Making the Call

DACT Good ...
Thunderstorm Bad!

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THE COMBAT EDGE's lead-off article this month is a special message from COMACC reminding us that it's each aviator's responsibility to "make the call" if ever in doubt that they are not in total control of their flight. These are certainly words to live by.

This edition also focuses on all weather operations. March is a month when we need to stay alert for the lingering and sometimes unpredictable affects of winter. Weather is not just something to react to, but is part of the aerospace environment that we have to plan for and safely handle every day. It requires attention to developing weather patterns and smart decisions on the ground and in the air. Unfortunately, this year ACC already has experienced a number of aircraft lightning strikes and a considerable amount of facility damage due to adverse weather.

Fortunately, we have a number of good articles this month to learn from. Major DeStasio's and Major Williams' articles provide excellent accounts of "There I Was" experiences with thunderstorms. SSgt Roughton reminds us how we can use ORM to help safely accomplish the mission during cold weather. TSgt Koch describes how cold temperatures can complicate munitions handling. Each article has lessons learned we can all take to heart. Safely conducting operations in all kinds of weather requires planning, training, constant risk management assessments, and being ready for the unexpected. Don't let the lingering affects of winter or unexpected weather catch you by surprise.

Colonel Kevin W. Smith
ACC Chief of Safety
We haven't had a Combat Air Force (CAF) aircraft combat loss since Operation ALLIED FORCE. Similarly, we have had only one CAF flight related combat fatality since Operation DESERT STORM. In the same time period we have lost 274 CAF aircraft in training and suffered 119 fatalities.

While it will always be essential to train realistically, we must continue to do everything we can to keep our warriors alive and our aircraft intact. Combat aviation training is both challenging and dangerous, so we can expect, but should never accept, training losses.

What kind of in-flight performance mistakes have we seen recently across ACC? The following are just a few that highlight breakdowns in the fundamentals:

- Wingman executing an aggressive 150-degree slice back at night and impacting the ground
- Wingmen losing sight of their lead and colliding
- Flight leaders not monitoring their wingman and colliding
- Wingman failing to over shoot properly on a rejoin, losing control of the aircraft, and ejecting
- Instructor pilot executing a defensive turn into the ground

So how do we reduce losses such as these?

Consider the USAF Weapons School, the most demanding training we have in the CAF — four losses for the same timeframe as above. Why? My take is that it is the combination of a building block approach, “no-quarter” for in-flight deviations, strong flight leadership, and no slack regardless of rank or position in the debrief. Weapons Instructor Course (WIC) instructors stay ahead of the jet and flight. When in-flight performance warrants, they do not hesitate to make a termination call. Their “calls” might be viewed as conservative, but are based on aggressive in-flight leadership and achievement of specific training objectives.

Sometimes the termination call is made by the student, when their cranium is not in the game. Sometimes the call is made by the instructor/flight lead, but it is all about leadership and control. These calls save combat pilots' lives and aircraft. Clearly, the realistic combat training environment of the WIC also brings a safety record that confirms the pay-off of persistent and aggressive emphasis on staying ahead of the jet and the flight.

Do this: If there is any doubt about whether or not you are under total control in your cockpit and in your flight, “make the call” for yourself, your crew, or the flight. The call may be a Knock-It-Off (KIO); it may be directive deconfliction vectors and altitudes; it may be Instructor Pilot (IP) direction to go to the alternate mission; and it can certainly be a terminate for yourself. Flight leads and IPs can always bring the flight home and make an instrument approach and landing if the flight is not up to the in-flight tasks of the briefed mission.

We count on each and every pilot and crewmember to be ahead of the flight for the day and terminate the mission when you are not 100% on top of your game. Let’s not do an enemy pilot’s job for him. Be a leader, be prepared, be ahead of every flight task, and don’t hesitate to make the right “call.”
If there is any doubt about whether or not you are in total control, "make the call" for yourself, your crew, or the flight.
The mission was a 2 v 2 Dissimilar Air Combat Training (DACT) mission with Langley F-15s against two F-14s from Oceana Naval Air Station...
The weather was clear and a million with the possibility of area thunderstorms. The fights went great! We had three engagements and managed to target all of the Tomcats without losing an Eagle.

Now it was time to go home. After rejoining with my flight lead and as we turned back to the west, I noticed a huge thunderstorm directly in our flight path. My flight lead’s experience immediately showed as he asked Norfolk Approach if they saw any rain showers in our flight path. Norfolk Approach responded “No.” Comfortable with that answer, my flight lead sent me to a 2 nautical mile radar trail for the rest of the recovery.

As we got closer to the towering cumulonimbus with its distinct anvil resulting from the solar winds (because I’m sure the tops of these clouds were not in our atmosphere), I began to get a little nervous. However, I had the comfort of knowing my flight lead had been flying Eagles for quite some time and he would never steer me wrong. One last call to Norfolk Approach, “Norfolk, do you see any rain ahead of us?” to which they responded “No.”

My thoughts went back to those DASH 1 pages I thought I would never need. You know, the ones about thunderstorm penetration, and began to run the checklist. I lowered my seat, turned up the cockpit lighting and tried not to touch anything metal (my own added step). No rain? I thought as we entered the towering clouds.

At first there was only a little light turbulence — you know — the kind that may make you spill your martini on a jetliner. I calmed down and thought to myself “This isn’t all that bad.” Then it hit. Okay, now I would definitely be spilling my martini. The turbulence was bad, but nothing like the sound of the rain hitting my windscreen. It was so loud I could hardly hear the radios, which was good because all they were doing was crackling from the cloud-to-cloud lightning. I thought to myself, “self, just re-apply the comfort of old experience, my flight lead’s thinking, and managed to target a 2 nautical mile radar trail. At first there was only a little light turbulence — you know — the kind that may make you spill your martini on a jetliner. I calmed down and thought to myself “This isn’t all that bad.” Then it hit. Okay, now I would definitely be spilling my martini. The turbulence was bad, but nothing like the sound of the rain hitting my windscreen. It was so loud I could hardly hear the radios, which was good because all they were doing was crackling from the cloud-to-cloud lightning. I thought to myself, “self, just re-

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Bottom line, we should have saved enough gas for the ride home and a little extra based on the forecast. Better fuel planning would have allowed us to divert around the thunderstorm or divert all together. Even with my and many other examples, I continue to read of pilots taking on thunderstorms and loosing. Thunderstorm guidance is very clear and unlike the view out of my cockpit on that rainy day, there is no gray area.
By SSgt Randy Roughton, Grand Forks AFB, N.D.

