I remember years back driving with my 16-year old son (now empowered with a Driver’s License) as he asserted that “old people drive slow.” The gentleman he happened to be referring to was just driving the speed limit as others passed him by – So it offered an opportunity for a teaching moment. “Son, maybe it isn’t so much that old people drive slow – Maybe it’s more reflective that people who drive the speed limit, people who drive defensively, often get to grow old.”

Along with driving and life in general, I learned early on that Aviation is inherently an unforgiving business for those who selectively choose the rules they’ll follow, selectively choose the aircraft or equipment systems they’ll use or for those who have an undisciplined approach to risk-to-reward situations. So, to ensure we’ll live to fly or drive another day – a few lessons to pass from an old aviator in the slow lane:

1. Your professional attitude will determine your aircraft’s attitude. No modern threat system has killed more USAF aviators than Spatial Disorientation – None. “To that end, Systems Management” as part of your Cockpit Resource Management greatly helps with risk management. Therefore, Backup and Standby Displays (HUD/Attitude/Compass/Altimeter) are part of the scan before I takeoff, at every systems check and every descent check. Low Attitude warning systems, “moving maps” and GPS cues for position awareness are crosschecked with navigational aids that safely bring us home. Applied to vehicle systems management and the risks of driving: Put down your phone, look at the road and assume that most folks on the road are actively texting.

2. Metal, Gas & Rocks. I think this phrase has gone out of vogue, but it’s still relevant. “Metal, Gas & Rocks” is simply a reminder that on this day, on this flight, to not bang your jet into any other jet, weapon, etc. (Disciplined Deconfliction), don’t run out of gas and don’t hit the ground or anything attached to the ground. I’ve had days where I thought I was executing great deconfliction only to be faced with an RPA in my HUD or HARMs flying through my formation. I’ve had days where I thought the deconfliction warning signs were there (comm, data link, etc.) and I just missed them. Applied to vehicle operations: don’t drive any closer to another vehicle than required. Give yourself time to react and always have an “out.”

3. Bernoulli versus Newton. In the late 90’s, I was fortunate to serve on an exchange tour with the Royal Australian Air Force with really capable aviators and aircraft. The F/A-18 can get slow and fight slow as well as any modern fighter. But, just because you “can” doesn’t mean you “should.” I watched in shock one day as two Hornets literally fell past each other – missing a collision by feet. The debrief for these events revealed that the deconfliction warning signs were there (comm, data link, etc.) and I just missed them. Applied to vehicle operations: don’t drive any closer to another vehicle than required. Give yourself time to react and always have an “out.”

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Researchers from Headquarters Air Combat Command’s science and technology department are exploring new and innovative ways to keep Airmen safe while working on the flightline.

A recent study conducted with the 1st Fighter Wing at Joint Base Langley-Eustis may provide new opportunities to keep Airmen cool as U.S. Air Force F-22 maintainers continue to endure extreme weather conditions to support America’s air superiority around the globe.

“Our science and technology team at Headquarters ACC heard about the challenging operating conditions that our low-observable (LO) maintenance Airmen have to work under,” said Dr. John Matyjas, HQ ACC chief scientist. “It’s hot, strenuous, and requires particular focus on the task at hand.”

THE COOL SUIT

BY Senior Airman Anthony Nin Leclerec
The LO coatings constitute a considerable amount of the maintenance process and it’s crucial the 1st Maintenance Group Airmen get the job done. Getting it done right is critical to maintaining the combat readiness of the fifth generation fleet.

According to 1st Lt. William Gibbs, F-22 fighter training unit assistant officer in charge, 1st FW leadership is constantly looking for ways to make the working conditions and environment better for the Airmen; after a tour of the 1st Fighter Wing, Dr. Matyjas had some ideas.

“We listened and began looking for innovative portable cooling solutions to meet the demand,” Dr. Matyjas said. “During our search, RINI Technologies graciously agreed to let our maintainers have a two-month ‘user experience’ with their cooling system.”

The patented personal cooling technology employs a custom-designed and uniquely developed set of sub-components including compressors, condenser, evaporator and water pump in one small package. The lightweight backpack-like package connects to a vest that acts like a car’s radiator.

“Our Airmen are excited about wearing them in harsh conditions while wearing Tyvek coveralls,” Gibbs said. “It’s not a glamorous job, so we’re excited about something that makes it a little bit easier.”

During the summer months, Virginia gets very hot and humid, and the coveralls do not breathe at all.

“After wearing them for just 5-10 minutes, you take them off and you’re sweating,” Gibbs said. “It’s very similar to the chemical gear in MOPP 4. Think about how miserable you are during those phase two exercises. Our guys do it every single day.”

According to Joseph Kendall, Deputy to the ACC Chief Scientist, Dr. Matyjas spends a significant amount of his time listening to Airmen to understand their challenges – the empathy phase of design thinking. “Design thinking” is a phased-process where the technologist, the operator, the acquirer, and sustainment all come together to build a shared mental model of the true nature of the problem presented to the team to arrive at the most promising systems-oriented solutions. Through this process, the operator not only gets the capability they need, but the acquirer better understands the trade-offs that are most important between affordability and utility.

