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FAIRCHILD HUSKY – THE “MADE IN B.C.” WATERBOMBER

by Dirk Septer

Over the years, many types of aircraft have been used as waterbombers in British Columbia. Most of these aircraft have been converted especially for this purpose from surplus civilian or former military aircraft. The backbone of the Conair fleet used in B.C. is the Douglas DC-6, used in the 1950s and 1960s for passenger and cargo service.

The CS3F Tracker and Douglas A-26 were formerly military aircraft; the latter being a converted World War II bomber. Another waterbomber is the Canso, an amphibian, also of Second World War vintage.

Some of the more recent waterbombers were especially developed for forest fire fighting purposes. Examples are the Canadair CL-215 and CL-415 and the “new kid on the block,” the versatile Air Tractor 802. Especially designed for areas with many lakes suitable for scooping water, the two Canadair machines have not been extensively used in B.C.

Recycled paper



In the past, smaller bushplanes such as the de Havilland Beaver and Otter were used as waterbombers in Ontario and the United States. But very few people know that the Fairchild Husky, another small bushplane in this category, was likewise used in B.C.

Canada has produced a number of successful bushplanes like the Noorduyn Norseman, de Havilland Canada DHC-2 Beaver and DHC-3 Otter. With the exception of a number of operators and pilots who flew that other Canadian designed and built bush aircraft, few people have heard of the Fairchild F 11 Husky.

The Husky was designed and built in Longueuil, Quebec. A little less than 10 months elapsed between the start of the Husky project and the aircraft's first flight. On June 14, 1946 the prototype made its first flight, with chief pilot Arch M. "Mac" McKenzie at the controls.

The Husky was a relatively large aircraft with a distinctive upswept rear fuselage. It has been compared to a pregnant fish or called a "guppy." It was a strut-braced, high-wing monoplane, following the conventional pattern for successful bush aircraft. It was all metal with a conventional stressed skin fuselage, but incorporated fabric-covered wings, elevators and rudder. It was powered by a 450 HP Pratt & Whitney Wasp Jr. engine.

Removable sling seats fore and aft held three passengers each, with detachable chairs seating two more, for a total of eight passengers in the cabin with room for a crew of two, or pilot and one passenger, up front.

The monocoque fuselage with a rear door permitted loading from the rear of such awkward items as canoes, lumber and drill rods. At the back of the cabin the bottom of the fuselage sloped up sharply to the high tail. Here the tail loading hatch (opened by a crank) was one of the aircraft's best features. Routinely, 16-foot canoes were pulled through this hatch into the cabin. Loading two such canoes was easy.

When BC Tel had a large piece of equipment to go to Trutch Island, they unsuccessfully checked all around Vancouver to find a floatplane that could handle it. They finally phoned Island Airlines at Campbell River. Their answer was: "no problem." They just backed their Husky up to the ramp and slid the cargo through the big tail door.

The rear door hatch could be opened in flight with a hand crank. This feature was quite useful for dropping cargo where no suitable landing spots were available. The Manitoba government operated two Husky aircraft and used them to drop bales of hay to cattle marooned by spring floods in the southern part of that province, thus saving them from starvation. Lee Frankham of Campbell River remembers dropping frozen quarters of beef from tree top level close to the construction camps of the crews building the railroad into Lynn Lake in northern Manitoba.

The Husky was received very well and was highly regarded by many operators. The aircraft appeared to be a success when several were purchased by Nickel Belt Airways. This Sudbury, Ontario operation was owned by Ben Mervin, who also controlled Boreal Airways in Quebec. However, at the same time, de Havilland Canada was also

developing a new plane in the same general category as the Husky. Their DHC-2 Beaver made its first flight on August 16, 1947. The Beaver soon showed an edge over the Husky. The big difference was the power-to-weight ratio. Whereas both aircraft had the same Pratt & Whitney R-985 engine, the Husky had a much larger gross weight. This 450 HP powerplant provided enough for the Beaver but not quite enough for the Husky.

