



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.

February 2016

A Time for Introspection

George Vogt, CAP/SE

The Civil Air Patrol has recently experienced loss of lives and loss of aircraft. We are working diligently with the NTSB to learn all we can learn about these tragic mishaps. Can we make changes or improvements that will help prevent such losses in the future? Time will tell what recommendations come down.

But each one of us can make a change right now. We can strengthen our resolve. We can sharpen our focus. We can dig a little deeper and work a little harder to make *every* aspect of our operations and our daily lives just a little bit safer.

This means Commanders and Safety Officers can't rest until they know everything there is to know about every mishap they look at. Lessons must be shared. Every member should personally commit to practicing risk management in *everything* they do in CAP and *everything* they do in their personal lives. The tools are there. Commit to the idea that "Nobody Gets Hurt."

I told a friend today that I wondered if we had done enough. She said a better question is whether you did all you could do. Each of us must ask ourselves that question as we ponder the past, forecast the future, and pursue the present. Are we doing everything we can do to keep each other safe?

We have experienced tragedy. Let the result of our loss be the awakening of our commitment. Let us honor our lost members.

What's in This Issue?

- Another look at monthly Safety Education and what you can do to increase unit participation. We've got a great guest article from a prominent CAP member.
- We've got a quick review of what prospective cadets can, and can't, do during those important first three meetings.
- How do we incorporate risk management in our daily lives? We've got a quick example.
- We offer an academic look at why "zero mishaps" may not be the best goal for an organization like ours.
- Some short topics to update you and provide some useful information for squadron safety meetings!
- We've got our usual summary of recently closed mishaps. Make sure you're discussing the lessons learned from these. What would you have done differently?

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Monthly Safety Education

Again??

George Vogt, CAP/SE

We're still getting a few questions about the requirement for monthly safety education so, yes, we're going to mention it again. In short, **every** member is required by 62-1 to receive safety education once in every calendar month.

I look at our rates of participation, and I let our National Commander know how we're doing. In the future, commanders at *all* levels will be able to look at their Commander Dashboard to see how well their unit, and their subordinate units, are doing on the requirement for the current month and for the last few months. This will give them the real time ability to recognize trends and provide reminders or help where needed.

I had the opportunity to talk about safety education with Maj Gen Vazquez when he was at NHQ last week. His biggest emphasis point was that he wants each member to have the opportunity to get monthly safety education in a face-to-face, squadron-based briefing with a chance to discuss and interact. That is where the most learning occurs about safety but, remember there are other ways to get safety education if you can't attend the meeting.

If you are going to monthly safety education briefings, make sure you sign in! That's the only way your commander can keep track of the attendance at, and the effectiveness of, the safety briefings.

Some squadron commanders have told me that it is hard to get people to attend the safety briefings. Now that there isn't a "currency" they find it hard to enforce the monthly safety education requirement.

Well, a while back I read a short piece written by one of our own CAP members, Lt Col Darin Ninness. "Nin," along with holding various positions at the squadron and wing level, is the National Recruiting and Retention Manager and a former squadron commander. I'll let you read his words on how he approached safety and safety education when he was a squadron commander. It is a good example to follow. Thanks for allowing me to share this, Nin!

"So here's what I did..."

Lt Col Darin Ninness, CAP

OK, great.

So here's what I did (as a commander) even before "Safety Currency" was a thing:

I had a safety officer (technically still do) who was probably one of the most engaging safety officers I've ever dealt with. He was really good and brought a lot to the table (he's a nurse-practitioner in an industrial health practice situation) ... he sees guys with nails thru their hands, abrasions and injuries from falls, boots to the head, stuff like that, day in and day out (IOW, he's seen all the good stuff!). And, he gave great safety briefings on a monthly basis.

He complained to me that when it was safety briefing time, the "audience" for the brief dwindled each night. The cadet staff would use that time to "do something else," the senior staff would be off "doing senior staff stuff," etc, and it was pretty disappointing (to him) that more and more people were finding ways to "ditch" the safety briefing that was "required."

So I immediately put the word out "On safety briefing nights, EVERYBODY will be in the safety briefing. No exceptions."

Of course, people tried.

"What are you doing? Why aren't you in the safety briefing?"

