



"Chevy Pickups of the Air"

Cessna

"Adaptable, Agile and Seldom Stuck"

Writers often overlook the Cessna utility line while researching radial engine wonders like Norsemen and Beavers. They ignore the fact that countless, inexperienced pilots with fresh commercial licenses began their careers in these diminutive airplanes. Battered by windstorms, smashed into cement-like ice ridges and overturned on glassy water lakes, Cessnas worked unnoticed and efficient.

"They have their place in the north all right," Gangloff said. "You talk to air services like Green Airways, Sabourin, Big Trout Lake and Bearskin... and ask them what they started with."

Cessna Aircraft Company of Wichita, Kansas probably took little notice of markets in faraway Canada when they delivered their first Model 180 in February, 1953. Nothing more than a redesigned, oversize Cessna 170, it became an instant hit throughout the United States. With a six-cylinder, 225-h.p. horizontally opposed Continental piston engine, the "Wichita Wonder," as operators called it, had no competition.

In April, 1953, Cessna claimed their "greatest low cost floatplane" needed an 1,830 ft. water run to lift a gross weight of 2,700 lbs. "Para-lift" flaps, a 500 lb cargo capacity, yard-wide doors and a \$12,950 price tag offered what Canadian Aviation magazine called a "...fresh, promising solution to the problems of Canadian bush flying..."

When production ended in 1981, 6,193 were sold. Originally offered to business travelers, Cessnas carried far more than attaché cases. The distinctive aromas of fish slime, sweaty bottoms and gasoline-soaked

interiors became standard as users accepted them in every corner of backwoods Canada.

"Legally, I don't think you could haul 600 lbs in a 180 with full fuel but we'd always take three guys and gear with full tanks and go north, no trouble at all," he said. "Three feet of floats under the water, she'd still go..." added one experienced bush pilot.

In 1961, Cessna applied new ribs, redesigned stringer patterns and stronger wing spars to the Model 180 airframe to produce the "Cessna 185 Skywagon." They included a 260-h.p. Continental engine and expected the upgraded Cessna to replace hundreds of overworked Model 180s. With floats, the 185 legally flew 1,125 miles. One magazine quoted an empty weight on wheels of 1,520 lbs and maximum takeoff weight of 3,200 lbs - 600 lbs more than a Cessna 180. With long-range gasoline tanks filled, payload reached 996 lbs.

Tail wheel Cessnas turned out to be tricky to handle with the 3/4-in. chrome vanadium steel landing gear. Men of experience, said writer James Sharp, believed only two kinds of Cessnas existed: those that have ground looped and those that will. With long fuselages and billboard-size tails, crosswinds on paved runways could never be taken casually. Veterans with thousands of hours on type sometimes lost control.

"If you put the Cessna 185 or Cessna 180 down too early with too much speed or sink, the gear acts just like a spring to bounce you back into the air," said one pilot. "Once that bounce came, you don't got no choice but to hold that control wheel all the way back or else slam the power on and go around again..."

Most pilots preferred landing on the two main wheels first and letting the tail settle as airspeed dropped. On slippery or gravel surface airstrips, touching down without the nose centered mattered little since a slight slide did no harm. Some pilots dreaded paved runways especially after winters of easy ski flying. On landing, the airplane "grabbed" sharply and bounded away in the direction of the nose. Such an incident embarrassed Jane Etzkorn at Brochet, 235 miles north of The Pas, Manitoba.

"When I touched, my 185 just darted off the strip and the three guys riding with me screamed," she laughed. "I managed to get the thing back in one piece and thought, 'Oh, my God, Indian people never say anything and I made them scream.' It had to be the absolute worst landing in the world."¹

Most "bush-tuned" Cessnas spent their working careers on floats. Although float brands such as Edo, Wipline, Aqua and several others crowded the market, the Edo 2870... became the most popular. Later, Canadian Aircraft Products... proved satisfactory, if not differing in required take off techniques.

"The 185 I flew out of Watson Lake had CAP 3000s which people thought were a lot harder to fly," said Gerry Norberg. "Instead of hauling back and yanking back and forth to get off the water, you'd just leave the thing neutral with two notches of flap and let it climb out of the lake on its own."

