt BreAnna Long, Short Notice Aerial Refueling Mission Director at 618th Air Operations Center (AOC), Scott AFB, IL, said, “We are using it a little bit more. We’re trying to see where it fits in with our normal missions and how we can utilize it while it’s in testing status.”



A KC-46 Pegasus from the 97th Air Mobility Wing, assigned to the 56th Air Refueling Squadron at Altus AFB, OK, practices air refueling operations over NM with an F-16 from Holloman AFB, NM.



The first KC-46 Pegasus lands at Seymour Johnson AFB, NC, June 12, 2020. The KC-46 will fall under the 916th Air Refueling Wing, replacing the KC-135 Stratotanker.

USAF photo by Maj Cruz A. Dolak

“In our shop,” Long said, “we schedule, plan, and execute the short-notice tanker requests,” which may be received with as little lead time as a day or, more usually, a week or two. “This is what we do for the KC-10 and the KC-135. We have not used a KC-46 on the short-notice side just because it is not approved—they do not have the blanket approval to refuel the aircraft.”

While crews and planners eagerly await the green light to conduct refueling missions, the aircraft is being used for training exercises, weapons integration exercises, aeromedical evacuation exercises, and recently, an extensive tanker exercise. All the training and exercises obviously benefit the flight crews. “The units are able to volunteer,” said Long. “If there’s a mission that we have coming up that they are certified to fly on and refuel the receivers, they are able to volunteer for those. The crews have been doing that a lot more frequently because they want to be more involved

in the bigger AMC mission instead of just focusing on the testing.”

A lot of planning goes into preparing for a flight, including continually checking the weather at the destination and ensuring that the fuel supply is sufficient to handle the possibility of a diversion due to hazardous weather. Flight managers continuously monitor the weather and provide updates to the flight crews.

Although the KC-46 is a tanker, like the KC-135 and the KC-10, it is an entirely different aircraft. For example, the KC-46 must adhere to the ETOPS (extended operations) requirement for twin-engine aircraft. When flying over areas of the world with few airports that can be used in an emergency (such as when flying over the ocean), the aircraft must stay within a specific range of a suitable airfield. This is one of many examples of precautions that are strictly adhered to for the aircrews’ safety. Long reflected on the extra

measures and said, “You don’t mind doing the extra work when you know it is for a good reason.”

“In September, we had the first oceanic coronet with the KC-46, so that was a big milestone,” Long shared. Long said that she did not participate in the planning for the event; a dedicated Coronet shop within the Air Refueling Directorate took care of all those details. “I am more of the in-between to make sure it keeps going,” she said. “If there are any hurdles, I jump in and figure out how we fix them.”

Although the KC-46 is still relatively new to the fleet, Long thinks that AMC using the plane now helps the AOC prepare for how to use it in the future. It also relieves some of the other airframes that are already tasked for specific uses. Flight crews continue to train on the aircraft, of course, preparing for the much-anticipated day when the KC-46 gets fully certified for tanker missions. 🇺🇸

CRM/TEM

Refresher Training

(A Peek at the Plan)

BY MR. MARK ALTENBURG,
HQ AMC CRM/TEM DIRECTOR

Suppose that earlier today you found out that you are on the slate for refresher training later this week—yeah, just what you wanted, more training. This training, however, focuses on how you perform during an actual mission (well, as much as is possible in a simulator) from a Crew Resource Management¹ Threat and Error Management² (CRM/TEM) perspective. We used to refer to the CRM/TEM Refresher *classroom* training as “G230” and the related *simulator* training as “G240” (commonly known as “MOST”—mission-oriented simulator training). The *new* ARMS (automated records management system) codes are “GD27Y” and “GX29Y,” respectively.

Whatever the name or code, it is the content of the CRM/TEM training that matters most. We know that there are six principal CRM skills, the overall

TEM concept, and a host of TEM tools that can be stressed during the training. Realizing the myriad possible highlighted topics and that refresher training lasts only a few hours, how do administrators and courseware developers decide what to emphasize during the CRM/TEM Refresher Training? This article focuses on the answer to this complex question.

SCOPE

Let us first look at the scope of the issue. The six principal CRM skills are always important, and each should be covered on a recurring basis. Given training time constraints, however, which skills should be the topic(s) for the training: Mission Analysis? Situational Awareness? Risk Management/ Decision-making? Crew/Flight Coordination? Task Management? Also, we cannot overlook Communication skills, because they are essential for every safe and effective operation.

We also need to address TEM because TEM tools are used in concert with CRM skills. As you may remember, this aviation standard is foundational for keeping our missions safe by promoting vigilance versus complacency. It is achieved by implementing an active, continuous process of identifying and preparing for threats, as well as identifying and repairing errors at the earliest opportunity.

Our new CRM/TEM model (below) depicts how this is done. Mission Effectiveness and Safe Operations represent the desired operating environment. As crewmembers encounter operational threats³ or make

³ **Threat**—An event or error that occurs outside the aircrew’s influence (i.e., it was not caused by the crew), which increases operational complexity and must be managed to maintain safety margins and requires crew attention. All threats have the potential to negatively affect flight operations.

¹ Crew Resource Management (CRM)

Perspective—The effective use of CRM is harnessing all available resources (people, weapons systems, facilities, equipment, and environment) by individuals or crews to safely and efficiently accomplish an assigned mission or task.

² **Threat and Error Management (TEM)**—An aviation industry-recognized best practice, TEM is a structured, proactive systems approach that builds on multiple layers of defenses and applies to all single and multi-seat aircraft operators, flight, and crew members. TEM is intuitively, logically, and flexibly designed to identify, avoid, trap (allay), and mitigate threats and/or inevitable human errors to avoid undesired aircraft states (UAS), mission failure, and potential mishaps.

Mission Effectiveness and Safe Operations





Capt. Josh Welch, left, and 2d Lt. Kent Melendez, right, both pilots assigned to the 50th Air Refueling Squadron, perform pre-flight procedures in the KC-135 flight simulator at MacDill AFB, FL, Aug. 17, 2018. Pilots perform multiple simulator flights each year, testing their proficiency with the aircraft and their ability to handle a wide array of emergency scenarios.

USAF Photo by A1C Scott Warner

errors,⁴ there is a potential to move away from the desired operating environment. Unmitigated, the result may be an undesired aircraft state⁵ (UAS)—possibly leading to a mishap. The practical application of CRM/TEM skills and strategies creates a proactive pathway, returning

⁴ **Errors**—Actions or inactions that lead to deviations from organizational or flight crew intentions or expectations, reduce safety margins, and increase the probability of adverse operational events on the ground or in flight. Unmanaged and/or mismanaged errors can lead to an undesired aircraft state. Errors in the operational context tend to reduce safety margins and increase the probability of adverse events.

⁵ **Undesired Aircraft State (UAS)**—Operational conditions in which an unintended situation results in a reduction in safety margins. A UAS is the result of ineffective TEM and may lead to a mishap.

crewmembers to Mission Effectiveness and Safe Operations.

POTENTIAL SOURCES

Now that we have scoped the issue, let us talk about the sources for potential CRM/TEM Refresher Training topics. First off, we will look at Mobility Air Forces (MAF) data-gathering sources, such as Aviation Safety Action Program⁶ (ASAP) reports, Military Flight Operations Quality Assurance

⁶ **Aviation Safety Action Program (ASAP)**—ASAP is an identity-protected, self-reporting system that is integral to reducing mishaps and improving operations and training. ASAP is designed for Airmen to report information and concepts critical to resolving mishap precursors and share this information across AF aviation communities. The data are used to reduce mishaps through operational, logistic, maintenance, training, and procedural enhancements.

(MFOQA) analysis, and Air Mobility Command (AMC) Form 4031 analysis.

ASAP reports—known as “ASAPs”—are invaluable insights into the issues our aircrews face daily. ASAPs run the breadth of possible concerns, essentially dealing with threats to our aircrews (for example, formal guidance issues, aircraft-related, air traffic control [ATC]-associated issues) or errors our aircrews make (for example, aircraft overspeed, improperly run checklists). Although they are highly encouraged because of the wealth of information gleaned from them, AMC does not mandate ASAP reporting. With this in mind and knowing that ASAPs are periodic in nature and situational, they are not truly “trend-able.” They can, however, be regarded from a severity and timeline/recurring sense.

In addition to ASAPs, CRM/TEM Refresher Training is often based on or supported by MFOQA analysis.⁷ AMC's non-punitive MFOQA Program analyzes routine flight data to detect, measure, and mitigate mishap precursors while protecting crewmember identity. MFOQA analysis uses data procured from the aircraft to determine trended areas of concern. MFOQA truly exemplifies the maxim:

**“If you don’t measure it,
you can’t understand it.
If you don’t understand
it, you can’t manage it.
If you don’t manage it,
it will manage you!”**

The MFOQA information flow aggregates data from multiple flights before processing that data through customized software and searches for trends that point to unsafe latent conditions, such as poorly designed procedures, normalization of deviance,

⁷ **Ongoing MFOQA analysis can be found at EFB:** “MFOQA” folder for the respective MDS

AMC eim: <https://eim2.amc.af.mil/org/a3t/A3TO/CRM%20TEM/MFOQA/SitePages/Home.aspx>

milSuite: <https://www.milsuite.mil/book/community/spaces/amc/a3/a3t/opsrams>

AFSAS: https://afsas.safety.af.mil/publications/ViewPublication.do?publication_id=22

Ops RAMS Newsletter: <https://eim2.amc.af.mil/org/a3t/A3TO/default.aspx>

or unsafe external conditions. Besides the routine analysis of aircraft/flight-related issues, AMC's MFOQA team—in partnership with AMC Standard, Evaluation & Readiness Division (A3V), AMC Flight Operations Division (A3T), and other agencies—have established Mission Design Series (MDS)-specific flight safety alerts (FSAs). FSAs are significant negative trends that diverge from established, safety-minded, military aviation practices. In effect, FSAs are aggregated UASs, established to make aircrews aware of the considerable risks the aforementioned unsafe practices pose.

