

Fleet Canuck!

Now there's a term with wide-ranging applications and meaning. For example, it's one of the many phrases our friends north of the border use to describe themselves. For another, it can be a hockey team. Or a Canadian cartoon character (Johnny Canuck). It can also be an airplane. Three actually: the World War I Curtiss JN-4 Canuck (Jenny, south of the border); the native-designed and -built jet fighter, the CF-100 Canuck; and lastly, the Fleet Canuck. Except the Fleet Canuck isn't just an airplane. This postwar classic is closer to being an icon. Or a legend. To hardcore Canadians, it's more than simply a flying machine. And with 22,270 hours in its logbook, CF-EOH is more than just a Canuck. It's a flying witness to the Canadian character: tough, resilient, adaptable, and ready to do whatever needs doing. It's a Canuck and then some.



Canada's gem from the north

by Budd Davisson





The Fleet Canuck has a distinctive narrow-waisted look to the aft fuselage. That's accentuated by the rather wide cabin that can accommodate two people in full winter dress.



The Fleet Canuck is powered by a fuel-injected Continental C-85, and it uses bungees tucked up in the bottom of the fuselage to absorb landing loads.



CF-EAU has "only" 12,000 hours on it, most of it accumulated during flight training. Now with a prize-winning restoration and a very capable instrument panel, it's "retired" to a life of leisure with Joe Leslie at the controls.

Peter Moodie of Winnipeg, Manitoba, is typical of Canuck owners in that he is driven to make certain everyone knows of Canada's own Fleet Canuck. Being a Canuck, he's proud of his Canuck. Even though it's a little worn around the edges (22,270 hours will do that to an airplane), he has every right to be proud of his airplane in that it is one of the roughly 60 survivors of the 225 built, and in its lifetime, it has produced literally hundreds of pilots. *(Editor's Note: That last statistic is interesting; if you look at the production/registration records of airplanes built in the United States, you'll*

usually find that about half of the classic airplanes built after World War II are still on the registration rolls. The Canuck is a tough, useful airplane, but the rigors of flight training, and of flying in the bush in Canada, have taken their toll. Only a quarter of those built still survive.—HGF)

Joe Leslie, from Abbotsford, British Columbia, is proud of his Canuck, too. CF-EAU is totally restored, a spit-and-polish trophy winner, and sitting next to Joe's airplane, it makes spectators that much more aware of the toll time has taken on Peter's. But that is to be expected because Joe's Canuck



Joe Leslie and his simple fuel gauge familiar to most pilots, a wire on a cork.

has only a little more than 12,000 hours on it. Most of it in flight training like Peter's. That's right, the two airplanes sitting side by side in the Vintage area at EAA AirVenture Oshkosh 2009 had a total of more than



Hey, if you had 22,270 hours on your airframe, your rudder pedals would be a bit worn, too!



CF-EOH is well-loved, having accumulated 22,270 hours on the airframe! It's owned and flown by Peter Moodie of Winnipeg, Manitoba, who brought it to EAA AirVenture Oshkosh along with his pal Joe Leslie, of Abbotsford, British Columbia.

34,000 hours between them! 34,000 hours! That's nearly four years aloft. Airplanes don't live that long or work that hard unless they are A) good at what they do and B) hell for

stout. And the Fleet Canuck is both.

Another interesting aspect to the Canuck is that it is essentially a homebuilt airplane that was eventually put into production. The original design was laid down by J.O. "Bob" Noury of Ottawa in 1941-1942. He had thoughts about putting it into production and got it certified, but then the unpleasantness in Europe intervened, and he put his flying prototype away until the war was starting to wind down. Fleet Aircraft, based in Fort Erie, Ontario (just across the river from Buffalo, New York), was at that time looking ahead at what it knew was going to be a challenging future. It had built itself into a sizable airframe manufacturing company during the war, and the cessation of hostilities meant it was going to be out of work unless it found something to build. Enter the Noury N-75.

Recognizing it was less expensive to rework an existing design than do one from scratch, Fleet Aircraft bought the prototype and design rights, modified it slightly (bigger

Even without the added distortion of a wide-angle lens, you can see how nice and wide the cabin of a Canuck is at shoulder level. Like the Luscombe Silvaire series, the Fleet Canuck is different than many side-by-side airplanes in having stick controls.



