

MOBILITY

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TSgt Kevin Call waits to marshal a skiequipped LC-130 Hercules near McMurdo Station, Antarctica.

USAF PHOTO BY TSGT SHANE A. CUOMO

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Volume 23, No. 4 Winter 2014/2015

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

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

Photos with a **DE** denote digitally enhanced

Subscriptions: GUV U.S. Government Printing Office: 2014-745-166. For sale by the superintendent of Documents, U.S. Government Printing Office. Internet: bookstore.gpo.gov. Phone: toll free (866) 512-1800; DC area (202) 512-1800. Fax: (202) 512-2104. Mail: Stop IDCC, Washington, DC 20402-0001.

AMC RP 91-2. Dist: X

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THANK YOU

o the safety officers, non-commissioned officers and civilians throughout our Air Force, I want to say thank you for your incredible efforts over the last year. Due to your vigilance, the 2014 fiscal year was the safest ground safety year in 10 years and the safest flight safety year in the history of our service.

I want you to know I firmly believe your efforts had a significant impact on these impressive statistics. An 18 percent reduction in motor vehicle accidents doesn't just happen. A 32 percent reduction in overall Class A aviation mishaps doesn't just happen. These remarkable figures represent the hard work you've undertaken to manage risk and instill a safety ethos into our Airmen.

And that's what this is all about. Even as we celebrate the statistics, we must remember this is about the Airmen—not just the numbers. These figures represent more Airmen returning home safely to their family after a long day's work. They represent more aircraft being available to carry out the mission our nation asks of us. These statistics represent more Airmen being ready to deploy to defend this great nation.

Again, thank you for your hard work and commitment and congratulations on a job well done!





Gen Darren McDew, Air Mobility Command commander, speaks during a ceremony Oct. 9, 2014, at Scott AFB, Ill.

USAF PHOTO BY SSGT JONATHAN FOWLER

I am thankful for the phenomenal things you do every day to support our mobility air forces, the Air Force, and the nation.

Happy Holidays!

Mobility Airmen,

Every day you do something special. The holidays are one of my favorite times of the year, and not just because of the season, but because it's another opportunity for me to pass on my thanks and gratitude.

This truly has been a tremendous year for AMC, and you and your families should be proud of what you've accomplished, just as Evelyn and I are proud of you.

I want to take this time to say to each of you, thank you. I am thankful for the phenomenal things you do every day to support our mobility air forces, the Air Force, and the nation. Few other people in this country are quite as affected by world events as we are in the mobility air forces. Any crisis in the world, whether hostile or humanitarian, can trigger the need for our unique capabilities—and with your hard work, we always deliver.

I'm proud to say we have bold, innovative Airmen in our command like MSgt Curtis Davis from McConnell AFB, Kansas. With the permission of the Air Force, he made a boom azimuth pulley for the KC-135 Stratotanker, costing \$500 versus the \$10,000 it would cost to purchase from a contractor.

I'll give you a few more reasons to be proud.

The Airmen at Travis AFB, California, are saving the Air Force more than \$1 million a year by switching from JP-8 to Jet A fuel.

The C-5M obtained initial operational capability with the arrival of the sixteenth C-5M at Dover AFB, Delaware.

McConnell AFB was selected as the first active-duty-led KC-46A Main Operating Base.

We successfully transitioned operations from Transit Center at Manas, Kyrgyzstan, to Mihail Kogalniceanu AB, Romania, without missing a beat.

We celebrated the 60th anniversary of the C-130, one of our most versatile and agile aircraft, and the 65th anniversary of the Berlin Airlift—both highlighting that mobility has been and continues to be one of the most important capabilities our service provides to this nation. We also marked the 67th birthday of our U.S. Air Force—67 years of our remarkable Airmen providing airpower to the nation and to our allies and partners around the globe.

None of this would be possible without our most important asset—each and every one of you.

Our service has gotten smaller this year as a result of force management, and our structure is evolving with the announcement of the Air Force Installation and Mission Support Center. But amidst these changes, the importance of AMC's mission will not change, nor will our standards.

This holiday season, we'll again see mobility Airmen forward deployed, taking care of our nation's business around the world. Please keep these Airmen and their families in your thoughts—along with all of our Airmen and sister service members who are away from home, protecting the nation. Evelyn and I think of them always and wish a safe return for all.

If you are able, please take some hard-earned time off to spend with your loved ones—but don't forget to think through your plans, make good choices, and minimize risks. Commanders and supervisors, you're responsible for the Airmen you lead. You must encourage and enforce responsibility, foster the Wingman culture in your units and workplaces, and minimize safety and health risks. Airmen must comply with safety and health standards, and, as wingmen, do the right thing when they see their fellow Airmen about to make a poor decision. They should be committed to saving a life and, in turn, ensuring mission success.

To all the Airmen who support our mobility enterprise every day around the world, Evelyn and I wish you and your family happy holidays this season and, again, our thanks to you and your families for what you do each and every day.

– Gen Darren McDew

AMC Welcomes New Director of Safety

ol Michael R. Seiler has been named the Director of Safety for AMC at Scott AFB, Illinois. He comes to AMC on the heels of his previous assignment as Commander of the 376th Expeditionary Operations Group, Transit Center at Manas, Kyrgyz Republic.

Col Seiler is well seasoned in AMC's mission, as his former group's assigned units include a KC-135 air refueling squadron and an operations support squadron. The Transit Center at Manas had approximately 1,400 military personnel (and 900 U.S. and host-nation contractor personnel) performing day-to-day operations at the premier air mobility hub supporting military operations in Afghanistan. The wing's around-the-clock missions included aerial refueling, airlift, onward movement of troops, and

DIRECTOR'S CORNER

strengthening the partnership with the Kyrgyz Republic.

Col Seiler is a well-decorated command pilot with over

5,500 hours in military aircraft and 480 combat hours in numerous operations. He has flown the T-37, T-38, C-21A, KC-135R/T, and C-17.

Among the milestones in his distinguished career are serving as Command Electronic Warfare Director for the United States Special Operations Command at MacDill AFB, Florida, and Commander, 22d Operations Group, and Commander, 349th Air Refueling Squadron, McConnell AFB, Kansas. While in command at McConnell, the 349th "Bandits" won Air Mobility Command's coveted Spaatz Trophy in 2008 and 2010.





Left to right, front row: Joe Hughes, Dave Miller, Col Michael Seiler, Chris Davis, TSgt Angela Pedro, and MSgt Jeremiah Carpenter. Second row: Michael Wahler, Pat Nevitt, MSgt Humberto Marchese, MSgt Lisa Jones, and Harry Lasell. Third row: Lt Col John Ourada, Wayne Bendall, Lalo Maynes, Lt Col Pete Kelley, CMSgt Michael Wilson, and TSgt Camille Moore. Fourth row: Col Mark Hale, Ida Mills, and MSgt Chad Grady. Not pictured: Lt Col Chris Buschur, Lt Col Ken Picha, Maj Scott Kulle, MSgt Allison Brown, TSgt Byron Allen, Mr. Roberto Aguilar, Mr. Steve Panger, and Ms. Jen Yates.

Safety in the Hands of

the Instructor

By MAJ SCOTT KULLE HQ AMC Flight Safety

he present and future of our capability to "Fly, Fight, and Win" is directly in the hands of USAF Aircrew Instructors. In 2012, while still at a Wing, we discovered that 12 of the 14 most recent and significant mishaps in my airframe had Instructor Pilots (IPs) on board at the time of the mishap. We must ensure our instructors have the right tool set to train operators and oversee operations. Everyone is a product and reflection of their training. So how do we train the new guys (and gals) and more importantly, how do we train the instructors? Here are a few thoughts from a former major weapons system (MWS) and undergraduate pilot training (UPT) instructor about instructors evaluating their own abilities. Fair warning, nothing here is new or cosmic, only worth consideration at 1 G and 0 KIAS (knots indicated air speed).

First, a core competency of a good instructor is the ability to conduct Root Cause Analysis. Unfortunately, I have witnessed too many instructors who are excellent evaluators but lack the basic ability to teach. They can tell you exactly what parameter was not met but not why the student didn't perform as expected. An

example: a student slows below the minimum maneuvering speed while executing a steep turn on a low-level training sortie.

- Did the student recognize the airspeed? (cross check)
- Does the studet know the minimum required or procedure? (general knowledge)
- **)** Have you seen the student perform a similar task or maneuver to standard? (stick and rudder skills)
- Did the student care that he or she violated the standard? (air discipline)
- **)** Did the student's inputs follow a typical and expected pattern? For instance, "power, pitch, and roll?" (technique)
- Was something else occurring? Perhaps a threat maneuver or radio call? (distraction and prioritization)
- **>** Were the rest of the crew and aircraft systems supporting the student as expected? (task saturation)
- Was the student directive for task or system management? (cockpit resource management)

This all leads to a common error of young or inexperienced instructors awareness) as a cause for flight deviations. SA is a symptom or product of another root cause. An instructor must critically analyze the factors that have led up to the performance and not just record and regurgitate the result.

Next, an unfortunate paradox for instructors is the **Halo versus Horns** condition (a cognitive expectation bias), which is the perception, built on previous experience, that one student is above or below average. This can lead to complacency or exhaustive hyper-vigilance. Neither is desired, but the halo, or perceived better student, may be *more dangerous*, as this will cause the instructor to be complacent and potentially not intervene in a timely fashion. It is fair to ask instructors, "Have you fostered an artificial infallible image of yourself or others in your student?" They must never be allowed to take on the mindset of a passenger while the IP is operating the aircraft. Instructors need to remain engaged and NOT hesitate or fail to ask questions to expand their own knowledge base when others are flying.

Additionally, Confirmation Bias occurs when you see only the information that supports your previous assumptions. This may have been a factor in several mishaps. In one example, an aircrew landed on a



snow-covered runway without changing their Takeoff and Landing Data (TOLD) to reflect it. How did this occur? They expected a clear runway (as reported), and their visual observation did not key them into this. So, what's the point? What can we say about this? Not much really, other than when the hair on the back of your neck starts to stand up, coldly reassess available information.

Further, automation can be a blessing and a curse. When things get busy on the flight deck, my old Tweet IP used to say, "Step 1, wind the clock ...," which is a technique to slow things down and think through your actions. Using automation to help manage basic tasks (if appropriate) is one technique to free brain cells to deal with an emergency or allow for instruction. The downside, of course, is over-reliance. The airlines addressed this recently at the Aviation Infoshare (FAA Safety Conference)

and correctly analyzed the need to spend time hand-flying under normal operations to maintain your basic skill set. The first time you hand-fly an approach or departure in six months shouldn't be when you've just lost a motor or primary flight control mode.

Another consideration is your "window"—the point where instruction ends and immediate corrective action takes over. As a UPT IP, you have surely considered how far to let a student go before taking the aircraft and fixing it yourself. And there must be balance. People do not learn if you constantly fix things for them. Simple communication ahead of time can avert issues when this arises, such as "I'll let you get 5 degrees, 5 knots, or 100 feet off, and then I'll take it at 10, 10, or 150." Expectation management is critical for quality instruction, as is critical feedback

of performance. What do both of these have in common? Timely and effective communication.

Finally, taking from the last bit here, is the importance of **communication empowerment**. Setting the right tone allows all of those involved to speak up and recognize an issue, potentially avoiding a mishap as well as ensuring learning is occurring. Encouraging discussion—not the time-honored instructor tradition of fear, ridicule, and sarcasm—can prevent the team from lock-step walking off the cliff. Your tools are "knock it off" and "go-around." Remember, you are an instructor, but you are not infallible; if you make an error, own up to it and move on. Your students will respect you more for it. They are students, not morons. On more than one occasion, I have had to say, "Well, that's an excellent example of what not to do. Let me show you a better demo." 🙈

REPORT CARD

Fact or Fiction?

The Proper Use of Military Flight Operations Quality Assurance (MFOQA) Analysis and Unstable Approach Rates

By SEAN BORDENAVE, AMC A3TO

Whoa, Whoa, Whoa -Back the bus up!

Where did you get those grades?

Did you give me credit for the winds?

As a matter of fact, have any of you pinheads flown into Lajes Airfield?!
Obviously not or you would be familiar with those killer winds! Did you factor that into your unstable rates? You try being stable in those conditions!