The remaining primary MAF data-gathering source related to this endeavor is via the AMC Form 4031, *CRM/TEM Skills Criteria Training/Evaluation*.⁸ This form analyzes aircrew performance by assessing our six CRM skills in addition to the many applicable TEM aspects. The “4031” gathers 12 non-Personally Identifiable Information crewmember demographics, which, combined with the aforementioned CRM/TEM assessments, enable the trending of human factors information related to aircrew performance. Alongside empirical data, the 4031 garners comments that frequently provide situationally affected portrayals.

⁸ As a minimum, the AMC Form 4031 must be used (for all crew positions) after aircrew members complete GD27Y/GX29Y training events or when substandard CRM/TEM performance is noted during an evaluation.

In addition to MAF data-gathering sources, AMC looks toward other military and civilian resources for potential CRM/TEM Refresher Training topics. Often, MAF instructors and evaluators (civilian and military) relate their concerns regarding how aircrew members react during specific situations. Such invaluable insights can be coupled with MFOQA analysis and other data to determine the potential topic's severity and significance.

On occasion, domestic and international regulatory agencies, such as the Federal Aviation Administration (FAA) and the International Civil Aviation Organization, raise concerns regarding how aircraft are flown. Although such concerns are primarily intended for civilian aviation, a significant number of these issues also apply to military operators. AMC learns of these through various means, such as FAA Advisory Circulars and the biannual FAA-sponsored Aviation Safety InfoShare.

AMC is also made aware of worldwide aviation concerns through participation in mutually beneficial data/information-sharing efforts, such as the Aviation Safety Information Analysis and Sharing system, as well as the FAA Air Carrier Training Aviation Rulemaking Committee, which oversees the Flight Path Management Working Group (FPMWG). In addition to other issues, the working group was formed to address FAA fears that pilots may not be adequately trained regarding energy management while flying complex standard terminal arrivals. The FPMWG also tackled FAA concerns that pilots can become vulnerable to unintended outcomes while using intricate information flight-related automation systems (for example, Aircraft Communication Addressing and Reporting System, Flight Management System, Electronic Flight Display, and Controller Pilot Data Link Communications) that might

WAYS TO SUBMIT AN ASAP

ASAP Electronic Flight Bag (EFB) App. The EFB ASAP App icon is titled, “Airman Safety App,” and, assuming the user is provisioned to the Scott server, the app will already be loaded. Note: Although users can complete an ASAP via the EFB App, they must be connected to broadband to submit the report.

ASAP App (using an iPhone or Android personal electronic device). To obtain the app, search for “Airmen Safety App” at App Store (iPhone) or Google Play (Android).

ASAP website: <https://asap.safety.af.mil>



SrA Steven Bowdich, 350 ARW Boom Operator, uses the Boom Operator Weapon System Trainer (BOWST) at McConnell Air Force Base, KS. The BOWST is an on-ground reproduction of the boom pod in a KC-135 Stratotanker that is used as a realistic and more affordable training alternative to flying actual missions.

USAF photo by A1C John Linzmeier

To Obtain Information from Existing ASAPs

Go to AFSAS Home Page: <https://afsas.safety.af.mil/>

foster distraction, increased workload, skill degradation, lack of engagement, or lack of system understanding.

METHODOLOGY

Knowing the scope of the relevant topics for CRM/TEM Refresher Training and understanding the many sources of functional analysis, we can now address methodology related to the frequency of issues. Although every CRM/TEM topic is aircrew pertinent, some topics are also time sensitive.

Such was the case in 2017-2019 regarding the topic of Rejected Takeoffs (RTO).⁹ In short, a significant number of RTOs were occurring across the MAF in which the aircraft commander's decision to perform an RTO (as opposed to continuing the takeoff) might be of concern. AMC was made aware of the issue via Safety Investigation Boards and several

⁹ Interestingly, during this time frame, the domestic aviation industry also was concerned about RTOs.

ASAPs. AMC's talented MFOQA gurus completed significant analysis across all MDSs to support the need for "RTO Decision Making" as a significant topic within CRM/TEM Refresher Training. To add further value to the training, AMC's Pilot Monitoring Working Group, in cooperation with AMC/A3V and other agencies, determined and provided "RTO/Continue Takeoff Considerations" for each MDS, complete with defined "low-speed/high-speed" regimes. These considerations and speed regimes were



Two loadmaster students train in a fuselage simulator at Little Rock Air Force Base, AR, Sept. 5, 2019.
USAF photo by A1C Jayden Ford

added to the CY2019 CRM/TEM Refresher Training.

CONCLUSION

Undoubtedly, aircrew members have a lot to cover during their CRM/TEM Refresher Training while improving their learned CRM skills and effectively employing appropriate TEM tools. AMC continues to do its part by prudently weighing numerous pertinent topics regarding relevance and timeliness for possible inclusion in CRM/TEM Refresher Training. The table on this page depicts the principal yearly CRM/TEM topics from 2011-2021.

In parting, the choice of topics is influenced by many sources, with each topic having its own significant merit. At the end of the day, however, it is vitally important that CRM/TEM Refresher Training stays packed with the meaningful and timely information our aircrews need to help ensure missions stay effective and operationally safe—especially as we fly within today’s very demanding environments.

Now, let’s get at that training! 🇺🇸

CRM SKILLS

Communication (CY2019)	Risk Management/Decision-making (CY2016, CY2018 Go-Around, CY2019 RTO)
Crew/Flight Coordination (CY2017)	Situational Awareness (CY2018)
Mission Analysis (CY2019)	Task Management (CY2020)

TEM-RELEVANT TOPICS

Airmanship (CY2011)	Information Automation (CY2021)
Airspeed Awareness (CY2020)	MFOQA (CY2011)
ASAP Reporting, (CY2020) ASAP (CY2011)	PM Effectiveness (CY2020, CY2018, CY2015, CY2014, CY2013)
Assertiveness (CY2017)	Stabilized Approaches (CY2014, CY2013)
Checklist Discipline (CY2012)	Systems (CY2012)
Debriefing (CY2015)	TEM Fundamental Principles (CY2015, CY2014, CY2011, CY2021)
Flight Discipline (CY2011)	TEM Model (CY2020, CY2021)
Go-Around Decision-making (CY2018)	RTO Decision-making (CY2019)
Individual Performance (CY2012)	Verbalize, Verify, and Monitor (CY2015, CY2013)

AIRCREW MEMBERS, AIRCREW INSTRUCTORS, AND AIRCREW EVALUATORS

If you have a CRM/TEM-related topic that might be relevant, please send an email with Subject: **CRM/TEM Refresher Training Topic** to: a3.opsrams@us.af.mil

Your insights might make a considerable difference to our aircrews!

ASAP 14333: A Case for More ASAPs

BY MS. ALLISON ELLIOTT, STAFF WRITER

During their approach into an airfield in Norway, an aircrew experienced an incident that spurred Capt Christopher Stewart to sit down with fellow crew members, Capts Rich Gangloff and Scott Strebel, SSgt Taylor Trapp, and SrA Josh Hicks, to write down information for a much-needed Airman Safety Action Program (ASAP) submission.

The crew members were in a C-17 on their way through the Scandinavian country to the Bardufoss Airport, which sits in a bowl and is surrounded by mountainous terrain. The pilots and crew had never landed at that airport before, so it was a new experience for all. Because of the pandemic, the pilots also had not flown for a while.

The weather was clear as they made their final approach, and they were able to clearly see the airfield from a distance. As they approached a large hill that slopes down to the runway, the Terrain Awareness and Warning System (TAWS) alerted them to terrain and obstacles ahead. TAWS forecasts where it thinks the plane is going to be and compares the location to the database (which includes towers and obstacles) it has from the terrain around the world. The pilots could see, however, that there were no obstacles in their way.

As the Aircraft Commander, Stewart decided to have the more experienced pilot onboard make the approach, and they landed without incident.

In reflecting on the incident, Stewart is thankful for the clear weather. "If

we would have been in the weather and not able to see, yes, it would have been terrifying," he said. Perhaps as an initial reaction, but Stewart and his professional crew would have simply gone around, as they and all C-17 crews are trained to do. At worst they would have been inconvenienced by having to divert to another airfield.

James Joyce, C-17 Military Flight Operations Quality Assurance (MFOQA) Flight Data Analyst, described what the warning system was seeing in his analysis. In Figure 1, he pointed out the location of two tall, erroneous obstacles inexplicably off the approach end of Runway 10 at Bardufoss Airport, and by analyzing past sorties into the airfield, saw that they had been causing nuisance alerts for years. Until Stewart and his crew wrote the ASAP, crews had not reported this false information.

Prior to their flight, Stewart and his crew were unaware that other crews had received nuisance warnings. Before going to an airfield, a document called the "giant report" is produced that has operational information for a particular location. The crew members are required to review it. If there are known anomalies with terrain or obstacles, they will be noted there; however, none were noted for this location, according to Stewart.

