

# CESSNA OWNER

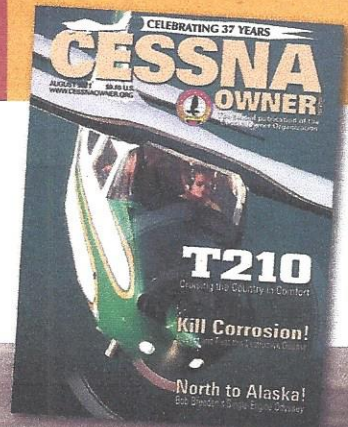
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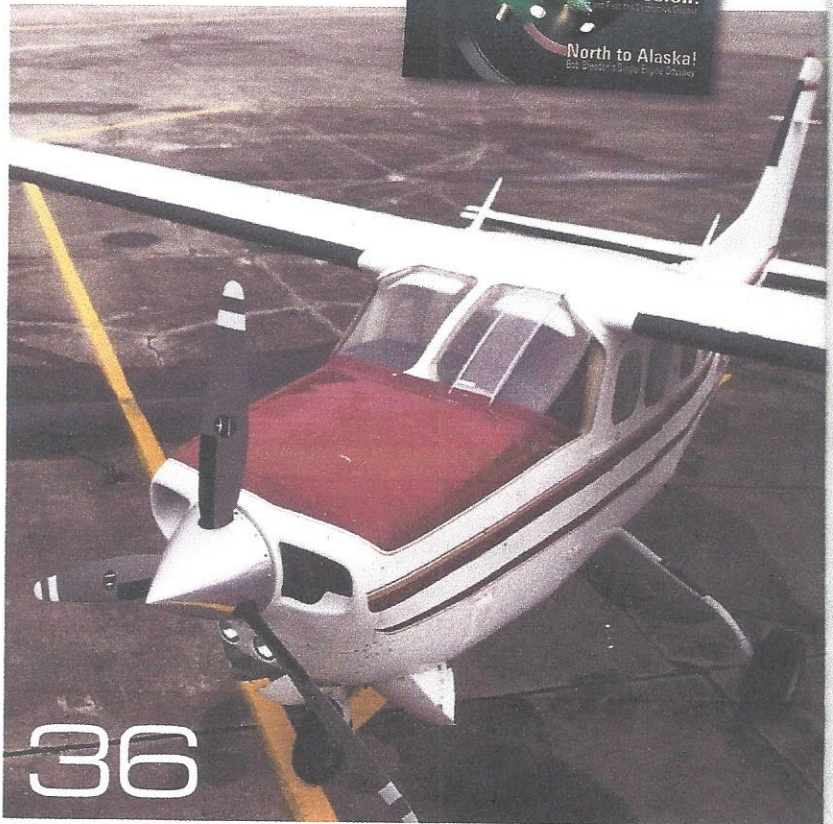
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Cessna 210s of all descriptions have always been regarded as among the better long-distance traveling machines.  
*Jim Lawrence*



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Publishers Note: The views of the contributing writers are those of the authors and not necessarily the position of the Cessna Owner Organization.

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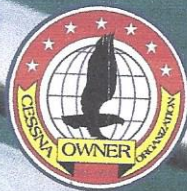
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# OWNER

MAGAZINE

The official publication of the  
Cessna Owner Organization

## T210

Cruising the Country in Comfort

## Kill Corrosion!

Prevent and Treat this Destructive Disease

## North to Alaska!

Bob Breeden's Single-Engine Odyssey

# Bob Breeden's Alaskan Adventures

By Donna Jones



Bob Breeden at the Alaska State Aviation Trade Show & Conference.



Dawn at camp in the Dakotas.

My "by chance" meeting with Bob Breeden wasn't really even aviation-related. I had travelled from Tennessee to Anchorage, Alaska, to attend the 14th annual Alaska State Aviation Trade Show & Conference, presented by the Alaska Airmen's Association. My distributor, Seaplanes North, has set up a booth in the show since the inception in 1998. I attend the show and work the booth with its staff, promoting Davis Aviation IO-550 engine and propeller upgrades (Bonaire 550) and other modifications. Because of the Alaskan bush pilots, there is a large market for higher-horsepower engines and propeller upgrades. I think this is the 10th show for me. It's a well-attended show, with Piper and Cessna operators coming from all



**Stopping in Montana on the way to Alaska.**

over Alaska and throughout the world. Attendance this year was 20,000-plus and continues to grow each year.

