



The Safety Beacon is for informational purposes. Simply reading the Beacon does not satisfy your monthly safety education requirements but unit safety officers are encouraged to use the articles in the Beacon as topics for their monthly safety briefings and discussions.

March 2016

There is a Place for “Zero” in Safety

George Vogt, CAP/SE

In last month's Beacon I wrote an article about the dangers of setting “zero mishaps” as a safety goal. Rewarding units for having “zero” mishap reports means some mishaps just won't be reported.

I received an e-mail about one kind of “zero” that does have a very important role in safety and mishap prevention. Col John Knowles, our Middle East Region Commander, wrote the e-mail to his wing commanders and his staff, and he shared it with me. Col Knowles is an operations executive with a very large construction company, and has a strong background in industrial and construction safety.

He discussed a safety initiative in their company. They use the word “zero” but it is in the context of “zero tolerance.” There is zero tolerance among leaders and employees for unsafe practices, non-compliance, or bad attitudes about safety. As Col Knowles points out, their philosophy is similar to CAP's; every employee can speak up, and is *expected* to speak up, when they see any unsafe actions or conditions. Zero tolerance.

There's something else I like about his company's approach. This initiative wasn't pushed on them by a safety staff or a boss they seldom saw. Supervisors and employees got together and came up with their own program that followed sound risk management principles and had the buy-in of everyone involved.

This is the type of approach that can work in our own CAP units, with every member looking out for each other. Zero Tolerance. As Col Knowles concluded in the e-mail to his units, “I urge you to take this Zero Tolerance to heart and help us protect our members and the general public so we can meet our Commander's intent that *“nobody gets hurt.”*”

What's in This Issue?

- We have a couple short topics about changes we've made to eServices, including some easy tools that will help you through the mishap review process. Stay tuned for a new look for the Safety page in eServices!
- By request, you'll find a briefing guide I used when speaking to the Winter Command Council. Use it in your monthly meetings, and challenge your members to use the technique in their daily lives.
- There's a guest article from one of our CAP pilots; his pilot perspective on risk management.
- One of our Region Directors of Safety developed a great checklist to help our cadets (and their cadet leaders) avoid some of those minor injuries. Use it and let us know what you think. If you have anything you'd like to contribute, let us know!
- This month's mishap close-outs highlight a few mishaps with some real lessons learned. The pictures are sure to “catch your eye.”

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SAFETY SHORTS

George Vogt, CAP/SE

Mishap Management Auto-emails

If you were ever involved in a mishap, or were named as a witness, or appointed as a review officer, chances are you got a computer-generated e-mail informing you that your name had been associated with that mishap. But the e-mail didn't give you much more information than that. Those auto-emails have been updated. Now, if you are involved in a mishap or in a mishap review the e-mail will include instructions to help you out. You'll receive instructions on how to make a statement and why it's important. If you're a review officer you'll get tips on how to conduct and write your review. Even our wing and region commanders will receive a short checklist of what they should be looking for when they review the mishap and send it up to us in Safety for its final look.

We are trying to provide the tools to make your role in the Safety program easier. Let us know if you have suggestions for more changes or additions.

"Where is Intro to Safety?"

There used to be a link to an "Introduction to Safety" briefing on the eServices Safety Education page. That briefing/quiz module was required for all new members. Around the middle of last year, the Introduction to Safety module was incorporated into Level 1 training for new senior members, and into the Cadet Wingman Course for new cadets. If a new member completes either of those courses, their records will reflect that they have completed "Intro to Safety." Since the stand-alone Intro to Safety course is no longer required, and was a bit out-dated, it was removed from the website

"... without getting hurt!"

Last month we did an *Everyday Risk Management* article asking people to add the words "... without getting hurt" whenever they planned an activity.

Planning on crossing the street? Plan on crossing the street ... *without getting hurt*.

Planning on flying a mission? Running a mile? Performing a ground search? Tell yourself your goal is to get it done ... *without getting hurt*.

Last week I had the chance to give a short lesson on this very topic to CAP leadership as they assembled for the Winter Command Council. The briefing notes I used are on the next page. Feel free to use these for your own bulletins and newsletters, post it on your bulletin boards, or use it for a monthly safety topic at your squadron meeting. NEXT PAGE...

