



SAFETY BRIEF

AEROCAREERS



FLYING CLUB

VOLUME 1, ISSUE 1 -- SPRING 2020

FIRST ISSUE

This is the first issue of what is planned to be a bi-monthly newsletter to address safety issues for people who operate from the Millstadt Flight Park.

PERFORMANCE ON SOD RUNWAYS

Most standard category aircraft handbooks address the effect operating from sod runways has on takeoff and landing distances. Depending on the aircraft, takeoff distance may be increased by as much as 20 percent on well-prepared and properly maintained sod runways. The Flying Club's Cessna 172 POH states the takeoff distance will increase by 7 percent on sod.

When was the last time the runway was mowed? Tall grass will increase takeoff distance even more. What about wet grass? What about tall grass growing on soft or muddy ground? Plan for distance increases significantly more than 7 percent if the grass is tall and wet.

Computed takeoff distance over a 50-foot obstacle for our 172 at 2,300 lbs. on a no-wind, 85-degree day is 1,795 feet. That leaves only 500 feet of unused runway if you do everything right. When the temperature goes up on a hot 97-degree summer day, you'll need 1,877 feet to takeoff and the runway begins to look quite short.

Always leave yourself a margin of safety. If you're fully loaded on a high density-altitude, hot and humid day, consider having your passengers meet you at St. Louis Downtown Airport (CPS) and pick them up there. Better safe than sorry!

How does sod affect landing distance? Most pilots will answer that it will shorten their landing distance because they are used to feeling additional deceleration when landing on grass. That is incorrect! Landing distance tables are based on maximum braking and grass is slicker than pavement, so your actual landing distance will be longer when it really counts. How much longer? Twenty percent according to our POH.

Our heavy 172 on a hot day requires 1,518 feet to stop on a no-wind day at our airport. Throw in a little morning dew or a brief rain shower and that distance increases significantly. (The POH doesn't address how much wet grass will increase your landing roll.)

For the typical light plane, 2,300 feet of well-maintained sod is more than enough runway to takeoff or land under most conditions. Be sure to take all factors affecting aircraft performance into consideration BEFORE you attempt to takeoff. Use proper soft-field procedures when appropriate and maintain good airspeed control during landings.

Don't let a lack of aircraft performance surprise you. Know what to expect under the conditions you fly.

SPRING RUNWAY CONDITIONS

Spring downpours can change runway conditions significantly. Fortunately, now that we're seeing plenty of warm sunshine, the runway dries rather quickly. There is one persistent soft spot about 600 feet down the left edge of runway 24 where the drainage swale allows water to seep out 15 or 20 feet onto the edge of the runway.

Also, after a heavy rain, two other spots tend to puddle—about 1,000 feet down and slightly right of runway 24's center and another, about 1,600 feet down and right of center. Avoid those areas when taxiing and be aware they may cause unexpected deceleration if they are holding water.

You can check the amount of rain received by visiting our weather station (see below.) If you are concerned or in doubt about the runway condition, feel free to carefully drive the runway to check its condition before you fly. Please drive cautiously to avoid leaving any ruts. If the taxiway is soft, the runway will be softer. Stop and turn around.

FLIGHT PARK'S WEATHER STATION

You can access Flight Park's weather station by entering the link below into your web browser or simply use your smart phone to scan the QR code at right.

<https://dashboard.ambientweather.net/devices/public/8a33a7af2d987baa5342aa361450264d>



BEWARE OF BIRD'S NESTS

It's that time of the year when birds are building their homes and they love the nooks and crannies available inside aircraft, whether hangared or tied down outside.

All bird nest material should be removed from any accessible area before flight. Pay particular attention to engine compartments to prevent inflight fires. A nest in the engine compartment needs to be completely removed and that may require removing the engine cowling to clean the cooling fins and rear cylinder areas.

Birds are energetic and persistent. It's possible to remove all nesting material from an aircraft in the morning only to discover they've completely rebuilt their nest in the afternoon.

Cowl plugs help but are not foolproof. Be sure to remove them prior to flight to prevent sudden engine overheat on takeoff.

WHAT DO THE WINDSOCKS TELL US?

The Flight Park has two different types of wind indicators.