Let's roll some video to prove my point!

https://www.youtube.com/watch?v=1zkcRgN9ZyA

s this intro suggests, MFOQA analysis and the unstable approach rates unfortunately sometimes end up being a parochial argument mired in "point values, scoring, and single events" rather than focusing on trends, methodical analysis, and risk. Let us break down some of these parochial points and separate fact from fiction to discover the proper use of MFOQA analysis and unstable approach rates.

Fiction - Unstable Approach Rates are a Pilot's Report Card!

One of the benefits of MFOQA analysis is the ability to *statistically measure SOP compliance in order to identify trends*. However, a better description of this particular benefit is the ability to *analyze flight data to detect mishap precursors and identify mitigation measures*. Unfortunately, we sometimes fixate on oversimplifying the MFOQA analysis in an effort to simplify the problem statement, cause, and fix. This oversimplification is how we arrive at the *statistically measured SOP compliance in order to identify trends*. We then quickly and erroneously translate an unstable approach rate into a problem statement of aircrew not flying stable approaches and the cause of the problem being

OUR APPROACH:

- Collect data by all possible means
- Identify trends
- Mitigate risk
- Inform aviators
- Foster a Just Culture!

non-compliant and unprofessional pilots. The easy solution would be to shoot any pilot flying an unstable approach and the pilot monitoring for not directing the go-around. After executing a few of these noncompliant pilots, Darwinism would reign true, and the rest of the herd would get the picture. The following month, we would see a dramatic decrease in unstable approach rates. DONE! NEXT PROBLEM! Unfortunately, this is how we end up with the false perception that unstable approach rates are a pilot's report card! Obviously, this is not the intent of producing an unstable approach rate. Now that we have identified the incorrect meaning of unstable approach rates, let's look at what the unstable approach rate is really trying to tell us!

Our Lajes Airfield Unstable Approach Example ... With the Proper Context This Time

Since we started with the Lajes examples, we can rewind and do a double take with the unstable approach rate into Lajes Airfield. Since our KC-135 brethren fly into Lajes on Coronet Missions (fighter drags across the pond), we will "peel the onion back" on KC-135 unstable approach rates to demonstrate the proper use of MFOQA.

First Layer of the Onion - the Big Picture

Before we jump into the Lajes unstable approach rate, we need to start with the big picture. The first layer is the overall KC-135 unstable approach rate. The overall unstable approach rate for the entire KC-135 fleet in the past year (May 2013 to April 2014) is 12 percent. This encompasses over 85,000 KC-135 approaches in the MFOQA database, which is a pretty healthy

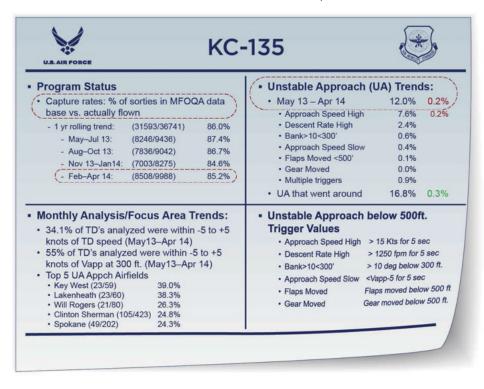
sample size. Additionally, the KC-135 data capture compares the number of KC-135 sorties in the MFOQA database to the actual number of KC-135 sorties flown. It is approximately 85 percent, which further reinforces that the unstable rate is representative of the overall fleet trend. Finally, this overall KC-135 unstable approach rate encompasses all units and all airfields visited in those 85,000 sorties.

A key takeaway from the overall unstable approach rate is that we now have a baseline for measurement and analysis. The overall unstable approach rate now allows us to objectively determine if we are trending upwards (a negative trend of a higher unstable approach rate) or trending downwards (a positive trend of a lower unstable approach rate). More simply, the overall unstable approach rate allows us to objectively measure if we are doing better or worse than average. This baseline measurements tell us what is "normal."

But we don't stop at the overall unstable approach rate in our analysis—we continue drilling down! Now that we know what "normal" looks like, we traditionally look for negative trends or "worse than normal." As a reminder, our primary focus in MFOQA analysis is to detect mishap precursors. Typically, those mishap precursors are worse than normal.

Second Layer of the Onion "One of These Things is Not Like the Others."

With the baseline established, we can now drill down further into areas of focus by analyzing different flight parameters and data points available in the databases. Armed with the overall unstable rate, we can now employ the Sesame Street analysis technique, "One of These Things is Not Like the Others." Simply put, the overall unstable rate allows us to quickly identify points that are higher than average (and not like the others).



As with any good analysis, one of the first basic questions you want answered in problem identification is "Where is it happening?" One of the data points available in the MFOQA database is location, which allows us to ask "What airfields have a high unstable approach rate?" With that question in mind, we can now hone the analysis to highlight airfields with higher than normal unstable approach rates.

In the chart (right), we can quickly see all those airfields with unstable approach rates greater than 12 percent. Our Lajes example comes into focus with an unstable approach rate of 20.8 percent, highlighting that Lajes is "one of those things that is not like the others." Now that we have established Lajes has a higher than average unstable rate, the next logical question is "Why?"

The Recap of What We Learned from the MFOQA Analysis Thus Far

The MFOQA analysis has yielded a tremendous amount of critical data points in over 85,000 approaches. The key data points are

Who: KC-135

What: Unstable Approach rate of 12 percent

When: May 2013 to April 2014

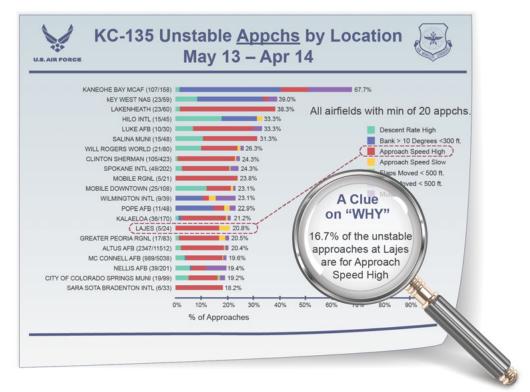
Where: Lajes (in our example) with an unstable approach rate of 20.8 percent.

Why: Unknown, but we know that "approach speed high" is the main culprit (factor), as we will soon see.

It is also important to note that we have very quickly and efficiently extracted those key nuggets of data from over 85,000 approaches ... without a mishap!

Third Layer of the Onion - Detecting Why

The MFOQA analysis has led us to an important question: Why is Lajes unstable more than other airfields? We have reached a limitation of our MFOQA analysis. MFOQA does not tell us the "why." MFOQA only gives us what transpired, how the pilot answer. Our MFOQA analysis can tell us what triggered the unstable approach. Getting back to our Lajes Example, the KC-135 MFOQA analysis tells us that 16.7 percent of the unstable approaches triggered for approach speed high. More specifically, the KC-135 approach speed high trigger is set at Vapp + 15 knots (airspeed) for 5 seconds below 500 feet, so we now see that is a pretty significant airspeed differential.



was controlling the aircraft, and the flight parameters at the time of the event. Unfortunately, the aircraft doesn't tell you why it happened and about other factors (such as other traffic, ATC constraints, weather, and terrain) the pilot was trying to manage during the approach.

But let's not be dismissive because MFOQA did not determine why ... yet. MFOQA gives us some specific clues about where to look for this

Armed with the approach speed high clue from the MFOQA analysis, we can now look at other credible data sources to determine why. Of course, it does not take a rocket scientist to know that most aircraft T.O.s direct an increase in airspeed for gusty winds (gust factor), so wind is an obvious first choice as a factor causing the speed high trigger in the MFOQA analysis.

In our Lajes example, we can quickly see the evidence that winds are a



mostly likely reason for the unstable approach. The historical wind data for Lajes airfields from the 14th Weather Squadron shows how strong the gusts can be at Lajes:

PARAMETER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
Prevailing Wind Direction	S	S	S	N	N	NW	N	NW	N	NW	N	S	N
Wind Speed Mean for Prevailing Wind Direction (kts)	11.7	13.0	12.8	11.5	9.1	12.2	7.4	11.7	8.2	14.8	9.9	12.4	9.1
Wind Speed Mean for All Wind Directions (kts)	10.5	10.9	11.3	10.3	9.3	8.9	7.2	7.4	7.8	10.3	10.5	10.1	9.5
Wind Speed Maximum (kts)	52.1	45.1	55.9	33.0	42.7	39.0	42.0	38.8	49.9	49.0	46.8	58.3	58.3
Gust Speed Maximum	82.9	77.7	60.0	58.3	53.0	59.1	41.0	48.0	71.9	53.0	67.0	73.0	82.9

Additionally, the historical wind data shows the winds at Lajes Airfield are greater than 25 knots a high percentage of the time.

HOURS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
23-01 LST	15.9	17.6	15.1	9.8	5.5	6.2	0.7	1.2	2.4	7.8	11.6	14.3	8.9
02-04 LST	15.8	19.9	15.5	11.5	5.1	5.1	0.7	8.0	3.0	7.3	12.6	14.5	9.1
05-07 LST	16.2	18.3	18.8	13.1	5.3	6.5	0.7	1.0	2.1	8.4	12.2	13.2	9.5
08-10 LST	17.2	17.5	20.1	13.7	6.0	7.2	2.0	1.5	3.4	8.8	12.0	13.9	10.2
11-13 LST	15.9	18.1	21.6	15.0	9.2	11.1	2.6	3.7	4.4	13.4	14.3	17.0	12.1
14-16 LST	18.6	24.8	23.8	14.0	10.6	10.1	2.8	2.2	4.6	12.1	14.5	19.0	12.9
17-19 LST	17.3	20.3	20.7	13.2	7.3	10.8	2.7	1.8	3.5	10.4	14.2	17.4	11.5
20-22 LST	15.2	18.1	14.0	8.2	6.2	8.0	1.4	0.8	3.0	8.5	12.4	15.4	9.2
ALL HOURS	16.5	19.3	18.7	12.3	6.9	8.1	1.7	1.6	3.3	9.6	13.0	15.6	10.4

Before we declare victory on proving why, we must comply with the high school English teacher's rule of being able to cite at least three separate data sources in our bibliography. For our final source, the Europe, North Africa, and Middle East (FLIP) Supplement states in the remark section for Lajes (right):

... parl to rwy 0.25 NM E to 503'. Winds are extremely hi dur Oct-May. Expect lo level windshear and large hdg corrections on final apch. STRONG CROSSWIND POSSIBLE is incl in the fcst when cond are favorable for development of haz crosswinds. This rmk should alert aircrews to closely mnt LAJES Wx while enrt. If possible, consider maintaining fuel reserves to reach alth destn outside of the Azores wx pat. Rwy not vis dur portions of ...

In our Lajes example, we can now start to see that strong winds are most likely a factor in the unstable approaches for that airfield. With a little more detective work, the MFOQA analyst can link a specific unstable approach with a specific historic METAR to further make the connection between winds and the speed high triggered events.

In previous cases, MFOQA analyses have been able to link unstable approaches at some airfields with external factors such as winds, terrain, airfield restrictions, and instrument approach requirements. So, while the MFOQA analysis did not *specifically* tell us why, it gave us enough clues to provide linkages between external factors and unstable approaches to provide a logical conclusion about **why**.

Ha! I was right; it was the winds causing the unstable approaches and not pilot error at Lajes!

You can give me my points back on my Lajes grade!

> BTW — You need to stop dinging me for an unstable approach and change the approach triggered events to account for the high wind situations!

Fiction - Vindicating Pilots

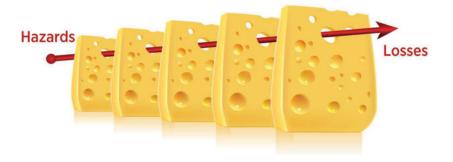
Well, it looks like our Lajes example vindicates pilots for causing the unstable approaches. Wrong! This perception is also fiction! First, MFOQA does not assign blame; it looks for factors that could potentially lead to a mishap.

Those factors could be pilot error, organizational factors, external factors, or combination of some or all of those. We have learned from traditional mishap investigations that when all those contributing factors (hazards) line up in "perfect" succession, we increase our chance of a mishap. MFOQA helps us seek out those hazards and find risk mitigation strategies like our stable approach procedures.

