

design and manufacture. The company is owned by the Canadian Government. Its main plant is located in Downsview, Ontario, with other offices located in Ottawa.

Capability: The deHavilland Aircraft of Canada Ltd is a designer and manufacturer of both civilian and military aircraft. It is a leader in short takeoff and landing (STOL) aircraft technology, and is actively engaged in the design and manufacture of these aircraft. During the time period 1939-1945, the company built over 3,000 Mosquito bombers, Tiger Moth, and Anson trainers. Following this time, they designed and built the Fox Moth and later the DHC-2 Beaver. More than 1,600 of these latter aircraft were built for use in Canada, the US, and world-wide locations. Their work on the Beaver pioneered the concept of STOL. This aircraft was followed by the DHC-3 Otter and the twin-engine DHC-4 Caribou.

In the early 1960s, deHavilland combined the turbine power technology with their STOL technology and began to turn out the Buffalo, Twin Otter and Dash 7 aircraft. Today, the flight certification program for the Dash 8 is well underway. In total, the certification program will involve five aircraft for a total of 1,670 flying hours. The 36-passenger Dash 8 is slated for first customer delivery in the fall of 1984.

In the R&D area, deHavilland has designed and tested many two and three dimensional (airfoil section) wind tunnel models in various low speed wind tunnels. The tunnels mainly used are those operated by the National Aeronautical Establishment in Ottawa. This type of work has led to the development of an advanced powered lift system known as the Augmentor-Wing. A large Augmentor-Wing model incorporating a unique self-contained load compressor to provide large quantities of relatively cool air for test purposes was designed, built, and has been successfully tested in the 40 ft x 80 ft wind tunnel at NASA/Ames. At this time, a converted Buffalo incorporating the deHavilland Augmentor-Wing concept has completed over 700 hours of flight test research covering all aspects of STOL technology, airworthiness, handling and control, instrumentation, avionics, navigation, etc. They also designed and manufactured the complete power plant nacelle package that was incorporated in to the Augmentor-Wing Flight Test Vehicle.

Average Work Force: Engineers - 131
Machinists - 90
Tool & Die Makers - 75
Technicians - 215
Support Staff - 115
Others - 2329

Gross Sales: \$152M (To Dec 82)

Plant Size: 1,450,000 sq ft
271,000 sq ft

Equipment: For many years the DeHavilland plants have been engaged in the production of stressed skin aluminum alloy airframes, and in doing so, utilize equipment normally found in a well-equipped aircraft manufacturing complex. Their present shop equipment includes milling machines; engine, turret, and pre-programmed automatic lathes; drill presses; drop hammers; punch, hydro and stretch presses; magneform; shapers & rolls; jogglers; tube bending and swaging machines; precision grinders; planers; multi-spindle routers; spot and heli-arc welders; vertical and jig borers; and broaches and shears. In addition, heat treat, foundry, plating, painting, sandblasting, and other treatment equipment is available. Hydraulic, instrument, radio, plastic, and upholstery shops also form part of the complete facility. The plastic shop manufactures fiberglass and polycarbonate parts. It is also fully equipped with autoclaves, ovens, bonding and decorative applicator presses for the manufacture of structural kevlar composite parts and aircraft interiors. Numerically controlled equipment consist of drafting and digitizing machine, several multi-spindle profile mills which include a pair of dual gantry 3-spindle 5-axis vertical profiler, wire marking machine and a pipe bender complete with a tube data center.

deHavilland also maintains an Engineering Library, Metallurgical Laboratory, an Aerodynamics Laboratory, a Structural Testing Department, a Materials Research Laboratory, Environmental Chambers, and an Engineering Computer Center. In addition, an Engineering Development Shop, housed in a separate 11,000 sq ft building, consists of 100 skilled tradesmen experienced in working directly with the Engineering staff. The Data Center is equipped with an IBM 3031AP and an IBM 4341/12. The 4341/12 is dedicated to Engineering and each has a 12 MBytes and N/C of memory. In addition, the Engineering Department has a VAX 11/780 Computer used primarily for structural analysis.

Experience: Contracts for both aircraft purchases, and research & development programs have been negotiated with the USAF, NASA, US Department of Interior, USAF Academy, Alaska National Guard, Canadian Forces, Canadian National Research Council, and the Canadian Department of Transport. In addition to the above, the DeHavilland product line is presently being operated in over 70 countries world-wide and on all seven continents. Previous DOD contracts include:

- 981 L20 DHC-2 Mk1 Beaver aircraft to the USAF/US Army.
- 165 DHC-4 Caribou aircraft to the US Army.
- CV7A Buffalo aircraft development.
- SC8A Air Cushion Landing System.

Keywords: 1 = Aircraft; 3 = Avionics; 12 = Machining; Aircraft Control = 1; Air Delivery Systems = 1; Airframe Components = 1; Airframe Structures = 1; Cargo Handling Equipment = 1; Cockpit Displays = 3; Composite/Fiberglass Components = 1; Data Handling = 1; Data Analysis = 1; Drones = 1; Engine Components = 1; Engine Systems = 1; Engine Controls = 1; Environmental Controls = 1; Fuel Systems = 1; Fuel Research = 1; Hydraulics = 1; Instruments = 1; Landing Gears = 1; Navigation = 1; Performance Measuring Devices = 1; Personnel Survival/Restraint = 1; Repair & Overhaul = 1; Simulators = 1; Training = 1; STOL Aircraft Manufacture = 1; Wiring = 1; Tubing = 1; Augmentor Wing = 1; Extended length = 12.

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DEVTEK CORPORATION

Code: DEV

Address: 280 Rayette Road
Concord, Ontario, Canada L4K 2G7

Contact: Mr. H Trevor Pawson, Marketing Manager - (416) 669-4484

History: Devtek Corp is a wholly owned Canadian company founded in 1980. It was originally the Aerospace/Defense Group owned by Magna International Inc, a Toronto based high technology company. Companies affiliated with Devtek are Diemaco Inc, Hermes Electronics Ltd, Magna Electronics, Verral Metal Fabricators and West Height Manufacturing Inc. Brief descriptions of these companies are included in this report.

Capability: Devtek Corp has five modern plants, each specializing in various phases of high technology engineering and manufacturing products ranging from undersea detection devices to components for outer space projects. Having pursued markets in the aerospace/defense and commercial goods sectors, Devtek has relied on its people to develop unique, new highly efficient manufacturing techniques. This confidence has resulted in an average annual sales growth of 30% and has made Devtek one of the fastest growing international manufacturing corporations. Devtek's five companies offer a wide range of modern computer controlled machine tools, staffed with highly qualified people with unique