



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.

October 2016

Safety Survey On Its Way

George Vogt, CAP/SE

It's on its way! The annual safety survey is still on track to be on-line in SIRS on November 1. I want to give a heads up on a couple changes this year.

The first change is that this quiz will be made up of "essay" questions that ask you questions about the safety programs in your squadron. We're asking questions about how you do safety in your unit. I encourage unit commanders and unit safety officers to set some time aside to go over the questions together before filling out the survey to make sure you're giving complete answers that really reflect what you're doing in safety.

Your wing commanders will be looking at these surveys to judge the health of your safety programs, and to get a feel for the emphasis their commanders are giving to squadron safety. They will want to see honest answers about your successes, your challenges, and your suggestions for program improvement. There are no wrong answers, and we truly want to know how we can help improve the safety program while identifying those superstars who are coming up with new and innovative ways to make their programs stand out.

Stand-by for more guidance via the Beacon, e-mail, on SIRS, on the safety surveys themselves.

What's New This Month?

- We have a nice feature about some lessons learned at a great event in the Georgia Wing
- One of our wing directors of safety offers his thoughts on Everyday Risk Management, and one of our region directors of safety offers a guide to help you plan your trips to and from CAP events
- The Assistant Chief of Safety offers a look at a couple recent mishaps
- And you'll even see how beach balls, flying, diving, safety briefings and dehydration can all provide examples of the right way to employ risk management

How's that for variety?

safety@capnhq.gov

We Can ALL Get Dehydrated! *(Even Senior Members)*

George Vogt, CAP/SE

Every month we review mishaps from around the country. In the hot summer months it is common to see cases of dehydration and heat stress. In some cases, hydration isn't emphasized enough. In other cases, it is discussed in the safety plan and in the pre-activity risk safety briefing, but then it isn't monitored during the event itself. In a few cases, even when it receives the proper emphasis, the member just forgets to drink. Most of these dehydration cases involve cadets, but this month we had one that involved a senior member at an air show; lots to learn from this one.

Like so many other squadrons do through the summer, the DeKalb County Cadet Squadron (GA-065) of the Georgia Wing was preparing to help out at a local air show. Realizing the Cadets were going to be in the sun and heat for extended periods, the Squadron came up with an excellent plan to deal with heat, hydration, rest and nutrition. Heat was predicted to be ten degrees above normal, and the senior members were determined that none of their cadets would fall victim to the heat.

The senior members under the watchful eye of their Squadron Commander, Captain Debbie Johnson, helped with the planning and logistics. But, they are proud to point out, the Cadets of the Squadron came up with the operational plan for the event. Captain Danny Cook, Deputy Commander of GA-065, summarized their philosophy by saying that the senior members are there to support and guide but their goal is "to empower our Cadets to put their leadership skills into meaningful practice." The Cadets came up with a great plan.

Water was readily available throughout the day. All personnel were advised to carry two canteens of water on their web belts when away from their base area. Gatorade and cold water were available at each duty station, and each duty station had a shaded area. A CAP van was available for mobile air conditioning, and to take members back to a cooled building for breaks.



DeKalb cadets perform Color Guard duties for the air show opening

The plan was so effective that not a single cadet had problems with the heat or dehydration. But, alas, there was one problem. Captain Ray Johnson, the Squadron's Cadet Activities Officer, found himself dehydrated and suffering from a bit of heat stress with a head-ache and some light-headedness. Luckily he recognized the symptoms, got inside where it was cool, and rehydrated; it was a very minor case.

So what happened? Well, Captain Johnson has a reputation of being one of the hardest working members of the squadron. Captain Cook smiled as he described his good friend Ray as, "one of our most dedicated ... and sometimes stubborn ... senior members." Like so many other CAP members, he was focused on getting the mission done, and caring for his cadets, and he forgot to take care of himself.



GA-065 Cadet Commander, (now C/Major) John Willingham mans the recruiting booth

That dedication to the mission, what they call the "get 'er done" attitude down in these parts, is an admirable trait. But, as we saw in this case, it can also be a hazard. That's why we need to make sure our plan includes ALL our members. Hazards like heat, and risks like dehydration, don't play favorites; everyone is susceptible.

We teach our Cadets how to take care of themselves, and how to use the wingman approach to look out for each other. In this case, I think the senior members of the DeKalb County Cadet Squadron are more than happy to learn from their Cadets.

I extend my sincere thanks to the members of GA-065 for sharing your story with me. You can be proud of your unit! Next time you get together for an event like this, drop me line so I can stop by to visit...I'm just a stone's throw across the Chattahoochee from y'all!



The proud cadets of DeKalb County Cadet Squadron (GA-065)

Why We Use Risk Management

By: Major Dave Furniss, CAP

Risk management may sound like an extra burden to add to our already busy schedules, but risk management is a process that most people use every day without even thinking about it.