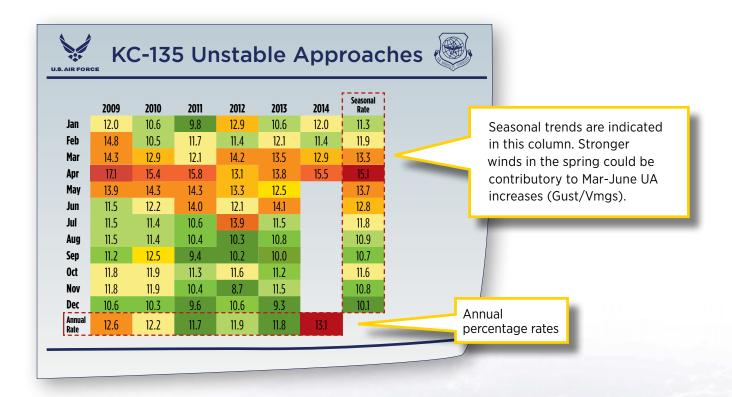
Second, even though MFOQA analysis helped us identify that an external factor is contributing to the approach instability, it does not mean that it is acceptable to fly unstable

approach at that location. On the contrary, when these external factors are identified through the MFOQA analysis, it highlights an increased level of complexity that a pilot must still successfully manage. A high unstable approach rate at a particular airfield is telling you that you had better bring your "A" game to that location. Wise old pilots will tell you that for every successful takeoff, you should have a corresponding successful landing. External factors (e.g. weather, terrain, high pressure altitude, etc.) make it more difficult for you to ensure that you have an equal amount of takeoffs and landings in your logbook! Think of it this way: an approach into Lajes may not be that bad ... until you factor in darkness, or IFR conditions, or gusty winds, or strong crosswinds, or heavy weight landing, or all of those conditions!

Third, vindicating or blaming pilots is not a goal of the MFOQA



We have learned from traditional mishap investigations that when all those contributing factors (hazards) line up in "perfect" succession, we increase our chance of a mishap. MFOQA helps us seek out those hazards and find risk mitigation strategies like our stable approach procedures.



program. Using unstable approach rates to decide which weapon system has the worst pilots or the most undisciplined pilots or using external factors as an "excuse" for not flying a stable approach are all myths that distract us from seeing the true use of the analysis.

Finally, we do not set approach trigger events to make pilots look good, or look bad, or to chase a metric.

Again, unstable approach rates are not a report card. The approach trigger events are set and approved by MAJCOM weapon system subject matter experts to provide effective measurements to detect trends. In our Lajes examples, we learned that winds were mostly driving approach speed high unstable approaches. This example proves that the approach trigger events were working as advertised—as an issue was detected that needed

focus and emphasis. Additionally, we can sometimes detect seasonal or environmental trends and see external factors like winds. The triggered events and the subsequent analysis made us aware that winds were an issue in the approach and landing at Lajes!

Fact - Aggregate Trends

Before the advent of MFOQA (and other proactive safety programs), we identified negative trends mostly using number of aircraft mishaps, mishap classification (Class A, B, etc.), number of fatalities, and Safety Investigation Board (SIB) Analysis about what went wrong. MFOQA allows us to measure those same trends without the negative effects of mishaps. The real trends that we seek to identify and measure are the trends that could result in a mishap. We are looking for the "iceberg" and trying to determine if it is the tip of the

iceberg (emerging new trend) and whether it is a Titanic-sized iceberg or an ice cube (risk severity).

MFOQA analysis and unstable approach rates are more than just a metric or value. Additionally, we cannot summarize the analysis and unstable approach rate into a single number or percentage, as the analysis and trend starts to lose context and meaning. The intent of the analysis is to determine whether trends are emerging, seasonal, or sustained. The more we drill down into the layers of data, the more we start to see clarity, context, potential factors, and root causes of the trends. This is where we find the true benefit of MFOQA! So don't get sucked into the vortex of the report card mentality or distracted by MFOQA myths. The goal of MFOQA is analyzing flight data to detect mishap precursors and identify mitigation measures. 🧶



Senior Leaders, Airmen Gather to Focus on Mobility Mission

By MAJ JAMES NICHOLS AMC Public Affairs

ore than 1,400 Air Force senior leaders and Airmen from across the mobility enterprise attended the 2014 Airlift Tanker Association (A/TA) and Air Mobility Command (AMC) Symposium October 30–November 2 in Nashville, TN. The A/TA symposium gathered total force Airmen and civilians, community leaders, and industry experts from across the mobility enterprise to promote education, understanding, and professional development in the mobility Air Force's mission.

This year's theme was "Air Mobility: Accomplished by Professionals - Skilled and Respected." Retired General Arthur Lichte, former AMC commander and current Chairman of the A/TA, set the tone by expressing his priorities: supporting mobility Airmen, preserving the air mobility culture, and strengthening our bonds.

The event was host to several senior leader keynote speakers, including

Secretary of the Air Force Deborah Lee James; CMSgt of the Air Force James Cody; U.S. Transportation Command commander Gen Paul Selva; AMC commander Gen Darren McDew; Chief of the Air Force Reserve Lt Gen James Jackson; and Director of the Air National Guard Lt Gen Stanley Clarke III. A common theme among the keynote speakers was the message for all total force mobility Airmen: "Thank you for what you do."

The senior leaders had laudatory remarks for AMC's recent operations, including the 12 million pounds of cargo moved out of Afghanistan over the last 50 days by deployed C-5Ms and the delivery of more than 100,000 meals and 46,000 gallons of water over the last few months. Additionally, the leaders commended mobility air forces for their air refueling support to nearly 500 airstrikes against terrorists—just a few examples of the successful feats by mobility forces in 2014.

As Secretary of the Air Force, the Honorable Deborah Lee James said,

"You did this without skipping a beat—and never getting a break. It's a total force effort to make these things happen; mobility forces are the bedrock of Air Force operations." She added that mobility airdrops broke ISIL's siege of Mount Sinjar, saving more than 20,000 Yazidi people. "This was your Berlin Airlift, and you performed admirably," she said.

CMSgt of the Air Force James Cody also had high praise for the mobility fleet. "There is no place on the globe that this Air Mobility Command can't get an airman or can't get equipment." He continued, "We stand on your shoulders. You are truly giants. What you do has meaning."

Gen Selva offered words of praise as well. "I trust mobility Airmen because they provide solutions," he said. "We have run over 100 missions [in support of Ebola relief], all because mobility Airmen have opened the door to a relief effort that will save hundreds of thousands of lives. This air mobility team is unstoppable."

All keynote speakers highlighted the total force effort in current operations.

LEADERSHIP IS THE SOURCE OF AMC SAFETY CULTURE

By KIM BRUMLEY, Staff Writer

Safety professionals hit a monumental milestone in fiscal year 2014, achieving the safest aviation record in the history of the Air Force. Yet the incredible feat was not discussed much at the 2014 AMC Safety Conference, held during the A/TA Symposium. Instead, the conference focused on looking to the future at "where to focus attention to target and avoid the next accident," said Lt Gen Brooks Bash, who spoke to attendees.

Col Michael Seiler, AMC Director of Safety, opened the conference by saying, "Leadership is the source of AMC safety and sets the tone and culture." He encouraged attendees to return to their respective bases, speak with their leadership, and take leading roles to instill a culture of safety.

Steve Panger, Deputy Chief, AMC Flight safety, spoke on safety courses and training; and Joe Hughes, Chief, AMC Ground Safety Division, spoke of upcoming safety initiatives and the Safety Management System. Maj Alex Fafinski from the Air Force Safety Center educated attendees on the upcoming AFSAS app. Col Mark Hale and Tim Grosz from Ops RAMS spoke of LOSA, MFOQA, and ASAP; and MSgt Chad Grady, Weapons Safety Superintendent, talked of changes to AFMAN 91-201. Lt Col Pete Kelley, Chief, Safety Operations Flight, spoke of the IG System and recent changes in AFIS.

Even with an extended conference schedule, there simply was not enough allotted time, but Col Seiler, along with all the AMC Safety Division Chiefs, offered open-ended communication avenues for further discussion between safety professionals.



"You use the total force team to accomplish things that no other military in the world can do," said Gen Selva.

Echoing his point, Lt Gen Jackson remarked that more than 5,000 Reserve Airmen are supporting rapid global mobility daily and providing local support at home stations supporting firefighting missions, amongst others. "Your Air Force Reserve is doing just as much as the active duty," he said. "Seventy-five percent of current reservist joined after 9/11. This gives me the confidence that we [have the right people] to do these mission sets."

The National Guard Bureau's director highlighted the Air Guard's seamlessly integrated capability as a proven choice for the war fight, an enduring choice for security cooperation, and the first choice for homeland operations. "Guardsmen are always on mission," said Lt Gen Clarke. "You could be overseas defending your country and then come home and have to support a national disaster in your home state."

Across the AMC symposium, dozens of seminars focused on professional development of mobility Airmen

from around the globe. Topics included airdrops in Iraq, "new normal" budget realities, the outlook and recapitalization efforts for the current and future tanker fleet, and more. One seminar was dedicated to an update on the new Air Force Installation and Mission Support Center (AFIMSC), which will directly affect every installation. The center activated under Air Force Materiel Command August 8 and will serve as the single intermediate headquarters for the delivery of installation support capabilities.

According to Col. Brian Duffy, AFIM-SC provisional vice commander, the unit's focus is to provide responsive, seamless support to installations, while reducing overhead and costs at the MAJCOM level. AFIMSC will consolidate functions now performed at the 10 MAJCOMs, helping eliminate redundancies.

As the final keynote speaker for the symposium, Gen McDew provided closing comments. "You deliver more than just military power. In ways both obvious and subtle, you underpin American diplomacy." He finished, "You are our mobility professionals and Air Force leaders."



AMC AND THE AIR FORCE INSPECTION SYSTEM

The AFIS is "FOC"?

(What does that mean, and what's next?)

By COL KYLE VOIGT AMC Deputy Inspector General n 1 Oct 2014, the "new" Air Force Inspection System (AFIS) met the SecAF's deadline for reaching full operational capability or "FOC." But beyond the metrics in the SecAF's Program Action Directive, what does "FOC" mean to Airmen? It means mission command is fully vested in wing leadership ... and for the continuing maturity of AFIS, that is great news. AFI 1-2, "Commander's Responsibilities," charges commanders and "leaders at all levels" to ...

- Execute the Mission
- Manage Resources
- Lead People
- Improve the Unit

The goals and metrics for AFIS implementation included basic parameters for manpower, training, and program startup actions that would bring awareness and execution to this USAF priority. However, none of those metrics required MAJCOM validation of wing metrics or a minimum "grade" before declaring FOC. That's because the new program focuses on the wing commander and his or her ability to prioritize efforts to ensure effective mission readiness and to measure and assess those efforts to expose weaknesses or blind spots.

Why should Airmen still care about implementation of the AFIS?

Our verbiage for "FOC" is usually defined as the point when a specific activity "reaches maturity." Admittedly, we're not there yet. We've achieved most of the SecAF's goals for AFIS implementation, and they allow each wing and MAJCOM to continue UEI operations for the foreseeable future. However, the potential for vastly improving the system is still untapped.

The recent release of AFI 1-2, "Commander's Responsibilities," highlighted a more proactive role for all commanders and ultimately—to

Commanders are becoming significantly more aware of the true state of their compliance and readiness, and they are using that awareness for better resource decisions.

"leaders at ALL levels"—in meeting AF requirements for a successful AF culture, for upholding AF standards, and for executing the AF mission successfully by leading people, managing resources, and improving every unit.

Another reason to keep the AFIS in focus is that it's still "new" to many Airmen. The Unit Effectiveness Inspection and its underlying concept of continual evaluation is not the same set of "inspection ROE" we all grew up with under legacy functional inspections or the IG's own ORIs, CUIs or CIs. The IG no longer performs "1,000 task evals" combined with repeated "Ability to Survive and Operate" scenarios. It is now up to the wing commander's inspection program (CCIP) to establish that baseline for compliance and readiness.

We spend a lot of time selling the point that "inspection prep" is a bad thing under the AFIS, but you should not confuse that with the need to accomplish your normal work requirements in a timely manner. The "painting the grass green" analogy is still a good rule of thumb here—if you find yourself doing some last minute reprinting of files for a continuity book that no one uses, you might be doing "inspection prep." But if you are not compliant with a particular requirement and need additional hours, resources, or personnel to get the job done ... that's just "work"

and it doesn't matter if you're doing it six months or six days prior to a Capstone event.

Along those lines, your performance and your readiness is now graded over time through the IG's "photo album" of continual evaluation-NOT just for brief acts of brilliance in the last days before an IG visit. In our grading scheme, a program that gets cleaned up in the 23rd month of a 24-month UEI cycle gets a "C," even if you benchmarked it from someone else's "Best Practice" program. If you want an "A" from the IG, identify your problems in a timely fashion and make sure your fixes get prioritized appropriately among your wing's other urgent needs.