Peter Moodie with his nice new set of Millennium cylinders that help keep CF-EOH purring along.



vertical fin, lowered thrust line), and rushed it into production powered by a fuel-injected Continental C-85-12F 85-hp. The company didn't want to miss out on the huge market that was sure to be represented by the tens of thousands of returning GI pilots, all of whom were going to want an airplane in their garage. Only it didn't work out that way.

Fleet was far from being the only airframe manufacturer to be fooled, and the huge population of aircraft built in 1946-1947 (well more than 30,000) still make up a sizable proportion of today's small aircraft population. Fleet built 198 airplanes before shutting down. The inventory was sold to Leavens Brothers, which assembled another 25 airplanes as late as 1958.

Peter says, "My airplane was one of those assembled by Leavens Brothers in 1953. Mine went to Central Airways flight school in 1953, where it stayed until sometime in the mid-'60s. Then it went to the Edmonton Flying Club. I bought her in 1986, and she is now semi-retired.

"The Canucks really formed the backbone for the Canadian post-war flight training. Although that role has pretty much been taken over by Cessnas and such, many of those who made it to the left seats of Canadian airliners got their start in Canucks. I know of at least 30 Air Canada pilots alone who flew my airplane. And, if I know that many on just my airplane, how many were trained on all the others? It has to be thousands. Although something like 30 Canucks were exported, most of them became trainers and stayed that way for several generations.

"The airplane is ideal for a trainer because it's very benign and rugged. It can take a terrific beating and keep on flying. The fact that mine has so many hours on it is testament to that fact. In 1971 the Edmonton Flying Club installed a Continental O-200 in -EOH. On the 13th flight of the test program the instructor, after a very short ground roll and steep climb-out, stalled at



The trim system uses this handle and Teleflex cable.

around 100 feet. He did manage to keep it straight all the way to the ground. The impact collapsed the gear, and there was enough damage to declare the aircraft a write-off. That he survived and the airplane was rebuilt says something about its overall rugged construction.

"Joe's airplane also shows how tough it can be because it survived a mid-air collision. It's in the logbook, and you can see where they spliced the main spar carry-through tube."

A casual walk around the airplane reveals several unique features about it. For instance, although the airplane is traditional rag-and-tube construction, the ailerons are metal-skinned, and the hinges on the ailerons are external to the wing and on the top, rather than the bottom. Also, there's a fairly sophisticated piece of tooling evident in that there is a bead stamped in the aileron surface that goes forward and over the aileron nose, making the bead into a compound curve. So the ailerons were made in stamping dies: pretty sophisticated stuff for what is essentially a puddle jumper.

"Of course," Peter says, "the airplane is a little on the heavy side for what it is. Mine is 1,035 pounds empty, and the factory specs say it should be a little over 900 pounds, which none of them are. Gross weight is 1,480 pounds and 1,524 on floats. Plus it's no Super Cub. The airfoil is a NACA 23012, which is a fairly high-performance airfoil not known for low-speed lifting

like the Cub's flat-bottom wing. So, it doesn't leap off the ground.

"When Joe got his airplane, it was pretty rough, and he got to deal with the fact that the airplane wasn't produced in large numbers, so some of the parts are hard to find. The lift struts, for instance, aren't regular streamlined tubing. They are something Fleet had made specifically for the Canuck, so, if you need a strut, you have no choice but to find an actual Canuck strut.

"The same thing goes for the trim system. It uses a crank, which is impossible to find, but Joe found one. Most Canucks have gone to a Teleflex helix-wound push-pull cable, which was done on my airplane, too, but the cable is also hard to find and costs \$45 a foot. As it happens, I found a long, long piece in a surplus store that was made for the Noorduyt Norseman, and I got the entire thing, enough to do three airplanes, for \$50.

"And then there are the bungees," Peter says and frowns. "They are also unique to the Canuck, so you have to plan well ahead, when replacing them, because they are always special order. The same thing applies to the windshields. The molds exist, but they are in a cottage-industry environment, so you can't just order one expecting it to be on the shelf.