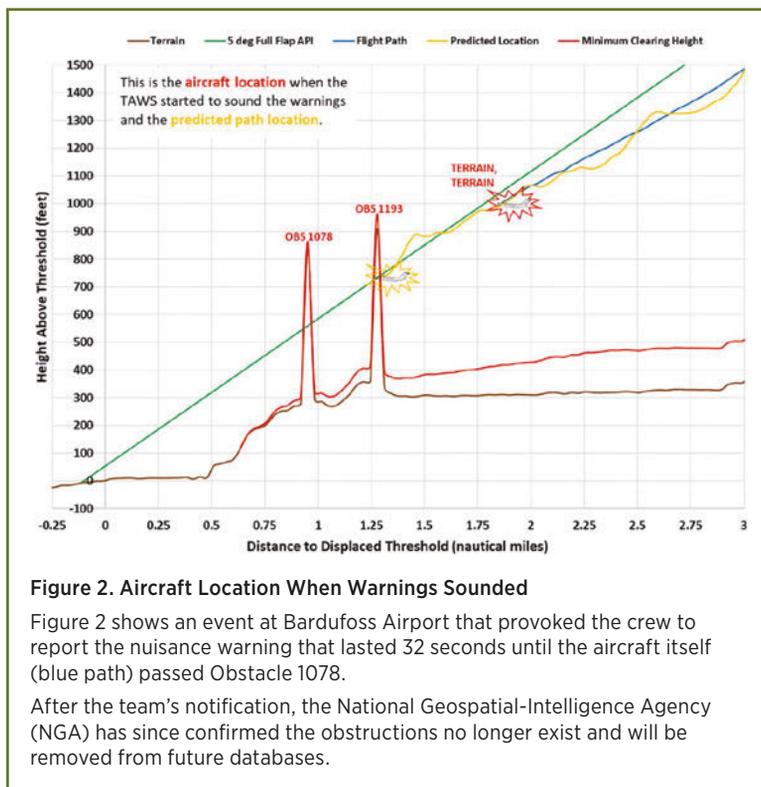
Writing an ASAP made a lot of sense for this situation. "It was immediately apparent that's what we needed to do," Stewart said. "I'm a huge fan of the ASAP program and attended an Ops RAMS [Operations Risk Assessment and Management System] program briefing at Scott [AFB] back in 2016."

He looks regularly to review new ASAPs when available and shares



Figure 1. Two Erroneous Obstacles Causing Nuisance Alerts at Bardufoss Airport

Figure 1 shows the location of two tall erroneous obstacles (yellow arrows) inexplicably off the approach end of RWY 10 that have been causing nuisance alerts for years, which, until recently, crews were not reporting.



“It was the most in-depth ASAP to see what goes on behind the scenes after an ASAP is submitted,” Stewart said. “They took the information and ran and really dug in deep on it.”

them with fellow 3d Airlift Squadron members. “The entire point of the program is to bring awareness to issues that might affect others and try to operate in the safest manner possible with all the information you can provide,” Stewart said. The ASAP Stewart and his crew wrote rectified an error that had been causing nuisance warnings for years, but now both towers are confirmed removed from the TAWS database.

Once the aircraft had landed safely, Stewart and the crew wrote the ASAP first thing to make sure their information was accurate and concise. Stewart, who has written other ASAPs on his own, showed the other crew members the process of submitting an ASAP.

After submitting the ASAP with his contact information included, Mr. Tim Grosz, who leads the Ops RAMS branch, contacted Stewart

to ask for more detail. He also asked maintenance for the flight data from the aircraft for analysis. After a thorough investigation, Mr. Grosz informed him that they had discovered other crews operating out of that airfield had received the same alerts, and that work was underway to have the obstacles removed from the database.

“It was the most in-depth ASAP to see what goes on behind the scenes after an ASAP is submitted,” Stewart said. “They took the information and ran and really dug in deep on it.”

Joyce also stressed the importance of not only the ASAP program, but submitting TAWS/ground proximity warning system (GPWS) worksheets for incidents such as this.

“The TAWS/GPWS Nuisance Event Worksheet was created to provide crews an avenue to address the

‘imperfections’ that they discover concerning these two vital safety systems. Consequently, a major part of Ops RAMS’ effort to enhance crew confidence in their aircraft safety systems is to analyze every submitted worksheet,” Joyce said.

Although the TAWS/GPWS worksheet is for C-17s, he believes it is important for all flight crews to report incidents with similar safety systems. For this, the ASAP reporting is “a perfect tool” to have your concerns addressed by the Air Mobility Command staff.

The ASAP Stewart and his crew wrote rectified an error that, according to ASAP 14333, had been happening for years. The next approach to Norway’s Bardufoss Airport should thus prove less eventful, thanks to Stewart and his crew. 🇳🇴

★ AMC'S ANNUAL 2020 ★ SAFETY AWARD WINNERS

AMC Director of Safety Aircrew of Distinction Award

HAVOC 77, 40th Airlift Squadron
Dyess AFB, TX

AMC Director of Safety Special Achievement Award

62d Airlift Wing*
Joint Base Lewis-McChord, WA

AMC Director of Safety Aviation Maintenance Safety Award

MSgt Brandon Baimbridge*
515th Air Mobility Operations Wing
Joint Base Pearl Harbor-Hickam, HI

AMC Director of Safety Weapons Safety Award

628th Air Base Wing
Joint Base Charleston, SC

Distinguished Motorcycle Safety Award

92d Air Refueling Wing
Fairchild Air Force Base, WA

RiderCoach of the Year

TSgt Adam Kies
62d Airlift Wing
Joint Base Lewis-McChord, WA

Flight Safety NCO of the Year

MSgt Charles Clark
92d Air Refueling Wing
Fairchild Air Force Base, WA

Risk Management Achievement Award

628th Air Base Wing
Joint Base Charleston, SC

Koren Kolligian, Jr. Trophy

SrA Peyton Olson
92d Air Refueling Wing
Fairchild Air Force Base, WA

Outstanding Achievement Award for Occupational Safety Cat II

60th Air Mobility Wing
Travis Air Force Base, CA

Outstanding Achievement Award for Occupational Safety Cat III

628th Air Base Wing*
Joint Base Charleston, SC

Outstanding Achievement Award for Occupational Safety Cat IV

735th Air Mobility Squadron
515th Air Mobility Operations Wing
Joint Base Pearl Harbor-Hickam, HI

Safety Civilian Professional of the Year

Mr. Michael Jeffery
60th Air Mobility Wing
Travis Air Force Base, CA

Safety NCO of the Year

TSgt Omar A. Salih
726th Air Mobility Squadron
Spangdahlem Air Base, Germany

Safety SNCO of the Year

MSgt Dominic Salierno
60th Air Mobility Wing
Travis Air Force Base, CA

Safety Officer of the Year

Maj Joel Nolan
92d Air Refueling Wing
Fairchild Air Force Base, WA

Safety Office of the Year

43d Air Mobility Operations Group,
Pope Army Airfield, NC

**These AMC winners also earned 2020 Air Force Chief of Safety Awards in the same categories.*



★ Safety Office of the Year ★
 43d Air Mobility Operations Group,
 Pope Army Airfield, NC



The 43d Air Mobility Operations Group (AMOG), Pope Army Airfield, NC, led by Col Joseph M. Vanoni, has been awarded the Air Mobility Command (AMC) Safety Office of the Year recognition.

The 43 AMOG is the sole AMC tenant performing the duties of a Host Safety office, serving 2,200 personnel and four Major Commands. They ensured

Current 43 AMOG Safety Team, from left to right: Mr. Richard Galley, Flight Safety Manager; SSgt Devin Smith, Occupational Safety Technician; SSgt Ashley Toomey, NCOIC Occupational Safety; Mr. Raymond Shupe, Occupational/Weapons Safety Manager; and Mr. Ethan Cavanaugh, USDA Biologist. (Not pictured, TSgt Sebastian Schmidt, NCOIC Flight Safety)

From leadership to training, the 43 AMOG has a broad skillset.



zero Class A and B mishaps while manned at only 66 percent.

While surveilling the Department of Defense's busiest joint training program, the 43 AMOG audited safety procedures for 611 Joint Airborne Air Transportability Training missions and 35,000 chutes, ensuring safe Immediate Response Force (IRF) operations.

The 43 AMOG furthered IRF operations by ensuring the safety of the first IRF launch in 30 years. For this launch, they supported 103 missions and the delivery of 4,000 passengers and 3,000 tons of cargo. Their efforts supported the U.S. Embassy in Iraq and 5,500 civilians.

Their work in leading the Bird/Wildlife Aviation Hazard program successfully dispersed 11,000 birds and 25 mammals. They investigated 36 wildlife strikes and bolstered safety for 2,300 aircraft operations.

The 43 AMOG is committed to excellence, as evidenced by their acing the AMC safety biannual inspection. The program was found to be 100 percent compliant.

For a safety merger between the 82d Airborne and Pope Army Airfield, the 43 AMOG synchronized three organizations and investigated an Army Class A mishap, identifying the root cause.

Their leadership capabilities were recently displayed when they headed the joint weapons program. The 43 AMOG licensed nine programs at 12 Air Force and Army sites. They validated nine Explosives Site Plans, ensuring zero weapons mishaps. They also led the Pope Army Airfield motorcycle safety program, in which they trained and approved North Carolina registration for 51 riders, resulting in zero Class A or B mishaps. The 43 AMOG managed Occupational Safety and Health Administration (OSHA) standards for \$105 million in airfield projects. They inspected worksites and ensured compliance, sporting a 30-percent airfield parking increase.

From leadership to training, the 43 AMOG has a broad skill set. At a Combat Off-Load (Method) B training site in the continental United States, the 43 AMOG established a training safety plan and guided five events to certify 62 aircrew and ground personnel on Semi-Prepared Runway Operations.