At the time, the Ontario Department of Lands and Forests was looking for a new bushplane. Frank MacDougall, the department's Deputy Minister and a bushplane pilot himself, promised an "order of 25 machines" to whichever company produced the best aircraft. Both the Husky and Beaver were serious candidates. At the end of a series of tests, MacDougall decided in favour of the Beaver. He considered the Husky's performance to be no match for the Beaver, particularly on takeoff. Early on, George Neal, de Havilland's test pilot, had given him a full demonstration of the Beaver's capabilities. The department immediately ordered four. This order was soon increased and over time some 50 Beavers were delivered to the Ontario Department of Lands and Forests.

Due to too small an engine and the initial success of the DHC-2 Beaver, the Husky never became successful. Fairchild lost an opportunity for a quantity purchase and the company never recovered. By the time Fairchild went bankrupt only 12 Huskys had been built.

It was generally agreed that the Husky was underpowered. Though it had comparable cargo space and the advantage of rear ramp loading, the Husky's engine was too small compared to the Norseman's 600 HP Wasp Senior engine. The Husky was slow to accelerate and more than once pilots had to throw something like a 50-pound bag of onions off the plane to permit takeoff.

The Husky's lack of takeoff performance was the most persistent criticism. With equal loads the Husky required more room than the Norseman and the Beaver. However, the necessary room was almost always there and the aircraft could perform beautifully a number of bush freighting functions which the Norseman and the Beaver handled either very inefficiently, or not at all. Although accused of being underpowered, the Husky proved to be a solid and dependable bushplane.

After a start in eastern Canada, most of the remaining Huskys ended up on the west coast. While Red Lake in northern Ontario likes to call itself the Norseman capital of the world, Campbell River could easily have been the Husky capital. Island Air, which was later taken over by the Jim Pattison Group to form Air BC, operated three Husky aircraft out of Campbell River.

Starting in the mid-1950s, the first of half a dozen Huskys was re-engined with the 550 HP Alvis-Leonides engine from Britain, enabling the aircraft to fly relatively fast, at 120 mph (193 km/h). In later years attempts were made to revive the Husky project. Preliminary work was done on conversion to a turboprop engine, a stretched fuselage and tricycle landing gear. Saunders Aircraft of Gimli, Manitoba had plans to build five complete sets of Husky components but this venture failed when one of the partners pulled out of the project.

Just one aircraft was built at Gimli and only from parts of a salvaged Husky pulled from the bush where it had crashed in 1955. Later this rebuilt Husky would sit idle at the Vancouver airport for several years. Now it is the only flyable Husky and is on display at the Western Canada Aviation Museum in Winnipeg, Manitoba. The last Husky flying commercially crashed and sank near Prince Rupert in 1985. This aircraft had become something of a trademark for North Coast Air Services of Prince Rupert. For about 22 years it serviced the north coast and Queen Charlotte Islands. Soon after this Husky crashed the wreckage was lifted from the bottom of Seal Cove and is now part of the collection of the Canadian Museum of Flight and Transportation in Langley. This very same aircraft was the only Husky to be converted to a waterbomber.

The summer of 1958 will be remembered as a hot and dry one and many forest fires raged in B.C. and elsewhere. Though the aircraft was never really designed to be used as a waterbomber, the prototype Leonides-powered Husky was converted for such use in a very short time. In eight days, Husky Aircraft, based at Vancouver's Sea Island airport, designed and built a special 150-gallon watertank. It was installed inside the aircraft with inlet pipes between the floats and a dump chute leading to the open rear belly door. Because of the extreme fire emergency in B.C. during July and August, the Department of Transport gave special clearance for this Husky and as soon as it was ready it was put to use in the Nelson Forest District.

The aircraft and its rapid snorkel fill-up system performed well. The interior tank permitted normal flying efficiency, including dive bombing, and a reasonable payload. Equipped with floats, the Husky could be used on a large number of water landing areas. The inlet pipe system enabled the tank to be refilled in six seconds of fast taxiing. The load was released in four seconds, to form a pattern 300 to 500 feet long and 40 to 50 feet wide.