What has the AFIS achieved for us so far?

Commanders are becoming significantly more aware of the true state of their compliance and readiness, and they are using that awareness for better resource decisions. Airmen have a more active "voice" for their concerns and for identifying discrepancies to their chain of command with less fear of reprisal or retribution. Units are accepting measured operational risk in order to better utilize Airmen's time, to share government assets or resources appropriately, and to rekindle the spirit of innovation among Airmen. Previously unmonitored performance areas are being highlighted either as blind spots needing work or as strengths

deserving positive recognition. And the time available to wings—white space on the calendar—is expanding to accommodate the localized needs of each unique installation and mission set rather than a laundry list of annual exercise requirements.

What is next for the AFIS?

Our next step is improving the fidelity of continual evaluation so wings receive more active feedback from their MAJCOM staffs about their self-assessments. In some cases, that means changing the way that MAJCOMs provide oversight and assistance in their "organize, train and equip" role.

Changes to nuclear support inspections are also on the way. Each applicable wing should have included nuclear missions within the commander's own inspection program, but the next phase of change will move that further forward. As we transition the legacy Nuclear Surety and Nuclear Operational Readiness Inspections under the UEI umbrella, we are carefully and deliberately evaluating what we can delegate to the wing level while still retaining certain critical observation requirements at the MAJCOM. This will be a cooperative effort led by AMC/IG with assistance from AMC/A3N and virtually every nuclear support wing.

Before 2015 kicks off, even the primary AFI 90-201 should get an update. We've been listening to your feedback about how we can finetune AFIS processes. We adjusted "mandatory inspection items" with Interim Change 1 to AFI 90-201 back in August 2014. This next review will incorporate this change, as well as other issues needing clarification.

... the AFIS is continuing to show that it's the best change we've made in over 30 years in the inspection business. The teams who move ahead are already reaping the benefits.

What should we be doing differently?

If you are waiting for your first UEI Capstone event to make this cultural change, you are behind the power curve. The results are pouring in ... and the AFIS is continuing to show that it's the best change we've made in over 30 years in the inspection business. The teams who move ahead are already reaping the benefits. Those who delay are missing an opportunity.

Make it work for YOUR organization. Ideas and templates from others are a good starting point, but we've been emphasizing from the very beginning how each wing's missions, priorities, and problem areas are unique. Your CCIPs and dashboard tools should fit that uniqueness.

Call it like it is—that goes for every level of command from the wing commander all the way to the Airman who owns a particular process in that wing. This system can help everyone do their jobs better through open awareness, communication, and riskbased decisionmaking. If you find yourself worrying about how the IG might "grade your work," just remember that it will be significantly worse if you report something "green" that is actually "red." Embracing the reds is a sign that your organizational climate is healthy and capable of self-correcting its problems. THAT is what the IG needs to see in the "new" AFIS.



Gen Darren McDew

AMC COMMANDER'S MESSAGE:

Congratulations, AMC! October 2014 marks an important step forward for the Air Force Inspection System—a significant milestone in our journey to change the world of inspections. Thank you for being incredibly hard-charging catalysts to help Air Mobility Command lead this change. The successful launch of AFIS across our mobility enterprise is testament to your innovation, your hard work, and the trust you have been given through your commanders. Ultimately,

our success in managing our resources, leading our people, and improving our units—while simultaneously continuing to execute the Rapid Global Mobility mission—highlights how the heart and soul of AFIS thrives within our mobility warriors.

SAFETY is a Leadership Issue

By WAYNE BENDALL, HQ AMC Ground Safety

or many of our AMC Airmen, the upcoming months bring with them both the joys of the holiday season and the dangers of dealing with wintry weather conditions. The holidays offer an opportunity to pause and reflect on past accomplishments, visit with family and friends, and set new goals for the coming year.

They also bring weather conditions hazardous to pedestrian and vehicular traffic. The most common mishaps during this time of year are slips and falls due to icy conditions. The most serious involve motor vehicle operations. Common causal factors such as speeding, drinking and driving, fatigue, and distractions are compounded when we mix in winter weather.

As we begin preparations for the weather changes, it is important to remain vigilant. To help direct your mishap prevention focus, the AMC safety staff will spearhead a holiday safety initiative that will run from 20 November – 28 January. Your local safety offices will be sharing ideas on where to focus your mishap prevention efforts. Success will require face-to-face leadership and continuous engagement.

Speaking of success, there were no AMC fatalities or serious injuries during this same time period last year. Unfortunately, 8 Air Force Airmen lost their lives; 7 of those were the result of motor vehicle operations.

On-duty safety is also a paramount concern. Although slips and falls on ice are the most common mishap this time of year, accidents can happen to anyone at any time. As noted in Gen Darren W. McDew's Safety and Health policy letter dated 27 May 2014, "Safe operations are challenged by lapses in focus, judgment, and discipline." He also stated he views it "first and foremost as a leadership issue: it demonstrates a lack of focus on RM, operations safety, training, and standards. Successful and safe operations are a by-product of a systematic process which helps us evaluate courses of action, identify risks and benefits, and ultimately arrive at informed decisions."

The theme this year is "RISK MANAGEMENT, IT'S A FAMILY AFFAIR"

For ideas on where to focus your mishap prevention efforts, weekly themes are addressed on the AMC ground safety SharePoint:

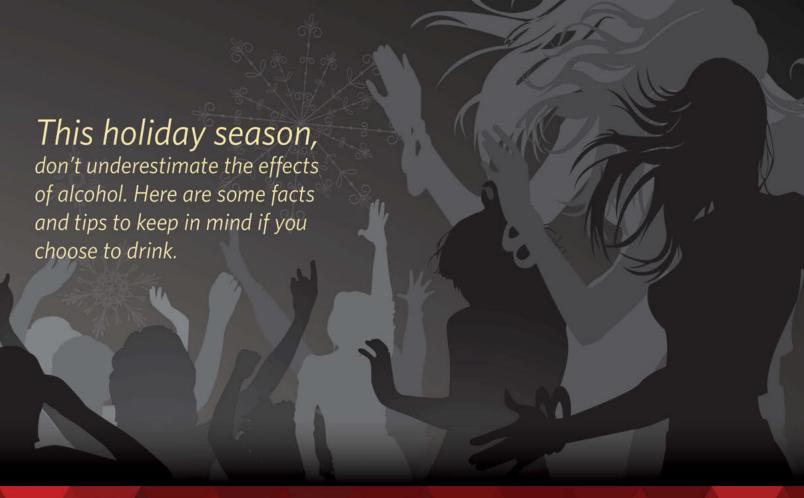
Week 1	Nov. 20	Preparing for Thanksgiving
Week 2	Nov. 27	Thanksgiving is Here!
Week 3	Dec. 4	Home Again After the Holidays
Week 4	Dec. 11	Cold Weather Setting in for Most
Week 5	Dec. 18	'Twas the Week Before Christmas
Week 6	Dec. 25	Christmas and New Year Celebrations
Week 7	Jan. 1	Back to Work and Tired
Week 8	Jan. 8	More Cold Weather Ahead
Week 9	Jan. 15	Dangers of Wintry Weather
Week 10	Jan. 22	Don't Drop Your Guard



During the holidays, your chance of dying in an alcohol-related crash increases

2 to 3 times

40% of fatalities during Christmas and New Years involve alcohol



Myth

You can drive as long as you are not slurring your words or stumbling.

Fact

The coordination needed for driving is compromised long before the signs of intoxication are visible.

Myth

Drink coffee. Caffeine will sober you up.

Fact

Caffeine will not help with the effects of alcohol on decisionmaking or coordination.

If you choose to drink...

- Pace yourself
 Make every other drink a nonalcoholic one and have no more than one alcoholic drink per hour.
- One serving of alcohol is different depending on the type of drink. Although the drinks below are different sizes, each contains approximately the same amount of alcohol and counts as a single standard drink.



Make plans to get home safely
Remember that a designated driver is someone who
hasn't had ANY alcohol, NOT simply the person in
your group who drank the least.

Think BEFORE You Drink!



By RITA HESS, Staff Writer

ccording to the National Highway Traffic Safety Administration, most Americans—97 percent say that impaired driving is a threat to their community. Think about that ... 97 percent is an overwhelming majority! Yet about 40 percent of all vehicle crash deaths involve alcohol. So how is it that most Americans

In 2012, the 21- to 24-year-old age group had the highest percentage of drivers in fatal crashes with BAC levels of .08 or higher - 32 percent.

> National Highway Traffic Safety Administration

think it is dangerous to drive impaired but alcohol plays a role in so many fatal vehicle accidents? I have a theory, and I'll let a guy named Bob represent the average Airman in my explanation.

Bob is in the majority that believes impaired driving threatens his community, but he doesn't "think" of himself as a threat. Bob goes to a holiday party and a buddy offers him a beer. A few hours later, he has another. Bob "thinks" he allowed plenty of time in between the two drinks, so he "thinks" he can handle getting behind the wheel.

Bob "thinks" nothing will happen on the way home. It's only a short drive from the party or the pub, so Bob "thinks" he can make it safely. He knows a back way and has never seen a cop on that stretch of road, so he doesn't "think" he'll see any there on this particular night, either. Bob only had a few beers—not a mixed drink with scotch or whiskey or anything like that—and he doesn't "think" he is that buzzed. If he does

happen to get stopped, he "thinks" he can pass a field sobriety test.

Do you see the problem? There is a lot of "thinking" going on.

More accurately, I contend that there is NO thinking going on. Bob doesn't think he has had too much to drink. He doesn't think he'll get pulled over. He doesn't think about the ramifications of a DUI.* He doesn't think about what might happen if he kills someone. Bob just doesn't think.

This holiday season, I challenge you to *think before you drink*. Think about whether you are in that 97 percent who believes that impaired driving is a threat to your community. Think about what you have to lose if you get caught. Think about whether you are willing to risk being in that 40 percent of vehicle crashes that involve alcohol and result in a fatality—where you end up dead or you kill someone else.

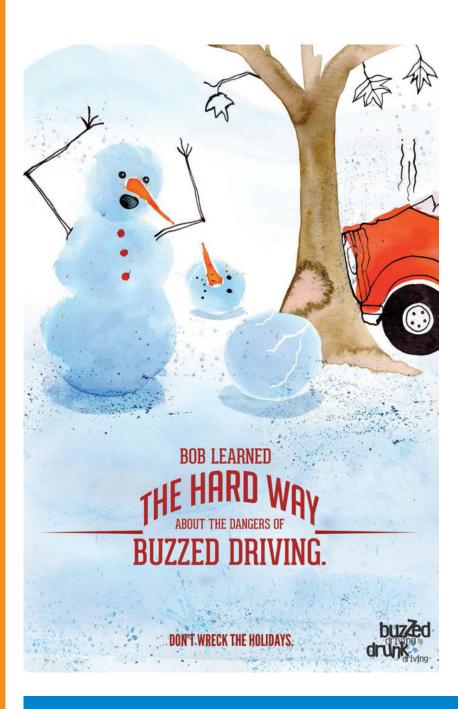
For the sake of your friends, your family and your future, don't be like Bob! Have a safe holiday season!

POSSIBLE CONSEQUENCES OF A DUI

If you're caught driving on base under the influence, your commander may either offer you nonjudicial punishment, also known as an Article 15, or prefer charges against you, initiating a court-martial. Nonjudicial punishments can include reduction in rank, forfeitures, extra duties, restriction to base, and a reprimand. Maximum punishment at a court-martial for UCMJ, Article 111, Drunken Operation of a Vehicle includes a Bad Conduct Discharge, six months confinement, reduction to E-1, and total forfeitures.

Also, if you drink and drive you may have to:

- 1. Pay for, attend, and pass an alcohol education or driver safety class.
- 2. Give up driving or drive with a "provisional" license that limits where you go and when.
- 3. Find new insurance, pay higher insurance premiums, and/or carry expensive high-risk insurance.
- Obtain an SR-22, a document that provides proof of a required level of insurance coverage (depending on the state you live in).
- 5. Serve jail time.
- 6. Have an ignition lock device on your vehicle.
- 7. Pay expensive fines and court fees.
- 8. Live with a DUI on your permanent driving record, which can cost you potential job and/or certain educational opportunities.
- 9. Pay to get your vehicle out of impoundment.
- 10. Live the rest of your life knowing you killed someone.