Safety Briefing

"...without getting hurt!"

George C. Vogt, CAP/SE

Too often we tell people to be safe, or we warn them about specific hazards, hoping somehow they will keep this long list of hazards and warnings fresh in their minds. Then we're surprised when it doesn't work. Hopefully this short briefing will give you a simple tool you can teach to members and cadets so they will know how to keep *themselves* safe as they set out on their daily activities.

- I am a firm believer in not just telling people **what** to do, but rather telling them **how** to do it.
- Dr. James Reason, Psychology Professor Emeritus, Cambridge University
 - One of the most respected pioneers of safety theory in modern times
 - Considered the "father" of organizational risk management
- Dr. Reason believes that a strong safety culture, a commitment to risk management, and safety itself...
 - ... begins with "Awareness"
 - Awareness that there are hazards around you
 - Awareness that those hazards present risks
 - Awareness that you must take affirmative action to avoid or mitigate those risks
- "Awareness" implies that we are "conscious" of our surroundings
 - Decisions about avoiding risk are made in a "conscious mind," considering those surroundings
 - How many times have you made a mistake and asked, "What was I thinking?"
 - Simple answer? You weren't thinking. You weren't in your "conscious" mind.
- How do we normally do things?
 - We decide what we want to do. Then we do it.
 - We don't give much conscious thought to how to do it safely.
- The Risk Management approach?
 - Don't just ask yourself "how can I get this done?"
 - Ask yourself what can go wrong, and figure out how you can prevent that from happening
- Here's a simple tool you can use in your everyday lives
 - Don't just ask how you can do this. Ask how you can do this ... **without getting hurt**
 - The old way? I'm running behind and need to get to that meeting on time so off I go.
 - The right way... Ask yourself how you can get to that meeting ... **without getting hurt**
 - Let's walk to that restaurant across the street?
 - Let's walk to that restaurant ... **without getting hurt**
 - I need to run the mile as fast as I can ... **without getting hurt!**
- You will find that saying "*...without getting hurt*" will put hazard "awareness" in the front of your mind
- Try this as you go through your day
 - Brief this at the beginning of your next meeting or next cadet activity
 - Make it an everyday thing, and remind other people to do it too ... Awareness is contagious!
- Let me know how it works for you!
 - safety@capnhq.gov

A Pilot's Perspective on Risk Management

By Major Bruce Russell, CAP

Maj Russell is a Group Stan/Eval Officer and Assistant Wing Stan/Eval Officer in PA Wg. This is the transcript of a talk he gave at his Group's Annual Safety Day and Risk Management Training. He has been a member of CAP since 1999. This article reflects his personal approach to risk management.

My group safety officer asked me to talk about risk management from a pilot's perspective. So here's my take...

First, understand from the moment we step out of bed in the morning there is an inherent risk in every activity we do. There is no getting around it. We manage many of these risks seemingly without even thinking about it. Granted, taking a shower is not as risky as driving to work but it is riskier than brushing your teeth or eating breakfast. If there is risk doing these activities one might ask, "Why do them?" Well, the short answer is to live. Most daily activities are necessary to sustain a normal life. Yes, we need to bathe, and yes we need to eat, and yes we even need to drive to and from work to earn a living, and even walk across busy roads now and again.

But, what about the activities we don't really need to do. Of course I'm referring to flying. There are others as well. For example, I ride a motorcycle. I also ski. Even broke my leg to prove it. Some people sky dive. Others Scuba dive. These higher risk activities (and there are countless others) are what make life truly worth living. Not existing, but living. It's these "higher risk" activities that also require a much more structured approach to risk management.

You've probably heard lots of people talk about how safe flying is compared to other forms of transportation. They'll tell you that the drive to the airport is the riskiest part of your journey. Well, sorry folks. It turns out flying general aviation aircraft is seven times riskier than driving. That's about on par with my motorcycle. Do I use risk management when riding? You bet I do!

But since we are pilots, let's concentrate on that. Flying. I've looked over the various risk management procedures we use in CAP and have broken them down into two major areas. First are the objective yes / no, Go / No-Go, True / False areas. This is where the IMSAFE check goes into effect. Let's review it....

ILLNESS: Well, are you sick or not? Yes or No. You know when you are, don't you?