ORM Keeps Us Safe

Teeth chatter, hands shake, even bones ache through cold-weather gloves.

While almost all North Dakota wildlife is in hiding, and most people here are sheltered indoors from the sub-zero temperatures and brutal 40 mph winds, 319th Aircraft Maintenance Squadron workers are fighting the elements while doing their job on the flightline.

"Cold weather is a totally different game," said TSgt Brian Greene, a 319 AMXS hydraulics technician. "Everything is more complicated, your work load quadruples, but it's the wind that kills you."

Maintainers at Grand Forks are outstanding examples of how to use Operational Risk Management in conducting operations safely. In extreme cold, airmen in the 319th Maintenance Group have always used a buddy system for working on the flightline. People check their buddies frequently for signs of cold injuries and work in unheated areas cannot exceed 1 minute. They also use work-rest cycles at a recommended rate of a 10-minute break each hour, with more frequent breaks as the temperature decreases.

When the wind chills reach below minus 34, all lower priority outdoor work stops. Outdoor work is accomplished only after assessing risk and mission priorities, and any work is then performed under direct supervision. All outdoor work is suspended when the temperature drops below minus 48.

When the wind exceeds one minute, they have their buddy system in place. "We stress the usage of proper full protection hardware that's available for de-icing operations and walking on the wings," Howe said.

Although winter conditions give the maintenance crews considerably more work and worries, planning often helps limit the exposure to the cold, Greene said. Still, there will be times when there is no avoiding the worst Mother Nature has to offer.

"When (on a cold day) we know an airplane won't leave until 4 p.m., the first thing I do is call the aerospace ground equipment shop for a heater, so we can work with the weather not even being a factor," Greene said. "But when the aircrew is already on the plane ready to launch, we have to get working immediately...I have someone call to get a heater as soon as possible."

"It's like an icebox when we first get here," said crew chief Airman 1st Class Jonathan Mullins. The squadron's high temporary-duty rate has made coping with weather conditions even more difficult.

"You come back from Turkey, where it's 85 degrees...to here, where it's totally different," Greene said. "Then, you go to Base Y. So the weather operations change back and forth. It's much easier when you're here as the weather gradually changes. Going from here to the desert is a big factor."

All of these operational requirements make ORM in their daily operations critical. Considering basic flightline tasks in cold temperatures and high winds can be extremely hazardous if you don't weigh the benefits vs. the risks involved. However, for these airmen, by using the six step ORM process. They accomplish their mission, quickly, effectively, and safely.

...by using the six step ORM process. We accomplish our mission, quickly, effectively, and safely.
It was supposed to be an uneventful pilot training sortie in the comfortable T-1A. "Comfortable" would have to wait for the La-Z-Boy recliner and wide-screen TV at home.

The mission started from Columbus Air Force Base, Miss., as a 3-hour formation flight to Chattanooga, Tenn., and then a 2-hour copilot ride home for the student. The copilot return leg included a drop-in to Warner Robins, Ga. On the second sortie, the plan started falling apart as the automated terminal information system at Robins AFB, Ga., reported, "Thunderstorms within 10 miles and the potential for wind shear and hail."

They may as well have hung a "closed for business" sign out as far as we were concerned. We elected to skip the approaches there and go on to Columbus. We climbed to flight level 260 and asked Atlanta Center for some routing changes to avoid the obvious weather on our radar. Then we'd be home free ... or so we thought.

The radar painted nothing remarkable. But suddenly we were in a ping-pong ball — a flash of light slightly off the nose, a muffled bang, a slight buffet ... and a scream from the student copilot.

It took a second or two to soak in what had happened. If we hadn't been struck by lightning, it had been pretty close.

We checked the aircraft systems. Everything appeared to work perfectly. I checked the jump seat student off to look out the rear windows to check the outside of the airplane for signs of a strike. He couldn't see anything. While we referenced our DASH 1 (the aircraft's owner manual) for guidance, I began to wonder if it wasn't just a close call.

I called our operations desk to get approval to land early, as flight durations are very specific in pilot training. Ops approved the request, with the recommendation to declare an in-flight emergency with approach control to have the fire crews respond.

The DASH 1 provided little help other than to say be careful of grounding the aircraft after a possible strike as residual electrons may have stowed away on the aircraft.

We continued to check the aircraft systems repeatedly for the 20-minute flight to Columbus, and reviewed the emergency ground egress procedures in case the fire crews wanted us to get out of the jet.

We recovered into Columbus uneventfully. The fire crews found no signs of a lightning strike and cleared us to park.

I really felt stupid having all these people respond to the aircraft and getting the squadron involved in this non-event. However, when we parked, got out of the aircraft and started looking around the jet a little closer, it turned into an "Easter egg hunt."

Maintenance eventually found 14 burn marks. It looked like a cigar had been pressed onto the aircraft skin. Additionally, the elevator horn had been delaminated. Discussion ensued as to whether we had been struck by lightning, or was it just a bad case of static discharge? I don't think we'll ever know. But I do know there was a significant exchange of electrons one way or another between my jet and the clouds.

The lesson for our crew was that the lightning event in this case proved subtle. With all the aircraft insulation, the sound wasn't significant (though the copilot's scream was). The systems worked perfectly, and there were no large smoking holes obvious to us. Nevertheless, we sustained a pretty severe jolt that did some minor structural damage to one of the flight controls.

With all the flying out there in the real world, it's tough for pilots to make that call whether to continue a mission or not. But this event reinforced with me the marching orders we receive as flyers in Air Education and Training Command: There isn't a flight we can't do tomorrow. So if something doesn't seem right, bring it home. We'll try it again tomorrow.

Major Williams is a T-1 instructor pilot with the 48th Flying Training Squadron at Columbus Air Force Base, Miss. Reprinted Courtesy of Torch, November 2002.
Subtly Exchanging Electrons

T-1 gets zapped in lightning storm

By Maj Joe Williams, Columbus AFB, Miss.