In 15 days of water dropping for the B.C. Forest Service the Husky logged 85 flying hours. The aircraft operated alongside a de Havilland Beaver. Each aircraft picked up water from the same source and they worked together on the same fires. The Husky carried just twice the quantity of water per trip and could make three round trips for every two made by the Beaver. Whereas the Husky's water pickup pipes were the only exterior obstruction to airflow, the Beaver's performance was seriously reduced by the watertanks mounted on the top decks of its floats.

Pilot K.W. Quest, who flew 50 hours doing the Husky water dropping, confirmed the excellent performance and flying characteristics of the aircraft. It was very light on the controls and easy to handle. When the water was dropped there were no sudden changes in trim and gentle stick pressure brought immediate response, even during mid-afternoon turbulence and at low airspeeds.

Despite all these advantages, the Husky waterbomber was rather short-lived. Apparently the aircraft was used again as a waterbomber in the 1959 season. This time it was flown by Jack Anderson in the Fort St. James and Quesnel areas. In February, 1959 Skyways Air Services of Langley, the predecessor of Conair, gave serious consideration to the purchase of the Husky waterbomber but this never happened.

It is not known what became of the Husky's tank and water pick-up equipment. There are also rumours that a Norseman was converted to a waterbomber. Perhaps someone can answer these questions.

Apart from the lack of takeoff performance, the Husky bushplane proved to be a solid and dependable aircraft. If Fairchild would have continued, it is certain that eventually a respectable number of Huskys would have been sold. The original Husky with the 450 HP engine never "got off the ground" due to a combination of circumstances: a reputation for being underpowered, competition from cheap war surplus airplanes, Fairchild's switch to prefab houses and ultimately, the de Havilland Beaver. The Husky was a superior Canadian-made product far ahead of its time that should have been produced in a big way. In 1946 an executive of engine builders Pratt & Whitney called the Husky "far in advance of anything being built in Canada today."

Anyone with knowledge of the Husky, especially the water bomber version, is asked to contact the author:

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 Cortes Island, BC V0P 1Z0



REQUEST FOR INFORMATION

A former Forest Service van is being restored and the owner is seeking information, especially regarding the original lettering, unit numbering and emblems. It is a 1965 Ford Econoline, originally purchased from Olson Ford in Victoria and delivered on June 24, 1965. The FS number was 2860.

If you have first-hand knowledge of this type of vehicle, the uses to which they were put and photographs showing any details please contact the owner:

Mr. Alan Adams
 # 409 – 1035 Auckland Street
 New Westminster, BC V3M 1K9

Phone: 604-521-4983

FICTIONAL WORKS SET IN THE FORESTS OF B.C.

Compiled by John Parminter

- Cushman, Dan. 1953. *Timberjack*. Fawcett Publications, New York, New York. 160 p.
- Fairlie, Jock. 1954. *Lumberjack*. Hodder & Stoughton, London, England. 191 p.
- Godwin, George. 1994. *The eternal forest*. Godwin Books, Vancouver, B.C. Previously published as "The eternal forest under western skies" in 1914 or 1915 by Appleton, New York, New York. Introduction by George Woodcock. xvi + 317 p.
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- Grainger, M. Allerdale. 1908. *Woodsmen of the west*. Edward Arnold, London, England and The Musson Book Company, Toronto, Ontario. ix + 206 p. Illus.
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- Ostos, Quoron. 1959. *Skulamagee; a story of early Vancouver*. Christopher Publishing House, Boston, Massachusetts. 254 p.
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- Sinclair, Bertrand William. 1924. *The inverted pyramid*. F.D. Goodchild, Toronto, Ontario.
- Trower, Peter. 1993. *Grogan's cafe - a novel of the B.C. woods*. Harbour Publishing, Madeira Park, B.C. 238 p.
- Trower, Peter. 1996. *Dead man's ticket: a novel of the streets and the woods*. Harbour Publishing, Madeira Park, B.C. 237 p.