"When Joe was rebuilding his airplane, he was lucky that his wings were pretty good. The spars use an extruded spar cap that is no longer available, so if you need to

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them. You just pull the wheels, and the axles slide into sockets on top the floats. There's not even a spreader bar in front. Only in the rear.


"The skis are just as useful and unique. The entire tire sits on top the ski in a pocket-like arrangement and is strapped down to the ski. There are some Federals licensed for the Canuck, but they attach like all other skis do, so they aren't as convenient.

"The airplane is really a great airplane to fly. For one thing, it's 40 inches wide, which, for its time is quite wide, so both of you can wear heavy coats and not be jammed in, although the heater does a fairly reasonable job of keeping the cabin

huge fun, but you have to be careful slipping to the right with skis and maintain 75 mph indicated airspeed because the airspeed reading is not correct in that attitude. Because of the positive controls and its wide gear, it is also terrific in a crosswind. I know people who would go out and play in 20-knot direct crosswinds just for the fun of it. One thing that you don't expect, when you first start flying it, is that it floats quite a bit on landing, so you can't come in fast. That's one of the effects of the 23012 airfoil: It doesn't build up drag very quickly when you try to slow it down in ground effect.

"It is stressed for aerobatics, and when it was being used extensively for training, it was common for schools to be teaching loops and rolls in it. And of course spins. It's really a fun spinning airplane, and many students made six-turn spins part of every solo flight.

"You can generally flight plan 95-100 mph, which, at less than 5 gallons per hour and a 19-gallon fuel tank, means you can fly pretty long legs. The airplane is very stable, so on cross-countries you can relax and pretty much let go of it.

"Joe's airplane is a beautiful example of the breed, and mine definitely isn't. Truthfully, I sort of like it that way because I don't have to worry about it. I just enjoy it. The last time it was re-covered was after it crashed in '71. They used Razorback, so it's still in pretty good condition. It was repainted in 1980, and I have changed the struts, some of the windows, and redone the seats with temper foam. I also majored the engine and installed a UBG-16 bar graph engine analyzer and new radios. Other than that, it has just been flown. I know that sooner or later I'm going to have to strip it down, but I'm putting it off as long as possible because as soon as I restore it, all of the patina that comes from so many years in the air will be gone. I think it has character this way, and I'll keep it that way as long as possible." 

The Canuck and Its Contemporaries Compared

	Fleet 80 Canuck	Aeronca 7AC Champion	Cessna 140	Luscombe 8E Silvaire
Engine (Continental)	85 hp	65 hp	85 hp	85 hp
Cruise mph	100	90	101	95
Initial climb, fpm	550	370	620	640
Service ceiling, ft.	12,000	12,500	15,100	15,500
Takeoff over 50 ft.	800	632	1,950	1,850
Landing over 50 ft.	600	885	1,530	1,540
Gross weight, lbs.	1,480	1,220	1,500	1,400
Empty weight, lbs.	858	740	818	791
Fuel, U.S. gal.	19	14	21	30
Wingspan	34 ft.	35 ft.	33 ft. 3 in.	34 ft. 7 in

Source: Aircraft Blue Book Price Digest, except for the Fleet Canuck figures, which are from Canadian Aircraft Since 1909 by K.M. Molso and H.A. Taylor. Landing and takeoff distances for the Canuck are from an old copy of Canadian Aviation.

totally rebuild a spar, it can get very difficult. The ribs are punched aluminum and can be repaired, but the spars can be a problem.

"Having been an airframe manufacturer during the war, Fleet did a number of things on the Canuck you wouldn't expect for a little airplane, and it shows the airplane was designed for operations up here in Canada. The Fleet-designed floats, for instance, don't require you to remove the landing gear to mount

warm. It is, however, quite noisy, reportedly 115 decibels, which is well above the level that hearing damage can occur, so earplugs or a headset is mandatory.

"The controls are really well balanced, with the ailerons being a little like a Cub, only it rolls faster. And, as you'd expect, it has a lot of adverse yaw, so you really need to use your feet.

"With its powerful rudder and ailerons, it slips like a stone, which is