Fall Edition 2013

Combat Edge

Air Combat Command's Safety Magazine

INSTRUMENT FLIGHT TRAINING

for the 5th Generation

PAGE 8

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Combat Edge

Volume 22 Issue 2, ACC SP 91-1

Oops! Please pardon our error ...
In our Spring 2013 issue, we incorrectly listed the authors of the "Control before Performance" article. It should have read: "by Dr. Antonio Cortés and Lt. Col. Brian Grasky."

Volume 22 Issue 2, ACC SP 91-1

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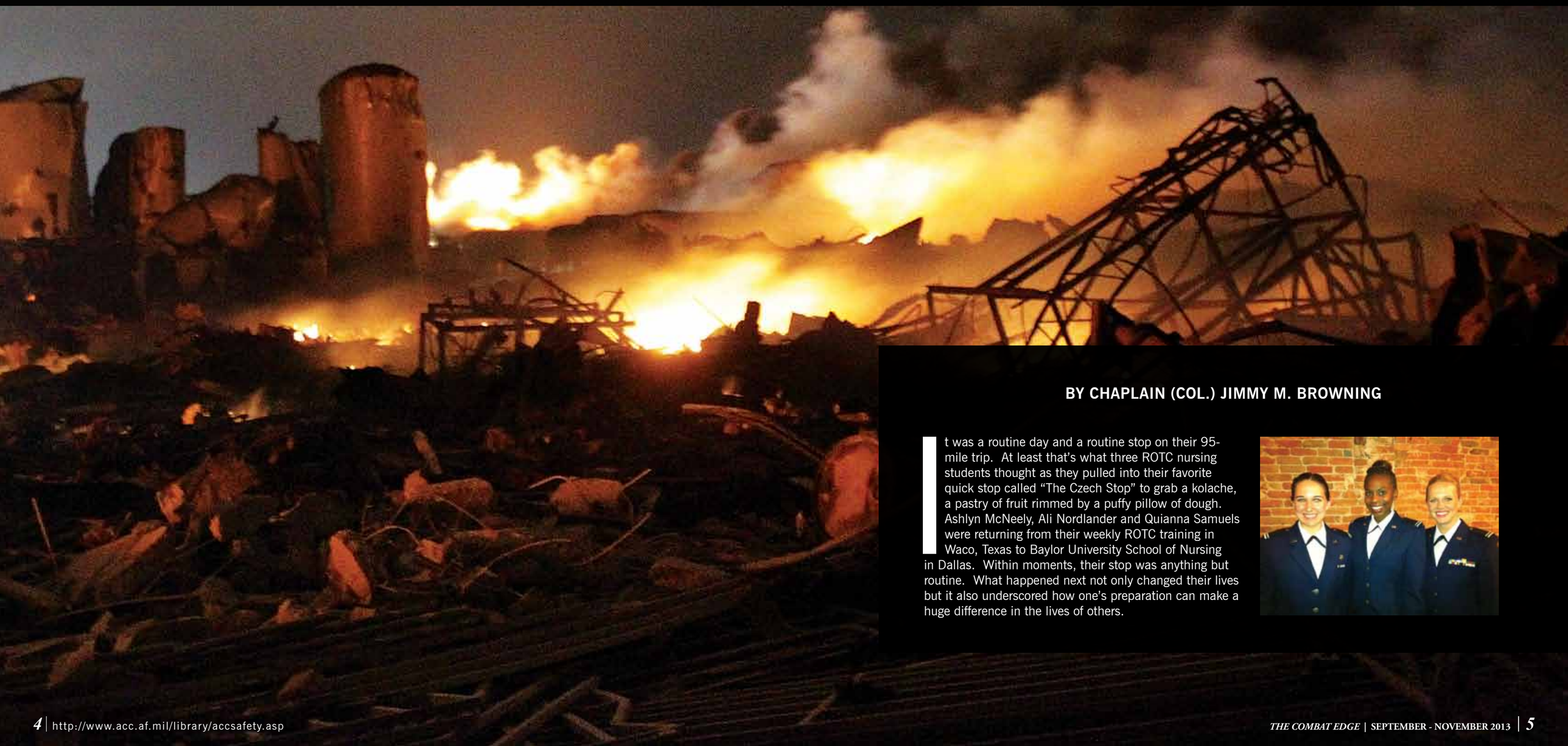
ACCent

Proficiency and Readiness

Lt. Gen. Lori Robinson
Vice Commander

As the vice commander, I have been impressed with the dedication and professionalism of the Airmen in Air Combat Command, especially considering the extremely challenging operational environment surrounding us today. ACC is attempting to recover from a state of degraded readiness in which approximately one third of combat-coded squadrons were grounded, one third flew at a basic mission capable (BMC) rate, and the remaining third trained at a combat mission ready (CMR) level. As a command, we have never before been postured in this manner. Although many previously grounded squadrons are in the process of spinning up to a combat mission ready status, we must acknowledge that it is one thing to go non-CMR/BMC momentarily, but it is an entirely different problem to recover from months of reduced flying/proficiency. Leaders, supervisors and Airmen of all ranks must recognize that as we spin up units to CMR status we must first walk, then jog, and then run only when we are ready to move at full speed. ACC Safety has surveyed wing-level safety professionals, and there is a general consensus that although risks have been high for months, the highest risks are associated with previously grounded aircrews attempting to spin up to CMR status in the shortest amount of time possible. Survey data shows that safety professionals in the field are concerned that aircrews will attempt to train at a higher level than their proficiency and available spin-up time permit. Also, safety officers are concerned aircrews will not recognize their degraded skills because they enjoyed a much higher level of readiness just a few months earlier. However, our experience tells us that flying skills are perishable and atrophy quickly when there is a lapse in effective flight training—especially if the aircrew member had limited proficiency to start with. ACC Safety's analysis of recent and long-term mishap trends exposed that the term "ready" doesn't necessarily mean what it used to mean. Over the last decade, 84.1 percent of all ACC Class A and B mishaps involved "*experienced*" aircrews. This is a noteworthy statistic since 60 to 70 percent of all ACC aircrews are categorized as *experienced* at any given time (depending on the weapon system). However, I was alarmed to discover that over the last four years (FY10 to present), 100 percent of all ACC Class A mishaps occurred with *experienced* aircrews! This fact is simply astonishing and should cause every leader in ACC to stop, pause and ask some questions with regards to the level of risk we are currently experiencing. Were my people really ready before sequestration? Do they have the reservoir of experience needed to safely spin up to CMR status? Do we have good risk management processes in place to identify, assess and mitigate the proficiency risks we are facing? In the most recent series of ACC Safety surveys, four out of five (81.5 percent) of rated safety officers felt that recent flying hour cuts would likely lead to a mishap at their base. We have identified a proficiency risk. We have assessed the risk to be very high. Now here are a few questions I have for leaders: Do you have a strategy to mitigate the proficiency risk? Are you prepared to evaluate the effectiveness of your mitigation strategy? Will you be diligent enough to adjust your plan and make whatever changes are necessary to avoid a proficiency-related mishap at your base? We *can* avoid proficiency-related mishaps. Strong leadership, compliance with governing directives, and sound risk management practices can help us avoid tragedies even in challenging times. In fact, the more challenging the environment gets, the more important these tools will be. *You* will ultimately determine if we can avoid proficiency-related mishaps!

NEVER TOO EARLY TO PREPARE



BY CHAPLAIN (COL.) JIMMY M. BROWNING

It was a routine day and a routine stop on their 95-mile trip. At least that's what three ROTC nursing students thought as they pulled into their favorite quick stop called "The Czech Stop" to grab a kolache, a pastry of fruit rimmed by a puffy pillow of dough. Ashlyn McNeely, Ali Nordlander and Quianna Samuels were returning from their weekly ROTC training in Waco, Texas to Baylor University School of Nursing in Dallas. Within moments, their stop was anything but routine. What happened next not only changed their lives but it also underscored how one's preparation can make a huge difference in the lives of others.

On April 17, 2013, a local fertilizer plant in a little community of about 2,700 residents called West, Texas caught fire and later exploded with the force equivalent of a magnitude-2.1 earthquake. The blast leveled the plant and badly damaged a 50-unit apartment building, a nursing home, a school building, and many homes. The blast left a crater 93 feet wide and 10 feet deep. It also killed 14 residents and injured close to 200 people.

When the plant exploded a mile and a half away, the shock wave shook the three ROTC cadets. A large mushroom cloud seen in the distance marked the spot of the explosion. These nursing students anticipated the people in this small community would need their medical training. As a result, they took off running toward the chaos and carnage. **One of the cadets took a cellphone photo of Ashlyn running toward the blast.** A man in a pickup truck offered them a ride and safely dropped them as close to the origin of the explosion as he could.

What they found was surreal. They had entered a war zone. They saw, felt, heard, and touched the explosion's devastation. It was utter chaos.

With their nursing and Air Force training, they immediately began to help. They focused their energies and quickly determined how they could assist. Along with a local nurse, they helped rescue elderly residents, triaged the dazed and wandering wounded, and treated compound fractures, burns and lacerations. They made do with limited medical supplies. They stabilized people, engaged Waco's ambulances, and evacuated according to triage. They suffered the screams of the dying firefighters. Later, Ashlyn held the hand of an elderly man as he died.