... we reviewed the egress procedures in case we had to get out of the jet quickly.
Moving Ammo in the Winter

By TSgt Jeremy J. Koch, Keflavik NAS, Iceland

This is a munitions tale from the great white North. It involves an inherently safe munition, but has the potential to affect any unit moving ammo in freezing weather.

The place is Keflavik Naval Air Station, Iceland. While the scope of the Air Force’s mission in Iceland has changed in the last 15 years, the basic job for Munitions Systems troops remains the same. Among other duties, ammo personnel supply explosives to the two Air Force airframes operated out of Iceland: F-15C fighters and HH-60 helicopters. The F-15s are used to interdict potentially hostile aircraft encroaching on Icelandic airspace. Pararescue folks use the helicopters to rescue both downed aircrew and foundering sailors. In addition, pararescue personnel also need to fire a large amount of ammunition from their helo-mounted GAU-2/B mini-guns to maintain proficiency for hostile engagements. They fly at all hours, throughout the year. That means ammo troops have to deliver serviceable ammunition, on time, even during winter.

It was during one of these routine, but cold deliveries that things did not go quite as planned. The primary explosives route had been cleared of most of the previous night’s snow. The vehicles had been checked out and were operational with all the necessary safety gear. The technical data had been consulted and the crew book filled out for a delivery of 15,000 rounds of 7.62 mm ammunition in M548 containers. Because of our location just south of the Arctic Circle, the day was short and the sun had not yet made its appearance.

Since this delivery did not involve a full pallet load of ammo, the cans were loaded on the Munitions Flight’s 1.5-ton flatbed truck. Tie-down straps were run over the cans and the excess strapping was used to put an extra turn in the tie-down ratchet. The driver was assured of the load’s security when he completed a final walk-around.

But then, on the way to see the Jolly Greens, it happened... While negotiating a turn, the driver was suddenly relieved of his load — the entire payload was strewn across the frozen earth. Fortunately, the ammo was in Special Packaging Instruction configuration so the entire load remained sealed within the shipping containers.

What happened? The ultimate cause was icing — the kind of ice that magically appears on every horizontal surface during a snowstorm. You wouldn’t think twice about scraping the ice off your windshield, but would you consider doing the same to your truck’s bed?

It’s important because of what happens to ice when you place stuff on it. Did you know that the
melting temperature of most molecules decreases in relation to increasing pressure? Well, the opposite is true for water-ice. The melting point rises when pressure increases. This is why glaciers move and what makes ice-skating possible. The skater, with the help of gravity, puts considerable pressure on the ice while standing on the skates. This causes the ice to melt a bit at the point of contact. This, in turn, provides a wonderful lubricant of water on which the skater’s blades ride.

This same phenomenon occurs with big, bulky ammo cans. The effect is a little different due to the construction of the container bottoms; but at 120 pounds per can, the pressure is enough to cause liquefaction of the ice.

So what can others do to ensure such an incident does not recur? The most obvious action is to remove ice from the equipment load bearing surfaces prior to loading (this includes forklift tines). Dealing with a wood truck bed? Well, attempting to remove all the ice from such a surface can prove to be an impossible task so there are other things that can be done to mitigate the problem. One near perfect solution is to use a minimum of three tie-down straps: one routed over the row of cans and the other two routed through the can handles, both before and behind each row. Since many munitions containers are not equipped with handles or other items allowing that type of tie-down configuration, a third option is to use a truck with a stake bed or pickup style bed.

Why weren’t any of these options used that day? Because no one recognized the hazard potential before the incident occurred (at least no one made an issue of it). We hope by sharing this experience, we have done our best to shorten the learning curve of others who are working or will be working in icy climates. Shouldn’t your unit be as prepared as possible?
How many newspaper articles or news stories have we all seen about non-intended firearm-related deaths or injuries? As I reflected on these, I realized all of them could have been prevented if only safety rules and common sense had been used.

For Air Force personnel, safety guidelines can be found in Air Force Instruction 31-207, Arm ing and Use of Force, and Air Force Manual 31-229, USAF Weapons Handling Manual. Following are a few tips to help with the common sense that’s needed.

First and foremost, treat all weapons as if they are loaded ... at all times! Everyone should always assume every firearm is loaded, whether stored in the armory or being used in a training environment, at work, or at home. You must pay attention to what you are doing when handling a gun. There are a lot of elements involved in always treating a weapon as if it were loaded.

For example, always keep a weapon pointed in a safe direction. If you do it all the time, it becomes a habit and will become the only way you know to handle a weapon. I have often heard people say we should only point our weapons at things we intend to shoot, but what happens if you are in a classroom training environment? While no one intends to shoot the walls or ceiling, we usually point our guns at these “targets” instead of other people in the classroom. We must look at each situation and point our weapons at whatever will cause the least amount of damage. It is much easier to explain a hole in a clearing barrel than in another person — although neither is acceptable!

Get to know a weapon before you ever touch it! Just because you might be an expert on one weapon does not mean you are an expert on all weapons. Learn the characteristics, capabilities, limitations, and safety features of each weapon you handle. Each weapon has different operational factors. A BB gun can cause serious injury if not handled properly!

If your weapon is not actually loaded for duty or hunting, then you should constantly “clear” it. Clearing means nothing more than checking the safety and ensuring no ammunition is present. I personally believe failure to do this is one of the biggest causes of incidents. Think about it, if you know your firearm is not loaded and you keep it pointed in a safe direction, how can it be used to injure others? But you hear it all the time: “I thought it was unloaded.” Bottom line: unloaded weapons cannot be fired!!

Never place your sights on anything or your finger on the trigger unless you are absolutely positive you are going to shoot. It is way too easy to do either of these and then get startled. Just don’t put yourself in that predicament.

Be aware of what others around you are doing! While you could be doing everything exactly as you are supposed to, all it takes is another person doing something wrong and you could pay the ultimate price. If people around you are loading weapons for duty, don’t turn your back on them. Be vigilant and immediately correct anyone that is not following sound safety practices. If you don’t say anything, you are contributing to the problem.