“If this is something that we can roll out on a large scale for the workforce and make their working environment a little bit more tolerable, which will translate into them being more in tune with what they’re doing work-wise,” Gibbs said. “Without having to struggle with being hot, tired and sweaty, I think [the Airmen] will produce even better quality of maintenance.”

The feedback from the Airmen has already been positive regarding the cooling suits. Any concerns there were with bulkiness or balance issues were greatly outweighed by the assessments of greater comfort and ability to perform work for longer periods of time with increased focus. The Airmen also had an opportunity to provide innovative feedback to further enhance the next design.
432nd AMXS Airmen ready to respond, ensured Marine safety

BY AIRMAN 1ST CLASS WILLIAM RIO ROSADO

Towing a camper is difficult, towing a bus - even more; thus, towing a United States Marine Corps UH-1Y Venom with a rotor span longer than a bus requires skill and precision. In a land overseas, after several long days and nights at the end of the largest Indo-Pacific Airshow, towing a helicopter became a potentially dangerous situation for one Marine.

It was the last night of the Singapore Airshow, more than 200,000 international visitors had come and gone, and two Airmen from the 432nd Aircraft Maintenance Squadron were towing a static MQ-9 Reaper back to their designated hangar behind the group of Marines as everyone packed up to head home. Suddenly, a Marine's leg was caught by a service wheel, and began dragging along the flightline next to the Venom, which weighs roughly the same as a 54 passenger school bus or five tons.

As Airmen witnessed other Marines rush to raise the service wheel with a jack to free their brother in arms, they quickly hurried to assist in their aid.
“The jack just gave out, and the back of the skid fell on the Marine’s leg,” said Staff Sgt. Anthony, Tiger Aircraft Maintenance Unit crew chief with the 432nd AMXS. “And he just started screaming.”

Anthony and Staff Sgt. Hunter, Reaper AMU crew chief with 432nd AMXS, sprang into action, lifting the helicopter by its tail so the Marine could be removed from under the skid.

Once the Marine was safely removed from underneath the helicopter, both Airmen provided self-aid buddy care and treated him for shock, lifting his leg up and calming him down while waiting for the ambulance. The Marine was then transported safely to a hospital, where he was treated for his injury and returned for work the next day.

“It makes a lot of the danger for the jobs we do more real,” Hunter said. “Everybody is told that the warnings are written in red because somebody bled for that, or something went wrong before.”

“The commonality of what happened in Singapore and ground safety mishaps across the maintenance career field are that they happen fast, and without warning,” Cameron said. “A lot of this brings an organizational mindset back into focus. Airmen should understand these things happen, and when they do, we all have to react and respond as quickly as possible.”

Thanks to the quick actions taken by Hunter and Anthony, the health and safety of a brother in arms was assured, and the 432nd Wing Safety office recognized their actions by submitting them for the Wing’s Crew Chief Award of the Quarter, awarded by Wing leadership.

“SSgt. Hunter and SSgt. Anthony exemplified this and the strong safety culture in the 432nd AMXS. The outstanding quick reaction mitigated the situation from getting worse, and saved the injured Marine.”

According to Rich, Hunter and Anthony’s actions were also highlighted as appropriate responses in the 432nd Wing Safety’s “What would you do?” campaign to critically think about responses to emergency situations.

“The Air Force Safety Mission is to safeguard Airmen, protect resources and preserve combat capabilities” said Lt. Col. Rich, 432nd Wing chief of safety.

“The work and time being put into the maintenance each MQ-9 keeps 432nd WG/432nd AEW assets in the air, and members of the Total Force team safe.”

“The Combat Edge” is the official quarterly publication of the Air Combat Command (ACC) Safety Office. The column is written by Lt. Col. Joseph B. Rich, ACC safety director. The weekly out-of-the-box “What would you do?” column is written by Master Sgt. Michael J. Tipton, ACC safety public affairs lead, as an encouragement to Airmen to critically think about responses to emergency situations.
Don’t Let Working From Home Be A PAIN IN THE NECK