Cell phone photo of Ashlyn McNeely running toward the fertilizer plant blast in West, Texas on April 17, 2013.

After four hours of providing first aid, near midnight, the three made it back to McNeely's vehicle for the drive back to Dallas. Ashlyn's right ankle throbbed from her run to the explosion and the four-hour intensive triage effort. She broke it a month earlier on a rock climbing trip and was currently wearing a brace. Ten minutes later, as she drove on I-35, she began to brake knowing she was growing light headed. Ali Nordlander grabbed the wheel and safely stopped the car. Smoke inhalation finally took its toll. They all went to an emergency care, were treated and finally made their way to Dallas.

Ashlyn McNeely's mother works for a good friend of mine in Texas. Through this connection, Ashlyn called me because she wanted some help in dealing with lingering effects of what she experienced. We talked for some time about her involvement, the sights, sounds, smells and the lingering cognitive, emotive, and spiritual effects of what she had experienced. Because of my previous work in the mortuary at Dover AFB, I could easily understand and empathize with her. (Ashlyn gave me permission to share her story.)

This kind of engagement can affect a person deeply. It becomes a part of one's fabric of life. It became a defining moment for Ashlyn and her two classmates. It will also be for many in the West Texas community. Many affected will struggle to make sense of it all. In the midst of her own struggles, Ashlyn told me her life and faith is more precious than before.

Yet, their story does not end there. Their experience certainly challenged them. It will also continue to stretch them. Ashlyn told me, "We no longer have to wonder how we will react when our training is tested," said Ashlyn. "We did not freak out; instead, we worked as a team."

Ashlyn also said she was inspired to study and work out harder so she would be better prepared the next time.

Next time? Someone once told me, "It is those who wear our military's uniform that run toward sounds of danger, not away from it." Truth is life happens whether or not we are prepared. Sometimes those experiences can be extremely difficult and challenging. Certainly, we cannot prepare for every conceivable possibility. However, by taking seriously any training opportunity, we may just learn that one important life skill needed for those completely unexpected moments. It is never too early to prepare. These three ROTC cadets want to be ready. While they will likely not have another plant explosion; however, as Air Force nurses they will certainly have other challenging and traumatic experiences.

In the midst of all of our challenges, it is good to know we have future AF leaders like these three nursing students who already have the character and courage to face the worst head on. They certainly embodied "service before self." Bystanding was not an option, neither for them nor for us. As I hung up the phone, I thought, "They are going to make a great Air Force nurses and leaders!"

INSTRUMENT FLIGHT TRAINING

for the 5th Generation

BY LT. COL. A.J. PELKINGTON
33d Fighter Wing, Eglin AFB, Fla.

PITCH, POWER, TRIM, AND CROSSCHECK ... this underlying mantra of the control and performance method of instrument flying has formed the bedrock of instrument flight training for generations of Air Force and Navy pilots. The Federal Aviation Administration (FAA) Handbook defines attitude instrument flying as the "control of an aircraft's spatial position by using instruments rather than outside visual references." The methods and procedures found in this handbook are virtually identical to those found in Air Force and Navy manuals. However, unlike their FAA counterpart, neither military manual addresses the practical application of traditional instrument flight procedures in the glass cockpits that populate the spectrum of fighter, transport, and helicopter mission design series (MDS). Additionally, neither manual addresses the potential to evolve or the traditional control and performance concept to incorporate avionics advances such as electronic flight displays (EFD), autopilot/auto throttles (AP/AT), velocity vectors and heads-up-displays (HUD); all of which allow for significant changes to how we control aircraft.

Photo by: Senior Airman Brett Clashman

Photo by: Tom Reynolds

Instrument Flight Models

The *Control and Performance Method* of attitude instrument flying forms the foundation of instrument flying instruction across the Air Force and Navy, reinforced throughout Specialized Undergraduate Pilot Training (SUPT) and formal training unit (FTU) equivalents. This method, as described in USAF manuals, teaches pilots to group flight instruments according to their function. As the name implies, the *Control and Performance Method* is control driven and is instructed in the form of baseline attitude and power settings for different phases of flight which can then be adjusted to correct for differences in aircraft gross weight, configuration, etc. In short, "Power + Attitude = Performance."[1]

Influences of Modern Avionics

Advances in technology have had a tremendous impact on trainer and fighter avionics. Whereas the *Control and Performance Method* was born of flight decks consisting of multiple separate round dial instruments with their own functions, today's aircraft are increasingly being outfitted with helmet mounted displays (HMD), aircraft velocity vectors, EFDs, and advanced AP/AT functions. Presence of these systems on USAF aircraft has grown as much as 700 percent since 1990; yet, while they can provide unparalleled situational awareness and greatly reduce pilot task loading when effectively leveraged by control and performance methods, they are poorly utilized in contemporary instrument flight training. *The Control and Performance Method* provides a strong foundation for baseline skillset development during undergraduate flight training. However, the rapid evolution of modern flight decks requires us to re-imagine the way we teach pilots to control aircraft at during more advanced training in order to realize the synergy of available systems.

Leveraging Aircraft Specific Avionics

Control methodologies taught at the FTU level should exploit the capabilities specific to the airframe. For example, the HMD, EFD, AT/AP and digital flight control systems available in the F-35 offer the following potential revision to the traditional *Control and Performance Method*, or *Traditional Method* for short. The revised Control and Performance Method, or Revised Method, adapts the *Traditional Method*—a control-based method—to a performance based method to leverage the F-35's specific capabilities. The revised method emphasizes the flight path marker (FPM) to set desired pitch and roll and the AP/AT to maintain desired performance. To illustrate the difference let's contrast their use in a rate climb.

A rate climb is one which maintains a constant vertical velocity indication (VVI). A *Traditional Method* rate climb of 10,000 feet within 10 nautical miles at 300 knots requires a 10-degree pitch change from level flight with an associated fuel flow increase of approximately 5,000 pounds per hour to produce a constant VVI of 5,000 feet per minute. Trim is used to relieve stick pressure and pitch drift, and crosscheck is used to minimize airspeed and VVI trends toward desired performance in an iterative manner while preparing for level-off. Using the *Revised Method*, however, a rate climb is initiated by enabling attitude and speed hold, and then setting the FPM to 10-degree nose high. Trim and throttle adjustments are eliminated by the AP/AT and crosscheck exists simply to confirm aircraft performance while preparing for level-off. The real-world application of this methodology can be better seen through a standard F-16 climb profile, known as the radar assisted trail departure (RATD). The *Traditional Method* prescribes setting 750-800 degrees FTIT and maintaining 350 knots until directed to rejoin (by definition, a constant speed climb). In its execution, power is fixed while pitch (and consequently climb rate) is continually adjusted to maintain airspeed. Under the *Revised Method* described above, airspeed control is automatic and attitude is fixed at 10-degree nose high using the AP/AT, significantly minimizing the pilot's task load and crosscheck burden. Larger attention can be prioritized to aircraft separation and procedure compliance. Additionally, the elimination of continual pitch changes in night or IMC conditions results in a more stable platform reducing susceptibility to spatial disorientation. Similar advantages of the *Revised Method* are realized across the spectrum of instrument flight maneuvers.

Traditionalists will likely be skeptical and reluctant to accept any AP/AT system as a foundational component of instrument flight training. However, it would not be prudent to summarily discount the advantages of automation and its corresponding safety benefits. National Transportation and Safety Board (NTSB) statistics over the last seven years attest that 75 percent of all commercial and general aviation lethal flight mishaps were caused by pilot error.[2] The majority of those mishaps occur (in descending order) during maneuvering, en route descent/approach, and takeoff/landing phases in day IMC—without the assistance of autopilot systems.[3] While commercial airlines have steadily increased reliance on automation, the military has yet to leverage AP/AT systems to reduce pilot workload for basic aircraft control during these critical flight regimes.

Instrument Crosscheck

The term *crosscheck* describes the efficient division of attention between control and performance instruments, the ability to interpret the information given by those instruments, and the correction of any discrepancies noted in aircraft flight parameters.[4] Graphically, the crosscheck is often compared to the hub and spokes of a wagon wheel where the ADI is often the hub and other instruments are the spokes. In general, the crosscheck will progress from the ADI out to another instrument, back to the ADI, and then out again. The evolution towards EFDs has simplified the job of crosschecking by consolidating performance and trend information previously segregated across several instruments into one digital display. While pilots must still learn where to look within these digital displays for the desired information, information proximity enables smaller, quicker scan patterns and thus more precise aircraft control. Control and performance instrumentation, as seen below in Figure 1, *F-35 Scan Patterns*, maintain a classic "T" or "inverted T" orientation (denoted by a "1" or "2" respectively) consistent with larger classic crosscheck patterns.[5]

Figure 1: F-35 Scan Patterns

Overall emphasis during crosscheck instruction should be on ability to comprehend digital displays and layouts to efficiently find desired information and discern trends. EFD scanning techniques can either use radial techniques (hub and spoke) or 'as desired' by the pilot since actual eye movement is minimal.[6] Training should highlight the characteristic response times of different indications in the context of the particular phase of flight should and their natural influence on scan technique. E.g., airspeed indications may indicate nearly instantaneous response to throttle movements while altitude and VVI indications may slightly lag pitch changes; so, during final approach on an ILS, greater scan time may need to be applied to glidepath control due to altimeter and VVI lag than airspeed control whose indications are more immediate. It is important to note here that even when utilizing the *Revised Method*, training should reinforce the need for inclusion of airspeed and AOA performance in the scan pattern despite the decrease in necessary time allotted to those parameters. Failure to include these indications in the crosscheck could preclude recognition of critical failures.

