Still Alive and Well Today

Part one of a four-part series that will explore non-military aviation mishaps
It’s easy to make safety a part of your holiday with these tips. Tackle one a day and you’re well on your way to a safe New Year!

What’s that noise?
Test your smoke and carbon monoxide alarms. Make sure everyone knows what to do if they hear them.

What a shocker!
Before use, inspect all electrical lights, decorations, and extension cords for damage.

Two’s company, there’s a crowd.
Do not overload outlets with too many decorations or devices.

Is it working?
Test your ground fault circuit interrupters (GFCIs) and arc fault circuit interrupters (AFCIs) to make sure they’re protecting you.

Ouch!
Prevent trips and falls by keeping cords safely along walls and out of doorways and high traffic areas.

Kid’s eat the darndest things!
Avoid putting lights, metal hooks, breakable ornaments, and other small decorations within reach of young children.

Thirsty?
Keep your Christmas tree stand full of water. A fresh, green tree poses less of a fire hazard than a dry tree.

Make a wish!
Blow out the candles before leaving a room or going to bed.

Nice and warm.
Keep space heaters at least 3 feet away from anything that can burn—decorations, trees, gifts, and curtains.

Can’t touch this!
Consider installing tamper-resistant outlets or receptacles to prevent kids from inserting objects into the slots.

Escape Route:
Share your family fire escape plan with overnight guests.

Hot stuff!
Keep children away from cooking areas; use back burners and turn pot handles in away from little hands.

Teammates,
Over the past few months I have provided your commanders with ACC priorities—improving squadron readiness, building leaders ready to prevail in joint warfighting, and bringing the future faster. Our Air Force has been continuously engaged in combat operations for 26 years. During this time, our adversaries have developed technologies that require us to operate in increasingly Contested, Degraded, and Operationally limited (CDO) environments. In order to “Control and Exploit the Air on Behalf of the Joint Force” ACC Airmen have balanced tempo and risks to become more technologically advanced, agile, and lethal than ever before. I could not be more proud to serve as your Commander.

We have taken steps to fill our personnel requirements and make more “white space” available in your calendars to support home station training. However, many of our operational squadrons still face inexperience levels between 50% - 70% and significant time, resource, and training shortfalls that will continue to challenge our readiness. The CSAF has placed renewed emphasis on the heart of our Air Force - the Squadron. I have asked your commanders to implement this renewed emphasis by focusing on you – our Airmen - and your families. I have also asked your commanders to empower leaders, accept prudent risks, and develop innovative solutions to help us become more ready and more lethal.

Fly Safe
You—our Airmen—are ACC’s most precious resource.

Finally, develop an off-duty activity plan to ensure every wingman comes home safely.

Identify and address areas where we’re tempted to deviate.

Understand the initiative to identify risks or hazards in your work area and develop solutions to mitigate them before they become mishaps. Take the time to get to know your subordinates and teammates and understand their challenges. Understand the experience levels of your teammates and adjust training to address basic blocking and tackling skills when necessary. Take the time to review Tech Order guidance and identify and address areas where we’re tempted to deviate.

Finally, develop an off-duty activity plan to ensure every wingman comes home safely. You—our Airmen—are ACC’s most precious resource. 

General James M. Holmes
Commander

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Are the factors that contribute to aviation mishaps any different today than they were even 50-plus years ago? Certainly, aviation has changed since then: we have better instrumentation and avionics, robust training programs and flight simulators, and automation advances that can often mitigate or eliminate opportunities for the "human element" to have a potentially negative effect on flight operations. It’s true that the Air Force has benefited from declining mishap rates since the 1950’s due to many of those and other initiatives; yet, the reasons that mishaps happen have in many cases appeared long ago and are still alive and well today.

This is the first installment of a four-part series that will explore non-military aviation mishaps. In the first three articles, we’ll dissect what went wrong and why in three separate case studies of famous or significant mishaps from the past (some of which you may have heard about). In our last installment, we will compare those mishaps to relatively recent Air Force aviation mishaps, discuss the unfortunate similarities, and evaluate risk identification and mitigation strategies that can hopefully reduce the likelihood that those mishap causes contribute to a future event. We will try, as many others do, to learn from costly past and present aviation lessons in hopes that we don’t have to re-learn them again. Until then, let’s take a look at our first mishap from over 50 years ago.

BY COL. BRANDON WJ DEACON
The day the music died.

Most of our readers probably recognize that reference from an early 1970's song, “American Pie” by Don McLean. What many may not realize is that the inspiration for Mr. McLean’s iconic folk ballad was a fatal aviation accident that in the early morning hours of 3 February 1959 claimed the lives of the pilot and all three passengers. What happened? According to the accident board’s official report, “This accident was caused by the pilot’s decision to undertake a flight in which the likelihood of encountering instrument conditions existed, in the mistaken belief that he could cope with en route instrument weather conditions, without having the necessary familiarization with the instruments in the aircraft and without being properly certificated to fly solely by instruments” (emphasis added). In other words, the pilot flew in to poor weather conditions that exceeded his training, abilities, and experience.