"Oh, I have to score these tests."

"No, you need to be in the safety briefing."

"But... the deputy commander for cadets told me I have to..."

"Score the tests later. Briefing now. Come with me."

As the commander, I worked with my deputies so that they understood "There is no reason apart from an imminent death, preferably their own, for someone to miss the safety briefing if they are at the meeting."

And then I set the standard: I was at every safety briefing. "If the commander is there, you'd better be there."

I'd note who wasn't there and find them after with the respective deputy commander:

"Why weren't you at the safety briefing?"

"Well, I uh, I had stuff I was doing in the office."

"I had stuff to do, too, but I took the time to go to the safety briefing. Do you know that the unit policy is that everybody goes to the safety briefing? You know that it's my intent that everybody goes to the safety briefing?"

"Yeah, but, I, uh..."

"So you know the unit policy, MY policy, on safety briefings, and you know that it's necessary, but you decided on your own that the old man's instructions and his intent aren't good enough?"

Usually it didn't take but 1-2 of these conversations to impress upon everybody, "The old man is serious about everybody being in the briefing." Then you had people running around rounding up people and you'd hear, "You better get to the safety briefing!"

The deputy commanders didn't like having to take time out of their busy schedules to spend 10-15 minutes dealing with their people who thought they were exempt. And pretty quickly, the safety briefing was **the** place to be.

"You better get to the safety briefing!"

PROSPECTIVE CADETS

May they participate?

It is an exciting time when a prospective new cadet comes to their first squadron meeting. They are anxious to be part of the group, possibly joining their friends from school in some fun new activities. The squadron members are thrilled to show this new young cadet all the excitement and challenges that the future holds. There are, however, some very important limits to that early participation. A couple recent minor injuries highlight the need for review.

According to CAPR 39-2, prospective cadets are required to attend three meetings before they can be accepted as members. There are some limits to what they can do during those first three meetings; we want them to participate and get a good feel for what it is like to be a cadet, but we also have to look out for the safety of these young “visitors.”

In short, cadets can participate in benign, not physically rigorous, activities. Classroom activities, a little drill and ceremonies, or simple orienteering are all fine. Rigorous sports or joining in PT testing are a no-no. The benefits of exposing prospective members to those activities are not worth the risk of injury. Refer to CAPR 39-2, para 2-2.h. for further guidance. In ALL cases, make sure the prospective cadet takes part in the *pre-activity risk safety briefing*, and ask them if they have any illnesses or pre-existing conditions that might be aggravated by the planned activity.

Everyday Risk Management

George Vogt, CAP/SE

As much as we preach about the importance of risk management, do you ever wonder if we really practice what we preach? Darn right we do. But what about those complicated steps of identifying hazards, assessing risks, implementing mitigations, monitoring, re-assessing, blah, blah, blah. Yup, we actually do all of those. But, *there are shortcuts*.

Thunderstorms and heavy rains moved through the south early this morning. Rain was falling. Roads were wet. Visibility was limited. It was time to head to work. My first thought was to eliminate ALL risk by staying home. Oh well. Nice idea.

Here’s the thought process I went through and it took less time than it’s taking me to type this...

Rain and wet roads are a hazard. There’s a risk of hydroplaning and stopping distance increases. I better mitigate that by slowing down and increase the distance behind the car in front of me. There are crazy drivers out there and there’s a risk they’ll make a mistake in these conditions. I’ll assume they’re going to make a mistake and stay out of their blind spot. The traffic will be slower and I don’t want to rush, so I’ll leave a little early. Done. Was that so hard?

The next step was the quick little pre-activity safety briefing I gave myself (don’t laugh). I thought about the hazards, and told myself my “mission” was to drive to work, *without getting hurt*. Simply saying “*without getting hurt*” before you start something will keep safety in your conscious mind. You will stay aware of the hazards you identified, and the others that are lurking.

This works for whatever you choose to do. About to run the mile for your CPFT? Your goal should be to run it as fast as you can ... *without getting hurt*. Your goal is to complete that obstacle course as fast as you can ... *without getting hurt*. Your goal is to fly your first solo in a glider ... *without getting hurt*.

At your next squadron PT session, I want every cadet to give this a try. Let us know if it worked for you! safety@capnhq.gov

Is Safety Really a “Quest for Zero?”