BY ROBERT GOETZ

“There’s no place like home.” Even his own home office is less than ideal, Wheeler admitted. “I am using a home office with a desk and office chair, but it is set for my wife’s height, so the desk appears way too tall for me, which is causing headaches and low back pain if I don’t adjust a few things,” he said. “I do this for a living and still catch myself in compromising positions from what I recommend to patients.” Wheeler’s template for an ideal home setup is something as close to a good office setup as possible. “The problem is that any office furniture, whether it’s at home or on base, is usually made as a one-size-fits-all design, and while most are adjustable, it just doesn’t fit certain body types and heights,” he said. “The ideal setup actually should be set for the individual so their body is supported to avoid poor posture for prolonged times.” Wheeler recommends people raise their armrest so their shoulders feel slightly shrugged up to the ceiling in a relaxed position, sit with their hips slightly above their knees, and avoid a forward head position. “An ideal chair would generally be as adjustable as possible, with a locking back, adjustable armrests in all directions, not just up and down, and adjustable height,” he said. “I also recommend that some people place a phone book or small stool at their feet so they can alter their foot position while they are sitting.” In addition to using ergonomically sound furniture, desk workers can keep physical problems at bay by engaging in posture exercises throughout the workday. Wheeler said. These include exercises such as back extensions, chin tucks and shoulder shrugs – all recommended in a handout produced for last year’s 59th Medical Wing Health Rally at Joint Base San Antonio-Randolph. Taking breaks is one of the most important things you can do, whether at home or the office. “Breaks don’t have to be a complete stoppage of work; they can be having a standing desk and switching positions two to three times an hour, and they can also be five repetitions of a simple exercise that can be done hourly,” he said. “I try to set a timer on my phone for 15 minutes after my last patient of the morning and afternoon, when I am stuck on my computer typing notes. Otherwise, I end up in poor posture with headaches and shoulder pain.” Exercises and taking breaks help office workers avoid prolonged positions, which are not ideal for the body, Wheeler said. Sitting is one of the worst prolonged positions for many reasons,” he said. “In sitting, a lot of underlying issues that aren’t painful when standing or working out can become problematic and spread to other aspects of life. The hips are usually flexed close to end range, which compresses a lot of structures, and the shoulders round forward when we slouch, which causes the head to protrude forward. Add a computer monitor and office chair with a soft back to the mix and all of this tends to be made much worse.” One of the problems with prolonged sitting is that one’s posture gets worse over time due to weakness and flexibility issues, Wheeler said. “I tell my patients that if they want to see perfect sitting posture, then they should go by pediatrics to see 3-year-olds who haven’t been in a classroom yet,” he said. Although teleworking can take a greater toll on the body due to inadequate home office conditions, Wheeler sees one benefit. “If anything, people with a chronic issue now have time to finish up their work and then book some appointments to take care of things,” he said. “One positive from all of this is that I am seeing service members actually taking time to take care of themselves now, instead of waiting until just before a fitness test is due or they retire.”
A normal day for aircraft maintainers consists of words like “excellence in all we do” and the weight of the lives that rest in their hands every day. Literally, maintainers ensure that multiple lives are safe each time the job is done correctly.

Recently, during a routine pre-flight check on an F-15E Strike Eagle at Seymour Johnson Air Force Base, maintainers identified a malfunctioning ejection sequencer selector. They immediately called for “red ball” maintenance, which is a term used to describe priority maintenance required within 2-hours of aircraft launch. A team of egress technicians from the 4th Component Maintenance Squadron sprang into action, including SrA Marshall Harvey. “Those words came across the radio and immediately we all knew what to do from our training. I rushed out there and got into position along with others from my unit.”

The egress team quickly identified a failed alignment screw, which did not allow the ejection selector handle to function properly. If not identified, this failure could have compromised aircrew safety in the event of an ejection by not allowing initiation of the proper ejection sequence actions. In a two-place aircraft such as the F-15E proper ejection sequencing is of paramount importance. The precise communication between the aircrew and maintainers allowed mission success and as a result the 4th CMS, Egress Section, has been awarded the Air Combat Command Safety Award for the third quarter.

It’s safe to say that no matter what comes, on any day at any time, aircraft maintainers are prepared to handle just about any situation that presents itself.
It started out as a normal low altitude surface attack mission for Cadet 33. Major Nall, an F-15E Strike Eagle instructor pilot, was flying with Lt. Dorfman, an F-15 student Weapon Systems Officer (WSO). Approximately 20 minutes into the sortie, Cadet 33 experienced their first hydraulic system malfunction. Nall coordinated to split the 4-ship formation leading his student pilot wingman back to base and dumping fuel to prepare for landing. While dumping fuel, Nall was alerted by Cadet 34 that one of the landing gear doors was open, giving Cadet 33 the first indication that there might be something more to their hydraulic malfunction. At about the same time, Nall also recognized a fuel malfunction allowing him to dump fuel at only half the normal rate. After another couple of minutes, Cadet 33 lost the second of six hydraulic systems on the aircraft, but due to the fuel dumping issue, the aircraft was still at a fuel weight heavier than desired for landing.

Weather at the base of intended landing was quickly deteriorating and down to 1,000 foot ceilings. Armed with this knowledge and the speculation that the aircraft may still be leaking hydraulic fluid, Nall elected to begin the approach to land. As Cadet 33 touched down on the runway, the aircraft experienced a third hydraulic system failure. This third system provided hydraulic pressure to the brakes. Having landed heavy weight and now not having brakes, Nall made the immediate decision to execute a go around. As soon as Nall was airborne, the aircraft made an aggressive roll to the left merely feet above the ground. Instinctively, Nall was able to regain control of the aircraft with right aileron and rudder.