When you cross a street you look both ways before crossing. I have had a few cadets that say no, but most of us do this simple risk management process. We see a potential hazard, we assess the risk, we weigh possible options, we make a management decision, we implement the process, and we review our choice. When we cross the street this process takes us one or two seconds to go through the first four steps and other than the time spent waiting for traffic and crossing the street almost no time at all for the last, but if you break it down we go through all of the steps of the CAP risk management process.

We need to take this instinctive risk management and move it into the realm of how we plan CAP events. It does not need to be challenging; it needs to be a natural part of our planning process. Remember that we don't have to completely avoid risk; we fly small planes in mountainous areas for our job! What we have to do is practice making sure that the risk we take is not more costly than the benefit we receive. That is what the sum total of risk management is, a way to analyze the risk we want to take and then find ways to make the risk acceptable for our goals. Risk management is not saying, "We can't do this." It is saying, "Let's find a way to do this".

About the Author

Major Dave Furniss is the Montana Wing Director of Safety. Along with several other positions, this busy member is also the Operations Officer for the Gallatin Composite Squadron in Belgrade, MT (near Bozeman).

His approach to simplifying risk management is something we are trying to do with our approach to risk management in CAP. Risk management can seem like a long, involved process with checklists and forms and matrixes to use. For very large events, it needs to be part of the in-depth planning process. I think, and I'm sure Dave agrees, that we learn just as much about risk management by looking at how we already apply it in our daily lives.

As he points out, crossing the street is a great example of risk management. Cars are hazards. There is a risk of them hitting you. The probability may be low but the severity could be high. What measures can we take to mitigate that risk? How do we keep assessing as we put our plan in motion? All of those concepts can be explained in his example.

Use the same process in everything you do and you will be practicing "Everyday Risk Management."

Thanks, Dave!

September 2016 Mishap Reviews

Col Robert Castle, CAP/SEA

This month, we'll take a slightly different approach for the mishap close-outs by taking an in-depth look at two selected mishaps, and what might have been done to prevent them. We'll look at the factors and assumptions our members are faced with, realizing that despite our best efforts we are human and we make mistakes. The purpose of reviews like this is to help our fellow members keep from making the same mistakes.

In the first mishap, a cadet with a peanut allergy put a food item containing peanuts into their mouth. Immediately recognizing the item had peanuts in it, the cadet spit the item out. Fearing an allergic reaction, the cadet began to hyperventilate.

As a precaution, EMS was notified and the cadet was examined to ensure that no reaction to the peanut exposure developed. The cadet suffered no ill effects and was permitted to continue the activity.

When planning an activity, we typically require members to have in their possession the CAPF 160 CAP Member Health History Form and CAPF 161 Emergency Information. The health history form is the place where members can list any pre-existing medical conditions they may have. The information on the form is confidential and for official use only, and commanders and activity directors should use good judgment in who has access to view these forms. That being said, it is important to have them reviewed prior to assigning a member to a duty, to help ensure they're not being asked to perform a task that might aggravate an existing condition. Likewise, knowing whether members are allergic to foods or other substances can help prevent them from being inadvertently exposed to allergens.

According to the [Food Allergy Research & Education](#) website, peanut allergy is one of the most common food allergies affecting approximately three million people in this country. Trace amounts of peanut can cause an allergic reaction. When planning on serving food at an activity, does your unit look at the list of ingredients to ensure that items containing peanuts are identified? Items containing peanuts or peanut products (oils, flour, baked goods, etc.) should be clearly identified to members with allergies and alternative food items provided.

If a member is accidentally exposed to an allergen, don't hesitate to notify appropriate medical services. Allergic reactions can quickly become life threatening without proper care. Many members carry Epi-pens for treatment, but they occasionally get left behind. Members who suspect they've been exposed to an allergen should not be permitted to drive themselves for treatment. Following them in another vehicle to "make sure they get home ok" will only provide a witness to the crash if they happen to go into anaphylactic shock and lose control of their vehicle.

A little extra planning to identify and avoid common allergens, alerting your members to the presence of potential irritants and having a good mishap plan in place will all help mitigate the effect of allergies during CAP activities.

Our next mishap this month is an aircraft mishap. After a day of providing cadet orientation flights, the orientation pilot made a full stop landing back at the airplane's home field. Having passed the taxiway he wanted to use to exit the runway, the pilot was performing a 180 degree turn to back taxi to the desired taxiway. While performing the turn, he felt a vibration from the right side of the airplane. Upon visual inspection, the pilot discovered the right main landing gear was flat. The airplane was towed from the runway and turned over to maintenance. The tire had a 2" diameter spot worn through the tread and plies, down to a hole in the inner tube. While the mishap review didn't draw any conclusions, the source of the "hole" was most likely a locked brake and resultant skid at some point during that landing, as it appears the skid wore all the way through the tire and inner tube.