George Vogt, CAP/SE

Anyone who has been around “safety” for a while has heard the catch phrases that come and go. Phrases like “all mishaps are preventable” and “our goal is Zero Mishaps” sound good, but there are dangers when average human beings like you and I are judged against those standards.

When a goal like “zero mishaps” becomes the emphasis of a corporation’s safety program, or even a key performance indicator that supposedly tells us whether our safety program is a success or failure, we end up measuring the wrong things. Let’s pretend our goal was “zero accidents.” If we have one accident, does that mean our program is a failure and we are unsafe? If we have zero accidents, does that mean we are “safe” in the way we pursue our missions? It is important to remember that the absence of one thing does not necessarily indicate the presence of another ... just because we have zero accidents doesn’t mean we are “safe.”

So what do we measure to make sure we *are* safe? We measure our efforts and we measure our compliance with processes and programs that we know will increase our safety awareness and our aversion to hazards and risk. Let’s explore that in more depth.

The Civil Air Patrol Safety Program is based on the process of risk management, and the science and philosophy behind risk management. Risk Management begins with an awareness that there are hazards out there. Those hazards pose a risk while we pursue our missions or our everyday lives. We understand that risk is present, and we do our best to mitigate that risk to an acceptable level. By accepting that risk is always present, we are accepting that mishaps can and do occur. To minimize those mishaps, we purposefully and constantly assess the hazards. We decide how to mitigate the risk, and we put controls in place. We review how well those controls worked, while we assess the new hazards we discovered in our mishaps and mistakes. We review, we change, we update, we improve, we educate, we adjust while we go, and when we’re done we do it all again. It’s a loop. A process. It never ends.

This “never ending process” idea flies in the face of some older traditional approaches to safety. People used to think that a yellow line, or an orange vest, or a guard on a saw blade, or a new checklist item would solve the problem, but there was always *something* new that would come up.

That is because Safety is what is known as a “Wicked Problem.” That doesn’t mean it’s “evil.” “Wicked” in this context means impossible to completely solve. The variables are constantly shifting. The requirements, the environment, the resources, the people, the goals are constantly changing, creating a constantly evolving complex system of interdependent components. Problems like this can’t be solved with the mathematical approach of Galileo, or the “everything is predictable” Newtonian thinking. (note: I’ve even heard safety discussed in the context of Aristotle’s *Nicomachean Ethics* but I won’t bore you with that). I agree with the experts who say modern Quantum thinking is the best approach to Safety’s “wicked problem.” They recognize that change is a constant, and a process must constantly analyze all the variables and the inter-related events to arrive at the best solution for the current situation. That process, for us, is Risk Management.

Perhaps I got carried away with that academic explanation of the difficulty of “solving” safety. However, it does point out that variables change, no two situations are alike, risk is always present, and the Risk Management loop has to be continuous to minimize mishaps. If we nod our heads and accept that the safety problem is hard to solve, and we accept that risk exists and risk can cause mishaps, then a goal of “zero” becomes something we can “strive for” but we may never reach.

There is also a danger of an organizational saying its goal is “zero reported mishaps.” The danger is that you will get what you ask for. If our success is judged based on a low number of reported mishaps, then mishaps won’t be reported. In recent years we have preached the importance of reporting every mishap, but then we awarded a prize to the wing with the fewest reported mishaps. A contradiction.

“Zero mishap” goals, when they were most prevalent in the last century, actually drove reporting underground. When I was doing graduate work at Embry-Riddle, a professor told a story of when he was a

safety officer at a manufacturing plant. He had a suture kit in his desk and would mend employee lacerations himself because injuries resulting in time away from work would affect employee bonuses. OSHA has come out against programs that offer bonuses, or prizes, or awards based on lowest reporting rates or zero-reporting goals. In fact, programs that reward someone for not being injured or otherwise encourage employees to not report mishaps are illegal [29 CFR 1904.36(11)(c)].

