

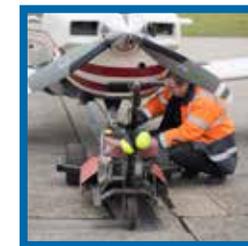
On Approach

Avemco® Policyholder News

Fall 2018



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ALL RUNWAYS ARE THE SAME (SORT OF)

By Gary Reeves, ATP, Master CFI, CFII, MEI

Training with a student recently, I came across a very common misconception. He was having trouble with landings at a different airport and said, “I hate this airport, the runways are different...”

How hard is it to park a car in a different lot, with spaces that face a different direction than your normal office lot? It's not! You still have to put the car in the middle and pointed straight!

How hard is it to land at a different airport with runways that face a different direction or are a different size than your home airport? It's not! All runways are the same as far as landing technique and the visual approach never changes!

For every runway the following is true:

- ✓ You need to land centered.
- ✓ You need to land with the nose lined up with the direction of the runway (...no Ercoupe comments, please...).
- ✓ You need to maintain the same stabilized airspeeds.
- ✓ You need to maintain your height by looking at the runway numbers or touchdown zone on final. If the numbers move up in your windshield, you are low, if they move down, you are high, if they just get bigger, you are on a stable glidepath.

Here's where people tend to get into trouble. A different runway width, direction or different airport can cause people to stop focusing on the four basics listed above. There's a very popular airport at Catalina Island on top of a small mountain (KAVX) where the runway is bent in the middle (elevation change) and with cliffs on three sides. Every day, I hear how hard it is to land at Catalina.

I've never found it any harder than any other runway. I have to use the exact same airspeeds, configuration, power setting, and crosswind corrections I do on any runway and I focus my vision on the exact same touchdown point.

Yes, there are slight differences in the touchdown and braking on short and soft runways, but the overall concept is always going to stay constant. It's only when you focus on how things around the airport look different and stop flying the basics that it becomes “hard”.

Gary Reeves is an ATP, Master CFI, CFII, and MEI. A well-known national speaker, he has over 6,900 hours and was the 2016 FAA Instructor of the Year for the WP Region. Gary is also the Avidyne National Training Provider and offers 3-4-day programs teaching Avidyne and Garmin Avionics in IFR. He is the Chief Safety Pilot for PilotSafety.org. Contact him at MasterFlightTraining.com or PilotSafety.org.



TUGS AND TOWBARS – OPTIONS AND RISKS

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

Being able to get your aircraft out of the hangar, and hopefully, back into it after you fly can be a challenge without the right equipment. Typically, the bigger the aircraft you operate, the more power it is going to take to get it in and out of a hangar. A hand towbar may be great for the owner of a Cessna 152 in a T-hangar, but it probably isn't going to do the trick for an owner of a Piper Aerostar, especially on an icy ramp.

HUMAN POWERED TOW BARS

That hand towbar tucked away in the back or nose baggage area may be ok in a pinch, but it may not do the trick most of the time easily or safely. When considering what is going to work best, think about your physical capabilities. Your ability may be jeopardized as you get older, encounter injuries, or are just operating an airplane solo one day. Many light GA aircraft are easily moved by a simple hand towbar. This method is probably the safest when it comes to avoiding damage. It's difficult to pull hard enough to do much damage on a hangar door or overturn a nose wheel. But it is also the most physically demanding option. If you are planning on pulling your aircraft in and out of the hangar by hand, make sure you can manage the process in all conditions, not just on the best of days or once in a while at the maximum expenditure of your strength. If that isn't the case, it's probably time to start considering something that has a little horsepower of its own to help.



POWERED HAND TUGS

One of the most common upgrades is a gas or electric powered hand tug. These are a bigger version of hand towbars, typically with an engine that is either gas or electrically powered. They come in two wheeled, or single wheeled options. They add a wheel driven by a motor that serves as a method to get the aircraft moving. It takes the hard work off the pilot, and just requires that they steer the tug to keep the aircraft moving.

The two major differences in these towbar styled motor-powered tugs are ones that attach to a nose or tail wheel, and ones that have a pad that lifts the main wheel. Towbars that attach to the wheel work in many cases, but heavier aircraft may slip in wet or icy ramp conditions. Towbars that have the wheel roll onto a pad and then move, allow the weight of the aircraft itself to push down on the tug wheels and increase the traction that the tug will be able to maintain as the aircraft is moved.

If the aircraft is supposed to be towed by the tabs above the nose wheel, don't tow it using a tire attach point and vice versa. Using something that doesn't fit right may result in a towbar slipping off and causing damage to the gear, cowling, or other parts of the aircraft.