The 43 AMOG kept operations running smoothly. They mitigated potential IRF delays by supporting the 18th Airborne Corps runway renovation, thereby validating flight safety requirements for eight airfield closure courses of action. They also governed the Occupational Safety program, inspecting 57 facilities and completing 71 spot inspections. These

efforts were critical to achieving their eighth consecutive Air Force Outstanding Unit Award.

Their thorough inspections also supported operations. The 43 AMOG inspected Fort Bragg R-5311 ranges and landing zones. This enabled 78,000 sorties for 34,000 aircraft and 41,000 helicopters, supporting 50,000 proficiency jumps.

Even in adversity, the 43 AMOG pushed on. When the COVID-19 pandemic began, the 43 AMOG executed a mitigation plan, securing safety oversight of airfields.

Demonstrating their ability to be team players, the 43 AMOG networked with six Air Traffic Control and Federal Aviation Administration agencies in synchronizing Mid-Air Collision Avoidance efforts. This action reduced aviation risks across 53,000 square miles.

The resulting effects of the 43 AMOG's actions are far-reaching. The actions of the 43 AMOG this year enabled Operation Freedom's Sentinel and Operation Inherent Resolve deployments, which involved the movement of 4,000 personnel, 510 tons of cargo, and 32 aircraft. These deployments fortified Central Command stability and combat operations. 

FY20 AMC INDIVIDUAL SAFETY AWARD WINNERS

DIRECTOR OF SAFETY AIRCREW OF DISTINCTION AWARD



Maj Christopher Giuttari



SSgt Cole Foster



1st Lt Charles Stalzer

HAVOC 77

40th Airlift Squadron, Dyess Air Force Base, TX

HAVOC 77, Dyess AFB, TX, of the 40th Airlift Squadron, led by Maj Christopher J. Giuttari, received the AMC Director of Safety Aircrew of Distinction Award for their actions averting a potential flight mishap while aboard a C-130J on February 10, 2020.

The first 3 hours of the flight were uneventful. Then, as night fell, the Advisory, Caution, and Warning System alerted the crew that the aircraft's two navigational systems were in disagreement.

It became clear as various members of the crew attempted to use the aircraft's flight management systems (Communications Navigation and Identification Management Unit, or CNI-MU) to resolve the issue that technical difficulties with the equipment had rendered it unusable. The condition of the destination was overcast at 600 feet, meaning the airfield required an Instrument Landing System approach that the aircraft was unable to execute in its current state.

The Aircraft Commander decided to proceed to an alternate airfield and alerted Air Traffic Control (ATC) of their intention to execute a visual approach to that alternate. As the crew continued toward the alternate airfield, they lost all primary attitude references for both pilots, forcing the Aircraft Commander to use standby instruments. The copilot requested vectors from ATC to the airfield; however, the approach controller informed the crew that the weather had deteriorated. This information effectively eliminated the last suitable option for landing with visual flight rules within two hours of the aircraft's position.

The Aircraft Commander decided to land immediately. The Aircraft Commander then successfully executed the no-gyro approach surveillance radar (ASR) in inclement weather at night using only standby instruments.

During this flight, the crew's actions saved not only a \$70 million aircraft but the lives of its three crew members, whose professional competence, aerial skill, and devotion to duty prevented a potentially deadly mishap.



AMC DIRECTOR OF SAFETY SPECIAL ACHIEVEMENT AWARD



Mr. Bob Schoenberg (left) and Maj Dan Klepper, monitoring runway construction repair following sinkhole damage last summer.

Maj Daniel Klepper,
Chief of Flight Safety

Maj Christine O'Connell,
Deputy Chief of
Flight Safety

Maj Caesar Padilla,
Flight Safety Officer

Capt Stephen Kinn,
Flight Safety Officer

MSgt Trenton Lackey,
Flight Safety
Noncommissioned Officer

Mr. Laurence Schafer,
USDA Wildlife Services
Airport Biologist

Mr. Robert Schoenberg,
Flight Safety Manager

62D AIRLIFT WING FLIGHT SAFETY TEAM

Joint Base Lewis-McChord, WA

The **62d Airlift Wing Flight Safety Team**, Joint Base Lewis-McChord, WA, led by Maj Daniel Klepper, earned the AMC Director of Safety as well as the Air Force Chief of Safety Special Achievement Award for 2020.

The team executed 103 investigations during the year, evaluating \$3.2 million in damage and reduced mishaps by 17 percent overall.

Their work in Bird/Wildlife Aircraft Strike Hazard (BASH) was vital to making the base Endangered Species Act (ESA)-compliant. The team directed an emergency BASH response and coordinated a Bird Watch Condition with the operations group to decrease the peak strike rate by 70 percent.

The team led a National Commission on Military Aviation Safety visit to the base. They advised 12 members and four distinguished visitors with 45 members in small group sessions during this visit. These sessions served to help the Commission make recommendations to Congress and the President on military flight safety policy.

Their work in directing the Air Force Combined Mishap Reduction Survey reached across the 62d Operations Group and involved coordinating with three squadrons to survey 340 aircrew members. This survey enabled a trend analysis across Air Mobility Command.

Not only did the team conduct inspections, they also educated hundreds of aircrew members in proactive Aviation Safety Programs. Their instruction extended to hundreds more aircrew members when they rapidly deployed the Chief of Staff of the Air Force's safety Special Interest Item in 9 days. This last effort involved executing 2,500 missions, with 22,000 flight hours globally.

The team did important work in developing Midair Collision Avoidance for Washington's busiest airspace. During the course of this program, they educated 500 pilots on civilian hot spots.

AMC DIRECTOR OF SAFETY AVIATION MAINTENANCE SAFETY AWARD



MSGT BRANDON BAIMBRIDGE

515th Air Mobility Operations Wing, JB Pearl Harbor-Hickam, HI

MSGT Brandon K. Baimbridge, Joint Base Pearl Harbor-Hickam, HI, has won the AMC Director of Safety as well as the Air Force Chief of Safety Aviation Maintenance Safety Award for 2020.

Among his accomplishments, Baimbridge was a first responder to an aircraft collision. He secured the scene, assisted the pilots from the cockpit, and diverted other aircraft. His actions saved \$2 million in WWII aircraft.

When COVID-19 struck, he helped lead the Indo-Pacific's first Transportation Isolation System movement for the disease. For his actions in leading a maintenance team, identifying and repairing an engine computer stall to airlift three patients, Baimbridge earned the Wing's Maintenance Professional of the Year recognition.

His ability to respond to danger was evident in his actions in coordinating a C-5 ground emergency spill response. He led an eight-member team in towing aircraft off an active taxiway and restored airfield operations in 45 minutes. Baimbridge was the first on the scene to a copilot with a head wound and provided aid and shock treatment while directing the emergency medical technician (EMT) response. For this, he was lauded by the 715th Air Mobility Operations Group Commander.

Baimbridge has prevented many mishaps. He detected an electrical fire in a historic facility, cut the electrical power, evacuated personnel, and directed the fire department responders. His actions saved 25 personnel and a \$48 million hangar.

Baimbridge's accomplishments extend to the classroom, where he aced a 40-hour FAA Inspection Authorization Renewal Course, a rare qualification for an Air Force member. He also formed a team and developed four Professional Development Seminars for 138 members.



SAFETY OFFICER OF THE YEAR



MAJ JOEL NOLAN

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

Maj Joel M. Nolan, Chief of Wing Flight Safety, Fairchild AFB, WA, was named AMC's Safety Officer of the Year for 2020.

Nolan led safety training for the redeployment of the AMC's largest exercise ever, which involved 4,000 joint personnel, 52 aircraft, and 26 nations. This training was vital to having zero mishaps during the exercise and garnering AMC's Installation Excellence Award. Nolan also directed Fairchild's flight safety program, including two wings with four major aircraft weapons systems. He ensured the safety of the world's largest tanker fleet, which includes 63 aircraft and \$4.2 billion in assets.

Nolan improved the safety of flying at Fairchild by bolstering the 92d Air Refueling Wing's Bird/Wildlife Aircraft Strike Hazard (BASH) program. He negotiated a 5-year, \$1.4 million contract with the United States Department of Agriculture (USDA) for three personnel and saved \$1.1 million by reducing aircraft strike damage by 79 percent. He also created Fairchild's BASH training program.

Thousands of Airmen have benefitted from his briefings on safety messages from the Air Force Chief of Staff, and many attended the three Mid-Air Collision Awareness events he managed. For those events, he coordinated FAA aviation safety briefs for 25 aircraft and 64 civilian personnel. The number of Hazardous Air Traffic Reports was thus reduced by 10 percent.

Nolan will leave a lasting impression through the wing's risk management Airman Safety Action Program he curated. He briefed Airmen on trend analysis and lessons learned during Commander calls and overhauled the safety response programs for six squadrons and 700 personnel.



FLIGHT SAFETY NCO OF THE YEAR



MSGT CHARLES CLARK

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

MSGT Charles J. Clark, Flight Safety Superintendent of the 92d Air Refueling Wing, Fairchild AFB, WA, has been named AMC's Flight Safety Noncommissioned Officer of the Year for 2020.

His nominator described him as an "unequaled" Flight Safety NCO whose superior leadership led to four years of safe operations with zero Class A or B mishaps. This led to the wing's third Air Force Outstanding Unit Award. Clark oversaw flight safety requirements for AMC's largest operations group.

Incorporating seven Department of State personnel, Clark created Fairchild's Bird/Wildlife Aircraft Strike Hazard (BASH) training program. This program increased weapons safety and awareness of wildlife hazards on the airfield. He also coordinated with the United States Department of Agriculture to improve the wing's BASH program.

Clark also averted disaster by training with local departments to halt a 240-acre fire or fence line breach. He evacuated 250 Survival Evasion Resistance Escape personnel with multi-agency support.