Since the *Revised Method* enables more stable and efficient aircraft control, deviations in aircraft control under normal circumstances are less probable; therefore, ineffective scan techniques or information comprehension problems are more readily indicated during simulated or actual AP/AT system failures. Information seeking—the process of scanning the displays for certain pieces of information that either weren't found in the expected location or weren't recognized—is more likely to affect pilots who aren't taught an effective pattern to emulate. With the tremendous amount of potential display formats available in modern cockpits, a building block approach can benefit from standardized display setups to promote consistency of instruction and allow pilots to learn repeatable scan techniques.

Conclusion

While current USAF instrument flight protocols represent tried and true methods with sound foundations, their application does not account for the capabilities and advancements in modern avionics and flight control systems designed specifically to decrease pilot workload and enhance overall situational awareness. Years of statistics have paved the way for these advances to be incorporated into USAF cockpits and their potential to ease workload, increase safety and simplify aircraft recovery and should not be overlooked in favor of dogmatic protocols. Revised control and performance methods can take advantage of these improved avionics and displays to free up valuable attention that can increase reaction time and deliberate decision making in other areas. Consolidation of revised techniques at formal training units can build upon traditional methods learned at the undergraduate flying level yet leverage specific aircraft capabilities to help establish foundational skillsets that will enhance student performance during initial qualification. The Air Force should reexamine traditional control and performance protocols to ensure we teach pilots to take maximum advantage of the systems incorporated into each MDS; anything less lowers our safety margin and prevents our techniques and procedures from keeping up with the 'fifth generation.'

References:

[1] Dept of the Navy, 2006
[2] AOPA Air Safety Institute, Nall Report, 2005-2011
[3] AOPA, 2005-2011
[4] AFMAN 11-217v1, 2010
[5] Aircraft Attitude Instrument Flying Using an Electronic Flight Display, 2011
[6] Aircraft Attitude Instrument Flying Using an Electronic Flight Display, 2011

Photo by: Molly Hauxwell

Leveraging Commercial Equivalents

The unfortunate reality of defense acquisitions is that often by the time certain technologies are fielded, they have already become outdated. Electronic flight displays are one area where commercial aviation technology has out paced the military. The Garmin G500 Electric Flight Information suite has several such advantages: use of the complete display area orientation, a horizon line that extends behind the airspeed and altitude scale and underlay of a GPS terrain database with flight instrumentation. Other comparable commercial systems offer further enhancements to pilot situational awareness, including incorporation of weather conditions into attitude and navigation displays. While many of these differences are relatively easy to implement, most will take another decade to incorporate into fielded aircraft. Others may never be incorporated.

F-35 EFI vs. Garmin G500

Whether dealing with MIL STD requirements or acquisition timelines, it is important the military stay ahead of the technology curve in its transition to glass displays. Beyond the cost, reliability and capability benefits that come from modern electronic flight decks, the largest benefit by any standard is the potential reduction in aviation mishaps through reduced pilot workload, enhanced SA and increased automation during flight. Due to the nature of the Department of Defense acquisitions and modernization, its transition to glass cockpits could lag contemporary standards within general and commercial aviation. Thus, it is important to stay abreast of commercial-sector advances and sound corporate solutions.

"There I was ..."

And Other Ways Complacency Can Wreck Your Day

BY MAJ. JAMES "MCGRUFF" HUNT

All great fighter pilot stories begin with, "There I was ..." *This one is no different. So, there I was, on climb out from Sedona, Arizona leading the last diamond of T-34s from the Phoenix Formation University March, 2013. There was complete electrical failure; my gear is stuck halfway up, and my formation is rejoining on me as I struggle to trade airspeed for altitude to clear the terrain ahead. Sigh. Hindsight being 20/20, we can now fill in what Paul Harvey would call, "The rest of the story."*

Formation University had been on the books for two months, but due to scheduling and the realities of a military paycheck, I did not decide to participate until a few days prior. When the decision was made, I checked my logbook and confirmed I had made three takeoffs and landings in the previous 90 days. This was important since my 8-year-old son would be joining me for the flight. However, despite my "relative currency" for the FAA, my real-world look back was awful. In the previous five months I had flown the aircraft twice. My proficiency was not what it should be, but how hard could it be? I fly A-10s for a living, graduated from the USAF Fighter Weapons School. I also run the Central Instructor School at Davis-Monthan Air Force Base. **In my mind, the T-34 is easy by comparison.** The first link in the accident chain clanks into place.

The night before the flight, it occurred to me to review my Dash 1. Of course, I cannot find the document. I should not be surprised, as my wife, children, and I are living between the garage and a borrowed RV at the time while our house is being renovated. My critical publications are packed somewhere in a non-descript cardboard box lost in our garage. This made me uncomfortable, but hey, I have a checklist in the plane and have time in the morning to look at it before takeoff. **It should be fine.** Link number two in the accident chain fits perfectly, doesn't it?

Morning breaks and my oldest son and I get out the door on time. We got to the airport, prepared our T-34A, pulled it out of the hangar, and started strapping in. At this point, we were exactly on timeline to make it to Phoenix for the brief and fly the Sedona mission. At that exact moment, my son said from the backseat, "Dad, is it normal for these panels on the floor to be open?" I got on the wing and sure enough, two panels adjacent to the rear stick were unfastened. One panel is not secured and the other has no fasteners at all. Fortunately, our maintenance shop was working that Saturday morning. We taxied over and it was fixed immediately. As my precious timeline began to fall apart, I asked myself, **"How did I miss that? What else am I missing?"** That third link in the chain looks good!

We enjoyed an uneventful flight to Deer Valley Airport in Phoenix. We barely made it in time for the brief. Then, the other shoe dropped. I was asked to lead the four-ship of 225hp T-34s. So much for getting my currency back waterskiing as number four! For the record, it is not confidence inspiring when lead hunts you down to confirm basic T-34 hand signals. One can already see negative transfer from the A-10 rearing its ugly head. **But hey, I can handle it, right?** My accident chain is starting to look ... like a chain.

Start, taxi and takeoff from Phoenix were normal. Our four-ship of plucky 225hp T-34s fell in behind four even slower CJ-6s, at the tail end of the big engine gaggle. It was at this point that my airplane began whispering to me that all was not well. But I wasn't listening. As we took spacing from the previous four flights, my active noise reduction failed. The helmet is powered by aircraft power and is a military system that requires 24 volts to operate. It fizzled and failed completely. My aircraft's whispers rose in volume as I configured to land. The gear lowered normally, but the flaps tracked VERY slowly. I remember watching them extend and thinking, "My, isn't that odd ... I better look into that." **If I had bothered to look at my volt meter, I may have been surprised.**

After a spectacular lunch on the airport restaurant's deck overlooking Sedona's red cliffs, we briefed up, and stepped to fly. I grabbed a spare set of headphones and swapped out my helmet. Taxi, run-up, and takeoff were text book. Then things went sideways.

Shortly after takeoff, I moved the gear handle up and was surprised to see that, three seconds later, everything went dark. Complete electrical failure. The plane was flying, but would not accelerate past 80 knots because the gear was stuck in transit. I immediately lagged off the flight ahead of me to trouble shoot the problem. As I cycled breakers and switches, and watched the terrain rise towards us, imagine my surprise when my flight rejoined! I passed the Helen Keller NO RADIO signal to my wingman. I followed it with a HEFOE signal, indicating electrical failure, followed by thumbs down to return to Sedona. I passed him the lead to move the other planes away from me.

Three and four were cleared off to rejoin the mass formation. My wingman rightly assumed that the lead swap means that I would follow him. However, this was not the case as my head was buried in a checklist looking for the complete electrical failure page. Remember link two in my personal accident chain? Well, just because the A-10 has an electrical failure checklist does NOT mean the T-34A has one too. I SHOULD have known this little tidbit instead of wasting a minute of "aviating" while searching for a non-existent checklist.

During our return to Sedona's pattern, we worked together as a team to get the aircraft on the ground. We swapped leads and two rejoined to chase. Fortunately, this is what I briefed prior to the flight, and here is where the accident chain finally broke. Using hand signals, we confirmed that my gear was not down. After I manually cranked down the gear, he passed a thumbs up for my safe landing configuration. We flew a wide pattern and landed safely with the chase aircraft pulling closed and landing behind us. Taxi in and shut down were normal.

