



JEFF SKILES

COMMENTARY / CONTRAILS



Landing on a gravel bar near Talkeetna, Alaska.

Bush Pilot

Mastering basic flying skills in the wild

BY JEFF SKILES

AS I LINE UP ON THE gravel bar, I reach forward to grasp the flap handle and pull full flaps. The rocks below don't look too big, but you're really not sure of the surface until you see it up close. I'll have to hug the fallen tree to the left because it looks like there is wet sand on the right side of my chosen landing site. Wet sand along a river can be soft because of the silt it can be mixed with. Soft sand should be avoided. Conversely, wet sand on the ocean shore is hard packed and can make a firm landing surface.

I aim for an area of small water-polished stones. If you can make out individual rocks from the air, they're probably too big to land on. These look small, and the surface appears to be relatively flat. As I begin my final approach, I keep the nose high—so high that the gravel bar disappears below the nose and airspeed decays below normal approach into the area of

“reverse command.” I pull the yoke back even more, and the aircraft sinks even faster. Adding a good dose of power arrests the descent rate as the aircraft mashes in at its slowest possible approach speed.

I will try and touch down using a wheel landing technique with the tail off the ground to protect it from rock damage. The airplane will still be just above stall speed for the final few feet before touching down.

The unstoppable force of the water below has carved a path into the soft silt

and sand leaving hundred-foot-high banks to the wide, rushing river. My little gravel bar may last a season at best before succumbing to the relentless pressure of snow and glacial melt water. I have picked a small shrub off to the side as an aiming point. It fills the windscreen now, and I want to make sure and clear the log just before it. I feel a rush of adrenaline; there are only 600 feet to get the plane down and stopped. Keeping a little power on, I feel for the ground as the big bush wheels brush the gravel. Holding the yoke forward pins the main gear on and keeps the tail high to avoid rock damage. As the aircraft slows, the tail falls to the ground and I brake to a stop.

As I pull the mixture, the droning noise of the engine is replaced by the sweeter sound of the wind and the fast-moving river here in the Alaska wilderness.

My instructor, Don, gives me some pointers on the performance before we bail out and drag a few sticks off our gravel bar to clear a better spot for the takeoff. As Don says, anybody can land an airplane in the bush; the secret is being able to take off again.

Don Lee hitchhiked to Alaska after high school to live in the bush. Like many people in Alaska, Don found that an aircraft could get him places that no other means of transportation could, and he learned how to fly. Today Don runs Alaska Floats and Skis from Christiansen Lake just outside of Talkeetna and makes his living giving bush, float, and ski flying courses to Alaska neophytes, like me, from the “outside.”

Don’s fleet of trainers is made up of an unlikely aircraft. He has five PA-22 Tri-Pacers. This may seem incongruous, but when you modify a Tri-Pacer as he does, it turns into a classic bushplane. Tri-Pacers are dirt cheap to buy and have STC’d conversions for tail wheels, extended wings, and floats. What you’re left with is a certified, four-place, 160-hp taildragger with 4-foot wing extensions, vortex generators, and tall bush gear. Don’s Tri-Pacers can be put on floats, skis, or big 31-inch bush wheels.

The relatively short-coupled tailwheel Tri-Pacer looks somewhat comical as the tall gear and bush wheels hoist it high off the ground, like a Super Cub but with side-by-side seating.

Back at the Talkeetna Airport all the airplanes ride on big bush wheels, some with cans of bear spray (bear retardant pepper spray) taped to their struts. Bears can be a problem in the bush...moose too.

Don is a big proponent of flying the aircraft by sight and feel. As he says, “Total command of the aircraft is an absolute must. Most of your time will be spent with your eyes outside the aircraft with very little time spent looking at the gauges.”

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To learn the “command” of the aircraft Don talks about, we spend time flying down the river only 50 feet in the air following its snaking course as close to the high-cut banks as possible. We learn to coordinate turns by feel. At 50 feet, there’s no time to look inside even if you wanted to. Your eyes are firmly outside the airplane to avoid disaster. Coordination must be accomplished by feel without a glance toward the turn and slip indicator.

Don says, “The plane will go where your eyes look, so look far enough ahead that you can have the reaction time necessary to make a turn. When flying low in canyon areas keep your eyes on one side of the canyon wall, and maintain the closest safe distance from it; the other side will take care of itself.”