The year 2020 brought wildfires and COVID-19, and Clark responded to both. He administered the Wing Staff Agency Cyber Security Liaison account and coordinated the purchase of \$24,000 of communication equipment, ensuring zero impact for safety during the pandemic. He helped lead flawless evacuations from the California wildfires, leading a bed-down of 18 aircraft and 68 personnel from Travis AFB, CA. This resulted in safeguarding \$1.6 billion in Air Force assets.

Never one to rest on his laurels, Clark is working toward his master's degree in Aviation Safety and has maintained a 4.0 GPA and earned 18 credit hours. His knowledge has directly improved the flight safety program.



AMC DIRECTOR OF SAFETY WEAPONS SAFETY AWARD



Left to right: Mr. Justin Taylor, TSgt Sean Schaffer, Mr. Lance Fraiser, and Mr. Frank Endaya

WEAPONS SAFETY TEAM

628th Air Base Wing, Joint Base Charleston, SC

The **Weapons Safety Team**, Joint Base Charleston, SC, has received the AMC Director of Safety Weapons Safety Award for 2020.

The team served as Weapons Safety Managers for 67 mission partners. They protected 309 arms, ammunitions, and explosives sites and \$7.8 billion in Department of Defense assets and materials. Zero reportable explosives mishaps occurred on their watch.

Collaborating with the Air Force Civil Engineering Center, Naval Facilities Command, and Air Force Safety Center, the team worked on a 1950s-era Earth Covered Magazine and Lighting Protection System drawing review, resulting in an engineer-certified \$26 million design savings.

Their work has prevented the effects of dangerous circumstances. For instance, the team created a risk assessment for Harbor Security Vessel storage. The Wing Commander then approved Earth Covered Magazine storage to protect high-value assets from hurricanes.

Entrusted with two wharves and five piers, the team certified fire, water, and electric for cargo and arms, ammunitions, and explosives ships. This certification aided operations involving \$26.5 billion of global strategic assets.

No mishaps occurred while the team completed 17 arms, ammunitions, and explosives risk assessments for base units.

The team has applied their knowledge to paper, having written 61 explosive site plans, all approved by the Department of Defense Explosive Safety Board. The Joint Base Charleston Weapons/Explosives Safety training manual is now the gold standard in AMC.



RIDERCOACH OF THE YEAR



TSGT ADAM KIES

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

TSgt Adam D. Kies, Joint Base Lewis-McChord, WA, was named AMC RiderCoach of the Year for 2020 for his work in ensuring motorcycle safety.

Kies is Joint Base Lewis-McChord's sole instructor certifier. He booked eight refresher courses and certified two new instructors, solidifying the rate of zero private motor vehicle fatalities for FY2020.

Kies took his course out on the road on three rider development expeditions he coordinated. On the expeditions, he steered 254 personnel 1,300 miles with zero mishaps. The expeditions raised \$32,000 for five local charities.

By organizing five motorcycle safety checks, Kies bolstered rider safety. He completed 305 Tires, Controls, Lights, Oil, Chassis, and Stands inspections and corrected 112 discrepancies.

Kies is a guru in the Joint Base Lewis-McChord Motorcycle Unit Safety Tracking Tool program with his knowledge and experience. He drafted a new program for five motorcycle safety representatives and three squadrons. These programs established updated and reliable tracking and resulted in 317 riders being trained.

He makes it his mission to make motorcycle riding safe. Kies advocated a safety focus for maintenance group commander All Calls, advising 1,300 members on critical pre- and post-motorcycle trek inspections and principles.

Kies honored a fallen warrior by assembling and leading a 65-vehicle escort for them for three miles. This action ensured support and closure for the family of the hero.

As Green Knights Motorcycle Club vice president, Kies has led 12 events and educated 30 members while celebrating safety. For this, he was coined by the 62d Maintenance Group Superintendent.

DISTINGUISHED MOTORCYCLE SAFETY AWARD



TSgt Daniel Reuter, Motorcycle Safety Program Manager

92D AIR REFUELING WING

Fairchild Air Force Base, WA

Led by Col Cassius T. Bentley, the **92d Air Refueling Wing**, Fairchild AFB, WA, garnered the AMC Distinguished Motorcycle Safety award for 2020.

Their motorcycle safety efforts include organizing the annual motorcycle flightline event, for which they coordinated with five base agencies. They bolstered safety outreach for 43 riders and were thus coined by the 92d Operations Group Commander.

In executing four Tires, Controls, Lights, Oil, Chassis, and Stands group events, the wing inspected 40 motorcycles and corrected three deficiencies. These events were executed without mishap.

The wing developed a motorcycle program for a new squadron. They briefed two Motorcycle Safety Representatives on their duties, including using the Motorcycle Unit Safety Tracking Tool system. The program helped to align five motorcycle riders with Air Force training requirements.

To align with new Air Force Secretary guidance, the wing wrote a Basic Rider Course 2 waiver and trained 18 squadron commanders. Amid COVID-19 restrictions, they trained 51 personnel.

A significant accomplishment for the 92 ARW was managing the motorcycle safety program, for which they educated eight new Motorcycle Safety Representatives and tracked 167 riders. The program is on an eight-year streak with zero Class A or B mishaps.

The excellence shown by the wing in ensuring motorcycle safety is evident in their day-to-day work.



SAFETY SNCO OF THE YEAR



MSGT DOMINIC SALIERNO

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

MSGT Dominic Salierno is a Superintendent in Wing Flight Safety for the 60th Air Mobility Wing, Travis Air Force Base, CA. He championed safety at Air Mobility Command's (AMC's) largest wing. He advised two wing commanders, four group commanders, and 27 squadron commanders, earning AMC's Safety Senior Noncommissioned Officer of the Year award.

Salierno has conducted numerous inspections and investigations, which saved the Air Force time, personnel, materials/equipment, and money. For instance, Salierno investigated a \$60 million remotely piloted aircraft mishap. He coordinated 13 recovery units and secured sensitive intelligence, surveillance, and reconnaissance equipment. Besides his investigative efforts, he has also developed safety programs for Travis AFB, and his work has prevented many accidents.

Salierno has strengthened Air Forces Central Command safety culture. Not only did he work to ensure the safety of Air Force operations, Salierno also trained others on his knowledge to expand the number of people implementing safe practices in their work. He codified tactics, techniques, and procedures for six units at seven operations locations. He developed safety checklists, led seminars, and even wrote training guides over the past year. Salierno has been able to pass his experience and training onto others, including units in other countries, such as the Al-Assad Flight Safety Air Advisors.

Among the numerous examples of material he has written on safety in his career, Salierno authored a 470-page safety computer-based training book. He saved 1,000 man-hours per squadron for Advanced Distributed Learning Service readiness. Four wings and 11 squadrons later adopted his training plan.



SAFETY NCO OF THE YEAR



TSGT OMAR A. SALIH

726th Air Mobility Squadron, Spangdahlem Air Base, Germany

TSGT Omar A. Salih, 726th Air Mobility Squadron, Spangdahlem Air Base, Germany, is AMC's Safety Noncommissioned Officer of the Year.

Salih drove the safety program through his leadership of 16 programs with eight safety representatives. He focused on building a cohesive team by bolstering spirits in multiple ways. In instituting monthly newsletters for the squadron, Salih provided a platform for Airmen to voice their ideas, which reinvigorated an inclusive mindset and boosted morale.

In the course of duty, Salih orchestrated two critical one-time inspections, during which he evaluated all of the squadron's maintenance stands and high-line docks. He also organized 200 Occupational Safety and Health Administration training hours for squadron members, qualifying seven members in three major programs. He readied the Confined Space program and awarded 20 Continuing Education Units to Airmen.

His leadership at an airfield hazard reduction event involved training with eight host wing organizations on a bollard removal plan, eliminating \$36,000 in vehicle repair costs annually.

Salih was the 52d Fighter Wing commander's pick to help tackle the Air Force-wide problem of racial disparity, for which he prepared a survey to be administered across six bases. His open communication plan was praised by the Vice Chief of Staff of the Air Force.

Salih is a safety leader who implemented safeguards for 34 different Air Force Specialty Codes for 5,000 transient Airmen, garnering the 521st Air Mobility Operations Wing's Noncommissioned Officer of the First Quarter award.

SAFETY CIVILIAN PROFESSIONAL OF THE YEAR



MR. MICHAEL JEFFERY

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

Michael Jeffery is a Safety and Occupational Health Specialist for the 60th Air Mobility Wing at Travis Air Force Base (AFB), CA, and has been recognized as AMC's Safety Civilian Professional of the Year.

In his role, Jeffery has managed procurement safety by driving a five-agency Safety by Design program, revitalizing an \$8 billion aging infrastructure.

When the COVID-19 pandemic hit, Jeffery designed a vital inspection plan for 54 facilities among six squadrons. For this effort, his ideas were hailed by the Air Force Safety Center.

Jeffery mastered acquisition training, making Safety Office purchase power surge two-fold while managing a \$363,000 budget. His learning ability extended to safety management and engineering skills for two industries, for which he completed 78 hours of training.

Jeffery has also put his training to use for others; he trained 150 personnel and mentored three recruits for the Career Field Manager. He taught 39 Motorcycle Safety Representatives how to identify hazardous tactics, techniques, and procedures and developed a safety brief for 504 bikers.

His efforts saved the Air Force from losing valuable personnel and resources, including the elimination of two fatal hazards and preserving 323 buildings. He also developed hazard elimination tactics to eradicate five significant risks he identified in reviewing the fifth-generation aircraft designs.

Jeffery's work displays his commitment to excellence. He piloted a Safety Office assurance program, directing 16 inspectors to ensure 323 facilities were inspected.

