



# On Approach

Avemco<sup>®</sup> Policyholder News

Fall 2022



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# A CHECKLIST FOR YOUR CHECKLIST

Everyone has heard the line about retractable-gear airplane pilots: those who have already landed gear-up and those who will. Similarly, there are two other kinds of pilots: ones who use a checklist for every flight, and ones who will wish they had used one. Come to think of it, some of them might be the gear-up pilots.

There are a few reasons why you might not use a checklist. One is the belief that you know the airplane so well in every phase of flight that you don't need any reminders. If that's you, then nothing written here is going to change your mind. Another possibility is that the checklist you're using seems like too much work or takes too long to wade through. Or maybe it's several pages long and ends up on the cabin floor or crumbled up in a seat pocket. You can add your reason why you left the ground on that last trip and didn't use a checklist before takeoff.

We are not here to instruct how to write a checklist, what form it should take, or whether to put it on an iPad or laminate it. As your insurance company, we like to leave that direction to others. Like Gene Benson, a FAASTeam Lead Representative, human factors expert, CFI with more than 8,000 hours of flight instruction, and a frequent contributor to Avemco's safety articles. Gene has an excellent video series on making effective use of checklists and modifying or creating your own. See them at [genebenson.com](http://genebenson.com).

We can, however, make two strong recommendations:

**#1 - the only useful checklist is the one you use. Make sure your checklist is relevant to you, the airplane(s) you fly, and is user-friendly to refer to in all phases of flight. It should also be readable and compact to be viewed and used in turbulence.**

**#2 - Consistency of use is the most important thing you can accomplish. Just like any other endeavor, consistency is how habits are formed. After a while, you will be so familiar with your checklist that you will memorize parts of it, and the temptation will be to run your checklist from memory. Be careful. It's easy to omit steps this way, so read it, again.**

And consistency means referring to your checklist even when it seems unnecessary to do so. For example, any shut-down checklist will include installing your gust lock. But on a calm day when you're just running into a restaurant for lunch, the gust-lock seems like an overcautious and needless step. Do it anyway. Install it every single time you park the aircraft, if only for a few minutes. Otherwise, you're bound to forget it on a day when it turns out you did need it.

Some checklist items should be run from memory first, like emergency items you don't have time to look up. Emergency scenarios such as fire or smoke in the cockpit, a rough-running engine, or one that has quit altogether, can't wait for you to pull out your checklist and dutifully read off, "Pitch for Best Glide." And looking for the best place to land has nothing to do with reading a checklist. The first crucial steps should happen immediately and automatically. That's why part of your pre-flight should include refreshing your memory of your emergency checklist so it will be in the front of your brain if this turns out to be the flight when you need it. Again, consistency is crucial. Add this step to every pre-flight, regardless of whether it is simply a short hop to take the plane to a mechanic at a nearby airport or a long-distance haul. After the emergency is somewhat under control, you can pull out the written checklist to make sure you do everything else in order: brief your passengers, crack open the cabin door, etc. When an emergency happens, and adrenaline and panic kick in, the chances are overwhelming you're going to forget some crucial items. Make that "plan and prepare" instinct you learned in a youth explorer's camp kick in.

Every aircraft presents different challenges that make a checklist worthwhile. Your checklist can also help you avoid a call to the insurance company.



## WHEN YOUR PREFLIGHT IS INTERRUPTED

By Jason Blair, ATP, CFI-I, MEI-I, FAA Designated Pilot Examiner, AGI

Most of us have a flow we use when we are preflighting. It becomes a habit, and habits are good and bad. The good is that we get used to doing it and it generally means we are less likely to miss things. The bad is that if we get interrupted, those habits tend to leave us out of sequence, and it becomes easier to miss things.

What kinds of things might interrupt our preflight, you might be thinking?

Well, how about the fuel truck showing up to fill the tanks while you are halfway through the inspection. Maybe your passengers arrive with their baggage that you load before finishing your walk around. Or worse, some mean old DPE who distracts you in the middle of that preflight during your practical test. These and numerous other potential occurrences can leave a pilot out of sequence where they might miss something on a preflight inspection.

airplane before a final boarding can be a good way to help maximize the potential of catching these missable inspection moments.

I have seen pilots in numerous instances forget common preflight items. Many of them have happened on practical tests I have given. Towbars and chocks left in place can be easily seen, it would seem, but are all too commonly forgotten. In both cases, once an engine is started or a taxi is begun, they can do significant damage to the aircraft.

Fuel caps not being tightened down can result in fuel starvation and exhaustion accidents if not noticed, or at best, a long search next to a runway to find the cap that went bouncing away as you taxied or started your takeoff. They can also be costly to replace if not found.