I had just arrived at the FedEx building to unload brochures and pictures for our booth from my little rental car. Bob was parked next to my car and was unloading a tent, sleeping bag, air mattress, clothes, boxes, oil, food, and more from a very nice orange-and-black airplane that was parked in the airplane display area for the show. He was putting everything in a big Ford Excursion. He had to make fun of my rental car, which started a conversation. Of course, I had a good laugh, as well, when I saw how much stuff he had in the plane. It was like one of the clown cars being emptied. Every time I would make another trip to get more boxes from my car, he had added another load from the plane to his SUV.



**Bobby poses proudly with the experimental Piper.**

While I walked over to take a closer look at his plane, our conversation went on for him to tell me how he had flown his Piper Cub from Warrenton, Virginia, to the show in Anchorage. The distance started clicking in my head about how far he had flown in a week to get to the show. What a trip! The pictures he showed me were just as impressive.

Next thing you know, I'm looking under the hood of a gleaming, beautiful, highly modified Piper Super Cub and listening to a story of how the plane flew to Alaska from Virginia, with plans for his 17-year-old son, Bobby, to compete at the Valdez short-distance takeoff competition the following weekend. Wow!

As a member of the Alaska Airmen's Association, Bob not only had the Super Cub on display, but he had a booth at the show that promoted his real estate sales in the Alaskan community. It turns out that he built and owns Alaska Airpark (AK01), which is an 18-lot residential fly-in community located in Sterling, Alaska. His community is less than 30 minutes away by plane from the Anchorage area, but it's about 2-1/2 hours away by vehicle. Alaska Airpark is located on the Kenai Peninsula, close to the Kenai National Wildlife Refuge. From the pictures I have seen of Alaska Airpark, it is a beautiful place to live. All of the lots, but six, have been sold; they range in size from 2.35 acres to just more than 5 acres. Fly-in communities in Alaska are very popular spots for many pilots. Some owners build houses and live there year round, while others use them as their retirement spot or a summer house. You have the freedom to fly in and out as you need from your home and have all the privacy you want. If you are in the market, this is very nice property.

### The Airplane

Because of its black-and-orange Harley-Davidson-style paint scheme and leather seats, Bob's airplane really stood out among Super Cubs. The aircraft is a scratch-built Super Cub and is in the experimental category. It didn't take long to see the reason for its experimental status as Bob continued to point out the extras to me. Desiring more power, but knowing that conventional O-360 Cubs usually are nose-heavy, Bob and Bobby sat down and calculated moments for all items, including the prop, battery, engine, engine components, tires, ballast used when solo, and much more, on their 1977 Cub, and then they calculated what had to change to create a sweet-balancing yet high-powered new Cub.

These calculations showed that the engine had to be moved back nearly 9 inches for center-of-gravity (CG) purposes. Also, the fuselage would have to be significantly

modified in ways to keep the pilot seat and the rudder pedals in the same original position. Additionally, in the engine compartment, short, lightweight, electronic ignition modules needed to replace the Bendix magnetos and had to be moved to the firewall. With these modifications, the Breedens' new airplane would be vastly different than their 1977 Cub.

I wasn't surprised when Bob told me that the engine he had installed was a 205-hp Lycoming stroked O-375 model, which had replaced the original O-320. The higher-horsepower engine, installed with a Catto 40-pitch, 90-inch-long, two-blade cruise propeller, allowed Bob to fly at 95 mph on 35-inch Alaskan Bushwheel tires at 2,100 rpm. At completion, the plane weighed in at 1,140 pounds, including the backseat and ELT, etc. Every effort had been made to keep the airplane light, even though this plane was loaded. For additional control authority, the rudder and elevator were extended 3 inches. When I asked Bob how it performed, he told me with a smile, "Super nimble, and



Early spring on a tundra ridge in the Yukon.

pulls hard out of the hole! With the high-compression engine and electronic ignition, this engine is burning less fuel than my 160-hp engine and is faster,

even though I'm pushing the fat 35-inch tires through the air. This plane is so light that it handles like a J3 with the engine pushed back so far. With the combination of the powerful engine, oversized tail feathers, and stock Super Cub wing, it is extremely nimble."

Previously, Bob had made many STC'd refinements to his 1977 Piper Cub to make it the best performer legally possible. To go beyond that scope, he opted to build this ultimate new Cub in the experimental category. Needless to say, his efforts have been very successful. While Bob was talking to me about both airplanes, I finally had to nickname the experimental Cub "Harley," so that I would know which plane he was referring to. He wanted to know how I came up with this nickname. The orange-and-black paint scheme, as well as term words used to describe Harley-Davidson, fit this fancy bird. "Freedom," "pristine," "work of art," "adventure," and "edgy" are among the countless words of description that both apply to a Harley-Davidson and to this plane. The





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Bob Breeden on a mountain top; it was snowing lightly.