When considering these motor-powered hand tugs, evaluate the weight of the aircraft using the maximum gross weight and determine if the horsepower of the tug will be sufficient. If you have the option, try it a couple times.

These tugs still require some physical ability by the pilot to hook them up, walk with them as the airplane moves, and turn the main wheel. If you think this is going to be beyond your physical abilities, a riding type of tug may be required.

LAWN TRACTORS WITH A TOWBAR

I am personally a big fan of small lawn tractors for mid-sized aircraft. Planes such as the Piper Navajo or the Cessna 400 series are great examples of planes that are pretty darn heavy to move by hand, even with powered hand

tugs, but don't require a full-sized tug to get them moving. In fact, a used lawnmower with the mowing deck taken off can be a great option here and be made to work on a tight budget.

Like larger tugs, a towbar that can attach to the vehicle will be required, but many lawn tractors have hitch points where a ball or hitch can be installed. In some cases, this can even be done on the front of the lawn tractor to make pulling and pushing more visible.

PURPOSE-BUILT AIRCRAFT TUGS

While the costliest option, a purpose-built aircraft tug is something some owners do end up purchasing. A new purchase isn't always required either. Many times, FBOs, airports, or airlines have used tugs for sale or end up on auctions. These can be great items to pick up for owners of larger aircraft. The big benefit of a purpose-built aircraft tug is typically that the hookup for the towbar will be on the "front" where the driver is facing. It seems like a simple thing but looking at the towbar facing forward significantly decreases the likelihood that the driver will overturn the nose wheel or jackknife the nose wheel or towbar in the process. It also allows the driver to look forward as they push an aircraft backward into a hangar, allowing a better ability to watch the wings and limit the potential of striking the hangar sides.

These tugs come in a variety of sizes. In general, the bigger the tug, the bigger the aircraft it will be able to move. With that said, a tug that is oversized for an aircraft it will be moving also has the potential to be too forceful and cause damage.

SEASONAL CONDITIONS

Depending on where you base your aircraft, changing weather conditions can be a major factor in different seasons.

I have seen icy ramps thwart even the best attempts of owners to get their aircraft out of, and especially, back into their hangars. In at least two instances, I have witnessed these efforts result in the owner making a trip to a hospital. Both were the result of the owner slipping and falling on the ice as they tried to get their aircraft out of a hangar. If you are going to try to pull an aircraft in and out of a hangar by hand on an icy ramp, I strongly encourage the use of shoe bottom spikes that can easily be purchased from an outdoors supplier.

When considering the purchase of any type of tug, it can be helpful to evaluate if the tires can be equipped with chains or studded tires for winter use.

SPECIALTY TOWBARS

If you are the owner of a tailwheel aircraft, you will probably need a towbar that attaches to the tailwheel. In many hangars, aircraft are pulled in with the tail to the back of the hangar. With some tailwheel aircraft, this may not leave enough room to get a motorized vehicle behind the aircraft to hook up a towbar to the tailwheel. In these cases, a motorized hand tug that lifts the tailwheel may be a good option.

Any towbar you use should properly fit the attach points recommended by the manufacturer. A towbar for a Cessna may not fit a Piper. If the aircraft is supposed to be towed by the tabs above the nose wheel, don't tow it using a tire attach point and vice versa. Using something that doesn't fit right may result in a towbar slipping off and causing damage to the gear, cowling, or other parts of the aircraft.

No matter what kind of towing apparatus you are using, make sure the parking brake is off. When you are moving an aircraft by hand, it probably isn't going to result in anything other than some strained muscles and the aircraft not moving. When you are using something more powerful, it can result in major damage. Dragging an aircraft on tires can flat spot them. In some cases, pulling on a nose wheel when the main wheels have a parking brake locked, can cause the collapse of a nose wheel.

A fair amount of research on towbars will go a long way into making your trip out of and into the hangar go smoothly.

Jason Blair is an active single- and multi-engine instructor and an FAA Designated Pilot Examiner with over 5,000 hours total time and over 3,000 hours instruction given and has flown over 100 different makes and models of general aviation aircraft. In his role as Examiner, over 1,000 pilot certificates have been issued. He currently works for, and in the past, for multiple aviation associations that promote training and general aviation. He also consults on aviation training and regulatory efforts for the general aviation industry. Jason Blair has published works in many aviation publications, a full listing of which can be found at www.jasonblair.net.