Forgetting to latch down that oil dipstick or the filler cap, or leaving (and yes, I have seen this) an oil

### Most Commonly Missed Preflight Items

Fuel caps, chocks, towbars, open oil doors, and open baggage doors tend to be the most missed preflight items. All of these are things a pilot checks for that might get interrupted and missed. Sure, there are lots more, but taking a step back from the

funnel or even bottle in the engine can generate one heck of a mess, quickly. If not caught before departure, they can result in catastrophic engine problems if enough oil leaves the system.

In one memorable moment, I was flying with a student and offered to add a quart of oil for him in the C172 we were going to fly. It was an older 172 that had a separate filler neck and dipstick. I got the dipstick back in place but forgot to put the cap back on the filler neck after adding the quart of oil. The good news was that we had a shorter flight, and we didn't lose enough oil to cause an engine problem. But we certainly lost enough oil to need to add another quart at the end of the flight and I got to clean up the oil that covered the pilot side of the aircraft from the cap being off during the flight. Never trust your instructor, I guess.

A missed opportunity to fully latch or lock a baggage door can end up causing some major problems depending on where the baggage compartment is located. For many light aircraft, a rear baggage door will flap and bang if it is not latched and comes open during flight. You might even lose some baggage. In the case of aircraft with front baggage lockers, not latching them can cause dislodged contents to hit the airframe, the propellers, or engines (more commonly on multi-engine aircraft) and cause damage. The couple of times I have seen this in person resulted in very expensive bills to fix the damage done. If there is a baggage area, make sure it is latched. If the latch locks, do that too. I have seen latches fail.

### When in Doubt, Stop or Return to Base

If you are doubting your preflight or just have that gut feeling you might have missed something – stop! Break the chain of events that could lead to worse outcomes. Even if you must shut down in a runup area and check something, do it. You can also taxi back to your hangar or ramp and check things you think you might have missed. A few minutes to re-check and make sure might seem silly if you find you did everything, but it also might be a very welcome opportunity to not make a problem happen.

I vividly remember the nagging feeling in my gut one night in my Stinson when I honestly couldn't remember if I had latched the cowl back down. It started with flying to a friend's airport for some night currency for him and me plugging in a heater that I put on the oil pan of my Stinson while we were out flying his Seneca. The extension cord was run from the plane to the hangar, and I put some blankets over the cowl. When we returned, I unhooked the magnetic heater, wound up the cord, and shoved the blankets in the back of my plane. But I got sidetracked at some point and forgot to latch down the right cowling. I didn't remember that until I had started up and was doing the run-up. By then I was second-guessing myself.

Did I latch that cowl? I must have, right? I mean, if I hadn't, while I was doing the runup it would have been rattling, right?

Nope.

I should have listened to my gut.

It wasn't until I was about 3 miles away from the airport after taking off that the cowl fluttered up, confirming I hadn't latched it. Did I mention this was in the dark at night? Even better.

Fortunately, the cowl settled down and I made a slow turn back to the airport where I landed, taxied off, and secured my cowl before again taking off and heading home with my tail between my legs.

**Pride was hurt, and there were fortunately only a couple of small bends in a corner of the cowling that my mechanic had to address, but I was reminded personally and vividly that an interrupted preflight can lead to missed items.**

Depending on the make and model of aircraft you are operating, there are lots more things that can be missed. Some aircraft have much more intensive pre-flight inspection needs than others.

If you are preflighting and get interrupted, be sure to come back to your flow. Use a checklist, and if needed, start over. The preflight process is there for a reason, it keeps us from missing something that might cause a danger to flight if not caught. Don't dismiss that potential if you are interrupted.

Jason Blair is an active single- and multi-engine instructor and an FAA Designated Pilot Examiner with over 6,000 hours total time, over 3,000 hours instruction given, and more than 3000 hours in aircraft as a DPE. In his role as Examiner, over 2,000 pilot certificates have been issued. He has worked for and continues to work with multiple aviation associations with a focus on pilot training and testing. His experience as a pilot and instructor spans nearly 20 years and includes over 100 makes and models of aircraft flown. Jason Blair has published works in many aviation publications, a full listing of which can be found at [www.jasonblair.net](http://www.jasonblair.net).

### TRANSITIONS



When **Gayle Palm** walked through **Avemco Insurance Company's** doors in March of 1982, it was an entirely different world.

To start, the price of automobile gasoline was \$1.28 a gallon, a brand-new Cessna Skyhawk P plane was approximately \$34,000<sup>1</sup>, and the average new car or truck to get you to and from your airport cost under \$10,000<sup>2</sup>. What a difference 40 years make!

Gayle has worked in a variety of roles throughout the years, from a supervisor of the binder department and the policy production division to holding a Property & Casualty license since 1997 and working as an aviation insurance underwriter. She also traveled with fellow underwriters to EAA AirVenture, Sun 'n Fun and other aviation shows to represent Avemco.