We've discussed aircraft and vehicle tires in the *Safety Beacon* before, but this is a continuing are of concern due to the real potential for loss of control and subsequent risk of injury and damage to equipment.

When flying with cadets, especially on orientation rides, we want them to have an enjoyable experience. For many, flying is what got them interested in CAP in the first place and orientation flights are a great retention tool. There are slightly increased risks flying with cadets. Many of our younger cadets haven't finished growing yet and consequently have difficulty seeing over the nose. Seat cushions help, but can inadvertently place a cadets feet where they may inadvertently rest them on the rudder pedals and accidentally apply the brakes at an inappropriate time. CAPP 52-7 *Cadet Orientation Flight Syllabus* states, "Allow cadets to handle the flight controls only during the non-critical phases of flight. However, **pilots must never permit cadets to handle the controls at takeoff or landing or when below 1000 feet AGL.**"

Certainly, pilots need to brief cadets on remaining clear of the controls during takeoff and landings. It's easy to see their hands are clear, but much harder to tell where their feet are. A verbal reminder to keep their feet off the pedals prior to takeoff or landing is a must. Instead of telling them what *not* to do, it may help to tell them what they should do; put your feet flat on the floor when below 1000'.

Make sure you do a good preflight with particular attention to the tire condition. Starting with a worn tire can shrink your margin for error if you plan to fly multiple sorties with multiple landings throughout the day. Be wary of tires that already have a small flat spot; the previous pilot might not have noticed it on his post-flight inspection.

Get the tow bar out and pull the airplane forward enough to inspect the complete tread diameter on both main tires. You know they tend to come to a stop with the flat spot on the bottom. You may not see it until it's too late. Most of our airplanes don't have wheel pants anymore, but if you're still operating with them they make it more difficult to inspect the tire condition.

Between flights on those multi-sortie days, do at least an abbreviated preflight (unless the syllabus calls for a full preflight) to insure fuel caps are in place, oil dipstick is secure, and no damage to other parts of the airframe.

Not only will you show cadets the proper conduct of a flight, but you'll help instill a safety culture that will allow our members to perform CAP's missions *and* have fun, "...without getting hurt."

See you next month!

Have you done your “sub-activity operational risk safety briefing?”

CAPR 62-1: “These briefings are mandatory.”

George Vogt, CAP/SE

I was closing out a mishap the other day, and I was a little surprised by a couple of the comments I saw. At a squadron meeting, following cadet PT, the members decided to play a quick game of soccer with a large beach ball. Sounds like fun, so they started playing. One of the senior members joined in and attempted to “head” the beach ball. Coming straight down at him, he made contact with the ball directly on the top of his head and felt a jolt and a twinge. He suffered a minor cervical sprain.

In the mishap review it was noted that they unit had not done a risk assessment before their new game. They didn’t talk about the hazards and there wasn’t a safety briefing before the game. A large beach ball, even though light in weight, can do damage if “headed” incorrectly.

The wing commander noted, in his comments: “It is suggested that all activities provide at least an abbreviated safety briefing to cover any risks that could occur during the activity.” The region commander, when he coordinated on the mishap review, added, “good idea.”

It is more than a suggestion, and more than a good idea. Operational Risk Safety Briefings are mandatory before each activity. One of the types of required briefings described in CAPR 62-1, Para 5.d.(2) is the “sub-activity operational risk safety briefing” given before such events as an obstacle course, or working in an encampment kitchen, or entering a land navigation course, and yes, even before a PT session.

That requirement will be clarified and enhanced in the new 62-1 rewrite, and some briefing guides will be provided. But, in short, a hazard analysis, risk assessment, and briefing (based on the risk assessment) are *required before each activity*. It isn’t that daunting of a task, and is easily done. If you come up with a new game, like beach ball soccer, you can all stand together and discuss what could possibly lead to injury, what can be done to prevent it, and how you are going to play the game “...without getting hurt.” Have fun!

“How Am I Supposed to Know?”

A relatively common minor mishap we see, and the type of minor mishap I’d most like to reduce, is this scenario: Cadets show up at their unit meeting after a long day at school, after completing their after-school activities, after doing their homework. Tonight is testing night; the night that they perform the several events that make up the CPFT along with the mile run. Occasionally a cadet feels ill, or faints, or drops out of the run and the mishap review determines that they hardly drank water all day, skipped lunch to study for a test, and missed dinner.

In some cases, the squadron leadership is at a loss for how to prevent this. “How am I supposed to know if they ate or drank that day?” is a common question I hear from squadron commanders or cadet leaders. It is not enough for leaders of our cadets to ask “how am I supposed to know.” They must also try to answer that question.