After the flight, and the subsequent ride back to Deer Valley, we debriefed the emergency in depth. So, with a Jack Daniels and Coke, I stood before the crowd and shared what I learned. Here is a summary:

1. **Complacency kills:** My recency in the T-34, while legal, was not safe. I fell victim to the age-old trap that, just because I fly professionally, doesn't mean that I am proficient in my Mentor. The T-34, while forgiving, has its limitations and will not hesitate to bite the complacent pilot. I truly believed that this could be done on the fly. That assumption could have had disastrous consequences for me, my son, and our wingmen.
2. **Cockpit Resource Management is essential:** When the pressure was on, the mutual support of a second T-34 was comforting. The use of standardized hand signals was crucial to the positive outcome. Additionally, CRM within the airplane is also vital. My son saw a warning light, but didn't say anything because he thought I was aware (I was not). By the time the power went out, it was too late. Since this incident, he knows to speak up when he sees anything abnormal.
3. **Systems knowledge is irreplaceable:** How often do you get into the -1 or NATOPS flight manual? How often do you finger-drag the checklist? For me, the answer is "not enough." There is no substitute for systems knowledge. When your airplane starts whispering in your ear, will you listen to what it is saying? My airplane tried to tell me what the problem was, but I was not able to understand the message.

The end result of this experience was positive with good hangar flying at the hotel bar, spirited discussion with regards to managing emergencies, and techniques to maximize mutual support within a war bird formation. My airplane stayed at Sedona for a few days until it could be diagnosed with an inoperative alternator courtesy of a destroyed coupler and sheared drive shaft. One $1,800 "investment" later, N434JH is back to flying Code 1. I came out of it chastened with a renewed dedication to get back in the books.

Keep 'em flying.

AWARDS OF DISTINCTION

Aircrew Safety

CREW OF SENTRY 61, 966 AACS, TINKER AFB OK. On five mile final at 1,000' AGL, the Sentry 61 crew accomplished the final full stop landing configuration. After releasing the electric trim switch, the AC flying noticed the stabilizer trim wheel continued to spin in a severe nose-up trim "runaway stabilizer" configuration. Applying full forward yoke pressure to engage the trim brake to stop, he hit the stabilizer trim switch "off." The FE manually trimmed nose down and IAW T.O. 1E-3A-1, the AC disengaged the outboard spoilers and deployed inboard spoilers to level the aircraft. The FE manually trimmed to a nose level position. The AC directed a "go-around" and proceeded to the NAV established GINS holding fix. *(Awarded May 2013)*

CREW OF KING 21, 71 RQS, MOODY AFB GA. King 21 was engaged in an ANGEL THUNDER exercise contour search when the FE noticed the #2 engine TIT, torque and fuel flow readings abnormally high. The AC called "knock-it-off" and troubleshot while the navigator set up holding. The crew diagnosed the indications as a Temperature Datum System fault. Utilizing systems knowledge, a precautionary engine shutdown was performed. Mindful of reduced 3-engine performance, they routed an expeditious return to Davis-Monthan. The pilot commenced a successful 3-engine approach and landing. Their decisive actions confined damage to one failed part, preventing potential catastrophic engine failure. *(Awarded June 2013)*

CAPTS. JOHN M. PESKAR AND BRION J. NIELSON, 380 AEW, AL DHAFRA, UAE. Capts. Peskar and Nielson flying as Dude 01, a daytime AOR combat sortie, experienced a massive hydraulic fluid leak. Upon wingman examination, streaming hydraulic fluid was discovered and determined Dude 01 was unable to complete the 2 hour home station return flight. While waiting for the cable to be strung, airfield weather deteriorated below approach weather categories. With the cable finally rigged, weather was determined approach suitable based on observations from the Top-3 and tower PIREPs. Dude 01 executed a flawless approach and landing to engage the approach end cable and successful recovery of a $54M combat asset. *(Awarded July 2013)*

Pilot Safety

CAPT. ANDREW M. GRAY, 7 FS, HOLLOMAN AFB NM En route to Red Rio Range, Capt. Gray observed an L AMAD OIL P ICAW assert. Following the 1-F-22A T.O., he retarded the Left Throttle to IDLE and placed the Left Generator switch to OFF/RESET. ICAW did not reset so he performed an in-flight shutdown. Having excess fuel for an immediate landing, he adjusted gross weight with speed brakes extended and right engine in afterburner. To restore essential avionics/communications, he completed an Avionics Restart and performed a full stop single-engine straight-in using the entire runway to avoid hot brakes. He expertly handled excess electrical load shedding by coordinating with ATC and emergency agencies on the back-up radio. Despite a significant malfunction, the potential loss of a $143M asset was prevented due to Capt. Gray's outstanding professionalism, T.O. discipline and adherence to flight priorities. *(Awarded May 2013)*

CAPT. CHRISTOPHER A. PALMER, 74 EFS, BAGRAM AF, AFGHANISTAN. Capt. Palmer was tasked to support a daytime exfil consisting of approximately fifty soldiers with twelve vehicles. During the operation, soldiers were ambushed by insurgents armed with mortars, small arms, and rocket propelled grenades, thirty meters from friendly positions. He engaged the enemy with multiple gun runs. During his third attack, three to five HE Incendiary rounds prematurely exploded. He applied emergency procedures, isolating critical flight systems. His malfunction assessment allowed him to provide coalition forces two more gun runs, allowing friendly elements to break contact and withdraw with zero casualties. His efforts resulted in the death of a high ranking Taliban commander and nine other insurgent fighters, capture of three AK-47s, two machine guns, and one rocket grenade launcher. *(Awarded June 2013)*

MAJ. JAYSON J. RICKARD, 466 FS, HILL AFB UT. Maj Rickard was #3 F-16CM returning to Hill AFB. A snowstorm reduced landing visibility minimums causing diversion to Salt Lake City International. #2 then experienced a computer failure, preventing NAVAID/radio tuning. Maj. Rickard, flying radar-assisted trail, expertly rejoined. With critical fuel states, he coordinated to lead the approach and execute a visual "drag" for separate landings. #2 became spatially disoriented, getting dangerously out of position and nearly going lost wingman. While flying over the densely populated city surrounded by high terrain and extensive air traffic with a spatially disoriented wingman, Maj Rickard calmly talked his wingman into position, simultaneously coordinating with ATC and flew the approach. Still IMC at the drag point with separate landings now impossible with weather and fuel preventing a second approach, Maj Rickard quickly briefed an emergency formation landing. Acquiring the runway at one mile, the flight executed a flawless landing. Maj. Rickard prevented the loss of life and tremendous community damage, while preserving a valuable combat asset. *(Awarded July 2013)*

Weapons Safety

STAFF SGT. MATTHEW T. CLEBURN, 49 MXS, HOLLOMAN AFB NM. During a routine Weapons Standardization flight line evaluation, Sgt. Cleburn identified a broken F-22 ammunition container element in the gun bay. Scheduled to fire the gun on the next sortie, this aircraft was armed with a fully loaded gun system and contained 480-20mm target practice rounds. His identification of the failed component allowed the weapons section to repair the gun system in minimum time and return the aircraft back to fully mission capable status in time for its next scheduled sortie and prevented further damage and/or destruction of an $830,000 gun system, preserved a $143M aircraft, and safeguarded the pilot's life. *(Awarded May 2013)*

AMN ALEX P. BOBON, 49 MXS, HOLLOMAN AFB NM. While supporting a 49 WG directed exercise, Amn Bobon was reconstituting 20MM High Explosive Incendiary (HEI) Ammunition that was to be reloaded onto aircraft. He noticed that one round had a loose projectile and two others had loose fuses. He referenced the inspection table in the item T.O. and discovered that both of these defects were critical deficiencies and the rounds were not considered safe for use. He segregated and marked the defective rounds and immediately notified the shift supervisor. This defect could have resulted in a slow burn causing the projectile to become lodged in the aircraft's cannon barrel. *(Awarded June 2013)*

TECH. SGT. LAWRENCE E. PEARSALL, JR., 380 EAMXS, AL DHAFRA, UAE. Sgt. Pearsall's superb situational awareness allowed him to recognize a leaking tire on a MHU-110 trailer loaded with over 3.5K pounds of live munitions. He directed the safe removal of the munitions from the trailer, preventing a possible blown tire. After diagnosing two M61A1 20MM guns, he oversaw the safe clearing of both systems. His efforts prevented a ground emergency and averted damage to the $250K gun systems. He identified and reported a damaged GBU-38 fuse initiator as well as loose navigation pod hardware. *(Awarded July 2013)*

Flight Line Safety

CAPT. JONATHAN M. FITZSIMMONS, 338 CTS, OFFUTT AFB NE. Capt Fitzsimmons discovered a life-threatening manufacturer assembly error mechanical deficiency of the RC-135 fleet quick-don oxygen masks that prevented one-handed operation of the rapid release hangers. During preflight, he recognized the retainer pin was incorrectly installed. He reported the hazard and researched technical specifications, comparing them to flight line samples discovering the vast majority of RC-135 hangers were faulty leading to a fleet-wide One Time Inspection. Despite inspection efforts, he again found a faulty hanger. He produced a detailed presentation to illustrate proper/improper pin positions. To date, 220 aircraft have been found with no further incidents for the RC-135 fleet. Capt Fitzsimmons' actions averted a life-threatening situation and lowered the chances of incurring costly aircraft damage across multiple platforms. *(Awarded May 2013)*

