



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 current Beacon, and take a quiz to receive credit for monthly safety education.

March 2017

## What's New This Month?

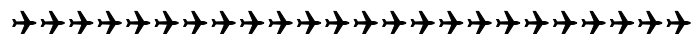
Lots going on in the Safety office as we work on the new safety regulation and continue our efforts to create some new tools and training that will help all our members use Risk Management to increase safety in all our missions and activities. We'll try to update you on some of those here.

I encourage all safety officers and commanders to make the Beacon a part of your monthly "must read" file to keep up to date on some of the latest developments in the safety program. So what is in this month's Beacon?

- We've got quite a few short topics to bring you up to date and offer a few tips to help you employ risk management.
- Take a look at how failure to properly use risk management can put your airplane somewhere you don't want it to be.
- We've got an interesting discussion on that old phrase, "just use common sense." Does that phrase have a place in a risk management program?
- There's a good risk management discussion about using common tools like knives and glue-guns, along with a little help in developing your pre-activity risk safety briefings.

As always, stay in touch and let us know if you have any ideas for issues you'd like to see us discuss, or if there are any questions you might have.

You know where to find us.....  [safety@capnhq.gov](mailto:safety@capnhq.gov)



## Safety Shorts

**National Safety Officer College Update:** Applications are still being accepted for the next NSOC, scheduled for 5-9 June 2017 at the NTSB Training Center in Ashburn, VA. The applications are being taken by Form 17 this year rather than on-line sign-ups. You can get all the application information by checking out the February 2017 Beacon or by going to this [NSOC Website](#). Our Region Directors of Safety will be there; NSOC will soon become a requirement for all region directors of safety.

Beginning in 2018, we hope to have more NSOC slots available by having several regionally based NSOCs that will be near major hubs for travel convenience or held in conjunction with region conferences. These courses will include read-aheads, webinars, and a shorter 2-3 days in residence to make them easier to attend. As soon as we have enough slots available we are tentatively planning to make NSOC mandatory for all wing directors of safety, so I encourage wing directors of safety to sign up and get the full experience this year at NTSB.

# more ... Safety Shorts

George Vogt, CAP/SE

**A Supplement or a Letter?** As everyone knows, [CAPR 62-2](#), *Mishap Reporting and Review*, requires that wings develop their own internal mishap reporting procedures (see para 3.). It directs that wings will publish those procedures “in a letter or supplement to this regulation.” There is a bit of a disconnect. In the new [CAPR 1-2](#), *Publications Management*, letters are not an approved format for directive publications. Many wings still have letters outlining their internal mishap reporting procedures, rather than supplements. We are considering a change or ICL to CAPR 62-2 that clarifies the need for a supplement rather than a letter. Until then, we encourage all wing directors of safety to open up CAPR 1-2, check out the proper format for regulation supplements, and change over to a proper supplement for your internal mishap reporting procedures.

Another note on those supplements: While it is common, there is no need to publish actual phone numbers or names on those plans. It is sufficient to give the duty titles of the people needing to be contacted. Keep in mind that those phone numbers are PII (Personally Identifiable Information) and need to be protected (usually by password) if published on-line.

**Fainting in Meetings:** We’ve talked a lot about cadet fainting, and some of its many causes. Recently I had a nice discussion with a region commander, and his director of safety, about what we can do to help prevent some of those cases. There might be underlying causes like not enough rest, or dehydration after a busy day, or stress. We can only do so much to help our cadets prepare themselves, but we *can* help them once they show up at the meeting. That might be as simple as gathering the cadets together before the meeting begins, and having the prescribed pre-activity risk safety briefing. Squadron leaders can talk to cadet leaders who can then talk to the cadets. Ask them if they’re hydrated enough for tonight’s strenuous activities. Ask if anyone might have had a recent injury that would affect them in the planned activities. Remind them to concentrate on what they’re doing and ask the cadets to keep an eye on each other. Most of all, remind them that it is better to admit when they’re feeling a bit woozy and just sit down rather than fainting ... that decision should be praised as a good execution of everyday risk management.