A combination of not knowing how to properly use the equipment, not properly caring for the equipment,
and not constantly paying attention while handling the equipment can have disastrous results. For example, an M16 rifle was destroyed when an individual fired a round with a cleaning rod in the barrel; a rifle exploded when it was fired after an individual placed the muzzle into some rocks and blocked the barrel (sand and water can have the same effect); and live rounds were “accidentally” mixed with blanks during training. Each and every one of these incidents could have been prevented.

It is everyone’s responsibility to ensure sound weapons safety procedures are followed. I firmly believe you can avoid all firearm incidents by following safety procedures, using common sense, and by paying attention to everything around you.
B-1's are no longer assigned to Mountain Home AFB. They are assigned to Dyess AFB, and Ellsworth AFB.
Primary Function: Long-range, multi-role, heavy bomber

Builder: Boeing, North America

Operations Air

Frame and Integration: Offensive avionics, Boeing Military Airplane; defensive avionics, AIL Division

Power plant: Four General Electric F-101-GE-102 turbofan engine with afterburner

Thrust: 30,000-plus pounds with afterburner, per engine

Length: 146 feet

Wingspan: 137 feet (41.8 meters) extended forward, 79 feet swept aft

Height: 34 feet

Weight: Empty, approximately 190,000 pounds

Maximum Takeoff Weight: 477,000 pounds

Speed: 900-plus mph

Range: Intercontinental, unrefueled

Ceiling: More than 30,000 feet

Crew: Four (aircraft commander, copilot, offensive systems officer and defensive systems officer)

Armament: Three internal weapons bays can accommodate up to 84 Mk-82 general purpose bombs or Mk-62 naval mines, 30 CBU-87/89 cluster munitions or CBU-97 Sensor Fused Weapons and up to 24 GBU-31 JDAM GPS guided bombs or Mk-84 general purpose bombs

Date Deployed: June 1985

Unit Cost: $283.1 million (fiscal 98 constant dollars)

Inventory: Active force, 72; ANG, 18; Reserve, 0
Pilot Safety Award of Distinction

Capt Schluter was flying an F-16C as #1 of a 2-ship Basic Surface Attack (BSA) sortie in the North UTTR. While orbiting over a target area at 11,000 feet MSL and 300 KIAS, Capt Schluter felt a thud followed by a persistent vibration. Recognizing a potentially serious engine malfunction, he pointed towards Wendover Airport, the nearest divert field. Capt Schluter tested the throttle response and found the engine indications to be normal at all power settings, but the vibrations worsened as the throttle approached idle. The only other indication was an “ENG 020” fault on the aircraft’s maintenance fault list. Noting the severity of the engine vibrations, Capt Schluter immediately began to climb to reach a 1-to-1 glide ratio to Wendover Airport. Once the glide ratio was achieved, he set up for a Simulated Flameout (SFO) approach to the 8,000 foot runway. Capt Schluter recognized that landing speed and distance would be critical, given his relatively heavy gross weight, along with the runway length and lack of arrestment capability at Wendover. Overcoming these potential problems, Capt Schluter flew a flawless SFO and successfully stopped the aircraft on the runway. Post-flight maintenance revealed that a mechanical failure had produced significant damage to the turbine section of the engine. Had it not been for Capt Schluter’s quick diagnosis and skilful performance, it is likely that this damage would have led to catastrophic failure of the engine. Capt Schluter’s flawless analysis under pressure, timely decision making, and superior flying skill ultimately prevented the loss of a $28 million combat asset and potential loss of life.

Flightline Safety Award of Distinction

On Oct. 16, 2002, at approximately 1500, SrA Carter, an assistant dedicated crew chief, was dispatched to change a Constant Speed Drive (CSD) filter on an F-16 aircraft. Upon opening the CSD panel, he noticed a nut and washer fall to the ground. He looked around the panel and did not recognize the items as being part of his systems. He suspected the hardware belonged to the engine and notified the specialist expediter who directed an engine specialist to inspect the aircraft. SrA Shuman, an aerospace propulsion journeyman, looked at the nut and washer, and recognized them as being part of the engine’s Oil Pressure Transmitter (OPT). He confirmed his suspicion by comparing the nut and washer with a pulled engine. Returning to the aircraft, he conducted a more in-depth inspection and noticed a bracket bolt was missing. Unable to find the bolt, he notified SrA Carter and the specialist expediter. SrA Carter asked five of his crew chief peers to assist in removing the right ventral fin panel (4302), the engine exhaust nozzle fairing (4409), and the “bath tub” panel (4305). Upon removal of panel 4305, they found the missing OPT bolt lying in the panel and a screw bag with one 4305 panel bolt secured to the inside of the 4305 panel. They suspected three more bolts for panel 4305 were still missing. They engaged in an intensive search of the engine bay area. This search led to the discovery of the three additional bolts from panel 4305. What they discovered was the aircraft had recently been in Phase where the OPT bolt, nut, and washer were not installed correctly. Panel 4305 was incorrectly installed with the screw bag containing the four panel bolts attached to the inside of the panel. When the aircraft flew it caused the various pieces of hardware to dislodge and travel around the engine bay. SrA Carter and Shuman demonstrated outstanding professionalism, initiative, and the essence of the Air Force core values by investigating each anomaly and taking appropriate follow-on actions. Safety-oriented teamwork, coupled with a keen sense of attention to detail, prevented serious damage to the engine and engine bay components, and possible loss of a $28 million combat aircraft and aircrew member.
Ground Safety Award of Distinction

While performing routine inspections, SSgt Severson discovered that the removal of asbestos brakes on 102 munitions handling trailers had not been properly documented. This caused a complete work stoppage. His expedient coordination with Bioenvironmental resulted in a negative finding, thus ensuring workers were not exposed to hazardous materials. He single-handedly performed a one-time inspection to determine if the hubs on 102 trailers were tightened to specifications and found 204 hubs were loose. He re-tightened all hubs in accordance with technical order instructions. His attention to detail averted the possibility of hubs coming off of the trailers and potentially causing an explosive mishap. SSgt Severson also discovered a bolt during a quality assurance inspection and received the local Golden Bolt Award. Additionally, he provided outstanding support during the FY02 Environmental Compliance Inspection by identifying outdated material safety data sheets. He researched and obtained current documentation providing workers with the most accurate guidance ensuring individual safety. He inspected, requisitioned, and replaced over 50 MMHE tires ensuring 100 percent reliability of assets. He expertly performed 100 percent time compliance technical order verification inspections on 42 trailers, where he discovered 27 trailers with incomplete pintle hook welds. He coordinated with non-destructive inspection laboratory and structural maintenance to have the pintle hooks sanded, inspected, and re-welded, avoiding potential break of welds causing catastrophic damage to equipment and munitions assets. He noticed that eye wash stations in his shop did not have signs posted per AFOSH STD 91-32. He procured and installed the required visual aids guaranteeing his workplace met all applicable standards. SSgt Severson’s attention to detail and unwillingness to accept secondary standards is truly noteworthy.