MEDICATION: Are you taking any drugs that impair your ability to operate a motor vehicle? I think an airplane is included in that category don't you? Are you taking a medication that causes drowsiness? Yes or No?

STRESS: Are you under stress? What kind of stress? Doesn't matter. Stress at work. Stress at home. Mission related stress. Anything that will take your mind off of the task at hand, namely flying an airplane.

ALCOHOL: I can't imagine any pilot knowingly consuming alcohol prior to flight but in CAP we may receive a request to fly on a search during the evening after consuming a few of our favorite adult

beverages. Or, early the next morning when we may still be hung over from over indulging. My personal favorite is the Martini. If the answer to this is YES, then the automatic response is NO. Case closed.

FATIGUE: Again, yes or no. Fatigue may be acute as the result of a night of restless sleep or more chronic due to a high mission tempo during the course of several days. Again; doesn't matter. When you are fatigued, you need down time and the flying is done.

EMOTION: It's a lot like stress. It diverts your mind from thinking about the process of aviating. Could be a fight with the spouse last night, a pass over for promotion, or a death in the family. Any negative answer to this is an AUTOMATIC NO-GO. No maybe, no we'll see, no might be possible. NO FLYING, CASE CLOSED, END OF DISCUSSION. DO NOT PASS GO.

OK, assuming all the IMSAFE items pass the test...

The second set of factors is more subjective. Not "Yes / No" responses but rather "How Much or How Little." I associate these with our classic RM worksheets found in the AIF or now in WMIRS.

Summing up the risk factor points will lead you to an overall point risk factor which may be converted to an overall risk category (Low, Moderate, High). This may be handy for filling squares, and of course every FRO will be checking that this process has been completed, but I profess a higher goal. I would ask every pilot who has marked ANY factor as other than "Low Risk," to consider how they plan to mitigate that elevated risk. Let's take some examples...

Unfamiliar airfield! How about, before getting into the airplane, very carefully studying the airport diagrams, frequencies, etc. Has another crew member flown into this airfield before? Can they supplement the AFD information with local knowledge?

Night VFR! How about making sure the flashlight batteries and instrument lights are in perfect working order. Do you know the Pilot controlled lighting frequencies and the number of clicks to activate them? Did you spend some extra time dark adapting?

Moderate turbulence! Do you have sick sacks aboard? Is the cargo secured well? Are other altitudes available with less turbulence? Where are the nearest available diversion airports? The list goes on...

Answers to questions like these reveal solid planning with risk management and go a long way in assuring the overall safety of the mission

And now the final factors to consider. I say final since I'm discussing them last but in reality they should be considered first and are truly the most important. These are PERSONAL MINIMUMS. They are PERSONAL because they pertain to you and you alone. No two pilots will be the same. They are MINIMUMS because they are absolute. Has everyone listening developed personal minimums? If not, I encourage you to do so before your next flight. Just like IMSAFE, personal minimums are objective Go / No-Go switches. Any single switch that triggers a No-Go is all it takes. End of discussion. Do not proceed to the RM worksheet.

It should be noted that personal minimums are not static but are dynamic in that they can change with increased knowledge or experience. They may also vary with the equipment in your aircraft. I can state that in this stage of my flying career, MY personal minimums are the same as the legal minimums. This is not to boast. It is simply that I currently feel as comfortable flying IFR in 200/½ weather as I do in solid VFR. My crosswind techniques are solid and well executed. Note that I said “CURRENTLY.” This may change with time. Being dynamic, they may go up as easily as they go down. One important point I want to stress when setting your own personal minimums is to NEVER EVER do it just before a flight. They should only be changed directly after a flight. The reason for this should be obvious to all of you.

Well, there you have it. My take on risk management as a pilot.

Each time I leave the house to fly, my wife always says “FLY SAFE”.
FLY SAFE. Two little words but...

I know what she really means. She is saying “manage your risks and come home to me”.

IMSAFE? IMPrepared!

That last article by Maj Russell really showed the importance of the IMSAFE checklist for pilots. It's a nice memory aid they can use to make sure they're ready for flight. Are they sick? Fatigued? Stressed? It helps the pilot analyze whether or not they are really ready to fly.