Truly measuring the success of a safety program can't be done by measuring the absence of something. The absence of accidents doesn't mean the presence of safety. Rather than chasing a number, we need to actively pursue efforts to teach members about risk management and the avoidance of mishaps, and we should find a way to measure those efforts. We need to measure our initiatives to lessen risk. We need to look at the good practices and lessons learned from our mishap reviews. We applaud the good practices and get rid of the bad practices. We find a mechanism for sharing mishap lessons nationwide. We improve our training and measure how many people are engaged in it. We develop programs that affirmatively teach people what they *should* do to keep themselves safe rather than just warn them what *not* to do. *Those* are worthwhile corporate goals.

Another component of safety that recognizes the presence of risk and the inevitability of mishaps is Resiliency Training. We know that properly employed risk management can reduce risk to an acceptable level and thereby reduce the number of mishaps, but mishaps will occur. Resiliency is the art and practice of recovering from those mishaps, learning from them, and continuing with our lives and our missions. We have back-up servers in case of computer failures. We have backup generators in case of power failures. We have insurance in case of loss or injury. Likewise, we need to have programs to help our members cope with and recover from injury and trauma to their souls, bodies, and minds (keep an eye out for upcoming information on enhanced Resiliency training in CAP).

Dr. Karl Weick, Distinguished Professor of Organizational Behavior and Psychology at University of Michigan, summarizes his approach to safety in his book *Managing the Unexpected*: "Nowhere ... will you find any mention of perfection, zero errors, flawless performance, or infallible humans. That's because human fallibility is like gravity, weather, and terrain, just another foreseeable hazard. Error is pervasive. The unexpected is pervasive. By now that message should be clear. *What is not pervasive are well-developed skills to detect and contain these errors at their early stages.*" The goal of CAP Safety is to help our members develop *those* skills

Finally, let me address something that a few of you have asked about. Recently, the Air Force introduced a ground safety initiative called "Quest for Zero." It will highlight common mishap causes so Airmen can increase their awareness of risks. I occasionally correspond with ACC Chief of Safety, Colonel Larry Nixon. He emphasized that this is a *program of awareness and encouragement* to use the principles of risk management. As he wrote in an e-mail, it is a "campaign to highlight the *quest* to reach zero mishaps as an ideal goal. It is not intended to be the metric for a pass/fail examination of mishap occurrences at any level." Speaking to him on the phone I wondered aloud if "zero" was an unfortunate choice of words, and while he didn't go so far as to agree, I thought I heard a head nod.

Yes, we would all love it if there were no mishaps. We strive to make our activities and workplaces as safe as possible so we can keep our mishap rates as low as possible. That's why CAP has adopted the safety goal of "nobody gets hurt." ([CAP/CC Safety Policy Letter](#)) Our desire to keep each other safe, to protect our cadets, to maintain our airplanes to the highest standard, to inspect our meeting facilities ... all of those are done to ensure "nobody gets hurt." How do we do that? By realizing that there is a new hazard around every corner, there is a new member that needs to be trained, there is someone learning a new skill, the weather is changing, and a cadet is preparing for their first ever flight. The list goes on. Mishap prevention is a wicked problem with no final answer; the only answer is to continually attack it through an on-going repeating process. That process is risk management.

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SAFETY SHORTS

George Vogt, CAP/SE

Distracted Drivers

According to the U.S. Government's official website for distracted driving 3,154 people were killed in 2013 because of distracted driving. 10% of the drivers involved in distracted driving fatalities were below the age of 20 ... the largest proportion of distracted drivers. I ask all our senior members and all our cadets to take heed, and personally commit to stopping distracted driving. Check out the website for a lot of information, and videos, that can help fight distracted driving: distraction.gov . Talk about it at your meetings. Have the cadets take the Pledge available on the web site. Take the challenge to give up you phones while driving ... put them in your glove compartment and don't give them a second thought unless the car is stopped. Try this for three weeks and it will become a habit. For all you cadets reading this, challenge your senior members, and call them out on it if you see them talking or texting while driving! **Make this a regular topic at your safety meetings** ... ask for weekly updates on how people are doing with the challenge.

"Run, Hide, Fight"

There have been far too many days when the evening news tells us of another shooting event; another active shooter in a school, a theater, a workplace. Do you know what you would do if faced with an active shooter situation? I'm not an expert in this; few of us are. In that case *we can turn to the experts to learn*. Here is a video produced by the Houston Office of Public Safety and Homeland Security, under a grant from the Dept of Homeland Security, and it is available on the FBI website: [FBI Run Hide Fight](#) . The same video is also available on youtube for those who find it easier to download: [Youtube run hide fight](#)

Share this video at a squadron meeting. Discuss how you might react if this happened to you.

