



Frank Church/River of No Return Wilderness was my third backcountry strip of the day, and it appeared, by far, the most challenging. Lori MacNichol, owner of McCall Mountain/Canyon Flying Seminars, pointed out the figure-eight approach to the narrow, 1,700-foot, uphill strip with a dogleg to the right.

"It's like an instrument approach; you better not go past the decision point," she urged as I began a steep descent at 60 KIAS. "You're going to land ¼ to ½ down the runway, and I want you to drive it on." As the wheels touched down, her voice rose above the loud thumping sounds created by a series of water bars. "Power!" she yelled, and within seconds, the importance of keeping the momentum to the 56 PLANE & PILOT planeandpillotmag.com

top of the hill was obvious. Beyond a doubt, this second day of training far exceeded my dream for backcountry flying that had begun six months earlier.

I first saw Lori give a presentation about backcountry flying at AOPA Expo in Palm Springs, Calif. The room was packed. With her long blond hair flowing, Lori MacNichol looked more like a rock star than the queen of backcountry flying. "I'm not telling you these are landings; they're arrivals," she said, while her audience sat mesmerized by a video of an airplane bouncing over dirt and gravel on a Band-Aid-sized strip lined by tall trees. "You must be the master of your airspeed," she smiled. In less than an hour, she made us believe that

we, too, were capable of flying into the magnificent Idaho backcountry.

Six months later, as I strolled from the tarmac at McCall Airport to Lori's office in the big red hangar, flying was the only thing on my mind. Lori earned her private pilot certificate at McCall in 1981; she followed that with her CFI and ATP certificates, which prepared her to fly for the U.S. Forest Service and then McCall Aviation, as an air taxi pilot and the chief CFI. She and her mentor, Lyn Clark, founded McCall Mountain/Canyon Flying Seminars in 1996, with a goal of sharing with others the knowledge of veteran backcountry pilots on how to safely fly in and out of Idaho's remote mountain airstrips.

The basic course I enrolled in consisted of 10 students (three women and seven men)-including two retired airline pilots, a FedEx pilot and an NTSB investigator-from six states. That afternoon, before any flying would be done, we discussed aircraft performance in the mountain environment, followed by thorough preflight inspections of our aircraft by Lori's A&Ps and instructors.

The next day, as I waited for the arrival of Rich Bush, my instructor for the first day's flight, I met Blake standing next to his Cessna 206. Blake, an accomplished extreme skier and climber from Hailey, Idaho, and I discovered that we shared mutual friends. I jokingly said that his outdoor adventures would probably make this backcountry flying look like a piece of cake. "I can do all that with no sweat," he admitted, "but this stuff makes me nervous." In fact, as the week progressed, it seemed that none of my fellow students were overly confident, no matter what their number of logged hours, certificates or ratings. Perhaps that was because our egos were checked by Lori's description of what lay ahead: "Flying into some of the deepest and narrowest canyons in the United States is like landing on an aircraft carrier."

With instructor Rich at my side, notebook on his lap, we flew maneuvers to determine my Cessna 182's actual minimum controllable airspeed (with the stall warning horn blaring) with and without flaps. I soon learned that it can fly slower than the published stall speeds, an important discovery because slow flight is a critical part of mountain flying. We then configured the airplane for a maneuverable "canyon speed," which we determined to be 80 KIAS at 1,700 rpm and 10 degrees of flaps in the 182.

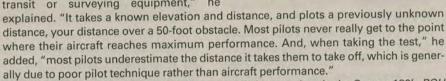
"Mountain flying is thinking about turning around and the space available," said Rich as he directed me to point the nose at a peak ahead. "I want you to bank the airplane at 45 degrees. Add full power, full flaps. Stay in the white arc, lower the nose slightly. Now, turn 180 degrees!" Voila!-the "emergency canyon turn," a hoot to fly and a potential lifesaver to know.