However, one thing that has not changed in 40 years is the level of service that Gayle has provided to our customers and callers. She embodies the professionalism that Avemco strives to provide.

During retirement, Gayle is looking forward to spending time with her family and friends. She will be missed by employees and customers alike.

<sup>1</sup> [Cessna 172 - Wikipedia](#) and <sup>2</sup> [What was the average cost of cars in 1982? - Answers](#)



# THERE'S NOTHING LIKE A GOOD MYSTERY

I enjoy reading or watching a decent mystery. Unfortunately, I also routinely read aircraft accident reports and find many of them also pose a mystery. Rather than “whodunits”, they are “whatdunits.” They raise the question of what caused an experienced pilot, meeting recent experience requirements, to have an accident. The investigation sometimes reveals that the pilot had a history of risky behavior or a failure to follow the rules and procedures. But, more commonly, that is not the case. The NTSB probable cause finding includes something relating to the pilot’s failure to perform some basic piloting function, but does not explain the reason for the failure. Our “whodunit” then becomes a question of what caused a normally capable pilot to fail to perform some important function.

Perhaps a clue to the elusive “whatdunit” for some of these accidents can be found in the [NTSB report](#) issued March 10, 2020, on drug use among pilots. In short, toxicology tests performed on pilots killed in crashes between 2013 and 2017 showed that 28% had used at least one impairing drug. That was up from 23% for the period between 1990 and 2012. Although some illicit drugs were detected, sedating antihistamines were the most frequently found drug that could impair a pilot’s ability, followed by pain relievers, including opioids.

Looking a bit beyond the NTSB’s study on drug use, we must remember that a toxicology report is only done on a pilot who died in a crash. Even when there are fatalities involved in an accident, a surviving pilot is not tested. What would the statistics show if all pilots involved in an accident or incident received toxicology testing? I am not proposing testing those pilots; I am merely wondering what percentage of those pilots would be found to have an impairing substance in their blood.

And the plot thickens a bit when we add over the counter, (OTC) supplements to our list of “whatdunits.” Many supplements are widely available and are regulated less strictly by the FDA. For example, Melatonin, St. John’s Wort, DHEA, Ephedra, and Valerian are frequently sold without FDA labeling that would require dosing and side effect information. A check of the websites for the National Institutes of Health, particularly the National Center for Complementary and Integrative Health, and other trusted sources lists some possible undesirable side effects of these supplements, particularly when taken along with some common prescription medications. It is good practice to check with a doctor or pharmacist regarding all our medications and supplements.

We know that any level of impairment, regardless of the cause of the impairment, lowers our capabilities thereby decreasing the margin of safety.<sup>1</sup>

With no intent to criticize a pilot, assign blame, or to second guess the NTSB, it is often useful to analyze an accident to learn from an unfortunate event. In that spirit, an accident that occurred in Texas is worthy of discussion. The pilot died in the crash of his Piper PA28-140. The investigation determined that the engine was not developing power at the time of impact. An examination of the airplane and engine did not reveal any anomalies that would have prevented normal operation. Though about four gallons of fuel was found in the right fuel tank, the fuel selector was found in the OFF position. The [NTSB report](#) states, “Based on the evidence, it is likely the engine lost power due to fuel starvation, which resulted from the pilot shutting off the fuel supply to the engine.” The NTSB probable cause finding states, “The pilot’s mismanagement of the fuel supply to the engine, which resulted in fuel starvation.”



Photo courtesy of NTSB and Gene Benson files

What causes a pilot to mismanage their fuel supply, as in the case of the National Transportation Safety Board's Aviation Accident Final Report for # CEN16FA001? That [NTSB report](#) states, "A low therapeutic level of diphenhydramine, a sedating common over-the-counter antihistamine used to treat the common cold and hay fever, was detected in the pilot's heart and urine; however, it could not be determined whether the pilot was impaired by the effects of the drug at the time of the accident." As we try to dig deeper into the causes of accidents, the presence of diphenhydramine raises a flag. After the final report was completed for this accident, the NTSB issued a warning about the long-term effects of that drug. The recommendation called for no flying until at least 60 hours after the last dose of diphenhydramine. (The guidance is a bit more complex than that, but the simple interpretation works out to be 60 hours.) We cannot be sure, but we must consider the possibility that the diphenhydramine lowered the pilot's capability sufficiently to cause or at least contribute to the error. What is diphenhydramine? It is the main ingredient in Benadryl®, ZzzQuil®, and other OTC medications.