SRA RICHARD E. LEWIS AND A1C BRENT A. TESTER, 552 AMXS, TINKER AFB OK. SrA Lewis and A1C Tester were conducting an aircraft wash and corrosion inspection on an E-3 Airborne Warning and Control System (AWACS) and subsequently identified damage on the trailing edge of both roto dome struts. Further investigation determined the damage was caused when one of the four roto dome access panel fasteners became loose and bent against the strut while the roto dome was turning. SrA Lewis and A1C Tester notified the aircraft wash superintendent of the damage. The remaining roto dome access panel fasteners were then checked for the proper installation torque, and two additional fasteners were discovered to be improperly torqued as well. Their initial findings and subsequent discoveries initiated a fleet-wide one-time inspection of all E-3 AWACS stationed at Tinker, Kadena and Elmendorf AFBs and deployed locations. *(Awarded June 2013)*

STAFF SGT. TARA N. LABRANCHE, SENIOR AIRMEN BEATRICE PEREZ AND TRAVIS K. LANGE, 552 MXS, TINKER AFB OK. After powering up the radar on an E-3 aircraft, Sgt. Labranche and Airmen Perez and Lange noticed a burning smell originating from the aircraft radar equipment cabinet. After a scan of the radar equipment, no damaged equipment was found. Sgt. Labranche commanded Amn Lange to stay in the aircraft to monitor the radar equipment and ushered Amn Perez to follow her to inspect the ground cart. Upon reaching ground level, flames were noticed spewing from the ground cart's clutch package. Sgt. Labranche and Amn Perez combated the ongoing fire while Amn Lange de-powered the radar equipment and initiated the mishap response process. Their actions prevented catastrophic damage to a $330M aircraft, an $86K air conditioning ground cart, and grave injury to personnel in the area. *(Awarded July 2013)*

AWARDS OF DISTINCTION

Ground Safety

TECH. SGT. DAUREEN BURTON, 432 MXS, CREECH AFB NV. Sgt. Burton coordinated with wing safety, the fire marshal and CE to enable electrical setup of metals technology's equipment. She re-configured equipment valued at $320K to enhance compliance with safety policies and guaranteed proper power supply distribution. Sgt. Burton acquired a mandatory air conditioning unit for the oil analysis laboratory, ensuring compliance with mandated environmental standards, enabling more precise readings when analyzing oil samples, and resolving a previous safety write-up. She worked with CE to determine safeguards and procedures to manage the risks associated with the systems. *(Awarded June 2013)*

TECH. SGT. MATTHEW J. DIPASQUALE, 69 RG, GRAND FORKS AFB ND. Sgt. DiPasquale identified multiple program deficiencies within fall protection training requirements, unserviceable equipment and in some areas, the lack of a fall protection program. He researched AF regulations and OSHA standards to become a subject matter expert on the proper use of fall protection equipment and program requirements. He then inspected every work center in the 69 RG. During inspection of the Aerospace Ground Equipment section, he discovered four outdated and unserviceable fall protection body harnesses. He removed expired equipment from service and suspended climbing operations. *(Awarded July 2013)*

Unit Safety

23 CS, MOODY AFB GA. The 23d Comm. Sq Ground Radar maintenance work center eliminated safety hazards and strengthened security measures at the Next Generation Radar controlled area located in Lakeland, Georgia. The gate, fence and barbed wire were damaged during a series of unauthorized entries into the NEXRAD. Stolen safety equipment and vandalized light fixtures limited visibility and created fall hazards from the 100-foot tower. Along with physical damage, vandals also created crude booby traps, intended to harm military personnel conducting nighttime scheduled maintenance. They upgraded security measures by installing 730 feet of razor wire around the perimeter fence eliminating weekly break-ins. *(Awarded May 2013)*

71 EACS, AL UDEID, QATAR. The 71 EACS's Battlespace Command and Control system (BC3) lost all primary radars and 60 percent of its critical radio communications due to an interruption of the main communications trunk at Al Udeid. The battle management crew utilized "grease boards" and airspace depictions on a map display to visualize and de-conflict traffic in real-time—a first for many of the 71 EACS crew. The innovative de-confliction procedures of the 71 EACS crew ensured a safe AOR, immediate responses to 2 Troops-in-Contact situations, timely de-confliction for 65 USAF/Coalition aircraft from 28 civilian aircraft, and the expeditious clearing of firing. *(Awarded June 2013)*

Crew Chief Safety

A1C XAVIAR R. LEWIS, 379 EAMXS, AL UDEID AB, QATAR. A1C Lewis was supervising defueling of a B-1 when he noticed fuel cascading from the forward weapons bay tank. He instructed the APU operator to terminate, flagged down the expeditor to retrieve the spill kit while notifying the Production Superintendent and MOCC. He requested fuel cell technicians and a bowser. Discovering the leak was caused by a system over pressurization with no published emergency defueling procedure, he used a sump kit to drain 700 gallons and depressurize the system. A1C Lewis averted a potential fire hazard and loss of a vital combat asset valued at $283 million. (Awarded May 2013)

STAFF SGTS. BYRON CORLEY AND JORDY NEW AND SRA JOHN WATSON AND TAYLOR WILKINSON, 432 AMXS, CREECH AFB NV. During a routine engine maintenance ground run to troubleshoot a low manifold pressure malfunction on an MQ-1B Predator, the maintenance ground crew noticed an unusual whistling sound coming from the engine turbocharger. As Sgt. Corely pulled the throttle back, white smoke and flames started coming from the top of the aircraft. Emergency engine shutdown procedures did not extinguish the fire so Sgt. New disabled the aircraft's main power system. After the engine shut down, Airmen Watson and Wilkinson extinguished the flames. (Awarded June 2013)

A1C MICHAEL A. VAN DOREN, 57 AMXS, NELLIS AFB NV. Prior to aircraft start the F-16 Jet Fuel Starter was motored for one minute to check engine oil level before servicing. Once the Jet Fuel Starter was shut down, Amn Van Doren opened a flipper door on panel 3304 in order to service engine oil. While preparing to service engine oil he noticed a fire flare up on the opposite side of the keel beam, to the rear of the Jet Fuel Starter exhaust. With assistance from Sgt. Osburn, they extinguished the fire. The engine run personnel were able to egress the aircraft without injury. The $35M F-16 aircraft sustained no damage to the Jet Fuel Starter system. (Awarded July 2013)

QUARTERLY AWARDS

Flight Safety

CAPT. DAVID G. MITCHELL, 335 FS, SEYMOUR JOHNSON AFB NC. The Chiefs executed six OREs and flew 412 sorties with only one mishap—a Class-E expertly handled by the aircrew. Aircrew endured donning ACDE in response to notional airfield biological and conventional attacks, while also wearing inhibiting anti-exposure suits, combat survival vests, and all required flight gear for periods up to 12 hours. Capt. Mitchell ensured safe execution by leading monthly SEPTs, covering a myriad of potential emergencies and how to handle them during the exercises and inspections. He led squadron briefings during weekly aircrew meetings and ensured a safety focus during flight briefings, training, and exercises. The Chiefs showcased their capability to safely fulfill their combat ready flying duties during the ORI by flying mission sets for OCA-AO, AI, DCA, Long Range Strike, MI, CAS, SCAR, as well as executed Time-Sensitive-Targeting, Dynamic Targeting, and CSAR duties. Missions were executed in airspace encompassing all of eastern NC, SC, VA, and FL, within four Warning Areas, four Restricted Areas, and several other MOAs. Nine bases, six MDS airframes, JTACs, and GCI were safely integrated. They flew 126.9 hours and 67 sorties during two 17-hour air tasking order cycles in a 40-hour window with an astounding zero incidents. As the 335 FS CoS, Capt. Mitchell's flight safety program along with the 335th Fighter Squadron's technical expertise, decisive actions, and team synergy ensured the safe execution of $1.344 billion in F-15E assets with a 98 percent success rate leading to the overall EXCELLENT rating.

Ground Safety

STAFF SGT. DAVID C. MYERS, 325 MXS, TYNDALL AFB FL. During this period, Sgt. Myers recognized that access to a facility circuit breaker was impeded by a permanently installed ice maker. He promptly submitted an AF Form 332 to have the equipment removed and restored access to the circuit breaker. He also mitigated a potential fall hazard by highlighting an incorrectly constructed maintenance warehouse access ramp. The existing ramp was built with a 1-2 foot step-down on the high-traffic side of the facility access ramp; no guard railing was installed either. Gone unchecked this would have presented a potential drop off hazard during forklift operations. Appropriate 325 FW agencies validated his concern and the building contractor corrected the oversight by modifying the ramp area with a correctly graded slope. Sgt. Myers researched and created an MSDS file for 77 hazardous items that were being used in the work-center. He discovered that a majority of the work-center's hazardous material items required at least 10 minutes of continual eye flushing as part of their first aid procedures. Sgt. Myers submitted a subsequent AF Form 332 directing the installation of two permanently installed eyewash stations. He contacted the manufacturer and identified an approved door modification kit which he purchased/installed. He saved the unit $2.5K in replacement locker costs. Sgt. Myers up-channeled his finding to Maintenance Group to ensure widest dissemination and compliance. During the most recent Maintenance Group Tier 2 ESOHCAMP Inspection his HAZMAT program received a "zero-discrepancy" rating.

