



The Safety Beacon is for informational purposes. Unit safety officers are encouraged to use the articles in the Beacon as topics for their monthly safety briefings and discussions. Members may also go to LMS, read the Beacon, and take a quiz to receive credit for monthly safety education.

May 2018

Think it Can't Happen to You?



What's In the Beacon This Month?

We've got a wide variety of topics as we prepare for Civil Air Patrol's busiest season.

- An important video from Maj Gen Smith ... are you "Risk Management Ready" for the busy season?
- There's some quick information, and some tools you can use, to deal with the upcoming hot weather.
- A very quick update on a recent accident, pictured above, and the mishap review process.
- We cover a few common questions members have about what goes on after those rare CAP accidents.
- There's a great article by one of our CAP Pilots ... it's easy to get distracted by all the "gadgets" in our planes.
- We'll take a look at how we select the venues for our cadet PT activities, and the risk management involved.
- We take another serious look at van safety ... are you personally confident?

Note: The Beacon is back! Due some important priorities over the last few months, this is the first Beacon we have had since February. Hopefully we are back on track and you'll be seeing the Beacon return as a monthly publication, usually coming out around the middle of each month.

Are You Ready for the “Busy Season?”

A Message From Your National Commander

As our northern wings thaw out and enjoy Spring, and the heat of Summer arrives in the southern tier, the tempo increases for all our activities. It is incumbent on all CAP members to be prepared for their missions, their activities, their flights, and their use of CAP vehicles. That means using risk management to take a close look at what they’re doing and how they are doing it.

Click on Gen Smith’s picture, or click [HERE](#) to watch a special message from our National Commander on the need for risk management as we pursue excellence in all we do.



It’s Getting HOT!!!

George Vogt, CAP/SE

The really hot temperatures of summer are right around the corner, and every year we see some heat related mishaps that probably could have been prevented. This is a reminder that everyone needs to be prepared for the heat, and that means a plan to deal with dehydration AND heat.

I see quite a few commanders issuing guidance on hydrating, and that is important, but it is only part of the equation. There needs to be a plan for dealing with the HEAT ... hydration alone will not prevent heat illness!!!

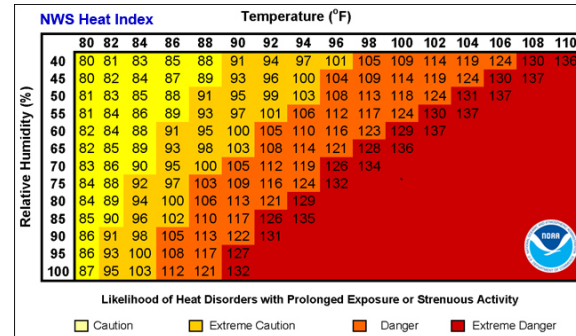
We’re all aware of the Heat Index, but what does it mean and what should we do when we hear about the heat index? Well, it needs to be a part of our planning for each and every event.

OSHA, in cooperation with The National Institute for Occupational Safety and Health has an app. Click [HERE](#) or on the picture below. It will automatically tell you the heat index for your location, based on current NWS weather observations, AND it will tell

you what precautions you need to take and how to recognize and treat heat related illnesses. Want to use it for planning? Just enter in a hypothetical temperature and humidity to see what precautions you should build into your activity plan.

Need more planning information? Click on this link to OSHA’s [WATER. REST. SHADE.](#) webpage for a summary of each level of heat index and how you can prepare and plan for your activity.

REMEMBER. Hydration is a very important part of the heat plan, but you need to be aware of activity levels, and follow the guidance for Water, Rest, and Shade.



What Happened?

Recent CAP Aircraft Accident

George Vogt, CAP/SE

I rhetorically ask on the front page of this edition of the Beacon, “Think it can’t happen to you?” As you can see from the pictures, accidents do occur. CAP’s aircraft accident rate, when compared with General Aviation as a whole, is quite low. However, flight will always come with risk. It is impossible to remove all risk and where risk exists there is a chance for a mishap. That is why we dedicate ourselves to risk management, and doing all we can do to reduce risk in every mission, every activity, every flight, every day.



Every member, no matter what their involvement is in a certain activity or mission, needs to personally take responsibility for making sure they have done everything they can do to reduce risk to the lowest level possible. Have you consciously used the risk management process to ask yourself what can possibly go wrong, and then taken every possible action to keep it from happening to you? If not, you’re not ready.

So, what happened in the above picture? All we know is that a CAP aircraft was unable to stop, went off the end of the runway, hit the airport perimeter fence, and came to rest in the position you see, at the side of a two-lane road.