ADDED CUSTOMER BENEFIT

As a CFI, you could be paying too much for the wrong type of life insurance. You may even have life insurance that doesn't protect you at all when you're instructing. Avemco wants to do something about that. We have partnered with the Pilot Insurance Center (PIC) to offer CFIs, Term Life Insurance. With over 20 years of insurance expertise and 30 years of aviation experience, PIC has developed a program that allows Avemco customers to benefit from CFI-friendly underwriting considerations:

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THE ART OF CUTTING CORNERS AND THE NORMALIZATION OF DEVIANCE

By Sarah Rovner, Master CFI, CFII, MEI, ATP, Owner of FullThrottle Aviation LLC

Most pilots can relate to hearing of a mishap involving someone or a business they know and then thinking to themselves, “that’s not surprising at all.” Perhaps it was a pattern of behavior or well-known shortcutting of procedures that many onlookers knew was an accident waiting to happen. Perhaps it was that hangar neighbor that never pre-flights their airplane.

Perhaps it was the local mechanic who was known to sign off on annuals without doing a full inspection. As we know from our training, the chain of events leading to an accident or incident started long before the mishap. It started when the deviant behavior became normal.

The term “normalization of deviance” was coined by sociologist Diane Vaughan¹ in the wake of the Challenger Disaster. In 1986, the Challenger blew up a mere 73 seconds after lift-off due to faulty O-rings that caused the solid rocket fuel to ignite. In the resulting investigation, it was discovered that NASA engineers were aware of the flaws as early as 1981, but a culture of loosening standards and accepting such risks had fostered an environment that eventually led to disaster. The engineers knew that the launch parameters were outside of what was tested but deemed it an “acceptable risk” because they had gotten away with it so many times before².

Another well-known example of the normalization of deviance is that of the Concordia³ cruise ship disaster. In 2012, the Costa Concordia cruise ship crashed into rocks off Giglio Island, killing 32 people. Although the ship was prohibited from going that close to shore, it was reported that directors at Concordia would allow, and even encourage, the deviant behavior of the

BY VAUGHN’S THEORY, A DRIVER THAT CONTINUES TO GET AWAY WITH IT WILL CONTINUE NEGATIVE BEHAVIOR UNTIL IT BECOMES NORMAL. OVER TIME, BEHAVIORS WILL CONTINUE TO DRIFT FURTHER AND FURTHER AWAY FROM THE STANDARD.

“ship salutes” because they were considered to “enrich the cruise product”.⁴ Each captain would get closer and closer to shore with no consequence; until one day a ship hit rocks and caused a disaster. Had the ship’s captain followed procedures, this wouldn’t have happened.

The concept behind the normalization of deviance is that when people within an organization become accustomed to the deviant behavior, they no longer consider it as deviant. An example of this can be found on almost any road. Although turn signals and stopping fully to a rollback at a stop sign are part of the state-mandated rules of the road, people have become so accustomed to not stopping or signaling that it has become socially acceptable. By Vaughn’s theory, a driver that continues to get away with it will continue negative behavior until it becomes normal. Over time, behaviors will continue to drift further and further away from the standard.

Although the consequences can be high on the road as well, aviation has a way of being unforgiving of recklessness. Many pilots’ lives could have been saved by a proper pre-flight or checklist usage. There have been several engine failures related to fuel contamination that was not discovered

on a pre-flight. Taking extra time to preflight the fuel to check for water and contaminants could have possibly saved someone’s life. Many inadvertent gear up landings could be prevented by using a checklist. We all learned to pre-flight and use a checklist during our training, so why is it that a lack of these elementary safety tools allows mishaps to reoccur? How many pilots are caught off guard by NOTAMs and weather? Perhaps a proper briefing could have also prevented an unanticipated and dangerous situation.

Many pilots try to rationalize shortcuts under pressure. As the pilots get away with it over and over again, the behavior becomes normal. Not checking weather and NOTAMs, skipping items on a pre-flight, or not using a checklist are just a few examples of shortcuts that pilots often find themselves rationalizing. Reinforcing negative behavior with no consequences only fuels the tendency to continue cutting corners. Following procedures in the interest of safety is the only way to overcome these phenomena. As an instructor or just a fellow pilot, encourage your students and peers to follow the correct procedures and not cut any corners. Although we’ve gotten away with it many times before, the behavior will ultimately lead to a preventable disaster. “I’ve gotten away with this before” is not the way to rationalize a behavior, because today may be the day the bill comes due.