Part of the course is flying in mountain passes where escape can be an issue. Customarily we fly close to the right wall of a pass. The unspoken rule of flying passes, roads, and rivers is to stay to the right; that way aircraft

traveling in the opposite direction won’t be in conflict.

“When the weather closes in or rising terrain negates forward progress make a 180. Begin the turn with an aggressive bank; you can always moderate it once you’ve turned partially around. If you’re not aggressive from the start, you can find yourself out of room to complete the maneuver on the other side of the pass.”

Many of the dirt strips scratched out of the country in Alaska leave much to be desired from the perspective of an airline pilot from the outside. Sometimes a landing surface is cleared out of high timber maybe only three times the wingspan of the aircraft. While there is probably a safe distance between the wingtips and the trees, the margin of error seems to disappear when those trees are rushing by at 70 miles an hour. Don uses such a strip for training. My first time at the strip, he had to force the controls forward to fly down between the trees. I wasn’t about to do it myself. After I saw it once I became a little more comfortable with the approach—but only a little!

While Don advertises his training as a bush flying course, really he’s teaching basic raw flying skills: making coordinated turns, keeping your eyes outside the aircraft, always assessing what’s next, and making sure you have an avenue for escape. But most of all, using all the information available to you to make smart decisions. Too many aircraft have been lost by the unwary. Many pilots you talk to in Alaska seem to have been involved in an aircraft accident at one time or another due to the challenging conditions.

Don is able to pass on the knowledge gained from his 17,000 hours in the bush to enhance the skills of pilots around the world. A third of Alaska Floats and Skis business is pilots from Europe, South America, or just about anywhere looking for a sea-plane rating or to enhance their skills.

The term “bush pilot” is a catchall phrase that refers to a surprisingly large segment of aviation. Usually bush flying is conducted in single-engine aircraft to otherwise inaccessible areas. In Alaska this

means anything from flying floatplanes to remote lakes, to skiplanes in the mountains, to landplanes almost anywhere. An airplane in Alaska is like a pickup truck—just everyday transportation.

Hunting guides use aircraft to get into remote Alaskan wilderness with their clients. It's not at all unusual to see a plane tied down on a patch of gray ground above the tree line, its occupants off hunting Dall sheep.

Skiplane pilots take prospective climbers of Mount McKinley up to base camp. They land in the amphitheater, a large bowl in the mountains at about 5,000 feet of altitude. The average time to summit McKinley is 19 days due to the need to acclimate to the high alpine air, but only two to come back down again to base camp. Tourists also land in skiplanes in the amphitheater to stretch their

legs before taking off and flying back down through the gorge to Talkeetna.

Floatplanes are abundant everywhere. Roads don't exist over most of Alaska, but that doesn't stop people from building cabins in the bush. In the winter these cabins can be reached by snow machines, but in the summer they can only be reached on foot, by jet boat if they are on a river, or by bush pilots flying floatplanes.

The Anchorage International Airport is the point of departure for large intercontinental airliners headed around the world, but nestled right next to it is the Lake Hood Seaplane Base. Lake Hood is home to 1,000 aircraft: 500 seaplanes tied up on shore, and another 500 landplanes operating off the gravel runway.

Bush flying is about far more than landing on a postage stamp-sized patch of

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gravel in the middle of a river. Don teaches his students about using judgment and sound practices, controlling what you can, and preparing for what you can't. That's not significantly different from the flying you and I do every day, but up here in Alaska, the conditions can often make the margin of error so much less, and without Don's tutelage, those lessons in flight can come at a high price indeed.

We drag one last log out of the way and start up for takeoff. The wings rock back and forth as we waddle over the uneven surface of the gravel bar. I have the yoke forward to keep the tail wheel light. This is counterintuitive to most taildragger pilots who were taught to keep the stick all the way back during taxi, but the tail wheel is the easiest part of the aircraft to break, and care must be taken to protect it at all times.

We circle around the shrub, and the power comes in for a rolling takeoff. The yoke is pinned all the way forward to the dash. After an agonizing period of time the tail slowly rises to level flight. The far end of our little gravel bar surface is rapidly approaching as I lean forward to grasp the flap handle. As the river rushes toward us, I quickly pop the flaps to the second notch and pull slightly on the yoke. The Tri-Pacer is instantly airborne, and I immediately push the nose down and fly level just above the river to gain precious speed. With an acceptable reading on the gauge, we start a climb and bring it around in a pattern to try it all once again. *EAA*



Jeff Skiles and Don Lee on a gravel bar near Talkeetna, Alaska.

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