The pilot flew for a flight company that performed a variety of flight, maintenance, and sales services. According to the board’s research, the company’s operating certificate issued by the Federal Aviation Agency (former name of the Federal Aviation Administration), “permitted the carrying of passengers for hire within the continental limits of the United States in accordance with visual flight rules, both day and night.” There was no provision in their certificate for their pilots to operate under instrument flight rules. Furthermore, the board discovered that the pilot had failed his instrument flight check just nine months prior to the mishap. The board also determined that when the pilot underwent his instrument training, several different aircraft were used that were equipped with a conventional type artificial horizon. None of his instrument training aircraft had a “Sperry Attitude Gyro” like the one that was installed in the mishap aircraft. The difference is significant, as stated in the report: “The conventional artificial horizon provides a direct reading indication of the bank and pitch attitude of the aircraft which is accurately indicated by a miniature aircraft pictorially displayed against a horizon bar and as if observed from the rear. The Sperry F3 gyro also provides a direct reading indication of the bank and pitch attitude of the aircraft, but its pictorial presentation is achieved by using a stabilized sphere whose free-floating movements behind a miniature aircraft presents pitch information with a sensing exactly opposite from that depicted by the conventional artificial horizon” (emphasis added).

But, the pilot’s training and the differing attitude indicators is just the beginning. As the night of 2 February 1959 progressed, changes in previously forecasted weather indicated deteriorating conditions were rapidly approaching. Unfortunately, the board uncovered that the flash advisories issued for the approaching inclement weather and the possibility of instrument flying conditions were probably never passed to the pilot; therefore, this lack of data likely caused the pilot to underestimate the approaching severe weather in his flight planning. Absent the knowledge of the flash advisories, though, it had begun to snow at the departure airfield as well as other locations along the planned route of flight, and the general forecast that the pilot would have had access to indicated that weather would quickly deteriorate.

At takeoff time on 3 February, ceilings were at 3000 feet with the sky obscured, and 6 miles visibility with light snow. Despite the pilot not receiving the flash advisories, the report states, “... at the time of takeoff, the barometer was falling, the ceiling and visibility were lowering, light snow had begun to fall, and the surface winds and winds aloft were so high one could reasonably have expected to encounter adverse weather during the estimated two-hour flight.” The board concluded that, “At night, with an overcast sky, snow falling, no definite horizon, and a proposed flight over a sparsely settled area with an absence of ground lights, a requirement for control of the aircraft solely by reference to flight instruments can be predicated with virtual certainty.” Additionally, the board questioned the final decision by the pilot to depart: “Considering all of these facts and the fact that the company was certificated to fly in accordance with visual flight rules only, both day and night, together with the pilot’s unproven ability to fly by instrument, the decision to go seems most imprudent.” And with that, we have the makings of this mishap. The pilot was never trained to fly in instrument conditions using the particular attitude indicator installed in the mishap aircraft. In fact, the mishap aircraft had an attitude indicator with a pictorial display that responded to aircraft attitude in a way that was opposite from instruments the pilot was trained on. The pilot was not certified to fly in instrument conditions, and had difficulty mastering the concepts of instrument flight as evidenced by the earlier failed instrument
flight evaluation. On the night of the mishap, the weather forecasts and current conditions indicated a rapidly deteriorating weather situation that should have indicated to the pilot that flight by reference to instruments, which he was not adequately trained or allowed to do, was not only possible but also likely. Despite the indicators that departing would not be a good idea, the pilot elected to takeoff anyway. In the dark. In the weather. With limited training. On a completely different attitude indicator.

The aircraft takeoff and initial departure from the airfield around 0100 hours seemed normal and uneventful by eyewitness accounts. Shortly after takeoff, though, the aircraft vanished from sight and eventually impacted the ground. The wreckage was not found until around 0935 in the morning. In the accident board’s analysis, they determined that the crash was not caused by fire, component damage, structural or flight control failure, landing gear, engine malfunction, or a misconfigured aircraft. Of note, the report made no mention of the possibility of aircraft icing. The aircraft was almost certainly flyable as designed, and perfectly fine prior to impact.

So then, what happened that caused the tragic death of four people that night? The investigation board believed that shortly after takeoff, the aircraft “entered an area of complete darkness and one in which there was no definite horizon; that the snow conditions and the lack of horizon required him [the pilot] to rely solely on flight instruments for aircraft attitude and orientation.” They stated, “… the probable cause of this accident was the pilot’s unwise decision to embark on a flight which would necessitate flying solely by instruments when he was not properly certificated or qualified to do so. Contributing factors were … the pilot’s unfamiliarity with the instrument which determines the attitude of the aircraft.”

In our last installment of this series, we will look at the similarities of this event to an Air Force mishap that also expressed concerns with deficiencies in training and certifications and tragically claimed the lives of four Airmen, in hopes that we can learn from and apply the lessons of both mishaps to mitigate similar risks in the future. We hope you will follow this series through its conclusion.

Don McLean was obviously affected in a significant way by this particular airplane crash, enough so that it inspired him to write “American Pie” and put it to song. What was so noteworthy (no pun intended) about this crash that could be the impetus for such creative expression? The passengers who lost their lives on that early morning of 3 February 1959 were some of America’s most loved musicians of their time: Charles Hardin Holley (known as Buddy Holly), J. P. Richardson (known as “The Big Bopper”), and Richard Valenzuela (known as Ritchie Valens).

And, that was the day the music died.
So, what is a Line Operations Safety Audit (LOSA) and why is it so necessary within ACC? First of all, LOSA is a non-punitive, flight crew observation performed by peers. It is not an observation of any particular crew member or unit, rather a systemic snapshot of the entire MDS. LOSA identifies policies, procedures and organizational norms that require change to eliminate unnecessary risk. However, LOSA also identifies positive attributes within the operation - what is working well. LOSA is the only proactive safety program that provides positive feedback on systemic strengths as well as weaknesses in operational safety.