*THE DIFFERENCE BETWEEN DUI AND DWI

The terms DUI and DWI pertain to operating a motor vehicle while impaired by alcohol or other substances. DUI means "driving under the influence," while DWI stands for "driving while intoxicated." In some states, the terms are used interchangeably. In other states, DWI is a more serious offense.









What Do

Ground Safety Managers DO?

By KIM BRUMLEY, Staff Writer

hat is a normal workday for a **Ground Safety** Manager (GSM)? First, if one spent any time in the safety realm, it is apparent that the word "normal" does not coincide with the happenings of a day. Second, if you contact 20 different GSMs on any given day and ask what they did on that particular day, you would most likely get 20 different responses. Therefore, explaining what GSMs do is difficult because there are so many variables involved and duties are quite complex. Whether analyzing data for mishap trends to prevent like occurrences or keeping up with a seemingly endless stream of daily communications, you will not find GSMs sitting idly at a desk—in the rare instance they are even at a desk.

"Safety doesn't happen because I sit at my desk," said Mr. Joe Hughes, Chief, AMC Ground Safety Division.

"You've got to get out there and teach people." Teaching and advising the folks at the installations often takes the GSMs out into the field. To possess the skills needed to deliver expert guidance in a wide variety of safety aspects, the GSMs often undergo training. After a lengthy process to secure hard-to-get funding, Hughes brought 14 GSMs to Scott AFB for a fall protection course. Why was it so important that the GSMs be given the training? GSMs must be able to recognize potential fall hazards while conducting inspections, as well as when safety equipment is needed and how to use it properly so they can advise others.

From 2004 to 2013, falls among Air Force personnel resulted in:

- Seven fatalities
- Five permanent partial disabilities

- > One permanent total disability
- > 564 lost workdays
- More than \$3.8 million in injury costs

Sadly, the lives and dollars lost due to falls could have been prevented.

The statistics for fatalities, permanent or partial disability, loss of workdays, and injury costs are readily available regarding falls, but the statistics for the number of lives and money **saved** as a result of using fall protection training are not.

The same concept is true for motor vehicle accidents. There are statistics for the number of fatalities, cost, and so on related to crashes on and off duty, but there are not statistics for the number of lives saved or serious injuries that were averted due to measures employed by ground safety to prevent accidents. A great example was referred to at the roundtable discussion following the

fall prevention course when one of the GSMs spoke of a seatbelt check that was conducted. During the check, a senior leader was stopped because he was not wearing a seatbelt. He was asked to fasten his seatbelt and as he drove away, the ground safety member said,

"That could have just saved his life."

The GSMs at each installation have a team of safety professionals to assist them, but when their staff is deployed or TDY, the duties of the remaining members at each installation are stretched even further. In addition, there has been a reduction in manpower in the wake of budget cutbacks and retrograde that has a direct impact on safety offices at each installation and at headquarters. Hughes said that 10 years ago, the workforce in the Ground Safety Division at AMC headquarters was 12 strong, but today it is half that with only a six-member staff. "We are trying to do more with less, and you simply cannot do more with less. It is a fallacy," he said. As a result, GSMs and ground safety has to prioritize and strategize to promote mishap prevention effectively and efficiently.

So, what is a normal workday for a GSM? Again, the word *normal* cannot describe the happenings of a day in the safety realm. Perhaps the word *extraordinary* is more fitting when considering the result of much hard work is ultimately reducing the number of mishaps or fatalities. Although the results of many efforts by the GSMs and safety professionals at AMC are not recorded in statistics, they are well aware that their daily actions are saving the lives of Airmen.





ear after year, right on fall's heels, winter makes its appearance. Your location determines, to a large extent, what winter looks like to you. Here in southwest Ohio, it gets cold first, and the snow and ice comes later. Some winters are much worse than others are, but we can almost always count on frigid temperatures, at the very least.

As flyers, we spend a lot of our duty time exposed to the elements, as do flight engineers, scanners, loadmasters, flight nurses, and aeromedical technicians, in addition to all the ground crew who help us get off the ground. Exposure to cold air, moisture, snow, and ice can really take a toll on your body, and it takes less time than you think to develop frostbite or hypothermia. What exactly are frostbite and hypothermia?

exposure, resulting from the body's natural self-preservation instinct. In response to severe cold, the body will work to protect the vital organs first, and that means decreased circulation to the extremities like your hands, feet, and nose. When these areas are exposed to cold temperatures for long periods without the benefit of sufficient blood flow, they will begin to freeze, and frostbite can cause permanent damage. Some early warning signs of frostbite include:

- A loss of feeling and a white or pale, waxy appearance to the fingers, toes, nose, or earlobes.
- > Skin that is hard to the touch.
- Redness and/or pain in the skin—indication that frostbite may be developing.

HERE'S WHAT YOU CAN DO IF YOU SUSPECT SOMEONE IS SUFFERING FROM FROSTBITE:

- First, get the person inside where it's warm, without making him walk on frostbitten feet if possible.
- Wrap his head in a moist warm towel if you can, or try to warm the affected areas in warm (not hot!) water.
- Don't get near heater vents or a stove, and don't use a hair dryer to warm the frostbitten skin; you could burn the person before his feeling returns. Don't use hot water bottles or heating pads either, for the same reason
- If the victim's skin is blue or gray, very swollen, or blistered, and/or
 it feels hard to the touch even under the surface, go to the hospital
 right away.

Hypothermia is a different ballgame. This is a more severe reaction to cold than frostbite and can actually be fatal. Hypothermia is a condition where the core body temperature drops to an abnormally low level, below 95 degrees F. Although it happens most often in very cold weather, even moderately chilly temperature of around 60 degrees is low enough to trigger it if you are exposed long enough and are not properly clothed. Don't underestimate the dangers of hypothermia; it kills around 28,000 people each year. According to the National Institute on Aging, most of them tend to be older folks, due in part to circulation issues, certain types of medication, and a reduced sensitivity to cold, which could mean they wouldn't notice the drop in their body temperature as readily. But 28,000 is a lot of people, and hypothermia is 100 percent preventable.

I'll list a few indications of hypothermia setting in, but not all of the symptoms may occur. Watch for:

- Confusion, slurred speech, memory loss,
- Shallow breathing or shivering,
- Numb hands or feet,
- **Exhaustion** or drowsiness, and/or
- Loss of consciousness.



first. Better to call for help and not need it than to need it and wait too long to call. Then sit or lie close to the person and cover both of your bodies with thick blankets. The hotter you get, the more warmth you can give the other person. Don't rub the affected areas, even gently; just warm him up and wait for help.

Prevention is critical when planning for the effects of the weather. Dress appropriately for your duties and for how much time you are likely to spend outdoors. Dress in layers of warm clothing, and pay special attention to your head. Most of the body heat you lose will be from your head, so make sure to cover it with a woolen or fleece hat. Cover your hands, too; they are one of the first places you will see the effects of the cold. Mittens tend to keep your hands warmer, but gloves are easier to work with. There are styles of mittens that fasten in the middle of your palm with Velcro; they have a kind of "flip top" that allows you to open them up when you need to

A1C Jack Grimmett, 436th Aircraft Maintenance Squadron, jet engine mechanic, observes the engine run of a C-5M Super Galaxy from in front of the aircraft during a bleed-air operational check at Dover AFB, Del.

USAF PHOTO BY GREG L. DAVIS

frequently; if severe weather is called for, consider putting off outside duties until it is safer, if possible.

Being prepared and practicing prevention extends past the workday, though, and it's wise to have an emergency kit in your car all the time—but especially in winter. If you get stuck and have to wait for help, you will be glad you put those blankets in the trunk. Besides blankets, your car kit should include things like a flashlight and extra batteries, a cell phone charger, a first aid kit, non-perishable food items like trail mix or granola bars, jumper cables, tire chains, work gloves, road flares, and a bright cloth or sign alerting passersby that you need help. You could include more if you really want to be thorough, but this list is a good place to start. A good resource is http://www.dmv.org/how-toguides/first-aid.php when you are ready to pack your emergency kit.

Hopefully, you will never need to use your car emergency kit or your knowledge about frostbite and hypothermia, but it's better to have all of these things and not need them than to NOT have them. The old Boy Scout motto of "Be Prepared" is good for all of us to remember, especially during winter!



Spotlight Award

KC-135R Aircrew



Left to right: SSgt Jarrett Crawford, Capt Todd Walker, and Capt Chris Miller

While deployed for the 906th Air Refueling Squadron in support of OPERATION ENDURING FREEDOM and peacekeeping mission over Iraq, Capt Todd Walker, Capt Christopher Miller, and SSgt Jarrett Crawford from 375 Air Mobility Wing, Scott AFB who were associated with 126 Air Refueling Wing, Scott AFB, encountered multiple ground and in-flight challenges throughout their tour. Despite the challenges, the crew completed 24 combat and combat support missions spanning 174 hours. They safely offloaded 1.2 million pounds of JP-8 to 68 Coalition Close Air Support and Intelligence, Surveillance, and Reconnaissance aircraft, which directly supported 11 troops-in-contact events, two shows of force, and five priority targets. Their dedication to the mission and commitment to the troops in the air and on the ground was vital to America's objectives in Afghanistan and Iraq.

The expeditious and remarkable actions of the crew during one particular mission saved a receiver pilot from bailing out when the pilot experienced an in-flight emergency. The incident occurred while conducting night refueling of an A-10 over Afghanistan. The receiver had a negative contact and was subsequently disconnected by the boom operator. The receiver pilot then noticed what appeared to be excessive fluid spraying on the canopy from the A-10's receptacle area, thus causing the receiver to move away from the tanker to troubleshoot the malfunction. Within a short period of time, the A-10 pilot reported that visibility had declined to zero due to hydraulic fluid leaking over the entire windshield. Moments later, the receiver pilot discovered a complete loss of the right hydraulic system, followed by the illumination of the right side hydraulic reservoir warning light. Due to the complete lack of visibility, the receiver pilot declared an emergency and requested an immediate return to Bagram AB to expedite the safe recovery of the aircraft.

Realizing the dire situation, the tanker crew displayed great crew resource management by dividing duties in order to assist the crippled A-10. Capt Walker made a split-second decision to take control of the situation and instructed the A-10 pilot to follow the tanker back to Bagram AB. Capt Miller began relaying the emergency aircraft's information to ATC. His action allowed the receiver pilot to focus on maintaining aircraft control throughout the emergency, ultimately clearing the way for both aircraft to fly safely through congested combat airspace. In an effort to aid the impaired receiver, SSgt Crawford turned the nacelle and aerial refueling floodlight to full bright and remained in the boom pod, keeping visual contact in order to guide the A-10 safely back to base.

The A-10 pilot notified the tanker crew that he lost all VFR navigation capability and that he relied solely on them to clear the airspace. The pilot added that without the extraordinary actions of the crew, he most likely would have ejected from the aircraft. After the A-10 was assured a safe recovery and was able to land, the KC-135R departed Bagram airspace and continued with the next combat tasking in support of CFACC objectives, thereby maintaining seamless combat capabilities in the CENTCOM Area of Responsibility.

SSgt Chambers Owes His Life to a Great Wingman

s an avid snowboarder,
SSgt John Chambers
looked forward to a
TDY to Travis AFB
and a chance for some time on the
prime slopes at the resorts nearby.
But while snowboarding on a crisp
January day in 2013, his plans
quickly veered off course and out of
control before he knew what hit him.

Arriving at Travis with his snowboard and gear in hand, SSgt Chambers collaborated with fellow classmates for a weekend trip to Lake Tahoe, Nevada. The trip went off without a hitch, so the group planned a second weekend at the resort ... and then it happened.

"Here's what I remember: The four of us were going down runs together for a few hours. We got hungry and decided to get some food in the lodge. After eating, we became tired and discussed not snowboarding anymore, but since we paid so much for the tickets and had only been there for a few hours, we decided to go on one last run before we called it a day," he said.

On the last run, Chambers took off ahead of the group, but when they arrived at the bottom of the slope, he was nowhere to be found. Bewildered, the group decided to take the lift back to the top to try to locate Chambers. But before

they could get back on the lift, they overheard talk of a terrible accident on the slopes where someone had veered off course into a wooded area and crashed into a large tree. They knew it had to be SSgt Chambers.