Why don't we have the same thing for our cadets before they engage in strenuous activities like PT or ground searches? Well thanks to Lt Col Rick Schein, the Director of Safety for the Rocky Mountain Region, we do! Col Schein has developed the “**I**M **P**repared **F**or **E**xercise” checklist *on the next page*.

Now our cadets have a great tool to practice personal risk management before they begin any strenuous activity. This is also a tool cadet leaders can use to stay aware of some of the things that can affect our cadets' well-being and physical performance. Senior members, if you're aware of a pre-existing condition that may lead to problems, this can be a good reminder to discretely check with the cadet to see how they're doing.

Here's another idea to help avoid injury from poor nutrition, dehydration or fatigue: Do you have a big PT event or CPFT coming up? Why not have the cadet commander, the first sergeant, and the flight sergeant team up to contact their cadets and remind them to eat well, rest, and get hydrated for the big event. That's a great use of the cadet staff and is a strong indication that our young leaders truly care about the welfare of their fellow cadets.

Thanks again to Col Schein for this great idea! If you have any innovative programs or risk management tools you'd like to share, please contact us at safety@capnhq.gov.

CHECK IT OUT ON THE NEXT PAGE!

I'M Prepared For Exercise

Illness

Be sure you do not have any illness that might affect your performance. This includes colds, flu, allergies or anything else.

Let your cadet leaders know if you are under the weather!

Medication

Evaluate any Over the Counter as well as prescription medication you may be taking. While you will not be operating "Heavy Machinery" many drugs can affect your balance or breathing.

If you do take prescription medication... have you taken today's dosage?

Preparation

Do you have the appropriate equipment ... Footwear, Clothing, Helmet?

Are you aware of the conditions ... Slippery? Wet?

Do you understand the assignment?

Are you warmed up properly prior to starting exercise?

Fatigue

Did you get a good night's sleep?

Have you been exercising earlier in the day and are tired? Do you feel right?

Eating/Hydration

Have you eaten properly today?

Make sure you didn't overeat to make you overfull.

Are you well hydrated? Did you drink water through the day?

January 2016 Mishap Closeouts

Bodily Injury - 24

Aircraft – 4

Vehicle - 4

Property - 1

This month we're going to take a slightly different approach to our mishap close-outs. We've selected a few to take a little deeper look at. These are mishaps that really carry some lessons learned and expose some hazards that should be relatively easy to deal with. I'd like each and every reader to take these to heart.

Watch the Door!

When we are heading out to fly, our minds are on the mission and something as mundane as opening the hangar door usually doesn't enter into our minds. It should.

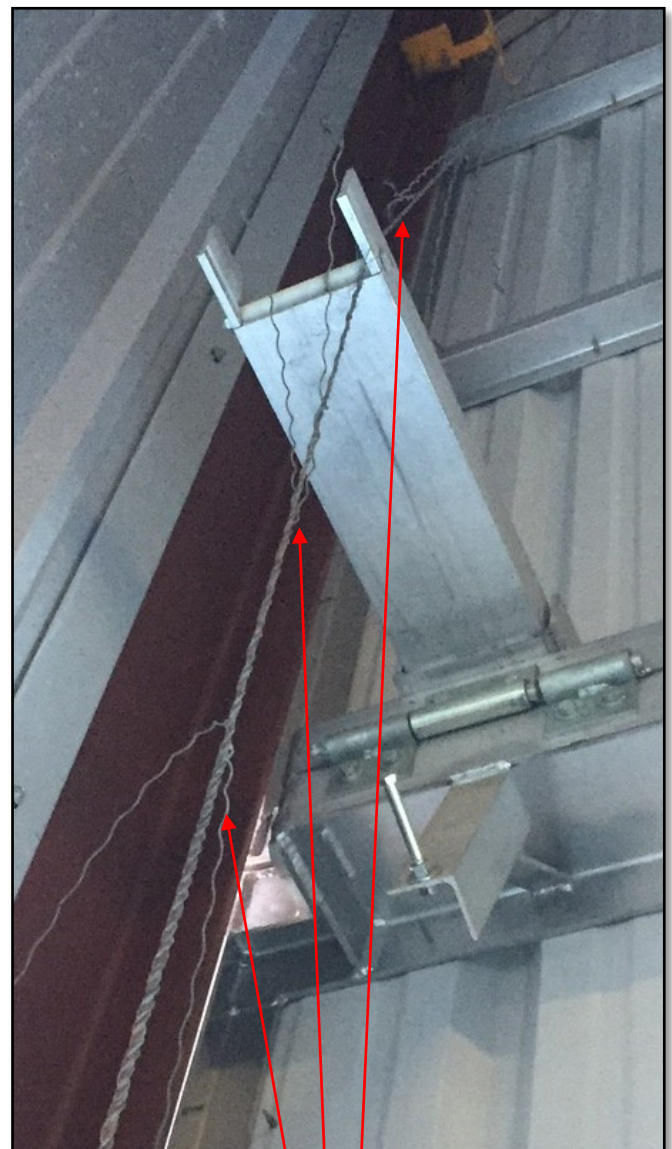
Many of our hangars are getting older. We have a variety of doors on our hangars. Some slide on rickety rails. Some are motorized with cables and pulleys. Like any other piece of equipment they all suffer from wear and tear and need to be well-maintained. In the past we have had problems with hangar doors not opening all the way, and one situation where a hangar door came crashing closed when a cable broke (luckily no one was hurt).