Another pilot found the CAPs "scary" until he logged several hundred hours on them. He claimed they had a "fairly short spot" or fine balance point between less drag and more lift. On landings, the CAPs tended to snub the front ends and demanded more concentration than Edos or Wiplines. In late fall, pilots dreaded flying CAP-equipped Cessnas because of the rounded float tops. Many unwary souls overlooked a frozen skim of ice on the metal float and plunged into an October lake...

"I'd just as soon do without them but there are times when you don't want a Beaver," said Vancouver Island Air's Larry Langford. "It's cheaper for us to fly the 180 and at least it's got a bulletproof carburetted engine."

By "bulletproof," Langford meant that Cessna 180 engines pose few mechanical problems. He preferred them instead of the more powerful Cessna 185s for his routine two-passenger loads. Much of Vancouver Island Air's work deals with quick trips to Seattle, Washington, or pleasure flights with pairs of whale-watching, hand-holding honeymooners. The Cessna 185 could easily do the same task but expenses accelerate.

"On short hauls, you go out and buy new cylinders for a 185 about every 700 hours and when you're paying \$1,000 a jug and it seems like every second inspection one gets replaced, then you look at the economics," Langford said.

Cessna 185s lack carburetors. Instead, gasoline is injected directly into the cylinders through a series of nozzles. At first, the concept sounded practical but the complex pumps, fuel return lines and header tanks often delayed engine starts. On seaplanes, misfires sometimes led to unplanned scenic tours down sharp-rock rapids.

Norman Biegler, a Vancouver Island Air pilot, stressed that fuel-injected engines were susceptible to poor warm-weather starting. They sometimes developed vapor lock in the lines after shutdown. To start, these lines needed purging by what one mechanic called a "fair amount of cranking," often to the point of a dead battery. Rochelle Bodnar worked briefly for a West Coast organization which owned Cessna 185 C-GWNS. Company staff derisively called it Will-Not-Start to match the last three letters of the registration. Pilots dealing with holidaying Chicago cops who have just spent days on hot highways only to be told their fishing flight is delayed, rarely appreciate vapor lock.

"Fuel-injected engines seem to be more susceptible to thermal heating and cooling so they start cracking from the spark plug to the exhaust valve," said Langford. "Carburetors can pass rust or dirt right through, but the same stuff plugs a fuel injector nozzle..."

"When you had a hot day, that thing (Cessna 185) was a real bugger. You'd push off from a dock and crank and crank and crank and nothing happens," said an operations manager at Goose Bay, Labrador. "In the air, those Cessnas had hot-running engines so it took time to familiarize new guys with cowl flaps and how to cool an engine." ²

Veteran Larry Morden of Landseair in Red Lake pointed out that Cessnas could be intimidating to newly trained commercial pilots. Awed by

230-h.p. bushplanes instead of 100-h.p. trainers, they neglected to remember that they had to fly the airplane and not the engine. In other words, Morden explained, it mattered little what was under the hood; all airplanes had limitations, especially tired bush workhorses.

Heavy-load takeoffs required the light hand of finesse, Morden said. In 185s, most pilots used one notch or "click" on the thumb release ratchet flap handle between the front seats. After blasting themselves onto the step, some added another notch (i.e., twenty degrees) and accelerated. Next, they slammed down another ten degrees to jump into the air. Not everyone agreed.

"Me, I use full power, drop ten degrees of flap, get on the step and just lay back and wait," said Herb Neufeld. "Add another notch, then off with one float, hold the handle and ease off slow on that last ten degrees after she's flying."

Coastal pilots learned quickly when they encountered ocean swells. Rolling one float out of the water may help them shorten the takeoff but sometimes, said a Harbour Air veteran in Vancouver, they play a waiting game. In light winds, aligning parallel with the swell pattern is safer than crashing into them head on. Shaking the airframe into a motionless blur should be avoided whenever possible.

"We go through a lot of windshield V-braces and take a real beating with our 185s," said Trevor Bird of Harbour Air. "If you stay right in the swells, you'll be okay and sometimes you have to ride up and down the first couple to get some speed."