Just like change is necessary to continually adapt to new technologies and threats, so too is change necessary in the application of safety programs. The phrase, "We can no longer afford to do things the way we've always done them", while cliché, is so true. Traditional USAF Safety is known as reactive safety and includes the investigation, analysis and recommendations performed by a Safety Investigation Board (SIB) following a mishap. Reactive safety is a tremendous burden to our people, resources and the taxpayers. The physical and emotional cost of personnel loss, aircraft loss or significant damage as well as the monetary and manpower costs of Safety Investigation Boards (SIB) continue to increase and reduce our combat capability. We all can agree that it is more desirable to gain safety improvements without the mishap. Proactive Safety, to include LOSA, allows us to achieve that.
Proactive safety is “safety without the mishap”. These programs include the Airman Safety Action Program (ASAP), Military Flight Operations Quality Assurance (MFOQA) and LOSA. All 3 programs are identically protected. ASAP is the voluntary crew reporting tool similar to a fighter debrief; however, instead of only four pilots benefitting from these lessons learned, the entire USAF can learn from the experience. MFOQA is “data off the jet”. Very simply stated, each of the more modern MDS has some type of flight data recorder or volatile memory that certain parameters can be downloaded and analyzed. Contrary to popular belief, most aircraft do not have a specific black box that that certain parameters can be downloaded and analyzed. Contrary to popular belief, most aircraft do not have a specific black box that

As required by AFI, both ASAP and MFOQA are established programs within ACC. However, LOSA, which is highly recommended by AFI 91-225, had yet to be implemented. The difficulty with conducting an ACC LOSA is mostly due to the lack of an observation seat in most ACC aircraft. There are our crew aircraft such as the RC-135, HC-130 and HH-60, but most of those MDS are rather small fleets that makes LOSA a difficult proposition. However, the MQ-9 “Reaper” is a growing fleet, one that has a higher mishap rate than other MDS and that does have an additional seat to perform observations – the problem is that this industry-proven safety program had never been attempted on Remotely Piloted Aircraft (RPA). That is, until this past year!

As previously stated, the LOSA methodology was originally developed for manned cockpits and the unknown was if the methodology could be successfully adapted to RPA operations. Typical manned aircraft observations included observing a single crew through the flight from briefing, preflight, takeoff, cruise, decent and landing. On the contrary, MQ-9 sortie durations are 16-20 hours with many different crewmembers “touching” the aircraft during a flight. Additionally, a completely different aircrew launch and recover the aircraft, appropriately named the Launch and Recovery Element (LRE), and a handoff occurs to another aircrew, the Mission Control Element (MCE), usually located thousands of miles away, to accomplish the mission function. During the mission phase, the MCE aircrew may switch out several times as well. Obviously, we could not ask an observer to ride in the MQ-9 aircrew: the mission function, the MCE aircrew may switch out several times as well. Obviously, we could not ask an observer to ride in the MQ-9 Ground Control Station (GCS) for 16-20 hours nor could we observe each and every aircrew member associated with the flight. In order to overcome these issues, innovative methodology ideas were necessary.

ACC’s LOSA contractor, The LOSA Collaborative, decided that the best solution was to completely change the observation criteria to event-based instead of flight-based. The five events developed were: Briefing, Gaining / Losing, Transit, ISR and Employment. Observers were asked to average 2-5 events per observation. Also, in order to test that these new adaptations would work, a small group tryout or Proof of Concept would be necessary. It was decided to observe only the MCE function intentionally excluding launch and recovery operations to limit program complexity. If successful during the initial small group tryout, then the LRE function would be included in the next full LOSA. The only remaining hurdle was to acquire enough volunteers to perform the observations. A huge thank you to the Air National Guard who came through in a big way. Not only did the ANG support ACC with 5 of 7 observers but they also provided 3 of the 5 observation locations. Once chosen, those observers were professionally trained by The LOSA Collaborative during a three day training session in Austin, TX. Specifically, the observers are taught the fundamentals of Threat and Error Management (TEM) which is the heart, soul and language of LOSA. TEM is not only analyzing threat and errors made by the crew, but further concentrates on how those threats and errors are managed. Does the crew handle the threat effectively? Do they let it develop to an error? Does it further lead to a subsequent error or an Undesired Aircraft State (UAS). A UAS is simply the aircraft being operated in a condition or parameter that the manufacturer or the USAF had not intended. Additionally, TEM also focuses on why the threat or error occurred – was it insufficient guidance, poorly worded checklists, training deficiencies, etc. Following the observation period, the gathered data is verified as each and every threat and error is validated by a group of MQ-9 Subject Matter Experts (SMEs). The data is then analyzed by The LOSA Collaborative, prepared into a final report and briefed directly to the ACC Deputy Commander. Subsequently, LOSA results are usually sent to a Tiger Team or SIB to develop recommendations that mitigate the systemic issues identified through the observations.

Previously, ACC LOSA was “what” happened, ASAP is “why” it happened and LOSA is “how” it happened. ACC’s goal is to prevent mishaps by addressing threats, errors and hazards not identified by other methods or through traditional safety reporting sources proactively before the mishap occurs.

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Even though the MQ-9 LOSA was only a Proof of Concept to determine if the methodology would work, interesting results emerged. The most common threat to the MQ-9 aircrews was the unannounced entry into the GCS. Just like most manned crew aircraft, there are written procedures on how to enter the GCS when the aircraft is inflight and these procedures were not followed on 22 percent of all events. With a total of 282 events across 88 observations, it is easy to see that this procedure is frequently not complied with. However, the good news is that the threat was only mismanaged, or directly attributed to a follow-on error, 2 percent of the time. This would indicate that the unannounced GCS entry is handled very well by the MQ-9 pilots and is a positive testament to their community.