**What About Prospective Cadets:** It’s great to have prospective cadets attend our meetings. This week’s newcomer might become a new best friend and a great CAP member. Most prospective cadets are excited about taking part and want to join in some of the activities, but that feeling of excitement can be soured quickly if the new member faints or gets injured. Keep in mind that the prospective cadet knows very little about CAP, or the meeting activities, or something as common as standing in formation. I encourage all our squadrons to assign a seasoned cadet to be a “host” for each prospective cadet. Show them around. Keep an eye on them. Maybe even sit out part of the formation or drill practice so they can rest and our seasoned cadet can explain a little more about what is going on and how hard we work to reduce risk and keep everyone healthy. Let’s keep those prospective cadets happy and healthy.

**NCSA and Encampment Safety Updates Coming:** We’ve been working hard with the staff in Cadet Programs to come up with better tools and better guidance to help improve and standardize our approach to risk management at our National Cadet Special Activities, along with region and wing activities and encampments. Coming soon will be some standard briefing slides to help explain risk management at the opening assembly. There will be briefing guides to help with the pre-activity risk safety briefings. We’ll have short forms to fill out to help with mishap reporting; to make it easier for the activity staff while ensuring we get the information we need to

review each mishap. There will also be a short guide to help with the assessment of the success of the activity's safety plan so we can make improvements. As the year goes on we will ask for feedback on all these tools so we can continually improve them, and we'll end up with effective and easy to use products for all our activities. Keep reading the Beacon to see the products as we develop them and post them on our website!

**Cadet Safety Officers at NCSAs and Encampments?** We received a few questions recently about whether or not activity directors should have a cadet safety officer at their encampments or NCSAs. In short, I say it is a great idea, with a few caveats. According to 62-1, the Activity Director must appoint a safety officer to conduct the activity's safety program. This MUST be a senior member and not a cadet. That being said, appointing a strong cadet to assist that safety officer is a great idea, and will bring a lot to the activity safety program. Under the safety officer's supervision, the cadet safety officer can help with mishap reviews, interview members and get information on "why" a mishap might have happened, do hazard assessments, give pre-activity risk briefings, and help assess the effectiveness of risk controls. Check out the [July 2016 Beacon](#) to read an article written by a cadet who served as an assistant safety officer at the Oklahoma Wing Encampment.

**Flat Tire? Ask "why?":** I know what you're saying. We've talked about flat tires enough! And I kind of agree. This little piece isn't about flat tires as much as it is about how we need to look at all our minor mishaps. I saw a mishap recently where a front tire went flat on a CAP van. The driver did a nice job of safely pulling to the side of the road, and they were able to change the tire. There were no pictures of the tire in the review. There was no mention of why the tire went flat. Was it punctured? Tread separation? Sidewall blow-out? Dry rot? They didn't ask "why?" None of the commanders in the chain asked "why?" How can we hope to learn from mishaps if we don't ask "why?" Mishap reporting is of little value if we don't take the time to ask the simple question "why?" If we know "why" something happened, we just might be able to prevent it from happening again. The tendency with all "mechanical" breakdowns or broken parts on airplanes and vehicles is to just report that it "broke" and it was "fixed." I need everyone to ask the question "why" and most of all I need the wing and region staffs (i.e., the directors of safety) to step in and help their commanders with the quality control by asking "why?"

**The Interview:** One of the time-honored tools of mishap reviews is the simple interview. Many times the best way to find out what happened, how it happened, "why" it happened (see above), and what could be done to prevent it, is to ask the person involved in the mishap. The review officer can and should ask those very questions. Keep in mind this is NOT an interrogation. It's a friendly conversation with a fellow member who is helping you solve a mystery. If you ask "what the h\*ll were you thinking?!" you certainly won't get much help. If you calmly ask them to tell you about their thought process, and what they might do differently if it happened again, you'll probably get some valuable information. We are working together to learn what might have caused each mishap and how to prevent similar situations. Make sure you're taking the time to ask the person who was there.