I believe that most pilots are responsible when it comes to drug and alcohol use. It is possible

that the upward trend in drug use among pilots is a result of "accidental impairment." Taking an OTC medication such as a sleep aid, an allergy treatment, or a supplement is not uncommon. We need to make ourselves aware of what might lower our capabilities so that we can make smart decisions about when to fly and when to stay earthbound.

Gene Benson has had a lifetime of aviation experience. He has lived and breathed aviation from his first official flying lesson at the age of 14, to his first solo on his sixteenth birthday, to his 8,000 hours of flight instruction given. He has served as the Dean of Aeronautics for an aviation college, as an instructor for a major domestic airline, consultant to several foreign and domestic airlines, and to business aviation. His academic background includes degrees in psychology, education, and business. His specialty now is the application of human factors to error reduction and safety in aviation and other industries. He is presently a FAASTeam Lead Representative and has recently served as a member of the NBAA Safety Committee. View Gene's work at [genebenson.com](#).

1 Task Load vs. Capabilities for Pilots on [YouTube](#)

#### Additional Sources:

[St. John's Wort on NIH](#)

[Melatonin reference on NIH](#)

[DHEA](#)

[Valerian reference from NIH](#)

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# *IT'S TIME TO PLAY NAME THAT CLAIM!*



With over 60 years of aviation insurance claims experience, we've seen our fair share of the good, the bad and the ugly! Not to mention, downright mind-boggling!

We invite you to take a guess at what caused the damage pictured in this claim photo.\*

[Submit Your Guess](#)

We'll be revealing the answer in the Winter 2023 edition of our On Approach Newsletter!

\*Source: Avemco Insurance Company claims data, 2014



**Readback is your chance to tell us what you think about everything we have to say and do - including our PIREPs, articles, emails and previous issues of the *On Approach* newsletter. Content has been or may be edited for length and style before publication.**

**RESPONSES TO “WHAT I LEARNED ABOUT MOUNTAIN FLYING BY NOT FLYING IN THE MOUNTAINS”**

Avemco is to be applauded for sharing such excellent training. Your PIREP is always on my “read and learn” list. Keep it up !!

**--William Ludwig**

**N4736M**

The mountain flying PIREP was great. The author was smart to take some training before heading into the high country. CPA does have a good reputation with their mountain flying course and certainly has the necessary environment.

New Mexico Pilots Association also offers a mountain flying clinic every September. It also has a good reputation. In fact, Jeff Skiles, First Officer on “Miracle on the Hudson”, took the classroom portion only, a few years ago. He was so impressed he wrote an article about it in ‘Sport Aviation’.

He said it was some of the best training he had ever received.

Personally, I have taken the course 3 times and learned something new each time.

NMPA has taken it a step further, and now offers a Backcountry Clinic and a STOL Clinic separately.

**--Ron Keller**

NMPA Backcountry Co-Chair

This was a great read. I have been flying in the Colorado Mountains for 7 years now. I study weather, winds, and mountain accidents along with reading several books on mountain flying. The CPR mountain flying course sounds like a great idea for me next.

**--Joe Dowdy**

A great article and Gut Check.....especially for a flat lander. I learned first hand from local FBO’s in the Rockies how deadly flying the Mountains can be. Training...Training and More Training with Experts Is the only way to go and then it’s up to the PIC to cover the Bases.

Brings to mind “Failure to Prepare IS Preparing to Fail” ( Mr. John Woodson, a great Basket Ball Player and Coach said that!) How True it is.....

**--Edward Hasch**

CSMEL-I, CFI GI A&P,IA DAR-T

I live in Oregon and Arizona and have flown In mountainous terrain for over thirty-five (35) years. All of these years insured by AVEMCO. This article is truthful but only meaningful when you have actually flown in the mountains and experienced the circumstances outlined. It can be very dangerous but with forethought very enjoyable.

**--Peter Troccoli**

I participated in a Mountain Flying Course some years ago in Grand Junction. We did the Ground School and then flew the routes and the airports. It was an excellent course and much like the one the author discusses. We have since flown many hours in the mountains in the U.S. and Canada over the years. Perhaps one of the most important lessons was really understanding what your airplane can and can not do. And importantly how to make sure you avoid the “can not do.” A valuable lesson for the mountains and everywhere.

**--Paul**

I was impressed with this pirep article and fully agree that all pilots need some mountain flying training before flying in the high country; especially if you are basically a flatland pilot.

**--Don Plooster**

# COMING TO A HANGAR NEAR YOU!

The most fun we have all year is meeting you in person and strengthening our ties within the aviation community.

Avemco will be exhibiting at the following aviation tradeshows and more in 2022:

## NOVEMBER 4-5

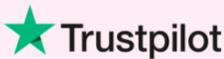
AOPA Fly In - The Hangout  
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FALL 2022

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NSL0047 (08/22)

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