This one is a good news story that carries an atta-boy and a reminder for every unit with an airplane in a hangar.

In this case a CAP member was working to clear snow and ice from the hangar entrance. He had raised the door, then closed it with no problem. When he hit the switch to motor it up again, he heard a loud BANG as the door opened about three feet. He alertly stopped the motor and looked up to see that several strands of the steel cable had snapped and the cable had come off its guide roller.

Thanks to this member's alert reactions, no one was hurt, no aircraft were damaged, and the door was repaired. I hope every squadron takes the time to inspect their hangar doors, and every other piece of equipment they rely on each day.

Pre-fighting our equipment doesn't just apply to our aircraft.



Frayed cable

Follow the Rules

We had a couple minor injuries that can be attributed in part to just plain not following the rules.

One case involved a prospective cadet attending a squadron meeting; one of the three meetings a prospective member is required to attend before becoming a cadet. The cadet was allowed to take part in PT with the squadron cadets. He tripped, fell, and subsequently became dizzy. EMS responded and took him to the hospital. Luckily, he recovered quickly.

CAPR 39-2 is pretty specific, saying prospective cadets are NOT allowed to participate in activities that are “physically rigorous” (like PT). Without getting into issues that might arise from pre-existing conditions or illnesses the prospective cadet might have, or liability issues from letting him participate, this one comes down quite simply to knowing and following the regulation.

Another minor injury occurred when a senior member ignored the warnings given during a pre-activity safety briefing. At a cadet rocket launching activity, all participants and observers were warned to stay on the west side of the nearby road to avoid the road dangers and the muddy uneven terrain. Sure enough, one senior member thought it was more important to get to the other side of the road to get a good angle for better pictures. She quickly walked across the road, turned to return, tripped, and fell.

A Clean Sweep

Two of our bodily injury mishaps this month had a common cause. A broom. What?? A broom can't cause a mishap! You're right. A broom can't cause a mishap but throw in a couple fun-loving cadets, a dorm cleaning project at the end of a long encampment, and a little horse-play, and you've got the recipe for an injury.



In one case, a cadet was using the broom to practice (I presume) some rifle twirling skills. Unfortunately another cadet was walking by while his friend was in full twirl and ouch, the handle of the ~~rifle~~ broom hit the passing cadet in the right cheek, just below the eye.

In the other case, at another encampment, a cadet asked his buddy for a broom to help in the barracks sweeping. Did his buddy hand it to him? Oh no. The broom was airborne, flying toward the requesting cadet who unfortunately wasn't expecting it and, you guessed it, the end of the broom impacted the right cheek and eye.

We are really really lucky we didn't have any lasting injuries, or a permanently injured eye and a life full of aviation dreams down the drain.

Encampment staff. Cadet leaders. Flight sergeants. Members. Friends. All of you are responsible for these mishaps if you didn't take positive action to prevent them. Did you have a quick briefing before getting started with the clean-up? Work now and play later?

“Clean up the barracks ... ***without getting hurt.***”

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