Weapons Safety

MASTER SGT. JEFF L. ALLEN, 28 BW, ELLSWORTH AFB SD. When a MHU-83 sheared off three lug nuts during movement, Sgt. Allen expertly ran a DULL SWORD investigation. He drove a depot metallurgical analysis which will help remove substandard parts and increase the reliability of mission-critical NCE. When an AFE life preserver squib inadvertently activated without known cause, he ensured the expended cartridge was tagged as an Ammunition Disposition Report and sent the cartridge to the Global Ammunition Control Point. When notified of a frequency conflict concerning local JASSM usage, Sgt. Allen worked to ensure the issue was accurately captured and then established a mitigation plan preventing the interruption of critical WSEP tests. He finished a comprehensive EMR survey documenting and evaluating all transmitters on base, diminishing the threats of accidental initiation. After the EOD range was decertified, Sgt. Allen's rapid and diligent pursuit of a top-to-bottom risk analysis of local training operations allowed the range to reopen without excessive delay. This ensured 28 BW EOD could fully support their heavy tasking of both short notice VIP escort missions and combat deployments. With 50 percent of the safety staff deployed or TDY at times during the quarter, Sgt. Allen was also active across the ground and flight safety disciplines. He actively assisted the BASH team with wildlife dispersement, clearing an estimated 400 migratory geese and eliminating a major threat to airfield operations. Sgt. Allen was a proactive MSR ensuring all wing riders were documented prior to the heavy riding season.

FY13 Flight

As of June 30, 2013

	Fatal	Aircraft Destroyed	Class A Aircraft Damage
1 AF			
9 AF	1		
12 AF	4	** X3	
USAFWC		**	
ANG (ACC-gained)			
AFRC (ACC-gained			

FY13 Ground

As of June 30, 2013

	Fatal	Class A	Class B
9 AF	*	3	2
12 AF	* *	5	2
AWFC		0	2

FY13 Weapons

As of June 30, 2013

	Class A	Class B
9 AF	0	0
12 AF	0	0
AWFC	0	0

Flight Notes

During the third quarter of FY13, ACC experienced four Class A flight AOR mishaps resulting in five fatalities, two destroyed aircraft and two destroyed RPAs. The ACC Class A chargeable rate thru 30 Jun is 1.55/100K. Although ACC flying units returned to flying operations, budget and flying hour cuts and their lingering effects remain ACC/SEF's main area of concern. Aircrew proficiency has waned, basic airmanship mistakes have risen and readiness backlogs are stressing the flight safety chain. Heightened diligence must be stressed across all aspects of flying operations to appropriately manage the associated risks the force is facing. Commanders, supervisors, safety staffs and individual Airmen must ensure strict emphasis on tech order compliance, sound airmanship principles and a return to basics approach as we recover from these recent stressors. Continue to foster a positive safety culture across your ACC flying units.

Ground Notes

We only have a few weeks left in the Critical Days of Summer (CDoS) campaign. Air Combat Command has suffered two fatalities and one permanent total disability thus far. Both fatalities involved motor vehicles. The first fatality, a PMV2, occurred when a civilian driver of a PMV4 struck our PMV2 operator. The second fatality resulted when an Air Force member was drunk, traveling at approximately 120 mph, lost control and hit a tree. A Navy sailor was also in the car and was killed. The third mishap was when an Airman struck a tree during a mountain bike event and broke his neck leaving him paralyzed.

Weapons Notes

Kudos to all; another good quarter thanks to your efforts minimizing weapons safety mishaps. During the quarter, we experienced one Class D and one Class E mishap. The mishaps were caused because of human factors issues and technical order violations. Human factors has become one of our biggest challenges with trying to mitigate mishaps in ACC. With constant environmental changes, new challenges arise; therefore, take a little extra time during the preparation and execution phase of your explosives operations. Continue to make conscious decisions to improve mishap prevention. Your selfless contributions keep ACC explosive operations safe.

Legend

Class A - Permanent Total Disability; Property Damage $2,000,000 or more
Class B - Permanent Partial Disability; Property Damage between $500,000 and $2,000,000
Class C - Lost Workday; Property Damage between $50,000 and $500,000
(Class Description Effective October 1, 2009)

