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Backcountry Flying

Photos courtesy Lori MacNichol

The art of backcountry flying

By MEG GODLEWSKI

Mountain flying is on the bucket list of most aviators. There's just something about dropping into an airstrip that allows you access to a lake where the fish die of old age that appeals to our adventurous spirit.

Aviators in other countries are required to get training and a special endorsement for mountain flying. In the United States no such endorsement is required, but the savvy aviator seeks out the training, often from Lori MacNichol, owner and founder of McCall Mountain/Canyon Flying Seminars based in Caldwell, Idaho.

"Mountain flying is an unforgiving 'do it yourself' project," says MacNichol.

She would know. She began her flying career in Idaho in 1981. Flying into the backcountry was on the top of her destination list, she said, because of the incredible fishing in the high-altitude lakes. She spent most of the 1980s building her hours and adding to her tickets, and by 1991 she was a flight instructor and flying backcountry charters in Cessna 206s.

Part of her job entailed helping the local sheriff's department and the National Transportation Safety Board with the recovery of bodies when an airplane crashed in the backcountry.

"This part of Idaho has a great many backcountry airstrips," she says. "I saw a lot of body bags, which were the result of pilots making silly, but deadly mistakes, and I thought, 'this is ridiculous!'"

MacNichol, along with chief pilot Lyn Clark, began putting together a curriculum to teach pilots how to fly in the backcountry.

"At first the curriculum was for the Forest Service because of all the flying they do in the backcountry, and then we started getting calls from individuals who heard about the training," MacNichol remembers. "At first it was one or two guys a month, then the business really started to build."

In 1996 Clark and MacNichol started Back Country Flying Clinics.

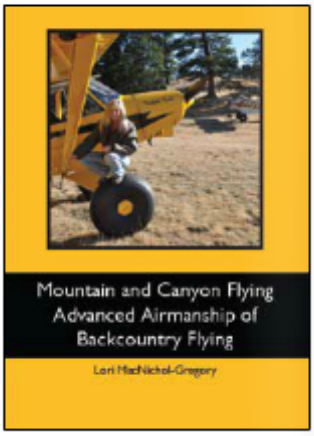
Sadly, Clark did not live to see the success of the business. In 1997 she was killed in a backcountry airplane crash.

"It was not a training flight. It was just one of those things," MacNichol says sadly. "It made me even more determined to keep honing my skills because if it could happen to a pilot as skilled and experienced as Lyn, it could happen to me as well."

WHAT TO EXPECT

The course begins with a telephone call. MacNichol interviews the pilot over the phone to get an idea of what is expected from the course, and what he or she plans to do with these new skills. People's reasons for attending are varied, she notes.

"The people who attend the courses are very capable," she says. "They like to be outside. They often want to take the family backcountry camping or fishing with the airplane. Or maybe they recently bought a rag-wing airplane that's their second or third aircraft and they want to get back to fun, adventurous flying, or they are planning a trip with a mountainous crossing and they want



Preserving backcountry strips

By JOHN J. MCKENNA Jr.
Special to General Aviation News

Photos courtesy RAF

The RAF's John McKenna Jr. (right), and working on a lavatory at Russian Flat, Montana.

Some things are just worth holding onto and that is all there is to it.

That simple statement is really how the Recreational Aviation Foundation (RAF) was formed — six folks sitting around a campfire with the idea that if they did not get busy protecting the special places that we know as backcountry and recreational airstrips, these cherished destinations would most likely just go away.

The forces pressuring them to go away seemed greater than the organization to keep them available. That simply wasn't an acceptable outcome to those early founders of the RAF, so they threw in their money, their time, and — most of all — their passion. When those factors are blended together and the folks implementing them have a desire to make a difference, then little can get in the way, or so we thought.

To suggest that the road to RAF success has been easy would be incorrect. As an organization we have encountered many hurdles on our journey, but somehow found a way to get over them, around them, or, frankly in some cases, we just had to knock them down to move on. Whatever it took was whatever those folks did. They slowly built the organization to its present size of just under 5,000 members who also share the vision that this is just the right thing to do. It is an organization driven by desire and fueled with passion — a combination that is hard to beat.

With members in all 50 states, the RAF is now beginning to build the momentum that we dreamed about 10 years ago around that campfire in northwest Montana.

We knew it could be done, but little did we know how much effort it would take or the number of people who would give so much to make it all happen.

The RAF is just getting started. With some success under its organizational belt, we now know we need more people who believe, just as those early founders did. If you believe as we did that preserving, protecting, and creating recreational airstrips is a worthy vision, then don't let fear and good judgement get in the way, just come join us at the RAF.

Together we can make that difference.

John J. McKenna Jr. is president of the Recreational Aviation Foundation. For more information: TheRAF.org

Lori MacNichol teaches safe flying in the mountains and backcountry.

to be sure that they have the skills to be safe, such as canyon turns and tight approaches."

The courses usually last a few days with the pilot's time divided between flight and ground school. MacNichol notes that after the first course, she learned it was best to send the pilots an outline of the program and the ground school material in advance so that they could study before they arrived on site. "It helps the clients get ahead of the airplane," she notes.

Prior to arriving in Idaho, MacNichol recommends that clients fly their airplane as much as they can.

"They need to be intimately familiar with the aircraft in all configurations, especially in slow flight," she says.

Most people provide their own aircraft, although the business does have airplanes that can be used for instruction for an additional cost.

There is no pre-requisite on PIC experience to attend the program.

"We've had people show up for training with 250 hours of Pilot in Command experience all the way to 25,000 hours," she says.

The "we" she speaks of is a cadre of highly experienced CFIs, who have more than 75 years and 45,000 hours flying in the Idaho backcountry.

Matching the pilot with the right CFI is critical, according to MacNichol, because of the intensity of the training.