So, what caused it? “It’s too soon to tell.” I will be working with CAP mishap review officers, the NTSB, and the FAA to piece it together. On the next page you can learn a little about what we, and the NTSB, do following a mishap like this.

Important note here ... something we all need to remember whenever a mishap like this happens. You might be the CAP member that is there when it happens, or that helps out in the hours and days after a mishap. During that time, you may be asked questions by the media. “What happened? Who was the pilot? What caused it?” The answer is the same one I gave above ... “It’s too soon to tell.” If you’d prefer, you can and should simply say, “I don’t know,” and you will be telling the truth. What is the risk of saying too much? The risk is that you say something wrong. How do you reduce that risk? Don’t say anything at all.

Safety@capnhq.gov

FAQs About Aircraft Accidents

George Vogt, CAP/SE

Occasionally, I get questions about who handles the mishap investigation in those rare cases when a Civil Air Patrol aircraft is involved in an accident. While it is always hectic when something like this occurs, the rules and the process are really pretty simple. Let me go through a few of those commonly asked questions...

What is an “accident?” When it comes to aircraft mishaps, the word “accident” really has only one meaning. CAP uses the same definition that the NTSB uses when defining an aircraft accident, and that definition is found in 49 CFR 830 (the law). The first criterion is if there is death or “serious injury,” it is considered an accident. “Serious Injury” is defined in 830.2, but suffice it to say it usually involves broken bones (or worse) and/or hospitalization. If there isn’t a death or serious injury, we look at the aircraft itself to see if there was “substantial damage.” Once again, that term is strictly defined in Part 830, and it comes in two parts:

- 1) The damage must affect the structural strength, performance OR flight characteristics,
... AND ...
- 2) ... would normally require major repair or replacement of the affected component.

There are a few other nuances to the definition. Whenever there is a doubt, CAP/SE speaks personally with an NTSB supervisor regarding the specifics about the damage, and the NTSB makes the final decision of whether or not it is an “accident” according to 49 CFR 830.

So who investigates it if the NTSB decides it is an “accident?” The NTSB. If any Part 91 aircraft (or any other non-military flight) has an accident, the NTSB has the lead for the investigation. Despite what some people think, we have no special arrangement and we have no say in the matter; the NTSB is the lead agency to investigate all CAP aircraft accidents.

What about the FAA? The FAA also has a role following aircraft accidents and other incidents or events. Their role is to determine the facts surrounding the occurrence, and in very general terms their primary focus is on whether any “rules” were broken that might have resulted in the mishap. They look at certificate holders, FAA facilities, Federal Aviation Regulations (FARs), and whether there were any issues with FAA facilities or processes, or if there were any violations of FARs. In close coordination with our CAP General Counsel, it is CAP policy to help the FAA with factual information regarding the flight in question.

What does the NTSB look at? The NTSB looks at all aspects of the accident, with the sole purpose of finding out what caused it, and where improvements can be made to prevent other similar mishaps. They are not looking to find fault, or place blame, or take any enforcement action. Their role is very similar to the role of our own mishap review in CAP ... to find out what went wrong and what improvements we can make to reduce whatever risk was encountered. We are on the same team and we cooperate fully with the NTSB.

What does CAP do after accidents? As the primary CAP representative working with the NTSB after any accident, I speak often with the assigned NTSB Accident Investigator. I provide them with information they ask for, we share evidence we might find, and we provide whatever information they need about how we operate and the specific mission they are looking at. Within a couple weeks, the NTSB usually has all the information they need, and they give CAP the go-ahead to pursue our own internal look. I then lead an effort, with the help of some hand-picked members in the field, to look at everything that went on before and during the flight, and how it relates to all our CAP missions, training, guidance, and regulations. In other words, we look even deeper than the NTSB to see if there are improvements we can make, inside of CAP, to make all our operations safer and to help our aircrews with the tools they need to be the safest aircrews in General Aviation.

More questions? If there is anything I left out, or if you have any other questions, drop me a line at safety@capnhq.gov and I’ll try to share the answer.

ENJOYING THE SHOW?

“Look Outside!”

By Captain Doug Anderson, CAP

We’ve all grown up watching the magic of the media on TV. We’ve spent time staring down at our cell phones — often when we shouldn’t. Even those little screens on the gas pumps keep us occupied trying to sell us stuff while we pump away. No doubt about it. Visual media is compelling.

Now let’s move into the cockpit of a typical Civil Air Patrol aircraft. Sitting before you occupying most of the panel real estate is the very capable Garmin G-1000. Two big screens offer more information than many airliner cockpits. They demand — if you let them — more of your attention than might be prudent.