** Non-rate Producing * Fatality

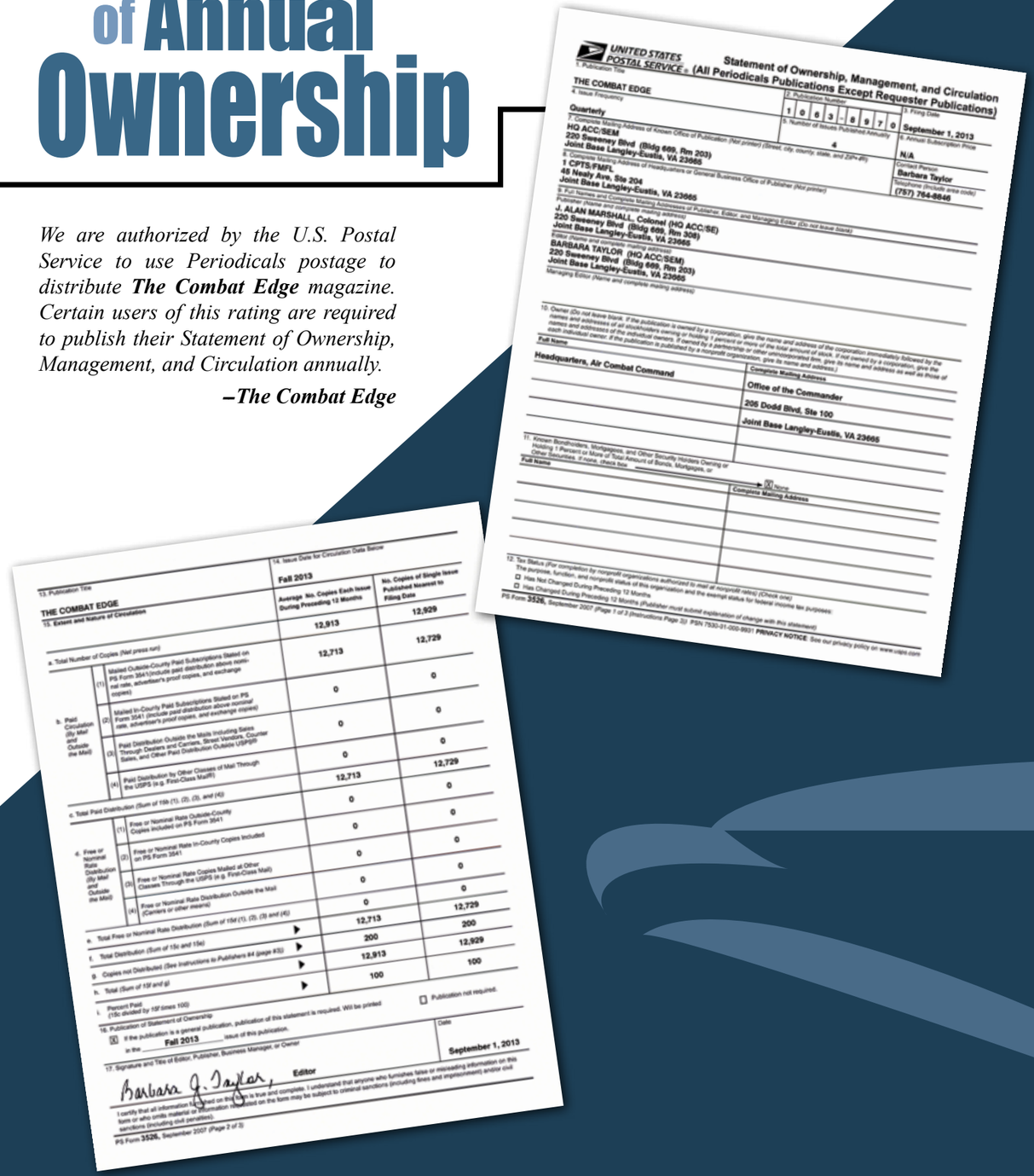
= Fatal = Fatal due to misconduct

Symbols for Mishap Aircraft

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.*

–The Combat Edge

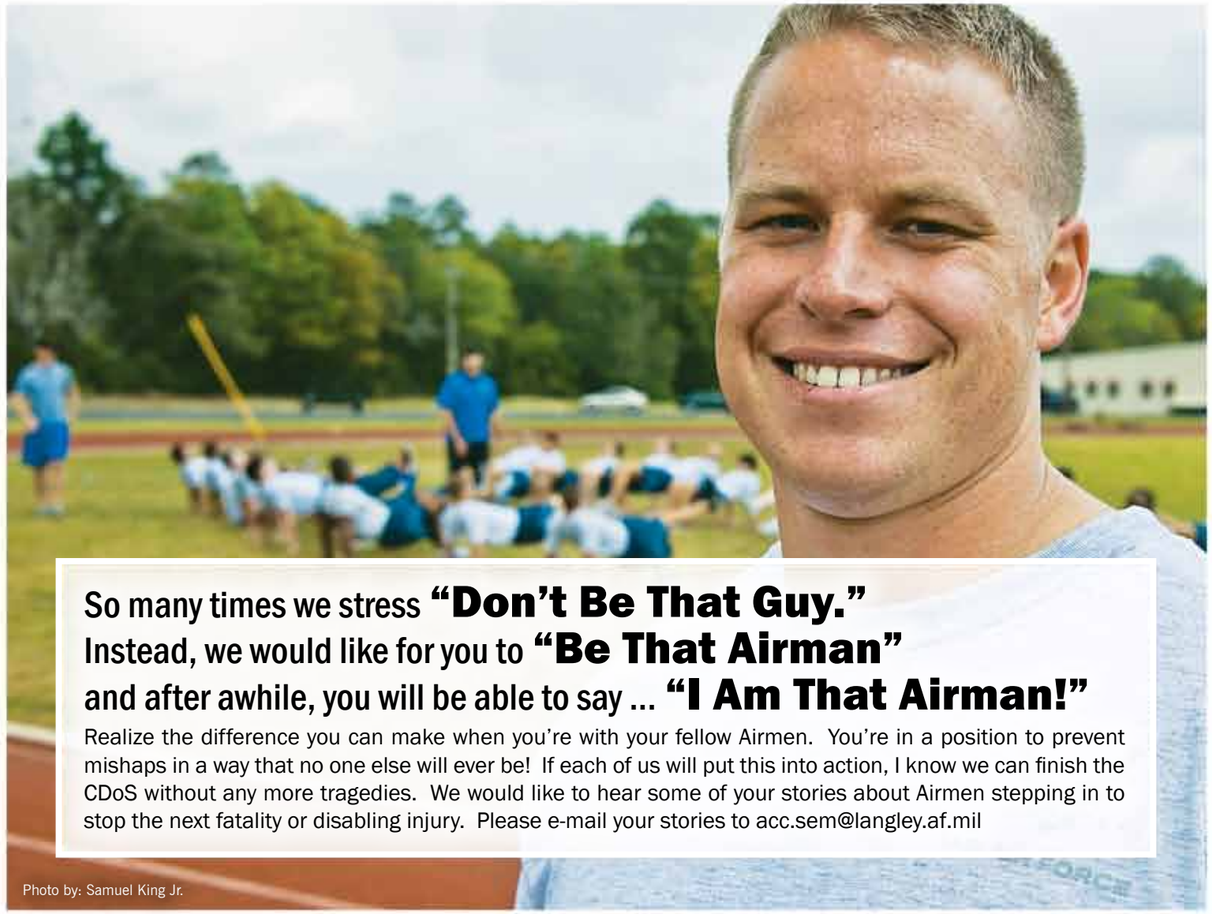


OVER the Edge MAGAZINE

DRESS FOR THE CRASH ...

Not the Ride!

PAGE 8



So many times we stress **“Don’t Be That Guy.”**
Instead, we would like for you to **“Be That Airman”**
and after awhile, you will be able to say ... **“I Am That Airman!”**

Realize the difference you can make when you’re with your fellow Airmen. You’re in a position to prevent mishaps in a way that no one else will ever be! If each of us will put this into action, I know we can finish the CDoS without any more tragedies. We would like to hear some of your stories about Airmen stepping in to stop the next fatality or disabling injury. Please e-mail your stories to acc.sem@langley.af.mil

Photo by: Samuel King Jr.

OVER the Edge MAGAZINE

Cover Photo by: Capt. Jennifer Richard

WHO HAS YOUR BACK?

BY B. TITUS

Both my boys grew up in a military environment, and so it was not unusual for them to understand military lingo. Just before they went off to college, I remember my husband telling them that having a good wingman with them would be the best asset they could have in all social situations. If they were going to drink, to do it responsibly and again always have a designated driver or a "good wingman" at their side. Good wingmen in social situations were worth their weight in gold. Of course, they gave that quizzical look that begged, "Seriously?" as though we were sitting them down for their first talk about the facts of life. Nevertheless, they both have experienced "good" and "bad" wingman.

It was during my youngest son's last year of college that he decided to attend a party to celebrate God knows what. It seems you do not really need to have a good reason to celebrate anything when you are in college. Anyway, he left with some friends to attend a party and as the night went on, he and his friends decided they had had enough of the party scene and decided to leave for their apartment, but of course not before stopping off at a nearby bar. After a few drinks, my son told his friends he was going to the restroom. Unfortunately, after going to the restroom he made a left turn instead of a right one and found himself outside in the alley. He walked around the building to the front door, but he was not able to get back in to the bar as it had reached its capacity, and no one else was being let in. Having left his common sense inside the bar, he decided to walk home alone. After walking a short distance he was approached by a helpful Atlanta city citizen who was willing to assist him in getting him home via a taxi.


Photo by: Airman 1st Class Alessandra N. Hurley

However, he wanted my son to first stop at an ATM for some cash as this helpful citizen had no money on him. At this point, being intoxicated may have helped my son as he could not remember his PIN and of course the helpful citizen decided it wasn't worth the effort to help out after all. There's a lot more to this story, but keeping it to the point, my son finally made it home. He was very fortunate that nothing serious happened to him. Obviously, his "friends" were not what you would call "good wingmen." Someone should have checked on him when he didn't return.

Now my oldest son experienced the "good wingman" concept when he took a trip to Spain. He was with a small group of students, and they had spent a few days of sightseeing when their sponsor became ill. The group had already arranged to go to the beach, and the sponsor decided they were responsible enough to let them continue their trek even though she would not accompany them. After arriving at the beach, they noticed a floating dock not too far from shore. For them, it was a no brainer that they swim out to the dock and check it out. They made it to the dock with no problem. All of them knew how to swim quite well, but it was on the way back to shore that my son became fatigued and felt he could no longer make the effort. He panicked and the situation could have become disastrous if not for his "wingman" that stayed with him and coached him back to shore. Obviously, that was a good example of a "first-rate wingman."

Naturally, I knew nothing of the above incidents until several years later when both my boys were sitting around and recalling growing-up stories. It was now my turn to ask them, "Seriously?"

A good wingman is not comprised of any specific gender, age, or race. What it does require is a commitment to your family, friends, and co-workers to always watch out for their best interest. One Air Force fact sheet states that, "The Air Force established the wingman program to encourage Airmen and their families to look out for each other and to intervene when signs of stress are observed." Both my boys are now grown and living away from home, but we still encourage them to always have that good wingman around. The wingman concept certainly is not anything new. It can be traced back to biblical times in Genesis 4.9., "Where is your brother Able?" Able replied, "I don't' know, am I my brother's keeper?" The Hebrew word "Shamar" or "keeper" means to guard, to protect, or to keep watch. No one should literally be their brother's keeper; however, we should always be watching out for one another—we should always have each other's back. I came across a quote I felt summarized this article well ...


Photo by: Senior Airman Clayton Lenhardt

"I wondered why somebody didn't do something ... Then I realized I am somebody."


Photo by: Airman 1st Class Christine Griffiths

DRESS FOR THE CRASH

... not the ride!

BY MASTER SGT. SHAWN R. MALCOLM

June 9, 2004, started out as just another normal day for Tech. Sgt. Shawn Malcolm at Dover Air Force Base, Del. An experienced motorcycle rider, the loadmaster was returning from a farewell dinner on his Harley Davidson when a deer suddenly ran across his path. As always, Shawn was decked out in all the necessary personal protective equipment, was traveling three mph under the posted speed limit of 65 mph, and had not consumed any alcoholic beverages (he knew he would have to make the 90-mile ride back home).

Despite these precautions, his reaction time was almost zero, and he had no choice but to hit the deer, laying his bike down in the process where it came to rest in the median. The aftermath of the collision left him shaken and dazed in the middle of the highway.

"I remember looking left and seeing headlights coming and thought, 'Oh!%@$, I have got to get out of the road,' "said Shawn.*

The headlights belonged to a tractor-trailer, whose driver was unable to stop his vehicle before running over Malcolm's lower abdomen. A Good Samaritan saw the wrecked motorcycle in the median and stopped to render assistance to Malcolm, who was now unconscious. While making an initial assessment of the scene and Shawn's injuries, the Good Samaritan saw another vehicle approaching and frantically tried to flag it down for assistance. What he did not know at the time is that the approaching vehicle was a Cadillac Escalade that had recently been stolen only five miles from that location and the perpetrators certainly were not planning to stop to render aid at an accident scene. The Good Samaritan dove out of the way to avoid being run over by the Escalade, which then struck Malcolm, dragging him 30 feet down the highway.