Next, with the proper "sight picture" over the cowl to give me the best attitude to clear a 50-foot obstacle on final approach, we landed on a turf strip tucked in the trees. On departure, with tall green obstacles closer than I was accustomed to viewing, Rich asked me to pitch for V_v (best rate of climb speed) while he

Taking The Theodolite Test

Before landing on short airstrips in the forested backcountry, pilots need to know how to get out of them. "You need to know your airplane's real Vx (best angle of climb speed) and flap setting to take off and clear a 50-foot obstacle," insisted Lori. With that, she introduced Frank Lester, a safety/ education coordinator for the Idaho Division of Aeronautics, who offered us an opportunity to learn our airplane's true takeoff performance with a "theodolite" test.

"A theodolite is nothing more than a transit or surveying equipment," he



Prior to the test, I found the short-field takeoff distance chart in the Cessna 182's POH by entering its weight (2,800 pounds), the pressure altitude at McCall (5,000 feet) and the outside temperature (20 degrees C). To use the calculated distance of 1,965 feet, I needed 20 degrees of flaps, full throttle prior to releasing the brakes, zero wind and dry, level pavement.

At the runway-hold marks, we were instructed to radio our estimated takeoff distance to Frank, who was standing alongside the runway with the theodolite. With that information, he directed us to one of four cones lined up alongside the runway, 500 feet apart, for the start of the takeoff roll. Using the distance from the theodolite and a protractor, he was able to determine the total distance it took us to climb 50 feet.

"The basic reason for doing this is to show pilots what Vx looks like," he said. "Most pilots haven't seen V_x since their flight training. When they raise the nose quite a bit higher than they normally do for takeoff, the first thing that comes into their heads is 'stall."

An experienced pilot who flew in Vietnam, Frank Lester has been demonstrating the theodolite to pilots for 12 years. "It's not absolutely precise," he said, "but it's within 100 to 150 feet. It gives pilots an idea of how close they came and teaches them to coordinate power and pitch to get the best performance out of their aircraft."

Cleared for takeoff, brakes applied, 20 degrees of flaps and full power, I rotated at 50 knots and established 59 knots until 50 feet AGL.

Precision is an important part of flying, but variables are constant. As I learned that evening at dinner, my calculation of the 182's short-field distance over a 50-foot obstacle was actually longer than my performance. That was good, but in reviewing the numbers, I realized that I had overestimated my airplane's weight. That was certainly better than underestimating it, but it became clear that knowing my airplane's performance and my own limitations would be critical to flying safely in the backcountry in the days ahead.



Indian Creek (left), a busy airstrip on the Middle Fork of the Salmon River, is a popular whitewater boat launch.

DOGLEGS

quoted Captain Jack, a locally famous pilot: "It's better to be 50 feet above the trees at 100 knots than 100 feet above the trees at 50 knots."

That afternoon, instructor Art Lazzarini opened the ground-school discussion with a question, "What did you learn this morning?"

"My airspeed really sucks," announced Blake. "And I had trouble figuring out where I was."

"My airplane takes longer to get off the ground here," noted Jim, a 1992 Murphy Moose pilot from Dallas.

"I need to get much better with the rudder," said Jo, an avid dirt-bike rider and snowmobile dealer in Idaho Falls, who flies a Cessna 182.

We all seemed to agree that the day's most valuable lesson was the emergency canyon turn. "If you learned one thing, it's to not try to outclimb a mountain. This is why we teach you emergency canyon turns the first day," said Lori.

That afternoon we reviewed backcountry procedures and operations, stabilized approaches and abort points, and navigation and radio communication—all illustrated by examples, drawings, ani-



mated props and colorful anecdotes.

The next morning, I preflighted the 182 and waited, a bit apprehensively, for Lori to arrive. Our first destination was Johnson Creek, a scenic spot full of parked airplanes and campsites alongside a wet, grassy runway, which posed a new challenge for me on takeoff. [See "Johnson Creek: Backcountry Fly-In Mecca" in *Pilot Journal* Nov/Dec 2008.] "Lift one wheel," prompted Lori as I began my takeoff roll and discovered, to my delight, that it helped to break the suction of the wet grass.