Bobby, on a ridge saddle in Alaska.



A river canyon in Alaska.

Harley-Davidson mantra fit, too – “It’s a journey, not a destination.” It also sounded better than Bob’s modest “the new Cub.”

While we were working the show, Bob came by our booth with dirty hands looking for a paper towel. Seems he had installed his new 14-pound, 90-inch-long, 34-pitch, two-blade Catto climb propeller while the plane was sitting on display. I asked him why he changed propellers. Bob explained, “Even though the propellers were similar in design and both 90-inch, two-blade models, this propeller spins a lot faster with the lower pitch to get the engine in its highest power band at about 25 mph to produce maximum take-off thrust.” He and Bobby got to try out the new propeller right after the show when Bobby practiced for the Valdez competition. Bob said they were both pleased with the change. Bob said, “I needed maximum takeoff performance and responsiveness at 50 mph loitering speeds when working near terrain. This climb prop does just that. The prop change definitely made a big difference and is incredibly powerful. The airplane still cruises fast, but the thrust from 0 to 50 mph of the new prop really puts you in the seat. The instantaneous response of incredible thrust at low speeds was well worth the change.”

### The Trip

When Bob left Virginia, he had just over 45 hours on the engine. Upon arrival in

Alaska, he had around 90 hours. With such a long distance, he made many stops along the way. He enjoyed the wilderness between Virginia and Alaska, crossing through the Rocky Mountains in British Columbia and the Yukon Territory, Canada. That was the reason for having the tent, sleeping bag, etc. He basically lived out of the plane for a week.

Some of the stops he made along the way were eventful, including his first stop to visit Greg Swingle from Ohio Bush Planes. While there, Greg filmed Bob in “Valdez or Bust,” documenting the start of this great journey, which is posted on Vimeo. Greg lives about 40 miles from Bob’s parents in Ohio, making his next stop there, with a final family visit at DePauw University in Indiana to see his daughter. He stayed in the fraternity house at the university, which he claimed was an adventure in itself. He didn’t elaborate about frat house living, though.

His next stop for some rest was above Big Sioux River, near Watertown, South Dakota. He camped on the bluff there overlooking the river. As he trekked along, he stopped in western South Dakota near the Badlands, where he saw a herd of buffalo on the ridge. He stayed his last night in the lower 48 in the old hotel at the airport in historic Cut Bank, Montana, which was a stopping point for military aircraft delivery pilots during World War II. The next night was spent camping in British

Columbia at the Jasper Entrance Airport. He stopped often, landing on ridges and mountain tops where the wind had blown the snow clear on otherwise snow-covered mountains at 4,500 to 6,500 feet in the Yukon Territory. In Whitehorse, he decided to stay in a hotel to get a nice hot shower and a good night’s sleep in a bed. Finally landing in Alaska, he was able to stay at a friend’s place in Palmer before getting to Anchorage for the show.

### The Competition

Once the show was over on Sunday evening, practice for Valdez continued. Bob and Bobby flew their plane from the display area outside the show directly to the Knik River near Palmer, where they shot some landings. Bob told me, “We spent the rest of the enjoyable day practicing and playing on the river. Though we were planning to go to our cabin south of Anchorage, we were having so much fun that we decided just to make camp on the gravel bar.” They slept under the wing on the river for the night before they continued their journey to Valdez for the competition.

The next day was spent testing with the other experimental and bush Cubs. They performed pull tests, using an in-line scale tied between their tailwheel springs and the bumper on a pickup truck. Harley had the highest pull of all the planes in the test; it had 870 pounds static thrust without any





Bobby takes a break from his Valdez practice session. He spent time "nailing the spot" on the gravel bar.

additives. Not bad for an 1,140-pound airplane! This plane even outperformed the nitrous oxide-boosted Cubs.

Bob did not want nitrous or other modifications to change the aircraft's performance. His first and foremost goal for this airplane was to make it capable of taking him, Bobby, and 10 days of food out of his Alaskan cabin to go exploring in the bush. Rather than a competition plane, this plane is designed to be used as a highly capable bush aircraft with safe and intuitive controls. Primarily, this plane will be used to take off and land in the mountains and tight river gravel bars.

The Breedens met up with other Cub operators on their way to Valdez, where they participated in a strange Easter egg hunt/GPS geocaching event using their airplanes. They flew to their "hiding" spots. The first day, each team landed in the most beautiful or very difficult places in the mountains, then hiked the egg to a cliff edge or other hard-to-reach point. The egg there would be marked with a word and note the GPS location. That was the clue to certify finding the egg. The next day, the other teams would fly out and try to find the egg. Evidently, the Breedens team was pretty good at this game, as some of their eggs were not found.