Consequently, the most common error was that of the Emergency Mission not being updated in a timely manner. The MQ-9 is preloaded with an emergency mission in case the aircraft loses connection, goes ‘lost link’, with its’ GCS – then the aircraft will recover to a predesignated location safely. The emergency mission must be updated in a timely manner any time a flight regime change (altitude, routing, etc.) is received. This error occurred on 9 percent of events but was mismanaged, or led to a follow-on error, 84 percent of the time. Unfortunately, this error is supported by previous MQ-9 mishaps.

The MQ-9 LOSA Proof of Concept sample size was too small to yield statistically confident results across the Reaper fleet. The outcome reveals that the process definitely works and can be used to mitigate risk, prevent mishaps and increase combat capability throughout the ACC MQ-9 world.

With the Proof of Concept success, the ACC Deputy Commander authorized continuation of the program. ACC will build upon the Proof of Concept by accomplishing additional observations to gain statistical confidence as well as observe launch and recovery operations so that appropriate recommendations can be made to benefit the entire MQ-9 enterprise. Additionally, ACC is currently in discussions with AFSOC to include their operations in the upcoming full MQ-9 LOSA.

The significant adaptation of the LOSA methodology into remotely piloted aircraft offers hope that this industry-proven proactive safety program can be adapted to other ACC platforms further protecting our combat resources and, most importantly, our people.
FALLS CHURCH, Va. (AFNS) -- The Air Force is determined to prevent suicide, but an Airman doesn’t need to be a specialist or doctor to do that. Sometimes all it takes is starting a conversation. Everyone has a role to play. That’s a key part of the Defense Department’s #BeThere campaign, which encourages making a difference through every day connections.

“We’re sending the message that it’s OK to have problems and it’s OK to talk about them. Having problems and talking about them with people you work with openly is a sign of strength, not weakness,” said Maj. Joel Foster, Chief of Air Force Deployment Health who supports the suicide prevention program with annual training. “The fact that everyone can intervene is part of the messaging we’re trying to promote. Every Airman is a sensor.”

He said Airmen should look out for certain red flags, like changes in mood or behavior, substance abuse, indications of problems at home or domestic violence. Problems like these can lead to thoughts of suicide, but a person is only going to notice if they have such a large amount of influence, Foster said.

“Commanders have a huge role to play in preventing suicides because they’re the ones Airmen should feel comfortable turning to for help. They’re the ones Airmen should feel personally because they’re working with the chief of their Airmen and get to know them personally so they can identify when things are not going well,” Foster said. “They can see subtle changes in their behavior, and in their personality and in their work productivity, so they can intervene early and help that Airman get the tools and the right resources that they need.”

“Every Airman matters and every Airman is a sensor,” Foster said. “We’re decreasing the barriers, decreasing the stigma, increasing availability and increasing the use of services,” Foster said. “They know the culture of the squadron they’re a part of and that makes it easier for Airmen to trust them and feel like they can go to them.”

He said by catching things early or referring Airmen to the appropriate care at the right time, Airmen could help Airmen in all four areas of Air Force resilience by keeping them physically, emotionally, psychologically and spiritually fit.

“Every Airman matters and every single Airman has a role to play and makes a difference,” Foster said. “They have the influence to create an environment that is conducive to help-seeking behavior, to promoting a healthy lifestyle and encouraging a sense of balance in life.” Foster said. “If we have all of those factors operating, then Airmen will feel a sense of connectedness. They’ll have a strong support system to buffer against the stressors of life.”

There are already a number of resources for Airmen in need, such as Wingman Online or Military One Source, and the Air Force is introducing new initiatives all the time. For example, Airmen always have access to mental health clinics on base when they need help. Plus, they can always find military and family life consultants at Airman and Family Readiness Centers.

Something new the Air Force is doing is embedding military and family life consultants directly into the squadrons. Military Family Life Councilors don’t replace mental health or medical services, but they do provide access to a short-term counseling service. Airmen with embedded MFLCs will have increased access to this service at the point where they need it.

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“The bottom line here is if you have your life well-ordered, and you are engaged in all four domains of Airmen fitness, suicide is not something you would resort to,” he said.

The Air Force is also collaborating with chaplains, who have 100 percent confidentiality when Airmen need someone to talk to about the troubles they’re facing. Foster said they’re working with the chief of chaplains to give chaplains the tools to enhance their ability to assess suicidal risk.

“We’re hoping to give them the tools to be more effective in evaluating the level of risk of Airmen,” Foster said. “Then they can use that information to inform Airmen about the next steps to take and what they need to do to get the right services.”

Foster said recent studies have shown when one person commits suicide it can impact up to 100 other people that they knew and worked with, and eventually those numbers can impact productivity and readiness. If one suicide can impact that many people, then it’s important for an organization, like the Air Force, that values its people, to develop concrete ways to prevent it.

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ASAP: F-35: Unusual Attitude/Spatial Disorientation

**Description:** While flying a [EXERCISE] night sortie I was tactically on an A-A intercept. My NVC had an OFP Comm Fail which caused my primary reference device to turn green and cause major disorientation. As I came off target and maneuvered without an attitude device I noticed the potential of Spacial D. I pulled up my pop-up EFI and recovered but I descended 3K out of my block before recovering at 19K (8K AGL).

**Submitter Suggestions:** Have an attitude reference at night pulled up on the PCDs.

**Do you have a lesson learned to share?**
https://www.safety-mfoqa.com

ASAP—Aviation Safety Action Program ...
It's confidential and quick!

File an ASAP Today!

**Taken from an actual ASAP submission.**
This event did not result in a mishap, but provides valuable information worthy of sharing.