Weapons Safety Award of Distinction

On Nov. 19, 2002, while performing his walk-through in preparation of the day’s activities in the Munitions Inspection bay, TSgt Morrell smelled what he thought to be an odor normally associated with natural gas. Without hesitation, he rushed into the mechanical room and shut off the main gas line to the building. Next, he quickly notified Munitions Control and expedited the evacuation of the Munitions Storage Area. He posted road guards around the building to direct evacuating personnel away from the suspected gas leak. As soon as the area was evacuated of all nonessential personnel and visitors, TSgt Morrell stood by at the entry control point to direct emergency response forces to the exact location of the potential hazardous site. Once the emergency response forces confirmed that there was a natural gas leak, emergency forces took over the cordon and contacted the Base Civil Engineers to initiate an emergency work order to repair the leaking gas line. TSgt Morrell’s quick thinking, knowledge of emergency procedures, and deft actions prevented damage to a building and eliminated the potential for an explosive mishap. His daily safety awareness and strict adherence to Air Force directives clearly averted the potential loss of human life, equipment, and critical wing munitions assets.
Crew Chief Safety
Award of Distinction

On Oct. 11, 2002, at approximately 2:30 p.m., the 34 AMU was launching their aircraft in support of a local exercise. All but four aircraft had taxied out of their parking spots when the tower gave permission for the last aircraft to proceed to the end of runway. As the last aircraft began to taxi, when the F-16 pilot throttled up his engine, fuel began gushing from the left wing fuel vent. Amn Hicks was watching the aircraft leave the parking ramp and noticed the fuel streaming from the left wing. Realizing the seriousness of the situation, he immediately ran to a position that allowed him to get the pilot's attention. He signaled the pilot to perform emergency shutdown procedures and to egress the cockpit. Positioned across the ramp from Amn Hicks was A1C John Koci. A1C Koci was also watching the aircraft taxi out and when the F-16 pilot throttled up, he too noticed fuel pouring from the left wing. He immediately took action as well and ran for the closest aircraft boarding ladder. Upon engine shutdown he assisted the aircrew member out of the aircraft and all three personnel safely evacuated the area. The prompt actions of Amn Hicks and Koci prevented the potential loss of an irreplaceable asset.

Aircrew Safety
Award of Distinction

On Dec. 9, 2002, the crew of an RQ-1B Predator UAV, departed for a 17-hour combat mission over Afghanistan in support of Operation ENDURING FREEDOM. Twelve hours into the mission, the pilot noticed a substantial decrease in oil quantity during a routine system check. The UAV was more than 200 miles, nearly 2 1/2 hours of flight time, from the home airfield. The pilot coordinated with AWACS to terminate the mission. Maintenance personnel advised the crew they could expect 20 minutes of usable flight time after the oil was completely depleted. The crew developed a course of action that addressed an engine-out landing and a possible forced landing. The sensor operator used the UAV's infrared camera to locate two potential landing sites. One hour away from the home airbase, the engine's oil system was finally depleted. The crew accomplished the applicable tech order BOLDFACE procedure and established aircraft parameters for a flameout or "dead stick" landing when the aircraft was in a position 40 miles north of the home airfield. All non-essential systems were shut down, leaving them only the landing gear, nose camera, and flight control systems. The crew was concerned with the available battery life and the very real possibility that the aircraft would run out of backup power before reaching the airfield, then stall and fall uncontrollably to the ground. The pilot flew a flawless flameout pattern and landed the aircraft on the centerline of the runway. The aircraft lost all electrical power just after the aircraft came to a complete stop. An additional one minute delay in the descent and landing would have caused a loss of the $3.5 million aircraft.
ACC SAFETY AWARDS PROGRAM

The ACC Safety Awards program recognizes deserving individuals and units for their efforts in mishap prevention. In addition, the award write-ups provide valuable lessons learned for our readers (telling who, what, when, where, why, and how things turned out). This shared information could also save another from a similar situation or mishap. However, we've had a lot of ACC award categories with no or only one nominee. We also had some categories go without a deserving nominee. You can't win if you don't submit. This is your program—take advantage of this opportunity for deserving individuals and units to win MAJCOM-level awards/recognition.

Monthly awards are due on the 1st of each month. Nominations for monthly awards are for events that occurred within 60 days of the due date. Each NAF/DRU, HQ AFRC, and NGB may only submit one nomination per category.

Nominations must be prepared IAW with subject message (HQ ACC/SE, 13 May 02) and forwarded through the unit/wing commanders to their respective NAF/DRU/NGB/AFRC safety offices, to process prior to forwarding to HQ ACC/SEM. To win an ACC or USAF safety award, a nominee must win at wing level, then NAF level, then ACC level. A nominee must win at each of these lower levels to be forwarded by ACC for an Air Force-level award. All awards will be submitted electronically. Monthly and Quarterly awards will be submitted using the latest version of AF Form 1206 or the ACC/SE approved MS Word Document format. There is a 25-line maximum length for both monthly and quarterly awards.

A photograph or unit patch must accompany nominations for the monthly and quarterly awards. Photographs should be sent electronically using .jpeg format with at least 300 dpi resolution. Whenever possible, photographs should be taken in an environment which illustrates the nominee's job. Be sure to coordinate the photo shoots with the base photo lab. Head and shoulder shots are discouraged and substandard photos will not be published. A digital graphic file of the unit/wing patch is required for any unit nominations.