One suggestion that has met with success in many squadrons is to use your cadets to lead your cadets. Some squadrons have set up a recall the night before PT where cadets call cadets to remind them to be well-rested and prepared for the next day’s PT events. Some squadrons have instituted a wingman approach to PT prep...cadets are paired up to remind each other and help each other prepare. When cadets walk in the door for their evening meeting, nutritional snacks and water are available. These methods work well for all types of cadet events.

Finally, as you have read in the “safety briefing” article above, a “sub-activity ... safety briefing” is required before PT. That is our last chance to ask each cadet if they feel well, and if they are prepared and ready to go with no pre-existing conditions that might lead to problems.

“How am I supposed to know?” There are ways. Trust me, there are ways.

Why Diving and Flying Don't Mix

George C. Vogt, CAP/SE

Back when I went through pilot training in Del Rio, TX, beautiful Lake Amistad beckoned scuba divers with clear water and submerged roads and old buildings to explore. Our focus for the year was on flying though, and we were warned not to engage in scuba diving within 24 hours of showing up for flight duty. The transition from the high pressure underwater, to the low barometric pressure of the unpressurized T-37 at 25,000', was not a healthy one.

I hadn't thought of that in quite a while, until I saw a recent CAP mishap. It turns out one of our CAP members is an avid diver, and after a day of diving, hopped on an airplane to fly to a CAP event. His journey took him across 4 time zones, adding to the fatigue. Once arriving at his destination he engaged in a workout. After all that, he began to feel dizzy and reported not feeling well. He experienced vertigo and had trouble keeping his balance.

After evaluation at an ER, he was able to return to the event to get a long night of sleep, and woke up feeling much better. Lucky it wasn't more serious.

Without knowing it, this member had broken several of the "rules" about not flying after diving, and he suffered some of the common symptoms. If you enjoy diving, and you fly (whether on an airliner or privately), it's important to be familiar with the hazards and risks that brings.

Here are a couple good links for more information on what causes this decompression sickness (DCS), the symptoms, and what you can do to prevent it:

[FAA Safety Brochure -- DCS](#)

[Divers Alert Network -- Flying After Diving](#)

What's the Plan For Getting There? ...and Getting Back?

Quite a few of our members travel long distances to get to CAP events. Wing, region, and national events are attended by people who have come from every corner of the map via CAP vehicle, private vehicle, or aircraft.

Our activity safety officers and activity directors works hard to come up with an activity safety plan that accounts for all the hazards and risks associated with an event. Unfortunately, many of those safety plans don't account for how the members are going to get there or how they are going to get home, and occasionally we see mishaps that occur during those long travel days.

Rick Schein noticed that too. Lt Col Rick Schein lives in Colorado and, among several other region-level jobs, is the Director of Safety for the Rocky Mountain Region. Rick noticed that some of the plans for events in his region didn't account for the transportation to and from the event, so he produced the product on the next page, and distributed it throughout his region. I offer it to all of you as a good tool, and encourage every wing to develop the practice of treating the journey to and from with the same level of planning you give to the event itself.

You'll be getting a head start on things, as I'm pretty sure the rewrite of CAPR 62-1 will require that event safety plans account for the trips to and from the event. Thanks, Rick!

Turn the page for **STOP, LOOK, LISTEN**

STOP, LOOK, LISTEN

We have had some mishaps during breaks (aircraft refueling, nature breaks, driver changes, etc.) in transportation to/from an event. These breaks are not usually covered by the safety plan of the event. I would like you to consider the following protocol during transportation breaks:

STOP

Once the transportation phase (driving or flying) is completed and the vehicle/aircraft is safely parked ... Gather together, look around, and discuss possible risk areas. TAKE YOUR TIME! While stopped the tendency is to worry about "losing time." The time you take for safety will be much less than that to address the consequences of a mishap. (I don't mean paperwork)

LOOK

1. Environment

- a. Possible hazards, weather – precipitation, wind, surface conditions
- b. Possible hazards, road or ramp conditions – pavement condition, obstacles, adequate lighting

2. Equipment

- a. Aircraft tied down or chocked adequately
- b. Vehicle parked in safe locale
- c. Traffic: taxiing aircraft, vehicles entering/leaving
- d. Fueling equipment: ladders for high wing aircraft, long enough fuel hose for vehicles
- e. Facilities: adequate for needs, fuel type, restrooms, method to use appropriate credit card

3. Personnel

- a. Cadet Protection requirements
- b. Facility personnel present – fuelers or attendants
- c. Try to have "No Lone Zone", if there is no one with you who is going to "watch your back?"
- d. Cell phone distribution – try to have a cell phone/communication with each group (see c: above) that is disbursed

LISTEN

Ensure everyone has a voice – safety is a team sport. If you are travelling by yourself – listen to that "inner voice."

Is everyone comfortable with the plan/situation? If not, move on and stop somewhere else – no harm no foul.