Yes, we’ve been trained to check the system, enter flight plans, frequencies, and altitudes during preflight and run up so we can keep our eyes out where they belong during flight: scanning for aircraft and other in-flight hazards.



But if you are a typical pilot you tend to spend more and more time looking down at the wealth of information on those screens. Maybe you’re learning more or reinforcing what you already know.

There’s a lot down there to look at. Our eyes are drawn to all that color. Scanning those old round dials is boring by comparison.

“But wait, there’s more,” as they say in those TV ads. The ForeFlight display on your I-Pad on your kneebord screams for your attention as well.

With all of this electronic wizardry happening below the windshield, the “see and avoid” pilot responsibility outlined in the Aeronautical Information Manual (5-5-8. a.) is fast becoming a quick, obligatory glance up every now and then before getting back to the show down below. Better to reverse that priority and spend more time on a meaningful scan outside and a methodical, but quick one on the panel.



Beyond the spatial awareness, terrain, navigation, and systems information on those beautiful displays, Traffic Information Systems and Traffic Collision Avoidance Systems go a long way in upping the safety margin between us and other aircraft. Fixating on those little aircraft symbols, though, could cause a pilot to miss some other events going on in the sky around us.

Only the human eyeball can perform that all-important scan for those other occupants sharing the airspace: non-transponder equipped aircraft, drones, birds, or some innovative soul sitting in a lawn chair with balloons attached.

Just as we are (hopefully) adjusting to the demands of cell phones and other attention-grabbing gadgets while driving, maybe it's time to re-align some of our priorities in the cockpit while we're up there committing lift.

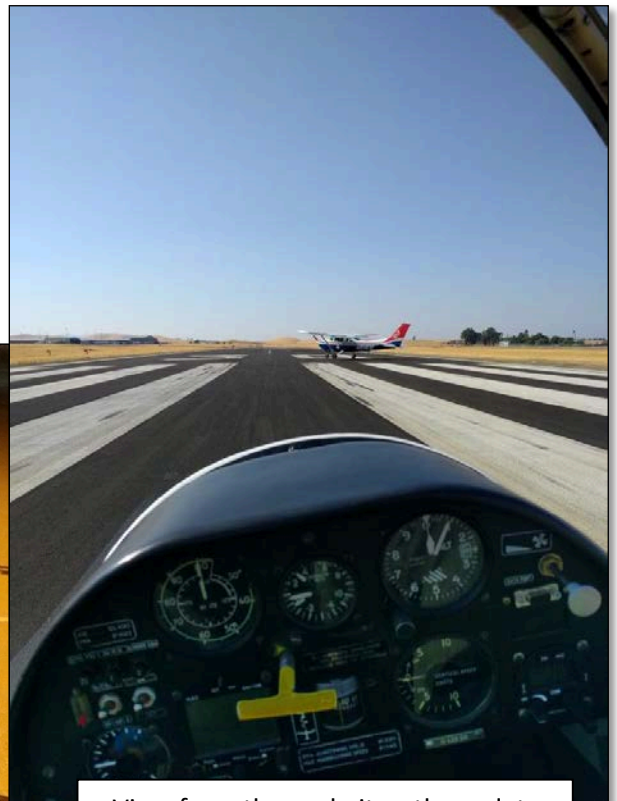
About the author: Capt Anderson is part of the California Wing and has been a member of CAP since 2006. He is the Safety Officer and the Operations Officer of the Santa Cruz Composite Squadron 13, located in Watsonville, CA, next to the beautiful Monterey Bay. We thank him for taking to time to write this article for us!

Santa Cruz Composite Squadron 13

“The Blacksheep”



“Black Sheep” cadets prepare for the CPFT



View from the cockpit as the cadets of Squadron 13 receive Glider O-rides

Where Do We “Play?”

George Vogt, CAP/SE

One of the biggest challenges faced by our Cadet and Composite Squadrons, is finding new and creative activities for PT. We look for team sports or activities that challenge our cadets while building teamwork and providing great exercise. One of the things that compounds that challenge is to find a suitable place to conduct that PT or to “play” those games.

I am probably guilty of it ... When I hear about cadets running the mile or playing a game of soccer or Capture the Flag, my mind wants to envision a nice paved track, or well-lit playground, or a nice gymnasium. But many of our squadrons don’t have locations like that at their disposal. The quest to find a suitable place to conduct PT needs to include one very important step: **Risk Management**.