NOTE: Please include the date of occurrence (if it's a one-time act), the wing, (in addition to the squadron), the type of aircraft (if applicable), and the duty title for each nominee.

Point of contact for the Safety Awards Program is Barbara Taylor, DSN 574-8846, or e-mail at: barbara.taylor@langley.af.mil.
By Maj Rebecca Colaw, Langley AFB, Va.

Don't Be Stupid!

Bikers are often a "breed" all unto their own. I'm a biker who loves to get out on the roads on the weekend ...

It's one of those things that just makes me feel good. I love to ride horses, so riding a mechanical one was just the next natural step. I've been doing so for nearly 20 years. I know you bikers know what I'm talking about. There's a freedom in feeling the wind on your face — but as we all know, there's serious injury or death in feeling your nose on the road.

I know there are folks out there that think we're crazy. But while many don't understand why we do what we do — being a "different breed," doesn't mean we have to be stupid. And in FY02, many of us were. Take for example the story of one biker who is now a statistic.

Last February, at 12:25 p.m., a 21-year-old senior airman decided to depart his base, on a 600cc Honda, in a rather unorthodox — aka stupid — fashion. He drove very safely through the concrete barriers while exiting the base and stopped 100 yards later for a traffic light at a six-lane median-divided roadway intersection.

When the light turned green, the airman gunned his accelerator and put the bike into a wheelie — on a wet road. When the front tire came down, he lost control and struck a curb. Bike and rider continued on the grass, through the shrub and tree-covered median. Twenty yards later, he was ejected from his Honda when the handlebars struck a 10-inch tree. The airman's chest also struck that same tree and his body came to rest at the tree's base. The bike traveled for another 40
At Moody AFB, Ga., an (24-year-old) airman bought his first motorcycle and went riding with his friends. He speeded through a curve, crossed the centerline, and his head and chest struck a tree.

At Offutt AFB, Neb., an (21-year-old) airman who was speeding, was killed when a pickup truck turned in front of him causing the motorcycle to broadside the pickup. The airman was pronounced dead within sight of the main gate, 10 minutes after he'd left the base. Some bike ride.

Because of rides like this, ACC has changed its motorcycle rules. Now I know what you're thinking. It always seems like non-bikers like to make rules for those of us who do ride. However, when we do stupid things, others take control of the handlebars. If we can't regulate ourselves... others will.

Now, I know there are thousands of bike riders in ACC and the Air Force who do ride safely. Many of you are probably wondering what all the fuss is about. Truth is, when the fatality statistics begin to rise, people pay attention. And, there's no doubt that FY02 was a bad year. Across the Air Force there was an alarming increase in motorcycle mishaps with 24 fatalities, five permanent disabilities, and 124 injuries. The fatality rate was almost double the deaths from the year before.

In ACC alone there were six deaths, one permanent partial disability, and 56 injuries resulting in 866 lost workdays! What's so troubling is that many of these riders ended up with their faces in asphalt, or wrapped around immovable objects, due to bad personal decisions or riding their bikes above their own experience. Unfortunately, five of ACC's fatalities proved that point.

At Dyess AFB, Texas., a 25-year-old communications computer system specialist, who was speeding, failed to negotiate a curve and collided with a utility pole. DEAD Airman — Operator Error.

At Beale AFB, Calif., a 27-year-old avionics test station and components specialist, going too fast for road conditions, failed to negotiate a curve and flew off a ravine landing in a pile of boulders. DEAD Airman — Operator Error.

At Davis-Monthan AFB, Ariz., a 28-year-old avionics sensors maintenance specialist, who was speeding, lost control of his motorcycle in a blind curve, struck the curb and flipped his motorcycle off the road and into the desert. DEAD Airman — Operator Error.

At Beale AFB, Calif., a 22-year-old aerospace physiology specialist, operating a motorcycle on a learner's permit, who was speeding, failed to negotiate a curve and struck a tree. DEAD Airman — Operator Error.

At Offutt AFB, Neb., a 21-year-old avionics guidance and control system specialist, who was speeding, was killed when a pickup truck traveling in the oncoming lane, turned in front of him causing the motorcycle to broadside the pickup. DEAD Airman — Driver of pick-up truck facing criminal charges.
At Seymour Johnson AFB, N.C., the kid, mentioned earlier in the story, who decided to wheelie himself to his grave was an aircraft electrical and environmental systems specialist. DEAD Airman — Operator Error.

Six people critical to the mission of this command. Six people who were important to their families. Six needless deaths.

In FY03, it has not gotten any better. As of February 1, 2003, the Air Force has had five motorcycle deaths and of those, ACC has had three. In ACC that is a 50 percent increase in motorcycle fatalities over last year.

At Moody AFB, Ga., a 24-year-old supply management specialist, bought his first motorcycle and went riding with his friends. He speeded through a curve, crossed the centerline, and his head and chest struck a tree. DEAD Airman — Operator Error.

At Nellis AFB, Nev., a 26-year-old communications crypto systems specialist, speeding in a neighborhood without a helmet lost control of his motorcycle, struck a curb, and landed on his head in a driveway. DEAD Airman — Operator Error.

At Davis-Monthan AFB, Ariz., a 19-year-old aerospace propulsion specialist, while speeding lost control of his motorcycle and hit a telephone poll. DEAD Airman — Operator Error.

Again three needless deaths. Three grieving families.

In non-fatal mishaps, we all know that motorcyclists stand an increased likelihood of sustaining a permanent debilitating injury. For example, in FY02 ACC also suffered one permanent partial disability. An Airman First Class at Davis-Monthan AFB, Ariz., was struck from behind by an automobile. He sustained traumatic injuries to his lower left leg that required amputation. Now, when a motorcycle takes on a tree, poll, or automobile, we all know that the rider will be seriously injured. The likelihood of serious injury increases, particularly when we do not wear required personal protective equipment (PPE). If you're injured and survive in a motorcycle mishap and you're not wearing proper PPE, it could mean that the injuries you received were not in the line of duty. The harshness of this determination is that your medical benefits, long-term medical care, and other entitlements will not be coming your way. They'll be denied to you. That's a very large price to pay for not wearing the required gear.