Luckily, another Airman who was a member of the security forces from Travis happened to be on the slopes, saw Chambers go into the wooded area, and hurried over. "By the time he was able to get to me, I was unconscious, not breathing, and bleeding quite a bit from my right ear. He was able to get the attention of the mountain security personnel who rushed over to help. The Reno hospital emergency room was alerted, and they sent a medevac helicopter to rescue me," said Chambers.

At first, he was unable to breathe on his own. Finally, after several hours of labored breathing, SSgt Chambers' condition stabilized. He had sustained serious injuries that included four skull fractures, a traumatic brain injury, a concussion, permanent hearing loss in his right ear, brain swelling that caused palsy in the right side of his face, and a fracture to his right tibia.

The days following the accident were a blur of only short recollections. He didn't remember the accident or even know why he was in a hospital bed until he asked friends who were



SSgt John Chambers

there by his side. They told him of the incident and were constant companions during his 13-day hospital stay. It was another month before he was cleared to take a flight to Andrews AFB to start his medical convalescence, but his wingmen were there keeping his spirits up throughout the ordeal.

"Another great wingman was
the security forces member who
initially saw what happened and
immediately came to my rescue,"
Chambers said. "If it wasn't for
his assistance, I don't believe that
anyone else would have found me in
time. If I ever get the opportunity to
thank him, I will tell him that I owe
my life to him."

Minus the hearing damage, SSgt Chambers has made a remarkable recovery in a short time. As a member of the Airmen-to-Airmen Safety Advisory Council, he now shares his story with other wingmen. He said, "I have been snowboarding for about 12 years, but wearing a helmet never crossed my mind. If I could do it all over again, I would wear a helmet."

By KIM BRUMLEY, Staff Writer



he holidays will be here before we know it, and with them comes Old Man Winter, bringing along his whipping winds, blowing snow, and freezing ice. All of these things mean changes in the way we do business, both in our day-to-day lives and as flyers.

Some things never change, and Mother Nature is one. She is always going to be in charge of the weather. She makes the rules, and it is up to us to keep up. Seasons are always going to change, and we always need to be prepared and know how to adjust. Heading into winter, one of the main things we need to pay attention to as flyers is aircraft icing. That one is guaranteed to ruin your day if you neglect it. So where do we go for information? That's right, Air Force Handbook 11-203, Vol II, Weather for Aircrews, the authoritative guide on all things weather related. Chapter 11 deals exclusively with icing issues in depth. It's a great book to keep handy in your pubs kit so you can refer to it again and again.

Let's just start at the beginning. Icing in any of its forms is hazardous to safe flight for a multitude of reasons. One, it can add weight to the aircraft, and that's bad for a few reasons. Additional weight decreases lift and increases drag by a significant margin, and that will definitely affect your flight. Ice can cause vibrations on rotors and propellers, and it can decrease the aircraft's overall efficiency, requiring more power to maintain flight. Also, if it builds

up on the outside of the aircraft, it will have a negative effect on your ability to control your aircraft. Your brakes and your landing gear may not function properly, you can lose radio communication, you may have false instrument readings, and your outside vision will probably be reduced and may be completely lost.

There are two main categories of aircraft icing: structural and induction, and they are just what they sound like. Structural icing builds up on the aircraft surfaces, or structure, and induction icing appears in the air induction systems, where air is taken into the engines. This type of icing may also show up in the fuel systems. Within these main categories, there are subcategories, but we'll get to those in a bit.

The required ingredients for structural icing are air temperatures, as well as the aircraft's surfaces at or below freezing, and visible liquid droplets of water or high humidity. When these things combine, ice begins to form on the outer surfaces of an aircraft. Clouds are the most common form of moisture in the air, but freezing rain and drizzle are other easily visible forms of moisture that can cause icing. Freezing precipitation is actually the most dangerous of all the various icing conditions because of how quickly it can build up and how hard it is to remove.

Now we'll get to some of those subcategories I mentioned earlier. Within structural icing, there are three sub-categories of ice: clear,

Type of Icing	Effects	Conditions
Structural Clear Rime Mixed	 Decreased lift/increased drag Rotor/propeller vibration More power consumption Less control of brakes/ landing gear Radio communication impairment False instrument readings Impaired outside vision 	Temps at or below freezing with humidity, clouds, freezing rain, or drizzle present
Induction • Air Induction • Fuel System	Reduced power plant performancePossible engine failure	Temps above, at, or below freezing

rime, and mixed. Clear ice is the most dangerous of the three types; it is hard and shiny, and it's very difficult to remove with de-ice equipment. You will find this most often where you find high moisture content in the clouds and temperatures slightly below freezing. It adheres well to the aircraft's surfaces and can build to a dangerous level in a short time. It will be smooth if it is made up only of freezing rain, but if there is snow, ice pellets, or small hail mixed in, it will be rough. Rime ice is milky and granular in appearance, making it more brittle and easier to remove than clear ice. It is made up of small water droplets that freeze when they strike the surface of the aircraft, and a lot of air usually gets trapped in with the water. That is what gives this type of ice its rough and opaque appearance. It is not as heavy as clear ice either, so its weight is not really an issue.

Mixed ice is just what it sounds like: a mix of small and large water droplets, sometimes with snow or ice particles mixed in. It builds rapidly and ice particles can become embedded

Most of the time,

your ground de-icing

procedures will keep

but icing could sneak

up on you if you are

not paying attention.

and your anti-icing

you out of trouble,

in clear ice, making a rough surface. Additionally, when we think about structural icing, we have to consider frost, that thin layer of crystalline ice that forms on external surfaces. It decreases your lift to drag ratio and ob-

structs your vision. It's not included in the icing categories and is generally more of an annoyance than a real risk. However, it can make your flight more difficult and possibly create a hazard during takeoff, so make sure it is all removed from your jet before you go.

Induction icing can occur in a wide range of weather conditions, and it can affect the entire power plant. It's most common in the air induction system, which takes air into the aircraft engines, and it will be found in the fuel system

sometimes. The subcategory within induction icing is called carburetor icing, and it is actually a combination of icing both systems. Carburetor icing is extremely dangerous and often results in total engine failure. This type of icing forms during fuel vaporization combined with the expansion of the air as it passes through the carburetor. The bigger problem with carburetor icing is not so much preventing ice from forming but clearing out ice that is already there. Ice forms in the induction system when conditions are favorable for structural icing as well, but it can also form when

> temperatures are above freezing. Be aware that this might happen, and watch for it.

Most of the time, your ground de-icing and your anti-icing procedures will keep you out of trouble, but icing could sneak

up on you if you are not paying attention. Always remove ice and snow before takeoff, and use your anti-ice equipment. Avoid clouds when the temperature is between 0 and –20 degrees C, but if that's not possible, climb or descend to an altitude where you are out of that range. Make sure to give PIREPS so other aircraft near your vicinity know what to expect.

You may not always be able to avoid cold weather and ice, but you can take a few minutes to refresh your memory before winter hits so you are not caught unprepared. Fly safe!

KC-135R Stratotanker aircraft with the 128th Air Refueling Wing awaits snow and ice removal after a winter storm at General Mitchell International Airport in Milwaukee.

USAF PHOTO BY SSGT JEREMY WILSON



McConnell Firefighters Gain Accreditation

By A1C DAVID BERNAL DEL AGUA 22d Air Refueling Wing Public Affairs

ire and Emergency
Services Flight earned its
accreditation on August 13,
2014, from the Commission
on Fire Accreditation International.

The unit is the only accredited fire department within Air Mobility Command and is one of 13 accredited units Air Force-wide.

"This [accreditation] validates our program," said SMSgt William Taylor, 22d Civil Engineer Squadron deputy fire chief. "It gives assurance to the base populace and the wing commander that when we respond to an emergency, you are getting the best possible service that can be provided."

The fire team had more than 250 performance indicators tested, and the process was a group effort that took them almost three years from start to finish.

"It wasn't just the management staff doing paperwork," said William Dodson, 22d CES assistant chief of training and accreditation manager. "It was everybody involved, from the newest person on up to the fire chief."

Becoming accredited involved everyone believing in the process and voicing their opinion.

"Everybody has to buy into the program, from Airmen all the way to the oldest firefighter we have on the floor," said Charles Hutson, 22d CES fire chief. "They all have some say into how the department is run."

Accreditation is not the final step. The progression is continuing, and the fire team constantly seeks to better itself.

"We are living the continual improvement model," said Taylor. "Every day, we look for ways to improve efficiency within the department to reduce operating costs or transfer those operating costs that may be wasteful into areas where we can capitalize on improving technology within the department."

An annual report must be sent every year after accreditation to ensure all requirements are being met. Reaccreditation occurs every five years.

"Every month, we'll review one chapter to make sure we are continuing to do what we need to stay accredited," said Hutson. "At the end of the five-year plan, we'll be ready for re-accreditation because we've gone through the manual every year."

All the time and hard work to become accredited has been for the purpose of better serving the community.

"It's all about the community," said Hutson. "They pay for all of our vehicles, all our man power, and everything else. That is why we give back to the community."

The 22d Civil Engineer Squadron Fire and Emergency Services Flight receives the Accredited Agency Award from Col Joel Jackson, 22d Air Refueling Wing commander, Aug. 27, 2014, at McConnell AFB, Kan.

USAF PHOTO BY A1C DAVID BERNAL DEL AGUA

Mishap Statistics Scoreboard

FY14 Aviation Mishaps

Aircraft	Class A	Class B	Total As of Oct 2014
C-5M	0	0	0
C-17A	1	1	2
C-130	0	1	1
KC-135R	0	1	1
KC-10A	0	3	3
C-40B	0	1	1
Total	1	7	8

FY14 Ground Mishaps

Category	Class A (Fatal)	Class B	Total As of Oct 2014
PMV 2Whl	3	0	3
PMV 4Whl	2	0	2
Sports & Rec/Misc.	2	1	3
Govt. Motor Vehicle	1	0	1
Pedestrian/ Bicycle	0	0	0
Property Damage	0	0	0
Industrial	0	0	0
Total	8	1	9

FY14 FLIGHT SAFETY NOTES

Class A

AMC had one Class A mishap in FY14. This is a decrease from four in FY13. Most likely this mishap will move to an AF at large mishap because it is engine confined and will no longer be reflected on AMC stats.

C-17A Engine Confined

While enroute to an air refueling track, the crew noted the aircraft shuddering, accompanied by number one engine rollback and visible sparks while climbing between FL190 and FL200. They ran the appropriate checklists and landed safely at Wright-Patterson AFB. Initial damage was noted to several blades, and the safety investigation is ongoing.

Class B

The total number of Class B mishaps increased by one as compared to four in FY13. However four of the five mishaps were engine confined FOD.

C-17A Engine Confined

During ground engine running operations, the number 2 and 3 engines experienced sub-idle spool downs resulting in excessive EGTs. Investigation is ongoing.

KC-135R Engine Confined

The aircraft experienced an engine compressor stall on the number four engine. Maintenance discovered damage to the engine, which is currently awaiting breakdown, and the safety investigation is ongoing.

KC-10A Engine Confined FOD

The number three engine was operating approximately 40 degrees hotter than the other engines but still within tolerances. Post-flight inspection revealed screws in the engine. Engine analysis is still being conducted and the safety investigation is ongoing.

C-40B Engine Confined FOD

The aircraft ingested asphalt and other debris into the number two engine while taxiing across surfaces where numerous construction vehicles loaded with concrete and various other debris were crossing without FOD checks. Large pieces of debris had fallen on the taxiway and the apron had large cracks with crumbling asphalt.

C-130H Engine Confined FOD

The aircraft experienced a number three engine RPM roll back to 94 percent. The crew recovered the aircraft and landed uneventfully. Upon post flight inspection, FOD was discovered in the engine. The SIB determined maintenance personnel failed to account for hardwear while replacing the valve housing, which led to FOD in the compressor.

KC-10 Engine Confinded FOD

During Post Flight Inspection, maintenance personnel discovered a missing engine ASP fastener.

Further investigation noted damage to blades throughout the High Pressure Compressor.

KC-10 Engine Confined

During flight, the crew heard a loud pop and felt the aircraft shudder. After landing, maintenance personnel discovered severe engine damage. Investigation is ongoing.

FY14 GROUND SAFETY NOTES

There were eight fatal mishaps and one permanent partial disability.

PMV 2 WhI

- Member was speeding on a highway under the influence of alcohol and struck a vehicle that was turning across his path of travel.
- Member was speeding, lost control on a highway exit ramp, and struck a guard rail.
- Member struck another vehicle that was turning into the path of travel.