New CAPR 217 - Safety Specialty Track

An updated CAPR 217 is on the CAP website ([CAPP 217](#)). Most of the changes are meant to make the requirements easier to understand, and in some cases easier to complete. It also highlights the need to document your completion of the requirements as you go so completion can be verified when it's time to award your new rating. One change is the requirement to complete National Safety Officer College or one of the listed equivalencies in order to achieve the Master level. Another change is the requirement to enter a "test" mishap in the SMS in order to achieve the Technician level. PLEASE, only enter a test if you are with a safety officer or your mentor, and ONLY enter test mishaps as part of your Specialty Track training. In the near future we hope to have a "simulator" so members may go into an SMS look-alike and practice entering mishaps, but for now all those tests go into the real mishap management system, so ONLY do them as part of your supervised training.

Common Sense?

“He should have used common sense!” That is one of my least favorite phrases in safety, and unfortunately I hear it way too often. I even see it from review officers and commanders who say the reason a mishap occurred is because the victim didn’t use their “common sense.”

What is common sense? I like the definition provided by Dr. Jim Taylor, Professor of Psychiatry at University of San Francisco in an article he wrote for *Psychology Today*. He defines common sense as “sound judgment based on experience rather than study.” I’ve also heard it defined a little more humorously as “*the knowledge and experience most people have, or which the person using the term believes they should have.*” It’s used primarily by Monday morning quarterbacks.

Dr. Taylor goes on to point out that “common sense is not common.” It assumes a common shared set of experiences. Let’s look at a CAP example. We might have an NCSA with CAP cadets from all over the country. Different surroundings. Country or city. Different upbringing. Different schooling. When they get together and see an obstacle course for the first time, or prepare for their first orientation ride, they don’t have “common sense,” they have common ignorance. They have never even seen, let alone experienced, those things before. WE need to steer them through an understanding of the hazards and the risks they face, and teach them how to keep themselves safe. Risk management must take the place of “common sense.”

Another big problem with using the term “common sense” comes when we’re trying to determine what caused the mishap. If a supervisor attributes the mishap to “lack of common sense” he has stopped the process of reviewing the mishap to find what caused it. He has stopped the learning process. We have basically *blamed* the person for not using common sense. There is no room for blame in mishap reviews, and there is no room for a cliché that stops us from looking at the true mishap causes.

Remember, common sense isn’t common.

“Submitted” for your approval

Last week I talked about looking for all the contributing factors in each mishap. By the time a mishap gets to me to be closed out, it should have a pretty good summary of what contributed to the mishap; what led up to the event that is being reported. Unfortunately, as I’ve often said, most mishaps get up to NHQ for close-out with a description of what happened (cadet fell, tire went flat, van hit pole) with no mention of the actions, the decisions, or the planning that led up to it.

By the time they get to me, they have been looked at by safety officers and commanders, some of whom have put their comments and conclusions. But, the process is not over after the commander hits “submit.” Part of my job is to be the quality control for our mishap reviews, so I also take a look at everything that was written or included in that mishap file to see if I come to the same conclusions. If I don’t think the contributing factors have been properly identified, or the corrective action doesn’t address the causes, or we just don’t have enough information, then I will send it back down to the Wing with questions or direction so we can learn all the lessons that mishap is trying to teach us.

Don’t be alarmed if I send a review back to the wing; it’s part of the process.

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December 2015 Mishap Closeouts

Colonel Robert Castle, CAP/SEA

Bodily Injury - 22 Aircraft – 6 Vehicle - 1

Bodily Injury

As in previous months, physical fitness participation continues to be the number one source of injuries to cadets. Tripping while conducting the mile run continues to be the main hazard with resultant scrapes, bruises and twisted ankles. Fortunately, in all instances reported, the cadets recovered quickly.

Fainting while in formation was reported in three instances. Expect to see an article on some of the causes of fainting in the next Beacon.

Three members suffered cuts to fingers and foreheads. Open those packages of X-acto knives from the non-sharp end!