The PPE requirements for motorcycle riders and their passengers apply on base to all ACC members both civilian and military. Off base the requirements apply to military whether they are active duty, Guard, or Reserve. They also apply off base to all federal civilian employees performing official business.

Safety Program, mandate the following PPE for all motorcyclists and passengers:

- Protective motorcycle helmet which meet, as a minimum, Department of Transportation standards and must be properly worn and fastened. (All riders are encouraged to affix reflective material to their helmets.)

- Impact-resistant goggles or a full-face shield on their helmet.

- Brightly colored or contrasting vest or jacket as an outer upper garment during the day and reflective during the night. Outer upper garment will be clearly visible and not covered.

- Long-sleeved shirts or jackets, full-fingered motorcycle gloves or mittens, and long trousers.

- Sturdy footwear. Sturdy footwear does not include any type of open-toed shoe or sandal. Sturdy footwear will include soled shoes, with the foot totally encased. (Leather boots or over-the-ankle shoes are strongly encouraged.)

Bottom-line is that, whatever the rules, bikers will keep riding. However, each of us can control how we personally ride. It's always important not to ride above our experience level. It's also important for each of us, when we strap on our bikes, to leave the testosterone and estrogen at home. Many times, these hormones create bad decisions and high speeds. Bad decisions and high speed kill, maim, and injure.

Riding can be and is fun but don't be stupid. It only takes a second to end your life — and change the lives of those who love you — forever. We can't change fate nor eliminate all accidents. However, we could have prevented all of the deaths in this story if we had just made the young riders realize that stupid decisions, speeding, and riding above your experience levels kills. And when you're dead, you can't ride and that's just not fun or acceptable.

Motorcycle Fatalities for Fiscal Year 2002-2003

<table>
<thead>
<tr>
<th>Rank</th>
<th>Air Force</th>
<th>ACC</th>
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<tbody>
<tr>
<td>E1-E6</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>E-7-Officer</td>
<td>4</td>
<td>0</td>
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<table>
<thead>
<tr>
<th>Age</th>
<th>Air Force</th>
<th>ACC</th>
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<tbody>
<tr>
<td>21-26</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>27 and up</td>
<td>6</td>
<td>2</td>
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| Failure to maintain control | 18 | 3 |
| Helmet not worn/properly worn | 2 | 2 |
| MSF Training not completed | 4 | 4 |
| Struck by a moving vehicle | 7 | 1 |
It was a beautiful October Friday at Dyess Air Force Base, Texas. I was planning to go see my parents in Alabama and pick up my son who was visiting them. I was not looking forward to the 12-hour drive because it's a pretty boring one, but I had traveled it many times before. I got off work a little early to pack and get some rest. It was around 4:00 p.m. when I finally got all my bags in the back of my Ford Explorer. Instead of resting though, I decided to go out and see some friends. Even though I didn't get back home until around 10:00 p.m., I reasoned that if I went ahead and left, I'd miss all the traffic in Ft. Worth and Dallas. I got on the road about 11:00 p.m. that night and made good time through the twin cities. When I reached Garland, Texas, I discovered that I-20 was under construction. The section that was normally 4 lanes was now 2 lanes. I was driving at about 85 miles per hour on the inside lane when along came an 18-wheeler truck — yes, I was driving above the posted limit, but was about to learn a lesson about that the hard way. The 18-wheeler was slowly starting to pass on my right when the road began to curve left. During the turn, I noticed that the trucker's trailer started to come into my lane, so I moved closer to the barrier walls on my left. I got so close that I thought for sure my side mirror was going to hit the wall. My breathing got faster as I looked at his trailer, then the wall, and back at the trailer again. Then it happened.

I felt a thud, heard my back window explode into pieces, and watched as I collided with the barrier wall. From that point on, my Explorer became like the ball in a pinball machine that goes back and forth between the two bumper pads really fast — except there was no padding. I bounced from the concrete wall to the truck's trailer and back again — over and over and over. My steering wheel jerked from my grip; I was unable to grasp it again. I slammed on my brakes, but it was useless. Every time I hit the trailer, it dragged me along with it. Pieces of my Explorer were going everywhere and hitting cars behind us. One piece even went through the front windshield of another car.

The truck driver finally noticed what was happening and started to slow down. This enabled me to grasp the steering wheel, I turned it directly into the barriers to stop my vehicle. The barriers finally did what they are designed to do. They kept my Explorer riding the wall so it didn't veer off into other traffic. In the process, my tires blew, my rims shredded, and my fenders shed their metal. Sparks were flying everywhere like the 4th of July. After what seemed like an eternity, I finally came to a stop. Headlights were still coming up very fast behind me, so I bailed out of my Explorer as fast as I could to avoid being struck from behind.

When the Garland police measured the distance from where I first slammed on my brakes to the final stopping point of my vehicle, it was an astonishing 150 yards! This did not include the initial impact point. My Explorer ended up with a bent frame, two shredded tires and rims, melted brakes, and lots of broken glass and missing parts. I impacted some of the barrier walls with such great force that they broke into pieces and had to be replaced. The 18-wheeler fared better, but still had numerous dents and punctures along its trailer's side.

If I had been driving the speed limit, I would have had more time to react to the predicament I found myself in that night. It is still amazing to me that I walked away with minor bruises and a strained neck and back. That was only possible because I was wearing my seat belt. Don't wait until you are in a similar situation to decide whether or not seat belts work. They definitely do. Increase your odds of walking away: drive the speed limit and buckle up!
A s a ground safety manager, I've been alarmed at an increase in Air Force Driving While Intoxicated (DWI) incidents. Why are DWIs on the rise in the Air Force? Well as everyone should know, there is no one single answer to this question. However, the information and consequences are no secret to anyone. This issue has been in the front lines for years and laws have been in place and publicized across the board. However, recently, a small piece of the pie that might answer this question has come to my attention. The major incriminating fact that sticks out among most convicted DWI offenders is the Blood Alcohol Test (BAT). And despite what you might think, it does not take much to get a legally intoxicated BAT.