The two mishaps I’d like to talk about this month involved the game of “Capture the Flag.” Surprisingly, this is one of more common “causes” of cadet injuries. Perhaps the excitement, the strategy, the competitiveness, and the desire to “win” come into play. This month we see a couple cases where the location added to the risk.

In one case the squadron meets in spaces provided by a local airport. There is a clearing they use for PT, but there are some hazards including dirt and loose rocks. On this occasion, the cadets were engaged in a game of Capture the Flag. It was 25 minutes after sunset, so they illuminated the field with vehicle headlights. One of the cadets ran a little too far, and ran into a guy wire that was supporting an antenna. Injuries were minor, but you can imagine the shock as he ran into the wire, while running, and found himself upended and lying on his back.

In another situation, the unit regularly uses a hangar for their PT. On this occasion, a couple vehicles were parked in the hangar, which decreased the available space. The “playing field” wasn’t clearly marked, the members supervising the activity had gone outside, and a cadet suffered a minor injury by running head-on into the back of a truck while looking in another direction.

In both of these cases there could have been better risk management, and better supervision. In some cases, we simply may have to decide that the activity we planned can’t be conducted because there isn’t a suitable place to do it. When we do put risk controls in place, we need to make sure we follow through and make sure those risk controls are working properly. In both of these cases that means having supervisors or other cadets posted where they can make sure no one runs into identified hazards.

Above all, the cadets themselves should be involved in identifying hazards and figuring out what risk controls they need to put in place. Developing good risk management skills is an important part of the Character Development element of the Cadet Program (CAPR 60-1). Supervising cadets as they figure out the risk management plan for their own PT is a perfect way of developing that Risk Management character trait, and it may just prevent some injuries along the way.

safety@capnhq.gov



Let's Talk About Driving a Van

George Vogt, CAP/SE

As some of you may know, one of the riskier things we do as part of our CAP activities is driving our large CAP vans. Looking at the mishaps that come into SIRS from around the country, one of the most common scenarios is driving or parking or maneuvering a large CAP van. This shouldn't come as a surprise to anyone.

CAPR 77-1, has several paragraphs on the use and the risk associated with CAP vans. A few quotes from that regulation:

- *"A high center of gravity, coupled with inexperienced drivers operating fully loaded vehicles, create this safety risk."*
- *"...a van can tip over more easily than cars if a driver has to negotiate sudden turns."*
- *"Only experienced drivers should operate the vans."*
- *"In areas where a vehicle operator cannot see clearly behind the vehicle, the use of a spotter is required when backing..."*

In addition to the above guidance, we regularly print van and vehicle safety articles in the Beacon. Along with a continuing emphasis on safe van operation, another area we stress repeatedly is the problem associated with dry-rotted and old tires.

Let's look at one recent mishap, where numerous factors came together at one time ... there are a couple things to learn here. In this case, the driver was on the highway and noted a shimmy. He pulled off the highway, checked the tire pressure, then went back on the highway to resume the journey. The shimmy returned, then worsened, and the tire started losing pressure and the tread separated, resulting in a flat. Luckily the van limped to a stop on the side of the road and no one was hurt.

Let me start with the good news ... it was an outstanding review by the mishap review officer that got us the following information. Unfortunately the standard review I see from flat tires is that the tire went flat, and they got it replaced, with little or no information on what led up to the failure.

So what did the review uncover? The review officer checked the dates on the tire and another tire on the same van. The tires were manufactured in 2011, making them seven years old. Old. The next thing he noted was the condition of the tire ... seven years of exposure to sun, high temperatures and salty coastal air had resulted in dry rot to the tire. Had anyone else noticed this? Well, he checked the maintenance records and saw it had been in for an oil change late last year and the service center noted on the invoice: "Recommend tires - dry rotting." That advice had not been heeded. A little more detective work found that the tires on that van were also part of a recall, issued by the manufacturer, back in 2013, because some tires were experiencing "tread loss."



For all the members that drive our CAP vans, [offer this link provided by the National Highway Traffic Safety Administration, specifically talking about safe operation of large 15 pax vans](#). Here's a quote from NHTSA: "Fatal rollovers of 15-passenger vans are most likely to involve tire failure, since excessively worn or improperly inflated tires can lead to a loss of vehicle control and ultimately a rollover."

My message to commanders and transportation officers: Are you personally confident that your vehicles have safe tires? If you aren't personally confident, what are YOU going to do?

My message to every CAP member who drives a CAP van: Are you personally confident that you know everything you need to know about driving a large van, and you're capable of doing it safely? If you aren't personally confident, what are YOU going to do?



"... these cumbersome vehicles can pose a safety risk to inexperienced van drivers and other road users."