Once airborne and under control, Nall realized that the compounding loss of half the aircraft’s hydraulic systems now meant that there were no usable hydraulic control surfaces on the left wing of the aircraft, no normal braking and no ability to raise the landing gear. Nall immediately raised the flaps to eliminate the split flap configuration caused by the loss of hydraulics to the left wing. He then circled below the weather while coordinating for an approach end arrestment utilizing the airfields arrestment cable. Nall was able to engage the cable on the first attempt, but things still did not go fully according to plan. Upon engagement, the aircraft began to slide to the right and rotated approximately 90 degrees. The hook disengaged from the cable allowing the aircraft to begin rolling toward the side of the runway. Without hesitation, Nall pulled the emergency brake handle giving him limited braking ability and was able to stop the aircraft just prior to rolling off the side of the runway.

Emergency vehicles responded immediately and the aircraft was shut down. It became clear after inspection that Nall’s decisions to land immediately, even in less than optimal conditions, prevented a total loss of all hydraulic systems and flight controls saving 2 lives and a $54 million dollar combat asset.
Capt. Cato McKenzie, a 59-hour student pilot, and Lt. Col. Lee “Steel” Stanford, a 1,600-hour Instructor Weapon System Officer (WSO), were flying McKenzie’s third ever night sortie in the F-15E Strike Eagle during his basic qualification course, call sign SCUD 22. After a few warm-up exercises and basic attacks while on Night Vision Goggles (NVGs), they progressed to more demanding skill-sets. As McKenzie maneuvered their aircraft with 3.33Gs into position for an attack, they observed a bright flash and simultaneous “bang” from the left side. The aircraft cockpit lit up like a Christmas tree in the dead of night with cautions everywhere, the most pressing of which was an engine caution and indications of a left engine stall. Additionally, there were indications of a left generator failure, an environmental control system malfunction, altitude and flight control cautions, a fuel pump failure and multiple electrical malfunctions coupled with popped circuit breakers. If that wasn’t enough, the left engine reverted to secondary mode, degrading thrust available. Despite his inexperience in the jet, McKenzie immediately called the “knock-it-off”, expertly handled the aircraft into a stable position to troubleshoot, and began a decent below 10,000 feet in anticipation of cockpit depressurization. Simultaneously, Steel began analyzing the issues, determining priorities, referencing checklists and providing initial guidance to the flight. All communications with Air Traffic Control were passed off to the flight lead, while Steel coordinated with the SOF, operations, flight lead and providing navigation headings with the goal of letting McKenzie focus intently on flying the aircraft.

Unbeknownst to the aircrew at this time, the F-15 had suffered a severe electrical fire inside a wire bundle behind the rear cockpit, leading to all the multiple warnings that seemed unrelated. McKenzie and Steel worked through eight separate emergency checklists trying to retain the basic capabilities they needed while reducing their fuel load and working back to the base to land. The crew talked through the landing extensively prior to commencing the approach anticipating a thrust limited, heavy fuel weight, night landing with an inexperienced pilot and all the aspects that went into it. The “what if” list of conversations were extensive, to say the least. McKenzie expertly guided the wounded F-15 down the approach, adjusting deftly to the increased weight and thrust limitations. However, as the crew configured the jet for landing SCUD 22, they experienced a split-flap condition causing a significant turn to the left. McKenzie immediately countered the roll while crew coordinating the feeling he experienced. They decided quickly to raise the flaps and proceed with the approach. As the wheels gracefully touched the ground, Murphy’s Law decided to inject yet another stressor, a complete electrical failure causing all loss of instrumentation, lighting, and primary attitude displays. The only things visible at this point were the runway edge lights, the ever-present runway remaining markers flying past, and the slew of emergency vehicles waiting at the end of the runway. If that wasn’t enough, smoke and fumes from the burning wire bundle began to fill the cockpit. The crew expertly controlled the aircraft through visual references and standby instruments while selecting 100% oxygen to their masks, discussing safety options and plans if speed couldn’t be controlled, steering was lost, brakes failed, or if the smoke turned into fire in the cockpit.

They successfully brought the aircraft to a stop, shut it down and emergency egressed while coordinating with emergency service personnel, which noted smoke pouring from the environmental control system’s external vent. McKenzie’s and Stanford’s outstanding Airmanship and excellent discipline led to the safe recovery of a $54 million combat asset.
Everyone scratched their head. Parked on the runway under a beating, California sun, U-2 Aircraft 1090 stood, unsafe landing gear indicator flashing. This was the third time in a row it had returned with the same issue. Bottom line: it would not be able to accomplish its primary mission -- a huge impact for a small fleet. Attempts had been made to replace the necessary components, but no matter what they tried, the problem couldn’t be duplicated. "I’m still getting that chatter," the pilot said from the cockpit.

This job demanded the best. A dedicated team was organized, led by TSgt Chris Freund and SSgt Michael Browell, both members of the 9th Aircraft Maintenance Squadron. Experienced U-2 Crew Chiefs, they knew it would be impossible to determine the root cause without first duplicating the problem. They needed to simulate flight conditions: they fired up the engine and conducted a complete landing gear system operations checkout. Finally, after a full day and several attempts, they identified the issue. "We discovered the main landing gear uplock hook was not shimmed correctly, which prevented it from properly engaging with the uplock roller. This led to the faulty indications," said Browell. "We reached out to Lockheed Martin [the aircraft manufacturer] as well as the 9th Maintenance Squadron Repair and Reclamation Section. Together, we looked at specified blueprints to better understand all the moving parts of the system." With this knowledge, they corrected the shim, as well as replaced a damaged restrictor valve responsible for hydraulic fluctuations.