The remaining bodily injuries were a single instance each of ant bite, nausea, foot blister, ear ache, bruised finger and non-PT trip.

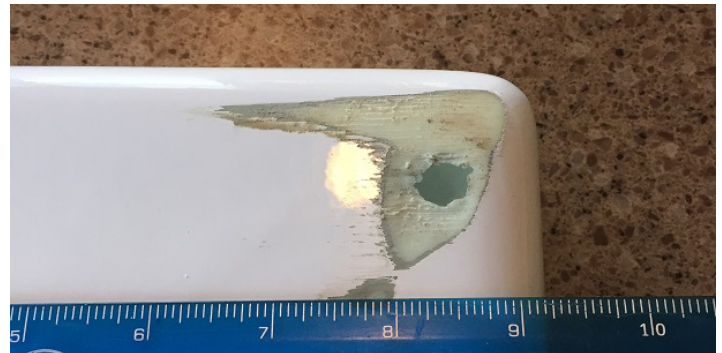
Since we still have several more months of **cold weather** ahead, please review your cold weather safety procedures. This is primarily for units in the northern climes, but remember it can get pretty chilly even in the South! Dress appropriately for the weather – preferably in layers. Layering your outdoor clothing adds comfort by protecting your body from wind, water and moisture, and helps to regulate your temperature during activity.

If going outside, make sure all the members are dressed for the weather. Monitor your time outside and take breaks to allow people to warm up. Ensure adequate supervision for the number of people at the activity and watch for signs of hypothermia – shivering, trouble speaking, fatigue and confusion among others. Staying hydrated is just as important during cold weather and is more easily overlooked since people may not feel thirsty. Stay warm out there!

Aircraft

- On preflight (C-182T) damage was discovered to the underside of the starboard elevator plastic tip on the bottom side towards the outer edges.

- Investigation was unable to determine when and where the damage occurred. Maintenance personnel theorize that contact with the runway during landing or takeoff is a likely cause. (Ed Note: the airplane would have to be 15° nose high and 7° of right bank to scrape the tip of the horizontal stabilizer and not damage any other part of the airplane – think about that attitude over the runway!)



- While in the care of contract maintenance personnel, the aircraft (C-182R) rolled backward into prop of parked aircraft, damaging an aileron.
 - Maintenance personnel failed to chock the aircraft after repositioning the aircraft inside the hangar.
- While on ¼ mile final approach (C-182Q), a white SUV with a flashing yellow roof mount light and “Security” emblazoned on the side drove across the approach end of the runway.
 - The pilot had made appropriate position calls on the correct traffic advisory frequency while approaching the airport and landed safely with no damage. The airport security employee was new to the job and the vehicle is not equipped with a radio. The employee received additional training on driving on the airfield.

- The tail tiedown ring (C-182T) was found damaged during pre-flight. There was also considerable damage done to the tail cone and internal damage.
 - The mishap review determined that the damage occurred during a two week period where six sorties were flown. None of the pilots interviewed recalled a landing that would cause that type of damage and none found the damage during their pre or post-flight inspections.
 - (Editor’s note: What is every pilot, and every unit commander doing to make sure this type of damage does not go unnoticed or unreported? Pre-flight? Post-flight? Call me if you need ideas.)



- 15 minutes into flight (C-182Q), pilot observed oil pressure slowly decreasing and elected to return to the departure airport. Upon landing, gauge showed zero oil pressure. CHT and oil temp never raised nor was there any unusual engine noise, smell or loss of power.
 - Maintenance ran the aircraft and was unable to duplicate the oil pressure problem. They did repair a broken field wire to the alternator. Aircraft returned to service.
- Alternator light illuminated intermittently during flight (C-172P).
 - Maintenance found a failed alternator which they replaced. Aircraft returned to service.

Vehicle

- While driving on an interstate highway, the left front tire of a corporate minivan went flat. A loud sound was heard, followed by a low tire pressure light on the dash. Driver pulled over immediately to check status, and heard a hissing sound from the tire as all remaining air was expended.
 - Repair personnel said they found pieces of the tire inside the tire after it was removed from the rim. They surmised a bead failure of the tire was to blame, since no foreign objects were found to have punctured the tire. Vehicle repaired and returned to service.