This list includes original editions only, not reprints, except where the title was changed in another edition (as for Godwin and Haig-Brown). Many of these were originally listed in Charles Lillard's article in "Men of the forest," *Sound Heritage* VI(3):73-77.

THE TUGAWAY

by Betty Dalzell

Among the many artifacts from the logging history of the Queen Charlottes which are displayed at the Port Clements Museum is a real oddity, a 1927 Tugaway in running condition. This pole conveyance was one of three such machines built for the J.H. Baxter Pole Company.

In 1928 the Baxter company was to begin logging cedar poles at three locations in the Port Clements area. Some of the sites were up to four miles from tidewater, so the horse-drawn method of moving logs, commonly in use at that time, was impractical.

The company asked Westminster Iron Works to modify three Fordson tractors to run on a proposed railroad which would have log rails. The ordinary rubber-tired wheels of the tractors were removed and replaced with specially-designed cast iron wheels with 12-inch flanges which would fit over the rails, similar to a train wheel. Each tractor was to have an adjustable extension, a two-wheeled trailer, also with concave wheels, which would support the end of the pole load. The steering wheels were removed as they wouldn't be needed, since the machines could be controlled solely by brake and accelerator. Two fuel tanks were installed on each tractor, a small one for gasoline to get the engine started and a larger one for the inexpensive, but foul-smelling, distillate on which it operated.

Baxter built a railroad at each of the three sites to be logged. The route was cleared and roughly graded, then 8-inch hemlock logs, adzed where needed to maintain an equal diameter, were laid longitudinally to form the rails over the wood ties, from the pole-cutting area to tidewater. There was a "Y" at each end so the tractors could wait while another was loading or unloading. Incidentally, the tractors were never called Tugaways by the men who worked with them. They knew them as "humdergins."

When the market for cedar poles collapsed in 1933, the company sold their assets for what they could get and left the area. The Tugaways, only two of which were in operating condition by that time, were purchased by a group of local loggers for \$100, then greased and put into storage to await a better economic time.

But they would never be used again. When conditions warranted the start-up of pole harvesting several years later the more efficient skidders and cats had come into use. Over the years the historic old machines gradually deteriorated as weather and scavengers took their toll. By 1989 when the survivor of the group of loggers which had purchased them from Baxter in 1933 donated the remains to the Port Clements Museum they were a sorry looking sight.

Salvaging the best machine and some of the parts of what was left of the other, the antique items were carefully transferred from the forest to the museum's workshop. Aided by financial assistance from the B.C. Heritage Trust, volunteers spend hundreds of hours stripping down, cleaning and painstakingly reassembling the parts until they had restored one Tugaway to working condition. The thick coat of grease applied in 1933 had hardened to the consistency of varnish and was very difficult to remove. But it had done a fantastic

job of protecting all the vital parts. It was a proud moment when Herb Hampton, who had overseen and spent so much time on the project, turned the crank and the tractor came to life.

Since the unique road the Tugaways ran on is a vital part of their history, a section has been duplicated on the museum grounds. Eventually it is hoped to extend this so the machine can be driven out for demonstration. Until then, however, it is on exhibit in the open-sided museum pavilion, complete with its trailer and load of cedar poles.



NEW PUBLICATIONS

Cameron, June. 1999. Destination Cortez (sic) Island: a sailor's life along the B.C. coast. Heritage House, Surrey, B.C. 224 p.

Trower, Peter. 1999. Chainsaws in the cathedral: collected woods poems. Ekstasis Editions, Victoria, B.C. 160 p.

REMINDER

The 1999 AGM is scheduled for June 26 and will be held at the Pacific Forestry Centre in Victoria in association with the Canadian Forest Service's centenary. Please mark your calendar and plan to attend. Details will follow in the next newsletter.



This newsletter is the official organ of the Forest History Association of British Columbia. It is distributed at no charge to members of the association, libraries, archives and museums. Items on forest history topics, descriptions of current projects, requests for information, book reviews, letters, comments and suggestions are welcomed.

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