The primary windsock, located atop the large farm hangar, is an FAA-standard 18-inch by 5-foot windsock. It is sewn together in multiple segments to allow accurate wind speed indications. The sock will align itself against the wind and hang mostly limp when the wind speed reaches 3 knots (3.5 mph). Half of the sock will fully extend when the wind reaches 9 knots (10.3 mph); and it will fully extend at 15-knots (17 mph) or more.

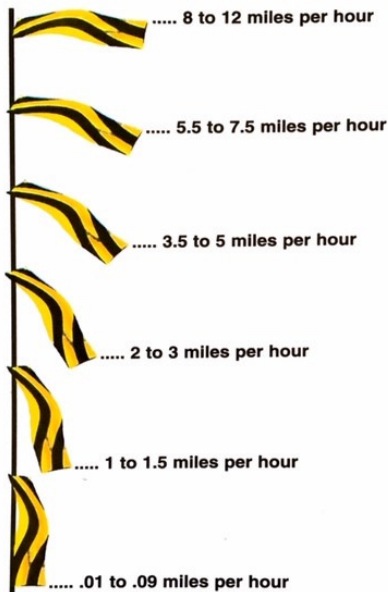


Our second wind indicator, located near the intersection of the runway and taxiway, is a special Wind-tracker™ flag that should be very helpful to our ultralight pilots. It is designed to detect wind direction and speeds at LESS THAN 1 mile per hour.



Don't panic if it's standing straight out! It will fly in that position in winds of only 8 mph or more. The illustration below shows the flag's position at various wind speeds.

FLAG POSITION RELATIVE TO APPROXIMATE WIND SPEED



Courtesy of www.iflyamerica.org

"It's been a long winter, so I thought I'd catch up on some flying time. I should only be gone for a month or two."

THE BEST WAY TO IMPROVE YOUR SKILLS IS TO GO FLY!

Many of us are unable to fly frequently throughout the winter months. Our ultralights and experimental aircraft with open cockpits are mostly nestled inside our hangars for the long winter months. Spring flying is often hampered by strong winds and the potential for quickly developing rain showers.

Now that the weather has settled down and warmed up, it's time to get out and knock the rust off your flying skills. While the Covid-19 pandemic still has us under "social distancing" and travel is limited to only essential business, our little remote airstrip is ideal for flying while complying with those restrictions. Personal flying falls in a gray area of essential travel, but personally, I believe maintaining our flying skills is essential to safety.

If you haven't flown in a while, take some extra time to do a thorough and meticulous preflight inspection. If you typically do not refer to a checklist during the inspection or only refer to it as a quick reference guide, take a little more time and read through it in detail. When was the last time you READ your operating handbook? Take some time to read through it again and refresh yourself. (I've been flying Cessna Skyhawks for over 50 years and I still find things I've forgotten about when I read through the POH.)

If you haven't flown in a while and weather conditions aren't calm and clear, wait for a better day. Depending on your experience level and recency of flight, you might consider asking a CFI or experienced pilot friend to fly along with you.

Once airborne, go through some basic aerial maneuvering to get the feel of your aircraft again. Do a little slow flight and put your aircraft through the paces. Practice some takeoffs and landings. If the final approach doesn't look quite right, go around early and set up for another landing approach. Use various flap settings and, if tailwheel equipped, practice 3-point landings first and then work your way up to wheel landings.

Make your plane do what you want it to do. Master your aircraft control and get comfortable again. Take a passenger with you ONLY after you are confident your flying skills are sharp again.

IS YOUR AIRCRAFT READY TO FLY?

Certified aircraft require an annual inspection and experimental aircraft require a condition inspection every 12 calendar months. However, an ultralight vehicle is not subject to Federal aircraft certification and maintenance standards.

Although there is no regulatory requirement to inspect your ultralight, common sense should tell you that periodically you should do a very detailed inspection and complete preventative maintenance actions not normally done during a daily preflight.

Before your first flight of the season, clean everything that is dirty. Lubricate everything that moves. Replenish all the fluids—use fresh fuel. Open every inspection hole. Look for worn or chafed wires, cables, and hoses. Check your tire pressures and do everything else you can think of to ensure your trusty aerial machine will carry you into the sky and bring you back again, safely. **YOUR LIFE DEPENDS ON IT!**