**A Drone Correction!:** In last month's Beacon, in an article about operating UAS/Drones, we oversimplified the rules which pertain to UAS operation by stating, "The key in determining which rules apply is how you intend to use your UAS; for fun or as part of a commercial business venture." Sharp-eyed reader Capt Bob Morris, Winston-Salem Composite Squadron correctly pointed out that 14 CFR Part 107 applies to both commercial and non-commercial drone flying. The intent of the article was to encourage a thorough study of the applicable rules governing the intended operation and minimize risk through the use of proper operating procedures.

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# STOP

George Vogt, CAP/SE

This month, I'd like to talk about a couple minor mishaps that were very similar. Luckily no one was hurt, and luckily the damage was very minor, but the opportunities for lessons in risk management are huge.

In each of these cases, the mishap occurred while a very experienced pilot was taxiing an airplane. In both cases, the pilots were taxiing between two rows of hangars. In both cases, there was a prominent yellow taxi line. In both cases the pilots elected, for one reason or another, to deviate from that prominent yellow taxi line. In both cases their forward progress came to a stop as a wingtip hit a hangar.

In the mishap photo to the right, the pilot was taxiing his aircraft between the two rows of hangars. He wanted to turn the aircraft around to go back to a particular hangar so he could load some equipment on the aircraft. He began to maneuver to the left of the yellow line to get some "turning room" to reverse direction. While maneuvering to the left he saw some CAP members to the right, so he maneuvered slightly further to the left to make sure he had sufficient spacing on the members until ... crunch. The aircraft came to a stop. The wingtip impacted the hangar on the left while the pilot was looking to the right.



Check out the minor mishap on the next page. It also involved two rows of hangars, a yellow line, and maneuvering an airplane.





In the mishap photo to the left, the pilot was returning from a check ride with his check pilot in the right seat. He wanted to maneuver the airplane so they wouldn't have to push it as far into the hangar. He began to maneuver to the right of the yellow line to get some "turning room" so he could turn to the left and situate the airplane with its tail pointed towards the open hangar on the right. Perhaps distracted by something, he maneuvered to the right until ... crunch. The aircraft came to a stop as the right wingtip impacted the hangar.

The circumstances were slightly different, and each had different contributing factors, but one thing stands out to me about both mishaps. Neither of them took the time to perform a little risk management.

In the case of the "turn-around" picture on the previous page, the pilot was maneuvering his aircraft in a confined space. He had wing walkers available (remember the other members he was trying to avoid) and elected not to use them. He continued to maneuver left without checking his clearance. If he had stopped to consider the hazards, and consider the risks they presented, and consider how to control those risks, then one option probably would have stood out. He had the option to stop, shutdown, and almost completely mitigate the risk by enlisting the help of the other members to turn the aircraft around. What a great risk management lesson and team building opportunity that would have been for the group.

In the case of the "maneuvering to park" picture on this page, we have a couple other issues. This maneuver might be something this pilot and others did on a regular basis. They got so used to deviating from the yellow line to maneuver to park, that they were no longer alert to the risks it could bring. For some reason the check pilot wasn't paying close attention. That's also a concern. Regardless of the contributing factors this one could also have most assuredly been prevented through some very quick risk management. Stop the airplane, discuss the risk of the maneuver, and determine if you can adequately minimize that risk by having both pilots carefully watch. If you determine the level of risk is still not acceptable, you can stop the aircraft on the yellow line, in front of your hangar, and push it the extra twenty feet.

**If you're a creature of habit, you need to make risk management a habit.**

# A “Common Sense” Approach to Safety?

Col Robert Castle, CAP/SEA

How many times have we heard of a minor mishap and said (or thought to ourselves), “That never would have happened if the person had just used common sense.” I’ll admit that I used to...frequently!

After working in the safety department where I work, as well as CAP Safety for the past several years, I’ve come to realize that it’s an unfair comment to make.

Depending on where you look, you can find varying definitions of “common sense.” The Merriam-Webster online dictionary defines common sense as, “sound and prudent judgment based on a simple perception of the situation or facts.”