**ASAP:** 145: F-35: Unusual Attitude/Spatial Disorientation

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**EAP Worklife4You in Action**

An example of EAP’s Worklife4You program includes adult care and aging guidance. Many of us might be in the midst of caring for an aging parent or another adult loved one. Air Force civilians have 24/7 access to EAP’s Worklife4You services which can provide a free in-person consultation from a Professional Care Manager (PCM). The PCM will listen to the employee’s particular concerns and needs and if necessary arrange to have an assessment conducted in the home, hospital, or care facility. The employee is then provided with a detailed, actionable care plan based on this assessment. More importantly the PCM will work with the employee to ensure they understand their options.

**Contact Information**

Access to EAP and WorkLife4You is easy -- call 800-222-0364. Employees receive immediate assistance, 24 hours a day, 365 days a year.

Information and resources can also be obtained via the internet:
- For EAP visit: http://www.foh4you.com/
- For WorkLife4You visit: https://www.worklife4you.com/ (registration code: USAF)
Many maintainers know that several steps of any technical manual are written in blood. This means that some steps, warnings, cautions, or notes have been added because of injury or aircraft damage. When working on aircraft these details, if not adhered to, can cause the devil to emerge in the form of a mishap. Take for instance a maintenance crew working on a fighter aircraft conducting maintenance checks. An access door was already open to connect electrical and hydraulic power to complete previous checks. External electrical and hydraulic power checks were not required for this maintenance team’s checks and they elected to leave it connected during their check. However, the team overlooked a small detail in maintenance check’s preconditions which required them to disconnect external electrical power and shut the access door. While conducting their check, they actuated a ventilation door that contacted the open external power door. An odd sound coming from the canopy area and both maintainers then noticed that the boarding ladder was beginning to move. They halted closing the canopy and then opened it fully to determine the extent of the damage. The ladder caused damage to the canopy skirt. It was ultimately determined that the canopy had to be replaced. This was a Class C mishap with a cost to the Air Force of $300K. Both of these mishaps were preventable. The maintainers had the Gear to complete the task, the Plan via the tech data to execute the task, and the Skills to accomplish the job. A little attention to detail would have gone a long way in both of these mishaps. These instances just goes to show you that the Devil is in the Details.
After purchasing hundreds of dollars’ worth of fireworks leading up to the night of December 31st 1995, I began to prepare for arrival of the New Year. Usually I set off fireworks in a safe area near my home, but that year I decided to participate in a community fireworks display in a nearby town. This display was held in an open area in the middle of town where whomever wanted to set off fireworks could do so, but only for that night. The city ordinance allowed this event twice a year—New Year’s Eve and Independence Day. There was a large group of people assembled on this small space and spectators ringed the outer edges of the area to watch the fireworks. As the clock struck midnight, people began to light smaller fireworks without incident. As the night progressed more aggressive and unpredictable fireworks were set off which caused chaos. People were panicked as smoke filled the air while fireworks continued to explode. I got a little nervous and retreated to a safe place. Finally the last firework exploded and I hoped no one was injured, but little did I know several people suffered minor injuries. As I reflect on that night, I was very lucky to have avoided injury. I questioned the legalities and oversight of the gathering. I mentioned that it was legal twice a year but with one caveat; large fireworks were illegal. My question to you is, are you taking the necessary precautions to handle and use fireworks properly? Here are a few tips to consider should you want to use fireworks.

- Know that fireworks are dangerous and can injure you.
- Obey all local laws and regulations.
- Read and heed cautions and warnings of each explosive item.
- Only use fireworks you can function safely—proper space, fire conditions, etc.
- Don’t consume alcohol while functioning fireworks.
- Wear appropriate safety equipment.
- Do not throw or point fireworks at people.
- Have water available.
- Don’t use homemade explosive devices.
- Do not put anyone in an unsafe environment.

**Flight Safety**

**MSgt Thomas R. Sefcik III, 25 Air Force Flight Safety Non-Commissioned Officer.** MSgt Sefcik built a “SIB All-In-One Product” consisting of a “SIB Tracker,” “SIB Composition Checklist,” “TAB A-Z Review Checklist,” “Open Recommendations Tracker,” and a “SIB Nominations/Volunteers Tracker,” all supporting standardized SIB processes across 25 AF. His revamped “Class B Mishap Report Review” process helped achieve ZERO rejected final reports! MSgt Sefcik revitalized 25 AF/SEF’s Management Internal Control Toolset (MICT), authoring 13 new checklists containing 136 inspection items, leading to discovery and targeting of 21 discrepancies. MSgt Sefcik developed the “25 AF Benchmark/Best Practice for Aviation Safety Programs Quarterly Award” motivating Wings and Centers to proactively find innovative ways to optimize their safety programs, allowing 25 AF/SEF to share Benchmarks and Best Practices throughout the NAF.

**Occupational Safety**

**TSgt James E. Tedrow, 9 LRS QA Evaluator.** T Sgt Tedrow displayed superior performance, attention to detail and dedication to developing a safer environment for our Airmen. TSgt Tedrow impacted mission effectiveness by enforcing safety requirements and leading 16 vehicle safety inspections for Petroleum Maintenance Team refueling operations. TSgt Tedrow identified ‘out-of-tolerance’ discrepancies on an R-11 refueling vehicle, recognizing several hazardous situations after they occurred. TSgt Tedrow is a good wingman, OVERALL he impacted mission effectiveness in accordance with AFI 89-105.