A BAT level of .08 to .12 is all it takes. It's the number one reason a person gets convicted. What does this mean to the average Air Force member? If you drink between one to four beers, you can blow a BAT that can result in a conviction.

A person who thinks they are O.K. to drive is usually what's called a casual or social drinker. This concept describes many of us. You know the one who has a couple of drinks with dinner or after work. After a few, you don't necessarily feel drunk, but legally many of you are impaired enough to be convicted for drunk driving. If you've had a few beers and you're thinking "I can drive home," remember it's a drunk person talking.

This false sense of security after drinking "only a couple" is ruining careers. Not long ago, a fellow coworker of mine went out for a night on the town. He had lined up a designated driver for the night and things were going good. When it came time to leave, however, the car they were driving had a flat tire in the parking lot. During the process of changing the tire, a local police officer came up to offer assistance. My coworker was, by this time, feeling like he could drive because he had only had "a couple" during the evening.

Out of curiosity he asked the officer if he could blow in the alcohol tester just to see what his BAT was. The officer was more than happy to accommodate and pulled the meter out of the trunk. After going through the proper instruction my friend blew into the meter and it read out .14—legally drunk!

The BAT took him by total surprise. He thought he was fine based on his actions and past habits. You see it only takes "a couple" to get you into that little known buffer zone of trouble. A BAT of .08 is not much to work with and it's not worth a career to chance it.

So the next time you have "a couple," think about my coworker. Develop a safety plan to get where you are going and stick to it. Your career, family life, and your life, are all riding on your decision. By not drinking and driving—even when you've only had "a couple," you will help make the roads safer and cut the DWI rate—and in the end, go home and not to jail.

States With High DUI Fatality Rates

The state with the highest alcohol-related fatalities rate per 100 million vehicle miles of travel is South Carolina. In 2001, other states with high alcohol related fatalities were: Arizona, Colorado, Florida, District of Columbia, Louisiana, Mississippi, Montana, New Mexico, Tennessee, Texas, and Wyoming.

States with the lowest alcohol related fatalities rate per 100 million vehicle miles of travel are: California, Indiana, New York, New Jersey, Maine, Massachusetts, Minnesota, Utah, Vermont, and Virginia.
WELL, ANOTHER LAZY DAY HERE IN TH' DESSERT.

NOTHING MUCH SEEMS TO CHANGE HERE IN TH' WORLD'S BIGGEST SAND BOX.

I CAN'T BELIEVE WE SPENT SO MUCH TIME STUDYING ALL WEATHER OPERATIONS.

WHERE IN HECK IS THEY GOING IN SUCH A RUSH?

WHAT TH...WOSH...

SANDSTORM?

YEP.
The eight Class A mishaps in the first quarter of FY03 are a 25-percent increase compared to the first quarter of FY02.

October 12, 2002: A 20-year-old A1C and a 21-year-old passenger were killed when the A1C, under the influence of alcohol, lost control of his 2000 Pontiac Grand Prix while traveling at a high rate of speed. The vehicle skidded and collided with the interstate guard rail. The passenger died at the scene from multiple injuries and the operator died 2 days later, also from multiple injuries. Alcohol level .16.

October 14, 2002: A 24-year-old SrA was riding his 2002 Suzuki Katana 600cc motorcycle along with three other riders. The SrA was in the number three position as they entered a left-hand curve in excess of the speed limit. He lost control, and departed the road onto the grass shoulder. He traveled through a ditch, struck a culvert, and became airborne. He collided with a tree impacting his chest and head. He was transported to a nearby hospital where he died a short time later. He had not completed the mandatory Motorcycle Safety Foundation (MSF) training course.

December 4, 2002: Two A-10s from the 57 WG collided during a training mission. Both jets were lost and one pilot was killed.

December 18, 2002: A 26-year-old SrA was operating his motorcycle at a high rate of speed in a residential area when he lost control of the motorcycle and struck a curb. He was ejected and sustained fatal head trauma from the impact with the ground. The SrA had a history of "popping wheelies" and exceeding the speed limits. Coworkers were aware of his high-risk behavior but failed to act or express concerns to supervisors. The member was not wearing a helmet at the time of the mishap. MSF not completed.

December 28, 2002: A 19-year-old A1C was operating his 2000 Kawasaki Ninja while on leave, attending his father’s funeral, in Yorba Linda CA. He collided with a utility pole and suffered fatal head trauma from the impact. The member died at the scene of the mishap. He was wearing a helmet at the time of the mishap and had completed the MSF course.
Congratulations to all the aviators out there! We made it through January with no operator caused Class As. The first month this year. We did, however, have 2 flight Class As, 1 rate producer and 1 non-rate producer. On Jan. 1st we lost a Predator and on Jan. 26 we lost a U-2. This is a real turn around compared to the first 3 months of FY03. As long as we have single engine aircraft, we will have Class As resulting from engine failure. Not much the pilots can do about that, but we can continue to prevent mishaps caused by operator error. As a result of world events, we are going to continue to get busier and stretch our resources to the max. Now more than ever, we need to keep focused on the basics and keep our wingmen alive. We can't fight wars if we crash all our jets in training.

As of January 31, 2003, there have been 10 Class A mishaps resulting in 10 deaths and one permanent total disability. All have involved motor vehicles, 7 PMV4 and 3 PMV2. Several mishaps are still under investigation; however, three mishaps did involve alcohol use. In two of the three motorcycle mishaps, the individual was not trained and PPE was not used in one motorcycle mishap.

Due to the vigilance of dedicated Weapons Safety Managers and proactive supervisors, we completed the first quarter of FY03 without any Class A, B, or C mishaps. Continued monitoring of maintenance and handling operations will help to prevent mishaps. High OPS TEMPO will continue to test the skills of supervisors and safety professionals. Stay Vigilant!

Class A - Permanent Total Disability: Property Damage $1,000,000 or more
Class B - Permanent Partial Disability: Property Damage between $200,000 and $1,000,000
Class C - Lost Workday: Property Damage between $20,000 and $200,000
* Non-rate Producing

Symbols for Mishap Aircraft

March 2003 The Combat Edge 31
A USAF ground crewman de-ices the wing of a C-130 Hercules cargo aircraft on a snow-covered airbase.