Pretty simple, right?

Unfortunately, it is difficult to find a lot of common ground within our CAP member base. Our members come from all different walks of life, with greatly varying levels of knowledge and experience. What may be a routine experience for one member might be the first exposure for another. I’m not just talking about aviation experiences either. It can be something as simple as using an X-Acto-type knife for an Aerospace Education activity. We tend to take it for granted that everybody has used one before. *Common Sense* tells us that they’re really pointy and really sharp and we must use caution lest we cut our finger. Yet, we continue to see cases of cadets cutting their fingers.

Does your pre-activity safety briefing cover the use of the cutting tools being used? How about the use of hot glue guns? *Common Sense* tells us that if the tip of the gun is hot enough to melt the glue, it’s hot enough to burn fingers. It also takes a few seconds for the melted glue to cool enough to touch. So, if our members are cutting and burning their fingers, does that mean they lack *Common Sense*?

Perhaps what they lack is the training and experience to get them through the high risk, first few times of using these kinds of tools to develop their own *Common Sense*.

So, next time you chalk up a mishap to *lack of Common Sense*, try to catch yourself and take a closer look at the factors leading up to the mishap. Did we do everything we could as leaders and safety officers to teach the member how to do a task while minimizing the risk?

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## ***My Thoughts?***

George Vogt, CAP/SE

Col Castle has done a great job of discussing one of my favorite topics; the myth of “common sense” as a good approach to safety. When our members don’t have a “common” experience base, we have one option to get them on a “common” page; that is risk management.

Common Sense? I like the definition I found in Wikipedia long ago: “The knowledge and experience which most people have, or which the person using the term believes they should have.”

The term “common sense” is the approach of the second-guesser and the Monday morning quarterback. It has no place in a safety program.

If “use your common sense” is part of a pre-activity risk briefing, we have given up on risk management.

When we are foolish enough to look at a mishap and say it happened because a member “didn’t use common sense” we have stopped looking for what really caused it.

Your thoughts? [safety@capnhq.gov](mailto:safety@capnhq.gov)

# Hobby Knives and Glue Guns - Ouch!

*Some help with those pre-activity briefings*

**Let “Google” be your guide?**

A lot of Aerospace Education activities and other craft activities use hobby or utility knives, and hot glue guns, and both can lead to injuries if not used with care. The knives (X-Acto is a common brand) can lead to cuts and the glue guns can burn.

Just like any other activity, there is a requirement to give a pre-activity risk safety briefing before these activities and if you are using these tools you need to brief the members (especially cadets) on the risks involved and the proper techniques for safely using the tools.

No one is expected to be an expert on how to properly use every tool out there, and we don't want to give the impression that every activity needs a senior member or a safety officer to do an elaborate hazard analysis and risk assessment of everything that can possibly go wrong with a knife or a glue gun (or any other tool). So what should we do?

The internet is an outstanding source for information from reputable sources on the best way to deal with the hazards and risks associated with all of the tools we use. If you are performing common tasks with common tools, you can surf the web to find a summary of hazards and risks and mitigations for those tools. You still have to take a little time to see if there are any risks unique to your specific project, but let the internet be your friend!

When it comes to utility knives, a simple Google search for “x-acto knife safety” leads you to many *reputable* academic sources of information. Here's a nice printable guide produced by Carnegie Mellon University: [Guidelines For Exacto Knife Use](#)

Glue guns are another common tool for a lot of craft work and some of our Aerospace Education projects and STEM kits. Like any other tool it can bring risks, but like any other tool we can find some good reputable guidance on-line. A quick Google search for “glue gun safety” offers lots of resources. This link is to a nice one page sheet on glue gun safety produced by the University of California: [Hot Glue Gun Safety](#)

There are a lot of things we do in Civil Air Patrol that are unique, and many of our missions and activities require a targeted risk assessment. However when we are using common tools, and want to make sure our members have a common understanding of risks involved and how to reduce those risks, we can turn to the web for help from reputable sources.

**Any tips you'd like to share?**

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