Above all, Jeffery developed a proactive Safety Office culture. He managed two higher headquarters stratifications and validated 946 hours of Occupational Safety, Fire, and Health training, which factored into his Warrior of the Week recognition. There were zero fatalities and a 25 percent reduction in lost time mishaps. His work has produced results, and the people at Travis AFB are safer for it.

Motorcycle Safety from Head to Toe Make Sure Your Spring Ride is Enjoyable—and Safe

BY MS. ALLISON ELLIOT, STAFF WRITER



The last time I went out on a motorcycle, it was a beautiful spring day. A friend and I rode to a park with very little traffic there and back. It was perfect. For some, the feeling of riding is exhilarating and unparalleled to most experiences.

As the ice and snow melt and the temperatures start to climb, many Airmen may want to hit the pavement on two wheels for a spring ride like the one I had. The Air Force, knowing the risks, seeks to impart its extensive knowledge on motorcycle safety before that happens.

You have probably read the statistics and know the general danger associated with riding a motorcycle. You may not know that, in 2019, Air Force motorcycle fatalities decreased 69 percent to a record-low four fatalities for the fiscal year.

As Michael Eckert, Air Force Safety Center's Chief of Traffic Safety and Outreach Branch, recently told a reporter, "one loss is too many" when it comes to motorcycle fatalities. But with 22,000 riders in the Air Force in 2019, "four fatalities ... is phenomenal."

Did motorcycle riding become less dangerous? Not necessarily. The Air Force Safety Center's motorcycle safety program has proven to be effective in reducing motorcycle fatalities and lost time due to injuries. In 2019, lost time injuries fell from 224 to 131, another record low.

Not only that, Airmen have also increasingly applied the tips from

their motorcycle training during their rides. Did you know that, since 2013, the Air Force Safety Center has required training for beginning and intermediate riders and refresher courses for experts every 5 years? If you ride or aspire to ride, the first step before hitting the road is to make sure your training and certifications are up-to-date.

To do that, you will need the right equipment and bike. Air Force Safety Center motorcycle training experts can steer you in the right direction to selecting a bike that fits your body and your needs. If you already have a bike, make sure it is in good condition before taking it out.

A safe motorcycle rider wears long pants and a jacket with padding and gloves, the proper footgear, and a well-fitting helmet that allows good visibility. It is no time for vanity (looking at you for not wearing a helmet in *Top Gun*, Tom Cruise). Wearing this gear can prevent motorcycle injuries, from road rash to concussion, and even death, and is required for Air Force riders.

Before you set off, make sure you drink plenty of water and are well-rested, making you more alert to the road and other drivers. This alertness is vital, especially when riding a motorcycle. Plan your route on a day with good weather (no rain, heavy winds, flooding, etc.) and let someone know your plans.

If possible, ride with your buddy to increase your visibility on the

road and ensure you can get help if an emergency occurs. Maintain a safe speed and distance and avoid maneuvering around cars in traffic. It may be exciting to ride fast and attempt to weave in and out of traffic between the lanes, but those are risks that ultimately are not worth it.

This should go without saying, but if you ride to a bar or to a friend's place to drink, make sure you have a designated driver instead of getting behind the handlebars. Drinking and driving reduce your alertness and impairs your ability to react quickly.

Motorcycle safety is not just for those who ride. If you are an Airman who prefers to drive another type of vehicle, you should take precautions while sharing the road with motorcyclists. For instance, be aware of any motorcyclists on the road. Be a good wingman and give them a wide berth and a greater braking distance than you might with a car. The extra consideration allows a rider more time to react in case something goes wrong.

Admittedly, you can do everything right and still get into an accident on your motorcycle. Unavoidable accidents happen, and the Air Force understands that. Motorcycle safety is doing all that is in your power to avoid the avoidable because that is all you can do.

The next day that it is 65 degrees out, the sun is shining behind some clouds, and the roads are clear, I hope you take these safety tips and go on a ride for a couple of hours. Enjoy the riding season! 🇺🇸

A Bolt of Lightning Can Be Frightening

BY MS. KIM KNIGHT,
STAFF WRITER

It was a dark and stormy night back in 2012 when I set out for my first trip to Scott Air Force Base, IL, with a colleague. During our departure from the commercial airport in Wichita, KS, the captain came over the speaker system and announced that there was some weather ahead that we would be going around. There was some minor turbulence in the air at first, but the short one-hour flight to St. Louis, MO, quickly got bumpy.

My colleague was seated beside me, and as we talked about details for a meeting the next day, I suddenly saw a blinding blueish light through the windows I was facing and instantly knew that the aircraft had been struck by lightning. Being very familiar with weather threats, I well understand that a direct hit can equal death or destruction, and at that moment I thought my number was up and the plane was going down. My colleague later told me that I had a look of sheer terror on my face that she could clearly see in the cabin's neon light. Stunned, I waited for the worst, but the aircraft did not fall from the sky. It was almost as if nothing had happened.

When the captain announced that we were making an emergency landing in Kansas City, I was certainly ready to

get my feet back on the ground. Yes, I was shaken by the experience. On the ground, I called Mr. Joe Hughes, AMC Chief of Occupational Safety, who was tracking our flight. Talking a mile a minute, I told him what had just happened and remember being astonished when he informed me that planes are built to withstand a lightning strike. Of course, pilots attempt to avoid situations associated with lightning, but in such instances, a strike is not usually a catastrophic showstopper. Because I had never directly seen a bolt strike a plane, the thought had apparently never crossed my mind until that night. Knowing that aircraft could sustain the impact of a lightning bolt while defying gravity certainly escalated my appreciation level. To me, it seemed the concept could almost rival the hanging gardens in Babylon or the pyramids in Egypt as one of the great wonders of the world in architecture and engineering feats.

Although I was still reluctant about boarding another plane in Kansas City to make it to my final destination, I was more comfortable knowing my chances of miraculous survival were high if another strike were to occur.

Fortunately, I landed in the right place and had a meeting at the Air Mobility

Command (AMC) Safety Office the next morning with an experienced pilot who was well-versed in the technical details that made aircraft fit for the fight with high voltage. As then-Director of Safety Col Paul Murphy gave me a quick brief, I was instantly impressed by the power of safety features that are often taken for granted in aircraft design.

What actually happens when a plane is struck by lightning? An article in *Scientific American* states the following:

“Although passengers and crew may see a flash and hear a loud noise if lightning strikes their plane, nothing serious should happen because of the careful lightning protection engineered into the aircraft and its sensitive components. Initially, the lightning will attach to an extremity such as the nose or wingtip. The airplane then flies through the lightning flash, which reattaches itself to the fuselage at other locations while the airplane is in the electric “circuit” between the cloud regions of opposite polarity. The current will travel through the aircraft’s conductive exterior skin and structures and exit off some other extremity, such as the tail. Pilots occasionally report temporary flickering of lights or short-lived interference with instruments.”

“Today, airplanes receive a rigorous set of lightning certification tests to verify the safety of their designs.”

I saw Zeus' mighty thunderbolt by the wing in my not-so-near-death experience, which means it probably did attach at the wing and exit through the tail. But when breaking down the scenario, I found myself asking more questions, like how did the electricity not completely melt the wiring? After further investigation, I discovered it is because the Federal Aviation Administration has strict regulations regarding the protection of systems from power surges and the thorough grounding of wires that are critical for flight.

Our flying fortresses are often used as mobile fuel stations in AMC, so how do sparks not cause explosions in the enormous tanks filled with combustible fluid? *Scientific American*

also explained why: “The last confirmed commercial plane crash in the U.S. directly attributed to lightning occurred in 1967 when lightning caused a catastrophic fuel tank explosion. Since then, much has been learned about how lightning can affect airplanes. As a result, protection techniques have improved. Today, airplanes receive a rigorous set of lightning certification tests to verify the safety of their designs.”

A bolt of lightning can be very frightening while you are strapped into an aircraft's seat at 30,000 feet. Now, I believe it was an amazing, once-in-a-lifetime experience from which I learned so much. Although I hope it does not happen again, I think if it does, I'll be able just to sit back and enjoy the ride! 🛩️



Focus on the Road

BY MS. ALLISON ELLIOT, STAFF WRITER

As a new driver, all your attention is on the road, trying to be aware of any dangers. As you become comfortable with driving, however, you may get complacent and divide your attention by reaching for your phone. Unfortunately, doing this may cause you to drive worse than you did at 15 or 16! Distracted driving has caused many accidents and deaths, so keep your eyes on the road and save phone usage for later.

According to the National Highway Traffic Safety Administration (NHTSA),¹ distracted drivers in the United States killed 2,841 drivers, riders, and pedestrians in 2018.

Drivers may cause accidents by using any of the following on their smartphones:

- › Navigation (GPS)
- › Music
- › Texting/messaging

¹ <https://www.nhtsa.gov/risky-driving/distracted-driving>

- › Calls
- › Browsing/scrolling
- › Games
- › Taking pictures
- › Email
- › Working
- › Device management
- › Other apps

Google Maps, Waze, and other apps make it possible to use your smartphone as a GPS while driving. Unfortunately, notifications may pop up and distract you, even if they are helpful messages alerting you to a lower speed limit or a slowdown in traffic. It is important to disable these before you hit the road or have an alert passenger close them out quickly. These apps can malfunction, resulting in the need to reset the GPS. If you do not have a passenger who can do this for you, it is best to pull over and stop before resetting the GPS. Also, to use the GPS, your phone needs to

be on, which means messages and notifications from other apps can pop up on the screen, covering key navigational information. Disable these or rely on your passenger to take them down.