Most would have left it at that. But TSgt Freund and SSgt Browell knew they had to dig further. "Fixing one or two issues wouldn’t have satisfied the purpose of this team, we had to find everything," said Freund. The team kept digging. Soon, they identified the tail landing gear uplock was misaligned a mere 0.056 inch. "It seems like a small detail, but in this line of work, small details are the difference between life and death," relayed Freund.

After the team’s extensive effort, Aircraft 1090 took off and returned without issue. Not only was a problematic aircraft deemed fully operational, but updates were made to the U-2 maintenance service manual based on the team’s experiences. The actions of TSgt Freund and SSgt Browell earned them the Air Combat Command crew chief safety award of the quarter.
Tech. Sgt. Robert “Bob” Whitaker, a flight engineer instructor with the 116th Air Control Wing, Robins Air Force Base, GA, was teaching an instructor upgrade candidate the procedures for accomplishing preflight checklist items on the flight deck of an E-8C when smoke began pouring out of the weather radar display.

“The instructor upgrade candidate and I reported to the assigned aircraft to prepare it for flight,” said Whitaker. “Smoke began to fill the flight deck, so I made the decision to evacuate the aircraft and instructed the candidate to inform others who were aboard to clear out immediately while I initiated the ground evacuation checklist.” Despite being exposed to the potentially harmful fumes aboard the aircraft, Whitaker removed power from the aircraft while ensuring everyone in the area safely evacuated.

“My immediate and most pressing concern was to ensure that all personnel were out of the aircraft,” said Whitaker. “That is why I had to make sure I was the last to leave, as the flight engineer is the one who responsible for safety on the jet in the absence of the aircraft commander.”

After everyone was off the aircraft, he instructed Airmen nearby to call for the fire department. Though there was no major damage to the aircraft, the outcome could have been a lot different if not for Whitaker’s swift actions to ensure the safety of everyone nearby.

“From the time maintenance personnel give the airplane to the crew until the time the aircraft commander arrives, the flight engineer is responsible for the safety of all crewmembers,” said Lt. Col. Eric Smith, commander of the 129th Combat Training Squadron. “TSGt Whitaker’s recognition and quick reaction to the smoke in the cockpit was vital in saving lives.”

Whitaker and the student he was training were treated by medical personnel for symptoms related to fume exposure, and have since made a full recovery.

Whitaker continues to keep safety first in his mind as he completes his mission.

“TSGt Whitaker is an invaluable member of the JSTARS flying training unit who truly has a passion for flying, and instructing the next generation of flight engineers,” said Smith. “He is an integral part of training every flight engineer student.”

Now, being recognized for his dedication to duty with the Air Combat Command flight line safety award of the quarter, he will not soon forget the events that lead him here.

“This award is a career highlight for me,” said Whitaker. “For years I have read the narratives of previous award winners and have learned much from their experiences.”
3rd Quarter FY20 Awards

**Aircrew Safety**
Capt Joel C. McKenzie and Lt Col Lee W. Stanford
333 FS, 4 FW
Seymour Johnson AFB, NC

**Crew Chief Safety**
TSgt Chris D. Freund and SSgt Michael L. Browell
9 AMXS, 9 RW
Beale AFB, CA

**Explosives Safety**
Egress Section
4 CMS, 4 FW
Seymour Johnson AFB, NC

**Flight Safety**
MSgt Justin D. Parsons
53 WG/SEF, 53 WG
Eglin AFB, FL

**Flight Line Safety**
TSgt Robert Whitaker
129/330 CTS
Robins AFB, GA

**Pilot Safety**
Maj Brack T. Nall Jr.
333 FS, 4 FW
Seymour Johnson AFB, NC

**Safety Career Professional**
SSgt Jake R. Buerger
4 FW/SEG, 4 FW
Seymour Johnson AFB, NC

**Unit Safety**
93 AGOW/SE
93 AGOW
Moody AFB, GA

**Unit Safety Representative**
SSgt Andrew T. Decker
4 CES, 4 FW
Seymour Johnson AFB, NC

**Weapons Safety**
MSgt Ricardo R. Perez
53 WG/SEW, 53 WG
Eglin AFB, FL

**Congratulations**
Flight Notes

Flight Safety investigated three Class A mishaps this quarter bringing our total aviation Class A count for FY20 to a total of 13. While maybe not shocking to seasoned flyers, the trends of these mishaps are within the takeoff and landing phase of flight. As we leave the critical days of summer, we encourage all to refocus our mishap-prevention efforts on the admin, the assumed, and the mundane. Proficiency and currency are never the same things. Aircraft commanders and flight leads must reiterate the sortie’s not over until after the debrief, and ensure we’re all mission focused through landing and taxi back. Check 6, Check your Wingman, Check yourself.