One pilot north of Geraldton admitted complacency nearly got him into serious trouble. After pushing in full throttle, he placed his Cessna 185 onto the step when a severe wind gust struck the airplane and spun it almost completely around. No damage occurred but this pilot unwillingly earned the distinction of becoming one of the first pilots to "water loop" a floatplane...

Seaplane landings on towering ocean waves are frightening to "flatlanders," a term referring to pilots who learned to fly east of the Rocky Mountains. To reduce the impact of solid swells, pilots prefer transitioning from graceful flight to taxi speed with a nose high, flap on, slow-as-possible approach. Sometimes, nothing helps.

"You're just going to pound. Once you hit that water, forget the control column, you can't hardly hold it," said one pilot.

Flight instructor Dave Hamel of Fort Langley Aviation, 19 miles southeast of Vancouver, spent hundreds of hours familiarizing students with Cessna 180 ocean flying. He pointed out that swells occur regardless of wind condition and, from above, look deceptively smooth. Avoiding airframe damage is not impossible, Hamel said, but pilots must understand different shoreline types and water surfaces. Anyone-old pro or novice-can be fooled.

"A guy comes over a bay and says, 'Ah, great, that looks like a nice beach.' So they come on down to what they think is calm water and Wham! They wonder why the skin wrinkled," said Hamel...³

Cessna 180s, said Bert Archer, can be notorious "diggers." Assigned to familiarize an employee with his company's routes, he decided to do the trip without a control wheel on his side. The new man would do the flying.

"So this guy's getting ready to land and I says, 'Better slow down, you're like a house on fire.' He says, 'What?' So I told him again, 'Slow the damn thing down.' Just then he hits at about 120 mph I reached over and pulled the wheel back and hit the throttle. She skipped two or three times on the front of the floats and Jesus, we got the hell out of there..."

Since the first Cessna entered the northern scene, this high wing utility line has improved. More powerful engines, modified wings and various landing gears have been tried and nearly all worked well.

"By God, you gotta admit," said a slightly bushed diesel mechanic waiting for a ride to Thompson...from 217 miles northwest of Churchill, "them little Cessnas can do just about anything you want them to and you'll get away with it, don't matter what."

He spoke the truth.

Cessnas have served as backbones for many northern entrepreneurs and as starter airplanes for hundreds of junior pilots. Like the Douglas DC-3, Noorduyn Norseman and other greats, the Cessnas are, as aviation writer William Cox wrote in *Plane & Pilot* June 1983, "Utterly timeless."

The words of John McElwain, however, describe best what kind of punishment a Cessna can absorb. Flying in late one evening in poor visibility he mused to himself, "almost home... and it's Miller time." In that instant, John thought he was going to die.

"There was a bright blue flash off to the right as I was slammed into my shoulder straps. One of the rear seats sailed past my head and wiped the magnetic compass out and bounced back," he said. "I felt the airplane falling and I shoved the throttle and prop to the wall as my left hand pushed the control column to the stops and then pulled it back to my belt buckle.

"I couldn't see a thing and it was, oh, so dark, and I held the nose up, waited and smash, we were on the water. Afloat. Alive."

McElwain's propeller had severed one of four thick electrical lines and dragged the remaining three to the water. Accident investigators concluded he could not have seen the unmarked wires. McElwain said, "No matter how bad things look, keep flying the airplane. It's not over 'til it's over."



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Great Northern Bushplanes





Note from the Editor. I would like to thank Robert S. Grant for bringing us this well researched book on the great bush planes of the north. This selection was taken out of Chapter 9 from his book *Great Northern Bushplanes*. The chapter was edited and abridged to better fit this page. To contact Robert email him directly at

rgrant@vianet.on.ca



Cessna 185. They are not just in the north, but can be found working all over the world.

Dave's Bush Pilot Tip! If you planning to take a job flying a Cessna up north there are several questions you should ask. ¹ What happened to the previous pilot? ² What happened to the previous engine? ³ Why is the sheet metal man coming up on the same flight? See the reference numbers above for the answers. On second thought: Don't Ask!

The attitude indicator will take you back to Feature Stories.

Editor John S Goulet

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