Apps like Spotify enable you to play music from your phone while driving, but what if a song comes on that you do not like? The best thing to do is to grin and bear it, have a passenger DJ for you, or pull over and change the music. It may take only one button to change a song, but it could take several seconds, and those are precious moments to have your eyes off the road.

Texting or messaging is the prime reason drivers tend to divert their attention. NHTSA explains that at 55 mph, you will have driven the length of a football field in the 5 seconds it takes to read or answer a text. While texting, drivers may hug one side of the lane, drive at an inconsistent speed, blow through lights, or drift into another lane. This distraction may result in hitting other cars or objects, driving into a ditch, or hitting

Although it may be less dangerous to engage in these activities while stopped at a red light, your attention is still required. The light may change from red to green, and you may only be alerted by angry horn honks behind you. If emergency vehicles need to come through the intersection, you may not hear a siren until it is right behind you due to today's quieter cars.

pedestrians or a child running into the street. The heartbreaking documentary "From One Second to the Next," directed by Werner Herzog, looks at the impact that texting while driving can have on other people, as well as the driver involved.

Since cell phones became popular, drivers talking on cell phones have been a problem. Although talking on the phone usually does not require your sight—other than while dialing—it requires your ears and attention, and driving requires both of these. Humans are not great multitaskers, no matter how much you think you can juggle. Our brains need to focus on one thing at a time in order to perform well. Automated calls may require you to press numbers for different options during the call, which is worse than just talking on the phone. It is best to pull over to take the call or wait until you have reached your destination.

After several years, driving may become second nature and may even seem boring. Our relationship with smartphones has become second nature for many of us. At home, if you are bored, you may pick up your cell phone and browse through social

media or news sites. Drivers tend to do this as well, thinking they can handle both the road and scrolling simultaneously. Rather than rely on your cell phone to ease your boredom, it is better to turn on the radio or listen to an audiobook.

As a society, we use smartphones to order food, look up coupons, take pictures and videos, or use voice-to-text to jot down a reminder. You may want to start your Roomba to clean your house, check the door locks, set the temperature with Nest, and use other smart devices to manage your home. Whatever it is, it can wait.

Work and email tend to go hand-in-hand for many of us. Except for those working on an "on-call" basis (and even then, it is best to pull over to take the call), working while driving is ill-advised. Our bosses may pressure us into attending a meeting from the road using a video app or answering an email, but no one will think you are unreasonable if you wait until you are off the road before using your phone. No good job will make you gamble with your life or others by asking you to work while driving. Be aware of the internal pressure you may put on

yourself. This pressure is insidious and can lead to dangerous behavior. No matter what, it is best to refrain from working or emailing while driving.

Although it may be less dangerous to engage in these activities while stopped at a red light, your attention is still required. The light may change from red to green, and you may only be alerted by angry horn honks behind you. If emergency vehicles need to come through the intersection, you may not hear a siren until it is right behind you due to today's quieter cars. If you had been paying attention, perhaps you would have seen the lights or noticed other vehicles moving out of the way. While scrolling on your phone, you may accidentally lift your foot from the brake and hit the car in front of you, or worse, roll into traffic. It is best to pay attention while driving and save phone usage for later.

You may not be aware that you and others are using your phone in these ways. The first step is to be informed of the problem, educate yourself on the consequences, and act accordingly. Other people on the road will thank you for it. 🚗

Staying on Target at a Gun Range

BY MS. ALLISON ELLIOT,
STAFF WRITER

The first time I went to a shooting range I was excited and scared, but I was also prepared, thankfully. My cousin, a military veteran, had instructed me—at length—on the basics of shooting a gun, including the safety protocol. I soon learned that these basics are not something everyone understands before going to a shooting range for the first time. This lack of teaching can lead to gun-related accidents, injuries, and deaths.

To combat the rise of gun-related incidents, the Air Force has developed firearm safety principles that should stay on everyone's mind when they enter a shooting range.

According to an article on the Minot Air Force Base, ND, website,¹ there are four basic rules for shooting a gun safely.

1. Treat every gun as if it is loaded.
2. Be sure of your target and what is beyond it.
3. Never point at anything you do not intend to shoot.
4. Keep your finger off the trigger until the gun is lined up on a target.

Guns should be respected for the damage they can do. That is why it is essential to err on the safe side and treat them as if they are loaded. As you may know, a bullet can still be in the chamber even if you take the rest of the ammunition out of the firearm.

At a shooting range, the second rule should be simple. A professional range

will have targets set up for use and ensure that a bullet cannot penetrate the wall behind it. This is less simple when you are hunting or shooting outside at an outdoor range. Make sure other shooters in the area are not about to walk in front of where you are for whatever reason and that you have plenty of space to get into a shooting stance without being disturbed.

Remember when I said I soon learned that other people did not have the basics of gun safety taught to them? My first time at a shooting range, there was another shooter there who was a beginner. During my time there, he held his gun to the side and showed it to a friend while talking. Meanwhile, that gun was pointed at the other people down the line from him. My cousin rushed over and redirected the weapon to the floor. The rule is to never point a gun at anything you do not intend to shoot. Not only was he a beginner who may not have had this rule drilled into him, but he simply was not thinking about what he was doing. It was a bad combination that could have led to an accident.

Most guns have a safety feature that locks the trigger mechanism so that it is unable to fire. Specific handguns may not have a traditional safety but, instead, have a trigger safety that is depressed when you put your finger on the trigger. For a beginner, however, a safety mechanism looks like any other part of the gun. For this reason, it is best not only to treat every firearm as if it were loaded but also to keep your finger off the trigger until you are lined up on a target. Absolutely do not carry the gun with your finger on the trigger, even if you think the safety is on. Keep your finger

straight along the gun and grip it with your other fingers.

Owning a gun comes with a set of responsibilities for not only the owner but also other people who live with the owner. You will often read a headline about a toddler who found a gun and the terrible things that happened afterward. It is something you may not have thought about when you bought the gun but keep it in mind as your household grows, whether that's marriage, having kids, or having grandchildren.

Recently, the Air Force started a campaign to give out 150,000 cable locks to firearm owners to prevent these sorts of tragedies from happening.² These cable locks are an excellent measure to prevent inexperienced people in your household from experimenting with a gun. It is also essential to keep the firearm locked in a gun safe for this same reason.

Guns require clear-headed judgment, focus, and training. For this reason, it is never a good idea to mix intoxicants like alcohol with handling a weapon. It may seem like a fun idea to break out the beer and shoot in the backyard with your friends, but respecting a gun means not lowering your inhibitions while handling it.

If you seek the thrill of shooting a gun, go to a shooting range and try it out. It is an exciting feeling. Make sure, however, to respect the basics of gun safety and keep them in mind when you go. 

¹ <https://www.minot.af.mil/News/Article-Display/Article/1011143/weapon-safety-knowing-your-responsibilities/#:~:text=There%20are%20four%20basic%20rules,and%20what%20is%20beyond%20it>

² <https://www.af.mil/News/Article-Display/Article/2162766/air-force-promotes-home-safety-offers-free-firearm-cable-locks/>



MISHAP-FREE FLYING HOUR MILESTONES

10,000 HOURS

70 ARS, Travis AFB, CA

MSgt Arthur Baxter
TSgt David Chan

8,500 HOURS

70 ARS, Travis AFB, CA

MSgt Eric Warwick

143 AW, Quonset SAP, RI

SMSgt Chad Gurnon

7,500 HOURS

931 ARW, McConnell AFB, KS

Lt Col Brant C. Abraham
Lt Col Joseph C. Oline

143 AW, Quonset SAP, RI

CMSgt Sean Ballard
SMSgt Kyle Gurnon

6,500 HOURS

70 ARS, Travis AFB, CA

CMSgt Donald Davis
SMSgt Charles Russel

931 ARW, McConnell AFB, KS

Capt Gregory A. Brashier
CMSgt John R. Wallman
SMSgt Christopher E. Norris
MSgt James C. Yokom

155 ARW, Lincoln, NE

Lt Col Randal Douglas

167 AW, Martinsburg, WV

SMSgt Ryan Boehm

5,000 HOURS

32 ARS, JB McGuire- Dix-Lakehurst, NJ

SMSgt Rick L. Dorsey
TSgt Jeremy A. Becnel
TSgt Tevni E. Carrillo

50 ARS, MacDill AFB, FL

Maj James L. Long
TSgt Logan T. Berry

70 ARS, Travis AFB, CA

Lt Col Michael Creedon
Lt Col Brian Johnson
Maj David Stomberg
SMSgt Michael Hinton
SMSgt Brian Sargent
MSgt Seth Bunker
MSgt Corbet Cadwell

931 ARW, McConnell AFB, KS

Lt Col Glenn T. Clark
Lt Col Michael Schlotterback
Lt Col Mark W. Wilkinson
Maj Luther E. Douglas
CMSgt John B. Austin
MSgt Warren E. Bearup
TSgt Daniel B. McCrillis

143 AW, Quonset SAP, RI

SMSgt Richard Lafrance

155 ARW, Lincoln, NE

Col Christopher Hesse
MSgt Bradley Musick

161 ARW, Goldwater ANGB, AZ

Col Patrick Donaldson
Col Tyler Griffith
SMSgt Hilario Sanchez
MSgt Rene Gonzalez
MSgt Vincent Jones