That's why when the pilots first arrive, she has a face-to-face interview to help her determine which CFI would be best suited to the client's personality.

"I want to know more about the client, why they are at the program, what they do with their flying, but also it's sort of a psychological eval so that I can put them with the right CFI," she says.

At the end of each day the CFIs gather for a debriefing session. "If someone has a student who is having trouble, we discuss how to help that person," she says. "It may mean a change of instructor."

DEADLY MISTAKES

The training is so intense because a mistake in the backcountry is very likely going to be fatal.

MacNichol saw the outcome of these during her work with the NTSB.

"More than once when I was flying Part 135 we worked with the sheriff's department hauling people out of the backcountry in body bags because of some stupid mistake they'd made, like a go-around where they stayed over the runway instead of going off to the right or left so they wouldn't hit a mountain," she recalls.

The go-around gone wrong that results in a collision with terrain is the most common — and most deadly — mistake pilots make in the backcountry, she says.

"Go-around is not a term we use in the backcountry," MacNichol explains. "In the backcountry, a go-around is not a safe option. Instead of go-around we have an 'abort' point. The way we do it is that we build sort of an approach plate similar to what instrument pilots use for each backcountry strip. We may have the abort point 300 feet above the ground, or 100 feet above the ground. If you are at that minimum descent altitude and you are sure that you can hit your aiming point and land, then you commit to the landing."

Aiming point — that is, energy management so that the airplane touches down at a specific point — is another skill that is taught.

"Pilots need to be on speed so they hit that point," she says. "If the pilot is not holding the exact airspeed and you touch down, during the deceleration you could go off the runway or if you try a go-around you can accelerate into

BACKCOUNTRY | See Page 21

Photo courtesy Luke Watters

Luke Watters lands a Cessna 206 near Mexican Mountain, which is just 45 minutes south of Heber City, Utah.

ALLURE | From Page 20

NOT ALWAYS REMOTE

For Charlie Pace and his sons, living in Blue Ridge, Texas, just north of Dallas, isn't really the backcountry, but they sure do like backcountry flying.

"We only had room for a 780-foot strip on our land so when we decided to get back into flying we bought a Maule due to its short field performance along with decent cruise speed and useful load," he says.

"It turns out we really love the airplane and the backcountry type flying — it adds a whole new dimension to flying."

WANT MORE?

Just type Backcountry Flying into your search engine and you will get more than 1.9 million results. Right on top of that list is BackcountryPilot.org, an Internet forum started in 2004.

"It's a very social place, but chock full of great information for newbies that might be considering going out into the backcountry or mountains this spring or summer," says Zane Jacobson. "We discuss everything from aircraft and modifications, to mountain/float/ski flying technique and airstrip access."

Look for more on BackcountryPilot.org and its enhanced website in an upcoming issue.

BACKCOUNTRY | From Page 17

rising terrain."

The second most deadly mistake is the failed ridge crossing, where the pilot does not account for descending air currents atop the ridge, or the pilot over-estimates the performance of the airplane and tries to out-climb rising terrain.

"When I was doing search and rescue flying we'd find airplane wreckage 250 feet below the ridge-line because people did not understand how the air flows over the ridges and they got caught in a down draft," MacNichol says. "We try to fix that by teaching the pilots turn-around strategy. Turn-around strategy is paramount — a good mountain pilot always has his head on a swivel and will look back all the time."

Weather, especially density altitude, is also a factor in many backcountry accidents. In private pilot ground school, students learn that high elevation combined with high temperatures and high humidity result in reduced aircraft performance, but many pilots do not have a practical application of density altitude calculations.

That's where ground school comes in, according to MacNichol. "They learn about it and how to calculate performance and what to do with it," she says.

It's not uncommon for clients to return the next year for an advanced course or for refresher training.

"And it's not just individuals who seek the specialized training," says MacNichol, noting that clients include the United States Air Force Special Operations Squadrons, the U.S. Border Patrol, U.S. Forest Service, and the NTSB. One of the most recent were pilots from SUSI Airlines in Indonesia, who operate off pavement at high density altitudes in the jungle.

Pricing begins at $3,900 per pilot for the basic course, if you bring your own airplane. This includes six to nine hours dual instruction mountain/canyon flight time, the Mountain and Canyon Flight Training Manual, and all supplemental course materials, approximately 15 hours of classroom instruction, continental breakfast each morning during flight dispatching, afternoon refreshments, a welcome dinner on Tuesday evening, and Friday night's final banquet on the lake.

One of the more popular seminars is the Exclusive Seminar All Inclusive, which is held at the Middle Fork Lodge on the banks of the Salmon River in the heart of Idaho's famous 2.3 million acre River of No Return wilderness area. The price of $5,595 per student and $2,350 per guest includes accommodations at a backcountry lodge suitable for families, says MacNichol.

It also includes between eight and 12 hours dual instruction, the Mountain and Canyon Flight Training Manual and all supplemental course materials, and approximately nine hours of classroom instruction. Also included is an afternoon with a wilderness survival instructor, who takes the students into the woods for hands-on demonstrations of critical survival skills.

When the clients aren't flying or in ground school, there are other activities, such as fishing, horseback riding, tennis and swimming to keep them occupied.

MacNichol notes that many pilots bring their families.

"Usually we're done with the classroom and flying by about two in the afternoon, then the pilots will spend time with their families," she said.

But you don't have to make the trip to Idaho to meet MacNichol and learn from her. She's a featured speaker on backcountry flying at aviation conferences around the country, including the Northwest Aviation Conference in Puyallup, Wash., this month.

She also has a book coming out the first week of March, called "Mountain and Canyon Flying: Advanced Airmanship of Backcountry Flying."

MountainCanyonFlying.com