1 https://en.wikibooks.org/wiki/Professionalism/Diane_Vaughan_and_the_normalization_of_deviance

2 https://en.wikipedia.org/wiki/Space_Shuttle_Challenger_disaster

3 https://en.wikipedia.org/wiki/Costa_Concordia_disaster

4 https://en.wikipedia.org/wiki/Sail-by_salute

Sarah Rovner holds an ATP certificate with a CL-65 type rating and is currently an FAA Safety Team Lead Representative, Master Instructor, Captain and CTP simulator instructor with a Part 121 airline. Since changing careers after years as a senior network engineer for the oil & gas industry, Sarah has obtained her ATP, CFI, CFII, MEI and has flown over 4200 hours. As the owner of an international ferry pilot company, FullThrottle Aviation LLC, Sarah has flown over 117 different types of general aviation airplanes in 15 different countries, including oceanic crossings in small aircraft. She continues to stay involved in general aviation through mentoring and education; volunteering at many different events and presenting original seminars on aviation safety and human factors. Although much of her flying is now professional in nature, she still enjoys flying her Super Cub on her days off. As a regular attendee of EAA AirVenture and local fly-ins, she enjoys the company and camaraderie that general aviation brings.

READBACK

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.

RESPONSE TO JASON BLAIR'S "THREE APPROACHES TO A PRE-PURCHASE INSPECTION"

Thumbs up ... might have included a rough guesstimate of cost on the "good enough" vs the gold-standard revolving around a common airplane such as C172 or a PA-28.

--Bill Brendel

RESPONSE TO GARY REEVES' "FIVE THINGS VFR PILOTS SHOULD SAY"

I have to disagree about adding the color of your aircraft to most non-towered airport calls. Unless you're all in the pattern, in my experience you can't tell the color of an aircraft when you're more than about a mile away, especially if you call it "blue and white cessna". Does that mean it's 50/50 blue and white, or mostly white with a blue stripe? And in some lighting conditions, blue may look black, defeating the purpose.

--Gary Baluha

AND GARY REEVES RESPONSE TO THE 'OTHER' GARY!

Gary,

I appreciate your differing opinion. I add color to my radio calls specifically for people to find me in the pattern. I've been cut off and seen others have near misses because someone was confused as to which planes were where. The important thing is that we do all we can to avoid mid-air. Thanks for writing back and fly safe!

RESPONSE TO JASON BLAIR'S "FIVE TIPS FOR AIRCRAFT PRE-PURCHASE INSPECTIONS"

I wish I had read this many years ago, especially tip #1 as my airplane quickly turned into a "money pit". An additional note, buying an aircraft from an A&P, like I did, may not be such a good idea. Great article.

Another tip for aircraft buyers, if you are interested in a 1965-1968 Cessna 172, be sure to check the elevator bellcrank bracket. They tend to fail and loss of elevator control can be the result. The cost to repair is around \$2000.00. Thanks.

--Steve Agati, "Keep 'em Flying"

RESPONSE TO MIKE ADAMS' "GO THROUGH AN AGENT?" "OR GO DIRECT?"

As an owner of multiple FBOS, I've owned nearly 500 airplanes over the years, and brokered about that many more. Yes, I have commercial policies for our operational airplanes, but my "Fun" personal airplanes are with Avemco.

When selling an airplane (or just fielding a question on insurance from someone based on the field) I always tell them to contact an

aviation insurance specialist—but to "also contact AVEMCO for a comparative quote, as you will be dealing directly with the underwriter."

Your PIPEP accurately sums up the insurance transaction.

--Jim Hanson, Albert Lea Airport, Inc.



"A Man for All Seasons"

Scott Christy, like many of our northern customers, is definitely a "Man for All Seasons". Scott said "he appreciates the flexibility of notifying us simply by phone when he wants to switch from wheels (or floats) to skis!" Just one of the many reasons we love to talk directly to our customers.

Photos courtesy of Scott Christy, Avemco Insured

COMING TO A HANGAR NEAR YOU!

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

Avemco also continues to be a proud sponsor of the Bonanza & Baron Pilot Training clinics. For a list of upcoming clinics click here*. The courses are custom designed for pilots and owners of Bonanzas, Barons, Travel Airs, Twin Bonanzas and Dukes.

Here is the remaining tradeshow we will attend in 2018:

OCTOBER 26-27

AOPA Fly In #4
Gulf Shores (KJKA) AL
Booth # 27

2019 TENTATIVE TRADESHOW SCHEDULE*:

February – NW Aviation Conference
April – Sun ‘n Fun
July – EAA AirVenture

***Check our website and Facebook pages for more information and updates as they become available.**

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