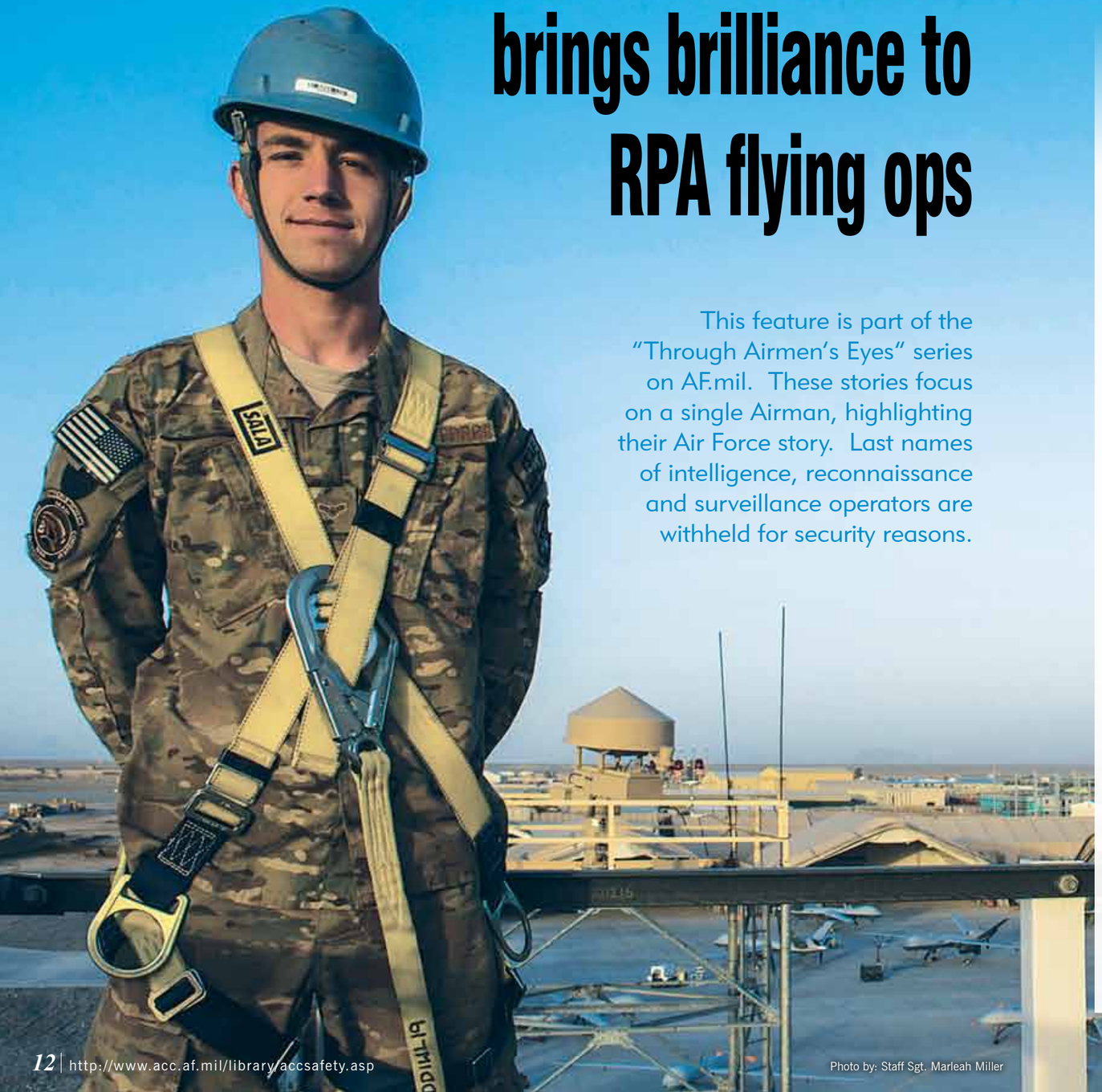
He was quickly transported to the nearest emergency room once police and emergency medical personnel arrived on the scene, at which point the decision was made to airlift him to the major trauma center approximately 100 miles away. Shawn's wife, commander, and first sergeant were told not to put themselves in danger while rushing to the trauma center because they did not anticipate that he would survive the duration of the flight. In fact, Malcolm suffered two collapsed lungs and a stroke during the helicopter flight, but the skillful flight nurses kept him alive and delivered him to the hospital's best trauma surgeon. His injuries also included an open-book pelvis fracture, a punctured bladder, a broken collar bone, and more painful road rash than one could possibly imagine. Malcolm emerged from eight hours of surgery in a coma, with doctors giving him little hope for survival. Astoundingly, he awoke from the coma three weeks later, although doctors still believed that Shawn would never walk, talk, or be able to care for himself again. His Air Force career was certainly over ... or so they thought.

The story thus far is one of prevention and preparation. Shawn Malcolm strongly believed in the motorcycle rider's credo of **Dress for the Crash, Not for the Ride!** He is most certainly alive today because he wore the necessary personal protective equipment. At the same time, this story illustrates that no matter how experienced one is, and no matter how prepared one might be for contingency situations, no one is immune from the possibility of being in an accident (although, wearing the appropriate safety equipment significantly enhances one's chances of survival).

The rest of the story, however, is one of perseverance, dedication, and the will to succeed. With the aid of a miraculous physical therapy team, Shawn first learned to walk with the assistance of a walker after just a few months in the hospital and rehabilitation center. His physical therapist was a marathon runner and demanded 110 percent from him every day, and she coached him through a slow jog, then a quicker jog, and finally a short run. Nine months after his mishap, Malcolm was removed from convalescent leave and returned to duty in his flying squadron. Although doctors were extremely impressed with Shawn's progress up to that point, his first medical evaluation board decided that he did not physically meet Air Force standards, but agreed to reevaluate him one year later. Shawn was determined more than ever to remain in the Air Force, and a few months later he passed a complete Air Force fitness test with no profiles and no waivers. His second medical evaluation board returned him to full duty, but Malcolm was not able to return to flying status due to the numerous waivers that would be required; therefore, he chose to retrain into the Safety career field.

Today, Malcolm is the Wing Safety superintendent for the 505th Command and Control Wing at Hurlburt Field, Fla. Although his duties span a wide variety of safety topics, his passion continues to be motorcycle safety and he hopes that by educating fellow riders, he can perhaps reduce and abate motorcycle mishaps. He says that while motorcycle riders might not feel "cool" wearing all of the required personal protective equipment, he is living proof that it can save one's life. Remember, **dress for the crash, not for the ride!**

Airman "Scrappy Doo" brings brilliance to RPA flying ops



This feature is part of the "Through Airmen's Eyes" series on AF.mil. These stories focus on a single Airman, highlighting their Air Force story. Last names of intelligence, reconnaissance and surveillance operators are withheld for security reasons.

BY MASTER SGT. LEISA GRANT

In high school, Airman 1st Class Alexander performed in the jazz and marching band, played on both the soccer, and track and field team—logging a 4 minute, 21 second mile—all while completing four years of course work in three.

So it should not be surprising that as a cyber transport specialist assigned to the 62nd Expeditionary Reconnaissance Squadron here, he continues to stay busy.

Within the first week of landing for his first deployment, his coworkers assigned him the nickname Scrappy Doo, for a famous cartoon character well known for his tenacity, high energy and small size.

This energy helped Alexander single-handedly research, plan and present an operational improvement to RPA leadership here.

"Alex took a holistic view at how we do our operations from the ground in a critical phase of flight to passing the aircraft," said Maj. Tim, the director of operations at the 62nd ERS.

He looked at everything from frequency spectrums to times at which RPA crews were launching and recovering aircraft, and analyzed how the architecture works to communicate with the aircraft, Tim said.

"Alex put together a plan that drove our interference levels to essentially zero, fixing potential interference between the aircraft and their launch and recovery periods."

This had not been accomplished in the last 10 years of RPA operations at this location, Tim said.

"This enabled us to continue our mission safely and increase our capacity 25 to 30 percent," he added.

It was a unique upbringing partnered with an insatiable desire to learn about cutting-edge technologies and constantly solve problems that brought Alexander to this point.

"My dad always challenged us to fix things on our own," said Alexander, adding that technology was always present in their home and while his parents gave guidance for solving problems, they allowed him and his siblings to find the solution and fix the problem on their own.

"I absolutely love mysteries and troubleshooting," he said.

With only their minds, hands and available resources around the house, the four kids would more often than not learn exactly what was wrong—in a matter of minutes, hours or days.

With such an outstanding accomplishment early is his career and just one month into his deployment, Alexander has set his goals high to advance in his current career field as an enlisted member, and eventually commission as an officer.

Alexander challenges himself equally in his personal and professional pursuits. He is currently training to finish a 72-mile relay in his home state of California later this year—solo.

Tim sees a bright future for Alexander.

"The Air Force permits ordinary people to do extraordinary things," he said. "Alex is an extraordinary person doing above and beyond extraordinary things."

Photo by: Staff Sgt. Marleah Miller