**Weapons Safety**

**MSgt Valentine Caldera, 407 AEG Weapons Safety Manager.** MSgt Caldera created three expansive site plans, two of which were routed for SECAF approval. He worked with operators to ensure Electro-Magnetic hazards were properly mitigated and risk to operators and equipment was approved at the appropriate level. He wrote a combat aircraft parking plan adding life saving revetments to the main coalition aircraft ramp, working with the Plans and Programs office to ensure the revetments would not interfere with any required contingency operations. MSgt Caldera worked with the base civil engineering squadron to produce a Lighting Protection System for the Munitions Storage Area capable of surpassing national standards. The resulting CONOPS allowed the MSA site plan to be valid during surge operations, ultimately paving the way for the first certified MSA LPS within the AFCENT AOR.

**Mishap Statistics Scoreboard**

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<thead>
<tr>
<th>FY17 Flight</th>
<th>As of 30 Sep 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A Fatal</td>
<td>Aircraft Destroyed</td>
</tr>
<tr>
<td>1 AF</td>
<td>0</td>
</tr>
<tr>
<td>9 AF</td>
<td>0</td>
</tr>
<tr>
<td>12 AF</td>
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</tr>
<tr>
<td>25 AF</td>
<td>2</td>
</tr>
<tr>
<td>USAFWC</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FY17 Occupational</th>
<th>As of 30 Sep 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A Fatal</td>
<td>Class A Non-Fatal</td>
</tr>
<tr>
<td>AFCENT</td>
<td>0</td>
</tr>
<tr>
<td>12 AF</td>
<td>1</td>
</tr>
<tr>
<td>USAFWC</td>
<td>0</td>
</tr>
<tr>
<td>25 AF</td>
<td>2</td>
</tr>
<tr>
<td>9 AF</td>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FY17 Weapons</th>
<th>As of 30 Sep 2017</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>12 AF</td>
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</tr>
<tr>
<td>USAFWC</td>
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</tbody>
</table>

**Flight Notes**

The closeout of FY17 was a busy and challenging year for aviation safety. ACC suffered the complete loss of eleven warfighter assets; two F-16s, five MQ-1/9s, two A-10s, one RQ-4, and one U-2. Unfortunately, some of these assets will not be replaced because their production period has ended. Five additional CAF assets also reached the Class A threshold during the calendar year to include aircraft owned by AFGSC at Offutt AFB after a significant weather event. Most of the Class A mishaps could have been prevented with just taking a few extra moments to apply real time safety assessments. Please help us to make sure we are properly training our Airmen, using the right tools, and have a solid plan. Keep in mind the mission isn’t over until we are back in the chocks and the motor(s) have completely spilled down. Please keep your SA high, risk low, and most importantly, fly safe!

**Occupational Notes**

GOOD NEWS—ACC went the last six months without a fatal mishap!!! Congrats and hats off to all of you for a job well done! The last fatal, 25 Mar 2017, involved a member operating a vehicle who was struck head-on by another vehicle traveling the wrong direction. It is a tragic event and we must all strive for 6 months, we can certainly go an entire year? Although it’s challenging, we think it is possible. The decisions we make can have lasting impact on our career, well-being and most importantly our family and friends. Our goal is that each Airmen goes home every day to spend time with their family and friends. For the last six months we met this goal—please keep up the great work and remember you are making a difference!

**Weapons Notes**

Five mishaps this quarter, four caused by personnel error. It’s a common theme with a common solution; be vigilant and follow technical data. Fortunately, maintainers are quick to respond to hazardous situations after they have occurred and they often avoid injury from falling munitions, shattered radomes, etc. The next step is to utilize the same skills in a proactive way to recognize the potential for a hazardous situation before it happens. Use spotter’s, team work, lessons learned, and safe practices to stop the beginning of the mishap sequence. And above all, follow technical data and be a good wingman!
Always Check 3
both off ... and on-duty!

4 | Catfishing
   By Lori A. Bultman
   25th AF/PA, Lackland AFB, Texas

8 | Snowboarding
   by Senior Airman Freddie G. Wilson

10 | Snow Day for Adults
   by Staff Sgt. Nolan J. Coppedge
   432 WG/SEG, Creech AFB, Nev.

14 | Are Your Tires As Safe As They Look?
   by Joe A. Joseph
   NTTR/SE, Nellis AFB, Nev.

What is Check Three you ask?

Check 3 is a quick and easy method to assess any activity or event for possible hazards. The “Check 3” approach is assessing three areas referenced by the common acronym GPS. In this case, GPS is not referencing a navigation aid. Rather, GPS is: Gear - Plan - Skills.

This allows a quick review of your activity to highlight any issues or hazards. For instance, “G” (gear) may be your equipment, vehicle, or availability of drinking water. “P” (plan) may be the timeline, weather, sequence, and backup plans. “S” (skills) may be your risk level or overall experience level. If you see an issue or hazard in any of the areas, adjust your plan to mitigate the hazard, especially the plan. Check 3 allows you to have a quick mental method to assess any activity.
Dating in today’s technologically savvy world seems to have become less personal. In many cases, finding someone to spend time with might be based on information obtained through dating websites, phone calls, texts, chats, and instant messages. The big question amidst the barrage of electronic information - Is the person on the other end, someone you have never met, worthy of your time? Is the potential date being sincere and honest, or is disaster just one click away?

BY LORI A. BULTMAN
An Airman stationed in San Antonio, Texas, whom we will refer to as “Mark,” recently found out things online are not always what they seem. In December, he was lured to a local hotel to meet a woman he met and had been communicating with online. Unbeknownst to him, he had become the victim of a catfishing scheme.

A catfish is a person who pretends to be someone they’re not, using social media to create a false identity with the intent of scamming someone, or worse.