PMV 4 WhI

- Member was driving during a snow storm, lost control, spun, and was struck broadside by a large truck.
- Member was towing a trailer, lost control, left the roadway and rolled several times.

Sports and Recreation/ **Miscellaneous**

- Member jumped into a mountain pool and went over a waterfall.
- > Member was a passenger in a commercial vehicle; operator had a seizure and struck a guardrail.
- Member was pulling a mower backwards up a slope, slipped and pulled mower over foot (permanent partial).

Government Motor Vehicle

Member was run over by a HMMWV during an exercise.

AMC sustained no losses in

Pedestrian/Bicycle, Property Damage, or Industrial categories.





Not wearing his seatbelt? How could that be?

By MARILEE REUTER, 375 AMW Safety Office

am a mom. I love the Air
Force and I have a great job,
but the best part of my life
is being a mom. I'm a mom
eight times over: five stepchildren
(two from my first marriage) and
three biological children.

I became a stepmom to Christopher and April when I married their father in 1984. Christopher was nine and April was six. I loved the kids from the beginning—they were awesome! In 1987, Christopher came to live with us fulltime. We were thrilled.

In 1988, we moved from Minot AFB to Seymour Johnson AFB. It was a wonderful move. We were now only a three-hour drive from April, and the kids were able to see each other all the time. In September 1988, I had a baby boy and we named him Thomas. Chris loved being a big brother, and he was very good at it.

Things changed for Chris when he was a senior. His father and I separated and after a short time, he came to live with me. I was his mom!

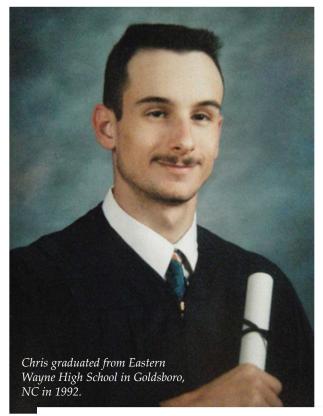
When he joined the Army, I supported his decision. He picked the Army because they offered more money for college than the Air Force, and they had a two-year enlistment. He was going to test it out. Maybe he would do his two years and get out ... maybe he would make the Army a career.

Chris entered the Army in July 1992. He went through Basic Training at Ft. Knox, Kentucky. Basic was a bit rough, but overall he loved it. In September, he graduated Basic and I was there. The next day, he left for tech training at Ft. Sam Houston in San Antonio. He was going to be a medical technician; he wanted to help people, and he said it would give him great career opportunities when he got out. He embraced the training and the Army way of life.

His first permanent station was at Ft. Lee, Virginia. He made friends and got settled. He and a buddy kept in touch with some girls from Indiana they met while they were in training, and they made several weekend trips up to Indiana to visit them.

In May 1993, I accepted a job in the Safety Office at Minot AFB—the same office I had worked in as a SSgt, but now I was a civilian. I couldn't wait to move back to Minot. I was a single parent, and it was a great place to raise kids.

On the Friday before Memorial Day, I was out in the housing area with CES looking at a drainage problem when a MSgt from my office pulled up in her car. She motioned me over to talk. She told me she was glad she found me—Chris had been in a car accident and I needed to call his dad. I went back to the office. The number I had to call was at a hospital in Louisville, Kentucky. When I reached his dad, he told me the grim news. Chris had been in a car accident early Friday morning; he had a broken neck and he was in intensive care. It appeared he would be a quadriplegic, but he had stabilized. The accident was a one-car rollover, and Chris was not wearing his seatbelt. Not wearing his seatbelt? How could that be?





It seems that he and his buddy were working a swing shift Thursday night. It was pretty quiet at work, so their supervisor let them off early. They were thrilled—a threeday weekend extended to four. They went to the dorm, grabbed their stuff, and left for Indiana in Chris' little gold Mitsubishi pickup truck. They were going to see the girls. Between the two of them, they planned to drive straight through, be in Indiana for the holiday weekend, and be back at work on Tuesday afternoon for swing shift. Sometime after midnight, while his buddy was driving,

Chris took off his seatbelt so he could stretch out and get some sleep. His buddy either fell asleep or reached for something—he doesn't remember—but in a split second, the truck left the interstate going approximately 60 miles per hour and rolled. Chris was thrown out of the truck. His buddy stayed in the truck; he had his seatbelt on and only had a broken ankle. A vehicle behind them saw the lights leave the road and stopped to help. It took a while to find Chris, but his buddy was adamant that there had been someone else with him. Once they found him, they were both transported to the hospital.

In the week that followed, Chris remained stable and began to improve. His dad told me to stay in North Dakota because they were going to move him very soon to a VA hospital in Virginia so he could start rehabilitation. I had a TDY to Langley AFB in Virginia coming up in a couple of weeks, so I planned to take leave and go visit him then. I couldn't wait to see him!

The weekend following the accident, I went to Minneapolis for a Drill Weekend, as I was a MSgt in the AF Reserve. It was my first weekend assigned to the Safety Office in a new unit. When I walked into my hotel room, the message light was flashing on the phone. I had a message to call back to Minot. Thomas, my four-year old son, was staying with friends while I was at drill. They had called and wanted me to call them right away. I was worried that something might have happened to Thomas. I called them and learned that Thomas was fine, but Chris' dad had called trying to get ahold of me. After a long pause, they told me that Chris had died. They said there had been complications. Chris died on June 4—my birthday.

Chris was only 18 when he died. He had touched many lives and left behind lots of family and friends. In July this year, Chris would have turned 40. I've celebrated my last 21 birthdays remembering that date was the day he died.

You see, parents aren't supposed to lose their children. We never completely get over it.

Please don't drive when you are tired. Don't drive when you are normally asleep. Wear your seatbelts. Wear them every time you get in a car. Wear them for your family and your friends, because you don't get a redo.



10,000 HOURS

89 AS, Wright-Patterson AFB, OH

CMSgt Joseph A. Gough SMSgt Phillip G. Fernandez SMSgt Richard A. Standridge

164 AS, Mansfield, OH Lt Col John F. Bletner

171 ARW, Pittsburgh, PA Lt Col Charles B. Tubbs

452 AMW, March ARB, CA

Lt Col William C. Adelmann Lt Col Kurt A. Greenlee Lt Col John M. Jost Lt Col Jeffrey K. Richenberger CMSgt James E. McGowan SMSgt William J. Lamela

SMSgt Victor W. Velasquez MSgt Robert R. Rodarte

8,500 HOURS

139 AW, St. Joseph, MO SMSgt Jeffery Thelander

164 AS, Mansfield, OH MSgt Dennis Folk

452 AMW, March ARB, CA

Lt Col Roy C. Elmore Lt Col Keith P. Guillotte Lt Col Neil K. Kishi Lt Col Paul Shevlin SMSgt Jose F. Grau

7,500 HOURS

89 AS, Wright-Patterson AFB, OH

Lt Col Clay W. Pittman SMSgt Jason P. Lemaster SMSgt Kevin R. Steyer MSgt William Lugo

180 AS, St. Joseph, MO Lt Col Craig Wilds

452 AMW, March ARB, CA

Lt Col David J. Deniz Lt Col Michael R. Fick Lt Col Timothy J. Harris Lt Col Daniel C. Nichols Lt Col Thomas A. Noble TSgt Jose A. Chaidez

6,500 HOURS

17 AS, JB Charleston, SC MSgt Mark R. Hafer

89 AS, Wright-Patterson AFB, OH

Col Roger M. Gallett

Lt Col Thomas A. Gervais Lt Col Eric A. Piel Lt Col Edward B. Taillon MSgt Robert A. Brown MSgt Jerald R. Cremeens

MSgt Roberto G. Garcia 99 AS, JB Andrews, MD CMSqt Rommel Inoa

106 ARS, Birmingham, AL

Col Scott Graham Col Scott Grant Col Clifford James Lt Col Trent Mitchell

134 ARW, McGhee Tyson ANGB, TN

SMSgt Randall Keener **MSgt Ronnie Dixon**

164 AS, Mansfield, OH

Lt Col Jeffery Siwik SMSqt Chris Morehead SMSgt Randy Nelson

180 AS, St. Joseph, MO

Lt Col Kristopher Pankau

452 AMW, March ARB, CA

Lt Col Ricky G. Adams Lt Col Bradley L. Curtis Lt Col Jeffrey E. Faley Lt Col Scott A. Heidemann Lt Col Thomas E. Larson Lt Col Jeffrey F. Minton Lt Col Paul D. Thompson Lt Col Pete D. Vanderhyden SMSat Richard L. Farrow MSgt Eric M. Brasch

5,000 HOURS

17 AS, JB Charleston, SC

SMSgt Jason D. Brown

89 AS, Wright-Patterson AFB, OH

Col Michael K. Major Lt Col Michael T. Baker Lt Col Rachael B. Daulton Lt Col Jeffrey S. Eblen Lt Col William J. Gorczynski Lt Col Richard S. Klarich Lt Col Malcolm G. Quincy Lt Col Mitchell D. Richardson Lt Col Richard R. Webster Maj Brett J. Manger Maj Joshua A. Roberts Capt Michael A. Shampine SMSgt Allan E. Blackwell SMSgt Denise R. Roberts SMSgt Robert M. Welshhans MSgt Brian M. Dawes

MSgt Craig R. Essert MSgt Bryan D. Fitch MSgt Lorenzo J. Law MSgt Jeffery L. Vaughn

89 AW, Presidential Airlift Group, JB Andrews, MD

MSgt Curtis Christian

99 ARS, Birmingham, AL

SMSgt David Keller

106 ARS, Birmingham, AL

Lt Col James Carlile Lt Col Mike Phillips MSgt Todd Murray

126 ARS, Milwaukee, WI

Lt Col George Bacik Lt Col Robert Rick SMSgt Patrick Sosinski

134 ARW, McGhee Tyson ANGB, TN

Lt Col Elizabeth Eriksson Lt Col Martin Hartley Lt Col Howard Parham Lt Col Robert Underwood

139 AW, St. Joseph, MO

CMSgt David Schultz MSgt Kenneth Mullock

164 AS, Mansfield, OH

Col Gary McCue Lt Col Robert Dunlap Lt Col Darren Hamilton

171 ARW, Pittsburgh, PA

MSgt Michael R. Worthington

180 AS, St. Joseph, MO

Col David Halter

Col Todd Mitton Col Robert Oates Col Ralph Schwader Lt Col Michael Becker Lt Col Bradley Crabtree Lt Col Ronald Douglas Lt Col Patrick Linson Lt Col Edward Peek Lt Col Douglas Proctor

326 AS, Dover AFB, DE MSgt Steven Jones

452 AMW, March ARB, CA

Lt Col David R. Ackerson Lt Col Antonio A. Astran Lt Col Jason S. Ausdemore Lt Col Forrest E. Brown Lt Col Wayne H. Christensen Lt Col James J. Daronco Lt Col David M. Demarais

Lt Col Robert J. Dittus Lt Col Kenneth H. Goode Lt Col Michael P. Goyette Lt Col Jose M. Hoffman Lt Col Nick R. McKenzie Lt Col William A. Ormiston Lt Col William E. Quakenbush Lt Col Stuart A. Rodriguez Lt Col Thomas K. Stottman Lt Col Joseph D. Sullivan Lt Col Scott R. Trujillo Maj Adam R. Burks Maj Seth J. Ewalt Maj Steve U. Greenspan Maj Averie R. Payton Maj Jacob E. Ramirez Maj Ryan C. Van Scotter Capt Atsushi J. Nitao SMSgt Frederick Fowler SMSgt Francis J. Gamache SMSgt Kenneth A. Horner MSgt John J. Irish MSgt Geoffrey E. Parish MSgt Yvonne M. Sell TSgt Ryan D. Benson TSgt John W. Bradbury TSgt Andrew P. McLaughlin

709 AS, Dover AFB, DE

MSgt Roger Kline MSgt Tony Williams

3.500 **HOURS**

17 AS, JB Charleston, SC

Lt Col Bernie L. Allemeier Lt Col Brian A. Surdyk Maj Erick W. Wigdahl Flt Lt Benjamin Mountfield TSgt Travis A. Nettles