167 AW, Martinsburg, WV

Lt Col Landon Chang

171 ARW, Coraopolis, PA

Lt Col John McCullough

3,500 HOURS

32 ARS, JB McGuire- Dix-Lakehurst, NJ

Gen Maryanne Miller
Lt Col Mark A. Melin

Lt Col Jonathan C. Odell

Lt Col Aaron R. Sanders

MSgt Bryan S. Hunt

MSgt Garrett K. Machon

MSgt Kenneth D. Pryor

MSgt Jessica L. Stockwell

MSgt Justin L. Taydus

MSgt Chad A. Vickers

TSgt Joshua R. Christman

TSgt Trevor A. Jennings

TSgt Steven M. Porter

TSgt Austin J. Powell

TSgt Kevin J. Stasiulis

TSgt James M. Williams

50 ARS, MacDill AFB, FL

Lt Col Keegan K. Maple
Maj Nicholas J. Mortimer

70 ARS, Travis AFB, CA

Lt Col James Burke
Lt Col Judson Darrow
Lt Col Kenneth Dendulk
Lt Col Bendick Hoeg
Lt Col Ryan Lowe
Lt Col Kristopher Uber
Maj Joseph Caruso
Maj Joseph Davi
Maj Amanda Messinger
MSgt Rexall Hawkins

931 ARW, McConnell AFB, KS

Col Eric A. Vitosh
Lt Col Gregory B. Auerbach
Lt Col Thomas A. Fitzwater
Lt Col Jonathan Flores
Lt Col Suzanne E. Jones
Lt Col Kenneth H. Langert
Lt Col Terence A. McGee
Lt Col Stacy G. Moore
Lt Col Scot J. Stewart
Lt Col Daniel S. Walker
Maj Norman C. Crosby
Maj Brian P. Doom
Maj Charles J. Hein
Maj Jason T. Helmick

Maj Adam D. Johnson

Maj James R. Magill

Maj Timothy P. McBride

Maj Daniel K. Mecham

Maj Christopher P. Moran

Maj Michael L. Riley

Maj Eric J. Rivero

Maj Benjamin D. Sherman

Maj Jared R. Thomas

Maj Zachary O. Thompson

Maj William A. Watson

Capt Colby C. Kloepper

CMSgt Darren L. Demel

SMSgt Michael S. Stahl

SMSgt Travis W. Swinson

MSgt John W. McIlvoy

MSgt Aaron M. Meadows

MSgt Waino J. Yrjanainen

TSgt Clay E. Dotson

143 AW, Quonset SAP, RI

Lt Col Collin Dunn
Lt Col Michael Fanning
Lt Col Keith Napolitano
Lt Col Jeffrey Noble
Lt Col Spencer Romph
Maj David Buckley
Maj Tod Storie
SMSgt George Capron

155 ARW, Lincoln, NE

Maj Scott Grams
Maj Shea Mumma
TSgt Michael Lynn

161 ARW, Goldwater ANGB, AZ

Col Hoyt Slocum
Col Edward Triebel
Lt Col Dustin Benker
Lt Col Matthew King
Lt Col Jeremy Lopes
Lt Col Jonathan Maas
Lt Col McKay Morgan
Lt Col Ruben Olivas
Lt Col Dean Owen
Lt Col Adam Travis

MISHAP-FREE FLYING HOUR MILESTONES

Lt Col Erik Wichmann
Maj Jordan Birt
Maj Adam De Felice
Maj Mikael Dubois
Maj Charles Hoover
Maj Eugene Lenzi
Maj Johnathon Norman
CMSgt Jeffrey Madorski
MSgt Tony Graziani
MSgt Jason Snodgrass

167 AW, Martinsburg, WV

MSgt Brian Woodiel

171 ARW, Coraopolis, PA

Lt Col Peter G. Chand
Lt Col Kelly S. Ramsey
Lt Col Lyndon J. Ramsey
Maj Thomas J. Mahosky

2,500 HOURS

32 ARS, JB McGuire-Dix-Lakehurst, NJ

Lt Col Robert E. Bittner
Lt Col Damon G. Field
Lt Col Paul B. Murphy
Lt Col Rebecca A. Murphy
Lt Col Derek R. Rankin
Lt Col Philipp E. Risseeuw
Maj Stephen R. Borodin
Maj Donald A. Clemson
Maj Thomas C. Decutiis
Maj Christopher M. Deliman

Maj Sean P. Domincovitch
Maj Travis C. Harvey
Maj Ryan W. Lowenstein
Maj Michael A. Renolayan
Maj Andrew J. Richter
Maj Joshua B. Schiffer
Maj Steven D. Zumwalde
Capt Angel A. Ayure-Lopez
Capt Daniel C. Brown
CMSgt Donald J. Reynolds
MSgt Tony L. Gunn
MSgt Giancarlo E. Hoyte
MSgt David C. Thompson
TSgt Alexander M. Doe
TSgt Philip J. Gordon
TSgt Melissa D. Kirkbride
TSgt Brian J. Lees
TSgt Jonathan G. Lynch
TSgt Alexander N. Meeds
TSgt Larry S. Robinson
TSgt Jason R. Vance
SSgt Uriel Escamilla

50 ARS, MacDill AFB, FL

Lt Col Daniel G. Bloom
Lt Col Menola M. Guthrie
Maj Edwin Ventura

931 ARW, McConnell AFB, KS

Col Bruce P. Heseltine, Jr.
Lt Col Kenneth H. Langert
Maj Damian C. Baskerville
Maj Brian E. Cole

Maj Brian A. Correll
Maj Jordan R. Kemp
Maj Christopher D. Markley
Maj Charley L. McNelley
Maj Jonathan R. Murphy
Maj Michael R. Murphy
Maj Austin M. Noble
Maj Jason T. Osgood
Maj Ryan J. Peterson
Maj Bradford J. Ragan
Maj Leo C. Romero
Maj Phillip E. Stewart
Capt Jeremy D. Mosier
Capt Bryce J. Sager
1Lt Sierra M. Dopfel
MSgt Aaron J. McLaughlin
MSgt Brian K. Olson
TSgt Sarajo Danis

143 AW, Quonset SAP, RI

Lt Col Michael Collins
Lt Col Patrick Desmond
Lt Col Robert Gearhart
Lt Col Jeremie Huot
Maj Brendan Duffy
Maj Ian Friel
Maj Stephen Major
Maj Christopher Valliere
Maj Christopher Williams
SMSgt Thomas Geanuracos
MSgt Joseph Costello
MSgt Marisa Fablanski

155 ARW, Lincoln, NE

Capt Travis Carlson
TSgt Everett Bottass

161 ARW, Goldwater ANGB, AZ

Lt Col Travis Grantham
Lt Col Jessica Hastings
Lt Col Michael Jeffers
Lt Col Carlos Martinez
Maj Bartholomew Ingallina
Maj Adam Mcauley
Maj Nathan Preston
Maj Michael Roberts
Maj Jeremy Schuld
Maj Cody Walstrom
Capt Britton Bates
Capt Cody Dean
Capt William Johnson
2Lt Johnny Estrada
SMSgt Johnathon Weiss
TSgt Daniel Cole

167 AW, Martinsburg, WV

Maj Kyle Wagner

171 ARW, Coraopolis, PA

Lt Col David A. Cosnek
Lt Col Jason M. Figley
Maj Abraham N. Freedman
Maj Brandon M. Kelly
Maj Brian R. Moody
Maj Brandon M. Murphy



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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

AMC Flight Safety Line Operation Safety Audit (LOSA) Program Update

BY MS. JEANIE HOOD,
HQ AMC FLIGHT SAFETY

As most of the flying community is aware, the Line Operation Safety Audit (LOSA) is a proactive safety observation program used to collect safety-related data during normal operations by identifying the threats personnel face, the standard errors made, and practices employed by them to trap, mitigate, and manage those threats and errors. Air Mobility Command (AMC) has been conducting LOSAs since 2010 and has completed more than 2,500 observations, which have produced hundreds of actionable recommendations. These recommendations help mitigate identified risks, prevent potential mishaps, and drive procedural and technical data rewrites or changes and system upgrades.

Spring 2021 will be a busy season for the AMC LOSA program at Scott Air Force Base (AFB), IL. The Flight and Occupational Safety divisions will be conducting the first LOSA for the aircraft maintenance community, observing C-17 crew chief/flight-line operations. The LOSA observations will be conducted at five C-17 bases nationwide: Travis AFB, CA; Joint Base McGuire-Dix-Lakehurst, NJ; Joint Base Charleston, SC; Joint Base Lewis-McChord, WA; and Dover AFB, DE. For each new LOSA, a Threat and Error Matrix (TEM) must be developed. This TEM contains the criteria the observers will use when conducting the audit. Creating the TEM required

expert guidance from C-17 Crew Chief professionals. In Oct. 2020, a dozen Crew Chiefs from various C-17 bases gathered at Scott AFB and spent three days developing and validating the TEM.

Please remember, LOSA is just a snapshot in time—a cholesterol test of the observed community. Identifying threats to aircrews and ground personnel and mitigating those risks make normal operations safer. If you happen to be the individual or the crew who has an observer on the flight line or in the cockpit—relax! It is not an inspection or an individual evaluation. The observer is there only to observe, so perform your duties like you would any other day. Stay safe out there! 



SSgt James Crance, 437th Aircraft Maintenance Squadron Crew Chief, prepares a C-17 Globemaster III for launch June 14, 2018, at Joint Base Charleston, SC.

USAF Photo

A DAY IN THE LIFE



1 Lt Charles Stalzer, Maj Christopher Giuttari, and SSgt Cole Foster

Havoc 77, Dyess AFB, TX, of the 40th Airlift Squadron, won the Air Force Chief of Safety Aircrew of Distinction Award. The aircrew, led by Maj Christopher J. Giuttari, experienced several technical difficulties with their C-130J during a flight on February 10, 2020. Their quick thinking, caution, and competency led to a successful flight despite the obstacles.

USAF photo