ACC experienced two Class D and six Class E mishaps during the fourth quarter. While not shocking to seasoned flyers, the trends of these mishaps are within the takeoff and landing phase of flight. As we leave the critical days of summer, we encourage all to refocus our mishap-prevention efforts on the admin, the assumed, and the mundane. Proficiency and currency are never the same things. Aircraft commanders and flight leads must reiterate the sortie’s not over until after the debrief, and ensure we’re all mission focused through landing and taxi back. Check 6, Check your Wingman, Check yourself.

Occupational Notes

The fourth quarter yielded three fatal mishaps involving Air Combat Command Airmen. One fatal mishap involved a motorcycle, the second was a four-wheeled vehicle, and the third was a boating mishap. All three mishaps are still under investigation.

Fall is upon us, and while boating season may be over, many motorcyclists will still be on the roads. Autumn riders must be aware of leaves on the ground and less traction due to cooler surface temperatures. Drivers of four-wheeled vehicles should check tire pressure more frequently, as cooler temperatures can cause a drop in tire pressure. All motorists should be cognizant of the reduced daylight hours. According to the National Safety Council, while only 25 percent of driving in the United States occurs at night, 50 percent of traffic deaths occur in these hours of darkness.

FY20 Flight Notes

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Legend

Class A - Fatality, permanent total disability, property damage $2.5 million or more
Class B - Permanent partial disability, property damage between $500,000 and $2.5 million
Class C - Lost workday; property damage between $50,000 and $500,000

* Fatality ** Non-fatality *** Performing SOUTHCOM mission

Symbols for Mishap Aircraft

- A-10
- F-16
- T-38
- HH-60
- Mi-9
- H-60
- E-3
- E-8
- E-4
- E-11A
- RC-135

- F-15
- F-22
- T-35

Statement of Annual Ownership

We are authorized by the U.S. Postal Service to use Periodicals postage to distribute The Combat Edge magazine. Certain users of this rating are required to publish their Statement of Ownership, Management, and Circulation annually.
There is no one “normal” reaction to sexual assault. It can impact you psychologically, emotionally, and physically. These effects can be brief in duration or can last a long time. It can take time to learn how to manage these effects, but with the right support it can happen.

DoD Safe Helpline offers one-on-one, anonymous support to the DoD community, 24 hours a day, 7 days a week, to help you through the healing process. Safe Helpline staff are specially-trained professionals who can provide help via online chat or telephone. Information and referrals are also available at safehelpline.org or by text message.

You can also create a personalized self-care plan with the Safe Helpline app. Download it for free from the iOS and Android app store.

Safe Helpline supports all members of the DoD community, and you can access it from anywhere in the world. All Safe Helpline services are confidential and secure, and the information you provide is not shared with anyone in the military.
We’ve all heard the old catch phrase in the Air Force, “go slow to go fast.” Often times we find ourselves caught up in mission focus, goals, timelines, and task suspenses. However, I caution everyone to take an extra minute or two and take a step back to evaluate your task and your environment. No matter how many times you may have undertaken a certain task, job, or procedure, sometimes procedures or certain nuances of the job may have had minor changes or potentially major changes. As a technician, you should always reference the current technical procedures, guides, and/or manuals. Additionally, self-evaluate the job site to ensure that everything “looks right and safe” before starting the job.

Let me take a minute to share a story of an experienced, “7-level” technician that got complacent when performing his job, due to self-perceived, multi-task saturation from external environmental sources and his flight’s pro super.

This mishap occurred when a Staff Sergeant failed to take the necessary Hazardous Energy Control actions, formerly known as Lock-out/Tag-out (LOTO) procedures prior to performing a belt tension check on an electric-powered, pressure washer. This experienced SSgt had over eight years of service and greater than four years as a red-x qualified, 7-level technician. It just so happens that he was working the mid-shift without any other supervision on shift. The SSgt was considered by many of his peers and leadership alike, to be the “go-to guy,” who always came through and was personally responsible for a great deal of the flight’s production efforts. In this event, he was in a hurry to complete a quick and simple inspection and move on to his next task.

As I said, he failed to properly lock-out the energy source to this piece of equipment when performing the belt tension check. As he leaned over the control panel to complete the inspection, his torso engaged the start switch. At that exact moment of checking the belt tension, the motor started, consequently catching his index finger that got caught-up in the belt and pulled his finger through the mechanical pulley system. He lost the tip of his finger at the first knuckle; his complacency resulted in a Class B mishap because the member sustained what was considered to be a permanent, partial disability.

Following the investigation, there were a couple of recommendations that were accepted and implemented within two days. This pressure washer was a locally purchased piece of equipment and not an AF, National Stock Number listed piece of equipment. The first recommendation was to install a switch guard over the power switch. The flight leadership accepted this action and worked with the fabrication flight who helped manufacture and make a switch guard for this piece of equipment as requested. The second recommendation was to install new signage that warned operators to lock-out the energy source whenever performing any kind of maintenance and/or inspections. The owner’s manual and the Job Safety Training Outline, training plan both stated that the equipment should be locked-out before any maintenance or inspections were performed. However, the flight leadership was more than willing to implement these two simple recommendations to ensure a more comprehensive safety mitigation plan.