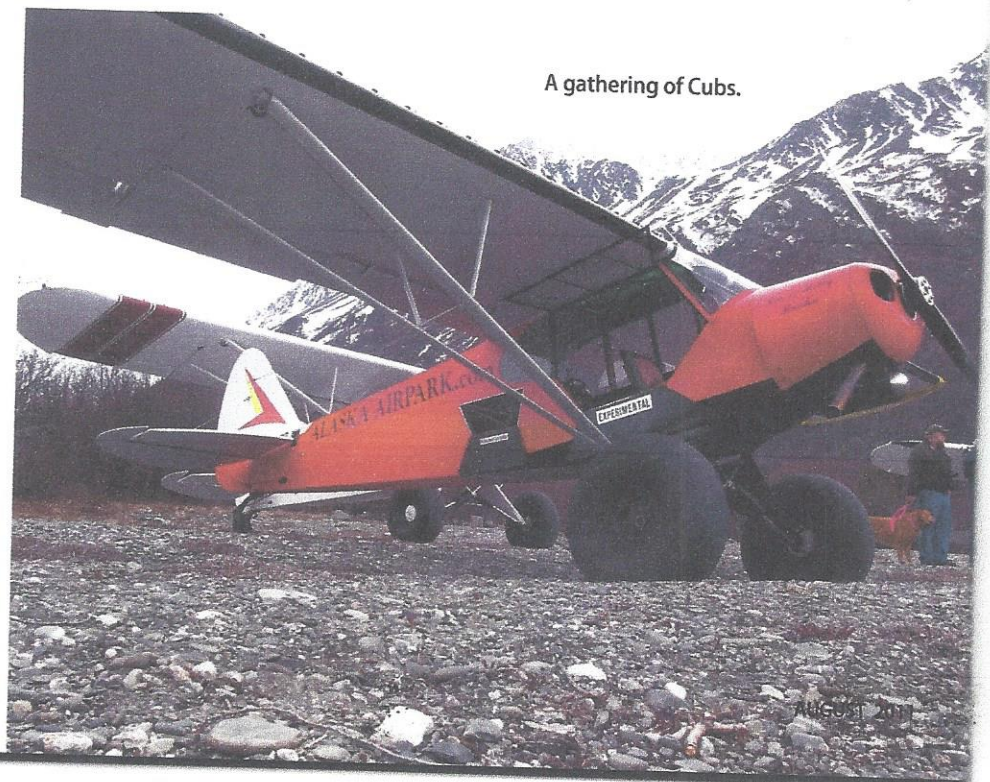
I had the opportunity to talk with Bobby about his flying experience. Seems the younger Bob is following in his dad's footsteps and has been flying with him since he was a baby. He soloed by the time he was

16, and he hasn't slowed down since then. Just like the tractor, there was always the older Super Cub on the farm where he grew up. He was really excited to be competing in the Valdez fly-in, which would be his first. He had practiced 10 to 25 takeoffs/landings over a painted line four days a week since Christmas. Bob marked a line in the grass using utility marking paint. The object of this shortfield/landing competition at Valdez is to simulate the skills required for accurate short takeoffs and landings in the wilderness. The judges add the takeoff distance and landing distance together to get your total score. Seems practice really paid off.

I communicated with Bob after the show to see how Bobby fared in his competition at Valdez. He tied for first place among all competitors in the shortest takeoff at 36 feet, launching without any stagger at all. The powerful Cub was described to perform "like a helicopter" taking off. He placed fourth overall in his experimental class. A great showing for his first outing! To see Bobby in action, check out the YouTube video <http://www.youtube.com/watch?v=004HQczQD08&feature=related>. For a 17-year-old, he flew like a pro. Of course, he had a very good teacher.

Bob left Harley in Alaska for the next few months. With plans to go back this summer, he is undecided whether to keep the plane there or take it back to Virginia. He is, however, still planning some other changes to this highly modified bird. We'll see what he comes up with for the next Alaska show.

I hope to catch up with Bob at the Alaska show next year and get a ride in Harley. If you have not had an opportunity to meet Bob, you definitely need to! He is just an all-around nice guy but also an interesting pilot who loves to fly. I really enjoyed talking with him about his Alaska trip, airplane modifications, and bush flying. Check out the "AK01 Airpark," "Valdez or Bust," and "A Rare Breed" videos by Greg Swingle on Vimeo. Greg has filmed Bob a few times. You will get a good laugh and get to see some amazing Piper Cub performances. ∞



A gathering of Cubs.