The next airstrip, Big Creek, a 3,550-foot-long grassy strip on a plateau above Big Creek, had a lodge at the south end, a welcome sight far from McCall. Lori

directed me to follow Big Creek east to the Cabin Creek airstrip with its 8% uphill grade and dogleg right in the middle. It was here that I had the opportunity to apply the previous day's lessons on stabilized approaches, decision points and no-go-around strips.

The day was also eventful for the other students who shared their own discoveries in the afternoon class.

"I learned to look for the river and road; they were easier to follow," said Brian, another Cessna 182 pilot.

"It would be quite easy to get lost," said Debbie, an Airbus captain for FedEx who learned to fly as a teenager and owns a Cessna 180.

"Getting lost is common and deadly in the backcountry canyons," said Lori, who illustrated the point with a story about a couple who flew out of a backcountry strip where they were camping to take a short day flight. Like many novice backcountry pilots, they flew up the wrong canyon and were unable to turn around as the canyon walls closed in.

On the final morning, I was scheduled to fly with Holbrook Maslen, former LAPD helicopter pilot, retired airline

McCall Mountain/Canyon Flying Seminars

Basic seminar courses include six to nine hours of dual mountain/canyon flight time, the training manual and course materials, plus 15 hours of classroom instruction, continental breakfast and two dinners. Pilots use their own aircraft (or rent Lori's 180 hp Super Cub or 180 hp Cessna 172) and stay at a nearby hotel where the ground-school classes are held. The cost is \$3,295 per pilot, with a \$350 nonrefundable deposit. Lodging, additional food, ground transportation (the airport is within walking distance to downtown McCall), aircraft fuel and maintenance are extra.

Advanced seminars are offered to pilots who have taken the basic course. The five-day seminars are based at Idaho's Middle Fork or Sulphur Creek backcountry lodges and Utah's Canyonlands. The fees include lodging, meals, guest ranch and guide services, as well as fishing, horseback riding and entertainment. Pilots' guests are welcome. Visit www.mountaincanyonflying.com.

captain, owner of an aircraft museum in Idaho and rancher. Relaxed and seemingly unfazed by the morning flight ahead, Holbrook climbed into the right seat and smiled as if we were going on a carnival ride. After a warm-up landing at a spacious 4,000x100-foot turf strip called Landmark, we headed to Sulphur Creek, a hardpan-gravel runway at 5,860 feet. The surface felt a bit like ball bearings and reminded me of the standard rule for all backcountry strips: "Land in the middle and stay in the middle."

Our third airstrip of the morning pro-

vided the biggest thrill of the day. Upper Loon, a 2,350x20-foot gravel strip, lay beyond a skyscraper-sized granite outcropping and required an unusual hourglass-style approach. After holding the airplane in the middle of the narrowest runway of the week, I felt a sense of accomplishment as we departed to the north into Impossible Canyon for landings at Thomas Creek, Mahoney Creek, Indian Creek and the Flying B Ranch. Of 50 public backcountry strips in Idaho, I would land on 13 of them, some more than once, in only three days of flying.

"This training doesn't make you a pilot, it makes you an exceptional pilot," said Holbrook of the day's lessons that would last a lifetime. Before we adjourned to celebrate the week with our final dinner together, Lori introduced Rex Lanham, a longtime pilot, who shared some history about Idaho backcountry flying and its airports. Built for ranchers, hunters and fishermen, the airstrips required manpower and horsepower to build, and they remain difficult to maintain and keep open for pilots today.

It's a magnificent setting, and we had just begun to appreciate the allure of its mountains and challenges. "We will all learn from each other," said Lori on the first day of the seminar. "We'll be close friends when this is over, and you'll all be back." She was right. I wasn't even home before I began to think about taking an advanced course—to continue to improve my knowledge of the flying environment, my aircraft and myself, and, especially, to fly safely in one of the most beautiful places on Earth.

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See "Wings In The Wilderness" about flying in the Idaho backcountry (from P&P July 2008) at planeandpilotnag.com.