In closing, had the above SSgt referenced his technical manual he would have been reminded to eliminate or “lock-out” the Hazardous Energy source prior to starting his task. Additionally, I think that it’s worth mentioning, that the SSgt was fully trained and certified on a Special Certification Roster identifying him as a qualified LOTO or Hazardous Energy Control Program team-member. In the end, he payed a pretty dear price losing his fingertip as a result of complacency. There’s a valuable lesson that can be taken from this story. It is smart to take extra time to evaluate the task at hand or perform some “real-time risk mitigation” prior to beginning your military operations. And remember the old cliché and catch phrase, “go slow to go fast.”

Photo by Senior Airman Kristine Legate

GO SLOW TO GO FAST

BY MR. TRAVIS KNUDSEN
Highway to Fail

BY MRS. TANYA DWYER

It was the day after Thanksgiving, my husband and I were visiting family for the holidays in Clearfield, Utah. Five feet of snow lay on the ground as we woke up early to hit the road destined for Colorado Springs. We did a quick visual analysis of the weather and assumed the snow would stop soon. We thought, “maybe the roads won’t be that bad and we can make it back home in seven hours” as we always have in the past. Additionally, neither of us took enough leave to account for extra travel delays due to inclement weather. We knew I-80 well and had experienced less than favorable conditions (e.g. high winds, ice, traffic, etc.) in our previous trips. You were almost guaranteed to see a semi-truck off the road jackknifed facing opposite to traffic. Moreover, you don’t expect a lot of travelers on the road the day after Thanksgiving … right? Our story seems like a recipe for disaster … a “highway to fail”, but this story isn’t about our lack of risk management. We took off and hit the interstate without the roads being of concern. Just a few hours into our drive, the roads started to get worse than we thought. The calm weather turned into a blizzard, roads were freezing over, and there were areas with white out conditions. At some point in our drive, we heard on the radio that the interstate was closed due the road conditions. Of course, we heard this announcement after we had passed the point where the gates were closed for entry. We were at the point of no return and pushed on knowing we had stay alert. We were coming to a part of the interstate that had quite an incline. Keep in mind that I-80 is a two lane road that sometimes opens up to three lanes allowing for drivers to pass slower vehicles. We were in the middle of three lanes as we made our way up the hill with several cars behind us filling all lanes of travel. We were the lead car on the incline thinking this position offered us the safest spot to be … all the danger is behind us right? We were finally practicing some risk management; if any car were to slide, it wasn’t going to be near us. Up ahead we could see what appeared to be rolling clouds at the peak of the hill. It was hard not to admire the beauty, but it was unnerving at the same time. What came out of that picturesque scene was a FedEx semi-truck facing perpendicular and sliding toward us. Our quick reaction told us to slow down and find a path out of the way. Choosing our next lane was not an option with cars behind us in all three lanes and not knowing which way they were going to go. In that moment, I thought we were the vehicle that was going to stop that truck and crush us to death. We braced for impact and waited as we watched it slide toward us. It seemed as if everything was moving in slow motion. We watched as the FedEx semi-truck contorted itself back and forth like a wild bull. That driver somehow gained control of the semi with its three trailers and got it parallel to the road in the right direction! The truck didn’t skip a beat and was off up that hill again. By this time, all the other vehicles behind us and ours had already been stopped with a few of them off the road. I am sure that we were all counting our blessings that day. When we got back on road we eventually caught up to that truck and the driver looked like Santa who didn’t have a care in the world. A trip that we normally made within seven hours, took twenty one hours, that time. When we got home, the first thing we did was called FedEx to tell them what amazing skills that driver had.

Training played a two-fold factor that day for my husband and me. Our lack of risk management prevented us from making a sound decision on travel. We did not analyze and research the risk adequately, and it could have cost us our lives. However, the training that Semi-truck drivers obtain did preserve our lives that cold day. A semi-truck driver obtains a commercial driver’s license requiring seven weeks of classroom and hands-on training. They practice how to drive these massive trucks in severe hazardous road conditions. Now, as a safety professional, effective training is imperative to me. I am always looking for new and better ways to train personnel on how to successfully analyze and mitigate risk. After all, risk management is not about eliminating risk, but rather managing it to an acceptable level. Much like the FedEx driver, we as Airmen are trained on how to safely accomplish tasks. Due to the nature of our work we must also be like the FedEx driver on I-80 and teach our Airmen how to operate in a high operations tempo and be adaptive when pressure and hazardous conditions arise.
As far as stories go... this one is a little embarrassing for me to tell. Obviously this particular tale pertains to myself and my legendary clumsiness. I was deployed at Aldhafra Air Base at the time, working in the Materiel Control of Vehicle Maintenance around 6 years ago. My job was to make sure that the mechanics on the floor had the parts and tools they needed in order to keep the various vehicles running and operational. Transportation is huge in supporting the logistics and security of any base.