While catfishing is not against the law in Texas, a fairly new statute does make theft by deception and theft by force illegal, said Detective George Segura, a member of the San Antonio Police Department’s Vice Unit.

In San Antonio last year, there were 340 reports of online impersonations, Segura said.

In Mark’s case, what began as a friendly online exchange turned into a frightening experience which could have ended very badly had it not been for his supervisor.

When the Airman failed to report for work on Dec. 6, his absence was immediately noticed. His supervisor, Maj. Octavia Heard, said she knew something was wrong.

“[Mark] has a history of being on time every day,” Heard said. “When he wasn’t at work, I asked had he notified anyone that he would be late or had an appointment. No one in the office could tell me where he was, and I told them to reach out to him and find out why he was not in. Once no one could reach him, I decided to go to his apartment and check on him because it was clear something was amiss.”

Concerned for his safety, Heard and a non-commissioned officer went to the Airman’s apartment complex. She contacted the apartment manager and the San Antonio Police Department (SAPD) to conduct a welfare check.

Her instincts were correct. Mark had been abducted by a group of men, was beaten and then driven around town in his own car to withdraw cash from Automated Teller Machines (ATMs). When it was found that he had no funds to withdraw, the men took the Airman to his apartment, collected his valuables and forced him to sell them at pawn shops.

Mark’s bad luck changed when the kidnappers returned to his apartment, with him in tow.

As the car entered the parking lot of the complex, Mark’s supervisor and the police were there completing the missing persons’ report. Heard saw the car and the Airman in the back seat. She ran to the vehicle, opened the back door and grabbed the Airman while the suspects were detained by the police.

The alleged perpetrators were later arrested. Mark was taken to the hospital, treated for his injuries and released.

“Recovery for this Airman will be long,” said Master Sgt. Melissa Zollinger, First Sergeant, 25th Air Force Headquarters. “The emotional trauma involved will not be tampered easily and will require continued support. We have also assisted Mark in getting new housing, notifying financial institutions and setting up credit protection. We are taking care of him and will continue to until he is fully recovered.”

Heard was important to take credit for her heroic actions when she was recognized by the Chief of Staff of the Air Force. “I wouldn’t call it above and beyond,” said Heard. “I’m a caring person and I have always been very good at reading signals that will go out of my way to take care of my family, friends, coworkers and troops.”

“I hope that this event reminds Wingmen to always be aware of each other and not to dismiss things,” she said. “We are never too busy to take a minute to check on each other. If you make the effort to know your fellow Airmen, you’ll know when something isn’t right. When you know something isn’t right, don’t hesitate to act. You never know what difference it will make.”

To avoid experiences like Mark’s, Segura said there are several general personal safety rules to remember.

First, when someone you met online, arrange to meet in a public, well-lit area, not at home. Never tell a friend where you are going and when, so someone knows where you are.

For the first meeting, Segura recommends meeting in a place you are well known, a restaurant or coffee shop where you are a regular and a staff member would recognize that you had been there. Another thing to consider is meeting where you know there is video surveillance. There are also things you can do before agreeing to meet someone in person, Segura said. “Anyone can play detective online.”

When someone you met online wants to meet, see if the images in their profile or email exist somewhere else online. Segura said. “Google Image Scan allows you to upload a photo and search for matches.” He said there are video chat lines that explain how to do it.

Segura encourages anyone who feels they are a victim of theft by deception, theft by force or online impersonation to call and report the incident. Once an incident has been reported, a case number is assigned and an investigation started. He said.

Victims can report an incident by telephone through the SAPD non-emergency line, 201-207- SAPD (7273) or a patrol officer can come to the victim’s location and take the report in person, Segura said.

According to the Federal Bureau of Investigations (FBI), millions of Americans visit online dating websites every year hoping to find a companion or soulmate. It is important to keep in mind that criminals use these sites as well, looking to turn vulnerable people into fast money through a variety of scams and ploys.

In addition to catfishing, if you believe you are the victim of an online dating scam or any Internet facilitated crime, you can contact local authorities and file a report with the FBI at www.ic3.gov.
Check 3 Works!

... IF you apply it correctly

BY SRA FREDDIE G. WILSON III

Snowboarding is known to be tons of fun and arguably harder to learn than skiing. So, if you were to jump right in without the proper training, you'd put yourself in an ideal situation for a mishap. Luckily for my wingmen and I, there were no mishaps. To set the scene: the year was 2011, the location was Jisan Ski resort, South Korea and it was on course to be an all-day adventure. We had Gear: helmet, scarf, snow jacket, snow pants, insulated gloves and snowboarding boots. Not only did we look good, but we played the part as seasoned snowboarders heading for the most difficult slope on the mountain.

Our Plan was fueled by countless energy drinks and a few 20-year-old daredevil/thrill seekers looking for adventure. We had our sights set at the top of the highest run. In America, most people know them as the black diamond slope, which is suggested for advanced skiers and snowboarders. We agreed to tackle the black diamond with virtually zero experience and see who was the fastest to the bottom. The plan was well thought out... We were supposed to stay on the left side (slow side), and make it down to the bottom as quick as possible; however, we all know things are easier said than done.

It seemed like our Gear was wisely selected. The overall Plan was relatively simple, just awaiting execution. Lastly, there were our Skills (or lack thereof) which led to my downfall... literally and figuratively.