89 AS, Wright-Patterson AFB, OH

Col Jeffrey J. McGalliard Col David A. Owens Lt Col William C. Barton Lt Col Patrick J. Driscoll Lt Col Matthew J. Duffv Lt Col Keith R. Franke Lt Col Jacob J. Miller Lt Col Ted A. Schiller Lt Col Stephen A. Schnell Lt Col Steven L. Temple Lt Col Richard R. Wartenberg Maj Jeremy M. Bell Maj Jonathan M. Bell Maj Andrew M. Burke Maj Clifford R. Erli Maj Thomas R. Fuhrman Maj Mark M. Hannon Maj Kristopher S. Herman Maj Brian M. Quinn Maj Jason C. Shaffer Maj Christopher J. Sopko Maj Joshua L. Springman Maj Reese Swanson Maj Douglas M. West Capt Keith M. Collard

SMSgt Timothy M. Davis

MSgt Jon A. Brown

MSgt Charles W. Fritz MSqt Todd A. Gnat MSqt Teresa A. Pitstick MSgt Larry J. Unger MSgt David E. White TSgt Justin T. Brothers TSgt Kelly B. Earehart TSgt David H. Peterson TSgt Scott A. Schaffner

93 ARS, Fairchild AFB, WA

CMSgt James Fitch II

99 ARS, Birmingham, AL

Lt Col Kingston Lampley Maj Lacy Gunnoe Maj Jeffery Jenkins Capt Tim Gerne TSgt Dustan Clark TSgt Rodrick Taylor

106 ARS, Birmingham, AL Col Doug Preston

Lt Col Dave Etheredge Lt Col Gary Hawkins Lt Col Clifford Hindman Lt Col Sheila Hyde Lt Col Darryl Jett Lt Col Robert King Lt Col Mike Metcalf Lt Col John Pugh Maj Wayne Altom Maj Rob Garrison Maj Kurt Honbarrier Maj Shaun Southall Maj Mike Warren CMSgt Raymond Naugher SMSgt Richard Dillard SMSgt Aubrey Sharit MSqt Dan Graham MSgt Paul Hudson

126 ARS, Milwaukee, WI Maj Steven Rosborough

139 AW, St. Joseph, MO

CMSgt Joshua Johnson SMSgt Terry Godfrey MSgt Kent Bohart MSat Rex Griffith MSgt Mark Hummer MSgt Thomas Lawlor

164 AS, Mansfield, OH

Lt Col Steven Shilliday Capt Matthew Dudley

171 ARW, Pittsburgh, PA Lt Col Michael T. Koma

180 AS, St. Joseph, MO

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Lt Col Christopher Ratigan

Lt Col Coy Riecker

Lt Col Edward Schindler Lt Col Andy Schoen

Lt Col Gregory Stewart Lt Col Eric Thompson Lt Col Robert Walling Lt Col Kurt Westfall Maj Doug Bailey Maj Chad Bannwarth Maj Chase Bodenhausen Maj Greg Hay Maj Thomas Kampmeyer Maj Cade Keenan Maj Robin Patton Maj Erik Smith Maj Ryan Stepp Maj Kyle Twenter Maj Kevin Wood Capt Nicholas Kahler

326 AS, Dover AFB, DE

Maj Jon Holland Maj Richard Polhemus Maj Eugene Rainey

452 AMW, March ARB, CA

Maj Jonathan Zito Col Russell A. Muncy Lt Col Hal D. Bradley Lt Col Jay L. Clark Lt Col Thomas J. Espiscopio Lt Col Andreas S. Hau Lt Col Richard M. Heaslip Lt Col Michael P. Heinz Lt Col Bradley D. Herrick Lt Col Michael R. Hiddessen Lt Col Brian K. Kobashigawa Lt Col Kristopher E. Kraiger Lt Col Jason A. Lief Lt Col Shane D. Lohman Lt Col Donald S. Macintyre Lt Col Gary A. Miller Lt Col Richard B. Neitz Lt Col Danforth C. Nguyen Lt Col Shane W. Ostler Lt Col Gregory W. Potts Lt Col Peter C. Vehlow Lt Col Stephen R. Walmsley Lt Col David J. Weinberg Lt Col Mark R. Wittemann Maj Clifford E. Atherton Maj Lucas E. Bindreiff Maj Nathan J. Childers Maj Mathew J. Cunningham Maj Douglas R. Ferrette

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Capt Andrew K. Vandertoorn

CMSgt Deborah M. Mcguane

Capt John R. Rocher

FLYING HOUR MILESTONES

SMSgt Philip L. Apodaca SMSgt Nicole C. Canada SMSgt Aaron K. Scott MSgt Dennis J. Cordova MSgt Elvis Velez TSgt Michael W. Carrier TSgt Jon Pierre Castech TSgt Randy C. Green TSgt Robert A. Haberlein TSgt Robert W. Long TSgt Andrew A. Lucas TSgt William J. Parker TSgt Michael S. Smith

2,500 HOURS

17 AS, JB Charleston, SC

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Maj Thomas E. Phillips
Maj Zachary G. Young
Capt Matthew P. Elmore
Capt Christopher M. Langley
Capt Stephen Y. Vetek
Capt Donald F. Waugh
TSgt Jonathan D. Ellens
SSgt Brian N. Montoya

89 AS, Wright-Patterson AFB, OH

Lt Col Thomas R. Bulthaus
Lt Col Anthony M. Calabrese
Lt Col Daniel P. Dooley
Lt Col Wedoctober A. Sendaydiego
Lt Col Norman B. Shaw
Lt Col Steven R. Shrader
Lt Col Matthew G. Smith
Lt Col Raymond A. Smith
Lt Col Christopher D. Thompson
Lt Col Edward T. Venner
Maj Jonathan A. Askins
Maj David E. Atkinson
Maj Scot B. Crowell

Maj Andrew W. Gambardella
Maj Kyle B. Hayes
Maj Eric G. Palichat
Maj Andrew B. Pierce
Maj Michael R. Rubeling
Maj Francis W. Saul
Maj John G. Smith
Maj William G. Sterling
Maj Kevin M. Sullivan
Maj Terry D. Troutman
Maj Terry D. Troutman
Maj Benjamin R. Yoder
MSgt Bret A. Baker
MSgt Rebecca J. Timmons
TSgt Justin W. Bateman
TSgt Kimberly S. Boyles

TSgt Bryant G. Fox TSgt Benjamin D. Fryman TSgt Bronson L. Hibbs TSgt John L. Kaufman

89 AW, Presidential Airlift Group, JB Andrews, MD

TSgt Janelle Kelley

93 ARS, Fairchild AFB, WA

Capt Timothy R. Silfies Jr. SSgt Tazmin lokepa T. Urata

99 ARS, Birmingham, AL

Lt Col Todd McNeal Lt Col Robert Shelton Maj William Arnold Maj Bruce Wilhite Capt Dan Payne SSgt Jacob Nenneman

106 ARS, Birmingham, AL

Maj Mike Adams Maj Jim Whaley Capt Cal Carleton MSgt Jeff Grayson MSgt Luke Mullins TSgt Scott Slatton

134 ARW, McGhee Tyson ANGB, TN

Lt Col Christopher Jones Maj William Davison Maj Jason Hood Maj Jonathan Hutchison Capt Shawn Poche Capt Erik Swanson Capt Justin Wilson

139 AW, St. Joseph, MO

SMSgt Jeremy Overby MSgt Ryan Blake MSgt Griff Burdette MSgt Kerry Mills MSgt Craig Wooden

164 AS, Mansfield, OH

Maj Scott Brooks Maj Jeremy Ford MSgt Shane Adams MSgt Aaron Zieber

171 ARW, Pittsburgh, PA

Maj Dereck A. Rogers TSgt Thomas W. Armour

180 AS, St. Joseph, MO

Col Edward Black Lt Col Daniel Carl Lt Col Brian Diven Lt Col Thomas Kroh Lt Col Eric Rawlings Lt Col Jeffery Tourtillot Lt Col Steven Walker Maj Scott Campbell Maj Daniel Fiedler Maj Joshua Hullett Maj Josh Imme

326 AS, Dover AFB, DE

Maj Jay Welker Capt John Daly

452 AMW, March ARB, CA

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...Quickstoppers

Path Paved with Courage and Excellence

By TSGT STEWART MITCHELL 319 ABW/SEW

o doubt, the role of the base Safety Office is a hugely important one, but one facet of the safety program can have truly devastating consequences if its concepts are not followed to a T: Weapons Safety. So what is a day in the life of a Weapons Safety Manager like? Simply put, it is knowing the people who perform the explosives related mission and their programs and procedures inside and out, and it is being the eyes, ears, and voice of the program. Living a day in the life of a Weapons Safety Manager may sound like an imposing responsibility, but I assure you it is an exciting and interesting world!

The Weapons Safety program covers three disciplines: explosives safety, missile safety, and nuclear surety. If you came up in any career field that deals with these disciplines, safety has been drilled into your psyche from day one. The job begins, follows through, and ends with safety at the forefront because to do otherwise at any step could be catastrophic. So, while the concepts of weapons safety may be taught from day one, the Weapons Safety Manager's job is ensuring those concepts are practiced in everyone's daily processes as well.

Weapons Safety, as it is known today, was born in the

years following World War I when large surpluses of ammunition were stockpiled in depots around the United States. During this time, a series of rather large-scale mishaps highlighted the need for more stringent storage practices and controls. The final catalyst that spawned the modern Weapons Safety program occurred in July 1926 at Lake **Denmark Naval Ammunition** Storage Depot, New Jersey, when a lightning storm ignited a fire that raged through the depot and surrounding area for nearly a

seriously injured 53 others.

The role of Weapons Safety has been constantly evolving ever since, continually striving to eliminate the unintentional initiation of explosives and minimize their damaging effects in the event of a mishap. A devastating reminder of the importance of this took place in 1965 at Bien Hoa AB, South Vietnam, when explosives safety principles were ignored and a fuze malfunction detonated a bomb loaded on an A-1E aircraft. The explosion immediately propagated across a flight line overloaded with munitions, planes, and support equipment, causing 133 casualties and destroying 14 aircraft.

week. The resulting explosions ultimately leveled every

Picatinny Arsenal and surrounding communities, and cost

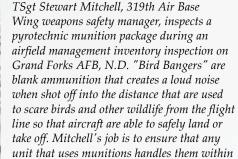
the Navy an estimated 84 million dollars. More tragically

however, the mishap claimed the lives of 21 people and

structure in the depot, heavily damaged neighboring

As you can see, the Weapons Safety Manager's path has been paved with the courage and excellence of those before us—and with their devastation and loss, as well. We must know the who, what, when, where, and how of everything that happens on the installation with the explosives, missile, and nuclear surety disciplines. It's

about doing the right thing the first time, every time, or it may be the last time!



USAF PHOTO BY A1C BONNIE GRANTHAM



G²O² U.S. GOVERNMENT PRINTING OFFICE: 2014-745-166.
For sale by the Superintendent of Documents, U.S. Government Printing Office.
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

the safety guidelines.

A DAY IN THE LIFE OF A WEAPONS SAFETY MANAGER

By JEFFREY DUTCHER, Chief of Weapons Safety 87th Air Base Wing, Joint Base McGuire-Dix-Lakehurst, N.J.

If an explosive detonates when you don't want it to, it changes everything!

My job as the Chief of Weapons Safety at Joint Base McGuire-Dix-Lakehurst (JB MDL) is to ensure that the people who work with explosives do it in the safest possible manner. The challenges present themselves every day. JB MDL is America's only "tri-service" installation, serving the Air Force, Army, and Navy. You must have knowledge of explosives storage, maintenance, site planning, explosives facility licensing, explosives cargo aircraft, artillery ranges, and many other areas for all three services! It's not easy trying to explain to Army ordnance personnel that the Air Force requirements have to be met in addition to their own, and it is a challenge that keeps you on your toes.

Providing explosives safety oversight for personnel whose explosives knowledge is minimal is more important than you think. People do not realize that something as small as a bullet or explosives cartridge can remove fingers or hands—or even kill you. My job is to make sure people know what the risks are.

My job is also to inform commanders of the risks involved in performing explosives operations, even when they are complying with explosives standards. When we need to perform a mission and can't meet explosives standards, it becomes even more important that commanders have all available information to accept risk in meeting the mission.

Weapons safety is more than meets the eye. It is ensuring that explosives operations are conducted as safely as they can be, while meeting all safety standards, to make sure we don't have to face the consequences when something goes wrong!

An unarmed LGM-30G Minuteman III intercontinental ballistic missile launches during an operational test at Vandenberg AFB.

USAF PHOTO BY JOE DAVILA