I was working the night shift. Being where we were at the time, it didn’t start getting dark until probably around 1900 hrs, so it was still light outside. We were working 1800 to 0600. I had just gotten onto shift and started looking through my dailies. Basically a routine, self-imposed checklist, that helped me prioritize and get into the right mind frame to jump into work. One of the first things on my list was to check the tire inventory. By my recollection, it was pretty close to the time of needing a new shipment. The tire cage, sure enough, was starting to look empty. I obviously need to order more. But beforehand, I needed to see how many extra I was going to order. So I headed out to the Vehicle Incoming Yard. That’s where all the vehicles that are turned in for maintenance go. It was located about 200 yards away from the shop by a bunch of 50 ft conex’s, which are these really big metal storage containers.

By this time, the sun is on its way down, so it’s starting to get a little darker. I start jogging over to the incoming line since it was a little bit of a hike and I had stuff to do. While I’m jogging, I started estimating in my head how many tires I might need to order. Obviously at this point, I’m not really giving 100% attention to what I’m doing.

My family has an unfortunate relationship with deserts in general. This relationship has been going on for several generations now and it didn’t skip me. At this point, my foot connects with a rock that I hadn’t noticed due to my mind being preoccupied. Luckily I was able to slow my fall somewhat with a conex that happened to be nearby. I bounced off of the conex as I tried to catch my balance and continued on my travel down. Still going forward and downward, my face impacted with another rock. The end result was an egg sized lump on my head, and something akin to claw marks down my face. Of course I didn’t really want to talk about it when I finally returned back to the shop. The safety mishap report was just as entertaining to write.

In hindsight, there were several things I could have done different to help prevent that particular incident from happening. First one being, taking my time and being mindful. Being happenstance and an everyday routine had put me into a complacent frame of mind. The darkening sky, uneven terrain, and complete obliviousness on my part were also very likely contributors to the end result. I should have been paying more attention to what I was doing, and actively using Risk Management. With the fast approaching sunset, and uneven ground, it was definitely a perfect combination for an accident. Luckily, I have not repeated this incident and hopefully people can learn from my painful mistake. Remember the age old adage, ‘Slow is Fast, Fast is Slow’.
We hear it time and time again; it gets briefed at every Commander’s call, all call, and weekend safety briefing. We all know we shouldn’t and tell ourselves we never will (but if we do, we’re convinced we won’t get caught). Drinking and driving. A very close friend of mine knows first-hand the toll that getting caught while drinking and driving can take on your emotional state.
It was a Friday and she and her boyfriend (now husband) decided to spend the night on the town. They started their evening off on-base, playing pool at the enlisted club. It wasn’t long before they had their fill of pool and wanted to continue their endeavors elsewhere. When it came time to decide who was going to drive to their next stop; that was easy, she’d drive. They took her car out that night anyways and she’d only had 2 beers. Well they both “only had 2 beers” so at this point it was just a matter of whose vehicle they were in. She won! By the way, the 2 beers weren’t your average size beers. They were served in 32 oz. mugs so, that’s actually closer to them each having consumed 4 beers. At this point, it was too late for math anyhow. They hopped in her car and headed off-base. Having no trouble making it out of the gates, they proceeded to the nearest watering hole, a classy establishment I may add. So classy that the parking lot is a grassy field with a ditch running through the middle of it. She started making her way down the rows of cars in the field, trying to find an open spot to park. She knew there was a ditch in the field but couldn’t remember exactly where it was. Well they were just creeping right along and … found it! The front driver’s side tire of her car went down into the ditch so deep that the 2 rear tires came all the way off of the ground. They immediately got out of the car to assess the situation. That’s when they realized that the way the car was placed, made it look like they ran right off of the road and into the ditch. Their immediate instinct was to try to hang on the back of the car to get it level and then drive it out. They failed to even move the car after multiple attempts and you know what they decided? They decided that they would just leave the car in the ditch overnight, come back for it in the morning, and head inside to continue drinking. They made it maybe ten steps towards the building when they saw blue lights start flashing. Yep, the cops were at the car. So they turned around to go talk to them. The cops asked what happened and they told them the story, leaving out the fact that they had been drinking. However, the next question they were asked by the cops was whether or not they had been drinking and they didn’t lie. They told the cops the truth. That’s when the cops pulled out the breathalyzer. She stepped up to the plate and blew 0.08. That’s right at the legal limit. Her heart started racing and she thought her career was over. She was about to sew on, had a deployment coming up, etc. She thought it was all about to end. Luckily, the cop knew that their case wouldn’t hold up in court because he couldn’t prove she was driving. The cop called them a tow truck and they made it home safely. Their night could’ve ended a whole lot differently though. She and her now husband straightened up their acts, to say the least. Sure, they still go out and let loose but, they no longer drive after having drank. They often get an Uber or stay at a nearby hotel. She is also very open about that night and tells people the story quite often; not to brag or make people think that she’s “cool”. More so to try to stress the importance of drinking responsibly and having a plan, as well as a back-up to that plan. Just because my friend got off scott free, doesn’t mean you will. She is lucky her situation turned out the way it did and many others aren’t so lucky. All I can say is, don’t do it. Just don’t do it. Be smart. Don’t drink and drive.