As we got off of the lift and strapped into our boards I felt the eerie breeze from the cold snow and dangerous situation run over me. Trying to show off as a “Top Dog” I yelled to my friends, “We go after a 3 count!” As soon as I hit I jumped forward as if I have seen in many movies, and began to slide down the slope. I did not know how to slow down, turn or fall, so I instinctually turned my shoulders towards the top of the slope and went into a dangerous spiral down the hill. Eventually, I came to a stop, thanks to falling in the softest pile of snow. After several more falls, I eventually realized how to stop and go. We all safely made it down the hill and took a nice long break that consisted of watching the instruction videos in the lobby... which should have been step one of our plan.

Overall my aches and slight bruises to both my tailbone and ego could have been avoided. In order for the Check 3 GPS (Gear-Plan-Skills) to work you have to have all three. We had the gear, but the plan was flawed and our skills were lacking. The lack of risk management and sound judgment could have ultimately led to a more serious mishap. Hopefully my GPS story can help you on one of your winter adventures; it certainly taught me a lifelong lesson.
It is the heart of winter and for a lot of places that means sledding and snowmen, for others it means rain and windy weather. While the danger from winter weather varies across the country, nearly all Americans will likely face serious winter weather in their lives.

A winter storm can mature from a moderate snowfall to a blizzard with gale force winds and whiteout conditions that can last a few hours. Many storms are accompanied by dangerously low temperatures, icing or freezing rain.
A major concern is winter weather’s ability to knock out power lines, heat and some communications services, leaving you stranded for days. Heavy snowfall or freezing rain can almost paralyze an entire region. Preparations for a storm should begin before a storm is announced and certainly before the snow begins to fall. If you’re going to a big box store when it’s snowing and are frustrated because the milk is gone you like so many other people have failed to plan ahead. What makes matters worse is you have probably disregarded the warning to travel only if necessary.

You should have an emergency supply of food on hand to last at least 3-5 days according to FEMA. You don’t know how long it can take to unplug major roadways and parking lots. It is good practice to start stocking rations prior to winter so it is very little work and you can avoid the pre-storm scramble.

Another great idea is to winterize your home. Extend the life of your fuel supply by ensuring your walls and attic/basement are properly insulated. Caulk air gaps in windows and weather strip doors and install storm windows or cover windows with plastic. Other items to think about may be trees near power lines that may sag under the weight of snow or snap in excessive winds. Have chimneys and other exterior vented heating units inspected annually. Your family may not be in the same location as you when a storm hits so it’s important to know how you will make contact with one another and how you will reunite if possible.

During extreme cold it is important to stay indoors. If you need to go outdoors to clear travel paths minimize your exposed areas. If your clothing becomes wet or torn replace it immediately. Frostbite can be hard to detect right away and hypothermia can set in rapidly once the body drops below 95 degrees. Take frequent breaks when shoveling and avoid overexertion. Overexertion can bring on a heart attack and is a major cause of death in winter. Learn from every storm. Keep track of what, if anything, went wrong and how you could improve your home, maybe add snow chains to your car or get some new gloves. Maybe you got through just fine but almost ran out of food. Take a few minutes to improve your family plan and supplies before the next winter storm hits. You may even want to include your neighbors or colleagues in your planning and share tips.

In whatever fashion winter arrives at your doorstep from raging wind, and driving rain to snow drifts and frigid temperatures, it is important to plan ahead. Plan early and smart and know that if you do you cannot only ride out the storm but enjoy winter with a little extra peace of mind.
Are Your Tires As Safe As They Look?

BY MR. JOE A. JOSEPH

Regularly inspecting tires for proper pressure, tread depth, and even wear is essential. However, this alone does not ensure your tires are safe. Over time, tires dry and deteriorate, leading to increased risk of sudden failure.

My tires are a good example. I had the tires for five years and they appeared adequate on the outside, yet the unseen crackling on the inside proved otherwise. The tires had clear signs of significant deterioration and were at risk of catastrophic failure.

Since I used the tires for three years in Alaska and another two years in Nevada, I suspected the extreme environments had taken a toll on their condition. However, each time I inspected my tires (exterior) they appeared fine—adequate tread depth, even wear, and no signs of cracking. So I was hesitant to spend hundreds of dollars for a new set. During my next tire rotation I explained my concern to the mechanic and asked him to thoroughly examine my tires. Although they appeared fine, I wasn’t surprised when the mechanic reported he had found excessive and potentially hazardous deterioration on the interior of the tire, and suggested they be replaced.

So what can you do in addition to inspecting your tires regularly? Understand that as tires increase in age so does the risk of failure, even if the tires have not reached their mileage rating. Tires age is based on the manufacture date, not when you purchased them. This is significant because some tires are stored for years before being sold. As your tires get older, ensure your mechanic thoroughly examines them, inside and out, for signs of excessive deterioration. Researchers suggest tires 8 years old should be replaced regardless of mileage, wear, or when they were purchased.

To determine the age of your tires, find the letters “DOT” on your tire. Adjacent to this is a tire identification or serial number. This serial number is a code with up to 12 digits that are a combination of numerals and letters. The last characters are numbers identifying the week and year of manufacture. (Example: “1517” means fifteenth week of the year 2017.)

Lastly, always consider the temperature/traction rating when selecting new tires. The DOT requires tire manufacturers to grade passenger car tires based on three performance factors: tread-wear, traction and temperature resistance. These factors should be used to select tires for the environment you drive.

Tire Safety Tips

- Check pressure weekly when tires are cool (before driving).
- Inflate tires to pressure indicated on the driver’s side door jamb or owner’s manual.
- Use a penny to check the tread depth; if you can see Lincoln’s head, the treads are worn and need replacing.
- Check the manufacture date of your tires; if the tire is more than 8 years old, replace it. Also check this when you buy new tires.
- Have your tires rotated and balanced every 5000 miles.
- Select tires with the temperature/traction rated for the environment you drive.