

DOWTY CANADA ELECTRONICS Ltd

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HISTORY: Dowty Canada Electronics Ltd was incorporated in 1976 to design, manufacture and service electronic products for the communications, air, maritime and ground transportation markets. In 1982, Dowty Canada Electronics Ltd (formerly Simtron Ltd) was acquired by Dowty Equipment of Canada Ltd. Dowty specializes in the design, development, manufacturing, certifications testing and overhaul of landing gear, flight control systems and related aerospace and marine equipment.

CAPABILITY: Dowty Canada Electronics Ltd's activities are divided into three major areas:

- **Aerospace** – The design and manufacture of aircraft subsystems and black boxes. This is typified by the microprocessor-based "steer-by-wire" equipment presently in production as standard equipment on the Canadair Challenger 601, the deHavilland Dash 8, and Gulfstream IV Aircraft. Dowty Canada Electronics Ltd is approved to AQAP 4 levels which have direct equivalency to MIL-Q-9858.
- **Multiplex Systems** – Dowty Canada Electronics Ltd has developed a Data Acquisition System (Multiplex 490). Ongoing R&D and development are proceeding on equipment Health Monitor and Control Systems, particularly in the aerospace sector. Custom Systems engineering activity is ongoing.
- **Build-To-Print** – Dowty Canada Electronics Ltd is engaged in high quality Build-to-Print for a number of customers. Products include printed circuit board assembly, wire harnessing, cabinet assembly, test equipment and testing. The in-house engineering capability enables Dowty Canada Electronics Ltd to offer design, redesign and substitution services on subcontract work.

AVERAGE WORK FORCE: R&D – 3
Engineers – 3
Technicians – 3
Production – 65
Others – 10

GROSS SALES: 1986 – \$2.5M
1987 – \$2.5M

PLANT SIZE: 20,000 Sq Ft

EQUIPMENT: Equipment includes Hollis Wave Soldering Machine, degreasing unit, various R&D and test equipment, and vibration and environmental chambers for engineering, R&D, and manufacturing screen testing.

EXPERIENCE: See Capability Section.

KEYWORDS: Steer by Wire Systems; Build-To-Print; PCB Fabrication; Test Equipment; Specialized Test Equipment; Wiring Harness Fabrication; Cabinets; Cabinet Testing.

REVISED: July 88

DOWTY CANADA Ltd

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HISTORY: Dowty Canada is a member of Dowty Aerospace North America, a part of the Dowty Group. The Group with headquarters in Cheltenham, England, is an international supplier of aerospace and defense, mining, industrial and electronic equipment.

Dowty Canada Ltd has a longstanding reputation as a supplier of state-of-the-art aircraft landing gear and industrial and marine hydraulic systems. In recent years, the company has developed a total capability in microprocessor-controlled hybrid actuation systems with the acquisition of Dowty Canada Electronics Ltd, a company specializing in the design, development and manufacture of sophisticated electronic control equipment.

CAPABILITY: Dowty provides Integrated Systems Management from concept design to product support of – aircraft landing gear systems; microprocessor-controlled ground handling and flight control systems; industrial, marine and military hybrid actuation systems; and equipment health monitoring, information and communication systems.

Computer aided design augments our extensive design and development capability and with CNC manufacturing equipment, ensures the cost effective production of sophisticated products. Ongoing development projects ensure that Dowty Canada is prepared for future hydraulic, electrohydraulic, mechanical, and electronic controlled actuation and control system needs. Current R&D activities include landing gear studies for soft/rough field applications and crashworthiness features for helicopter landing gears.

AVERAGE WORK FORCE: Design & Development
Engineering – 50
Sales & Technical Staff – 30
Quality Control – 30
Operations – 200
Financial & Administration – 30
Total – 340

GROSS SALES: 1987 – \$1.8B (Total Dowty Group Sales)

PLANT SIZE: 12 Acres (Land)
200,000 Sq Ft

EQUIPMENT: Dowty Canada maintains an extensive design capability, augmented by an integrated CAD/CAM system and specialized analytical modelling software. Development and certification test facilities include a Cyber II computer for test control and data acquisition; a Honeywell H-TMs 3000 Test Management System; strength, fatigue, drop and photo-elastic test rigs; and environmental test chambers. A wide range of state-of-the-art manufacturing equipment ensure cost-effective production of the sophisticated components produced by Dowty Canada. In addition to CAD/CAM, Dowty has implemented an integrated machining cell system linked to a Distributive Numerical Control (DNC) system which provides immediate electronic transfer of data from CAD/CAM direct to the CNC Control. Quality assurance and reliability functions are performed in accordance with the standard practices of the aerospace and marine industries. Dowty Canada operates in accordance with Canadian and US military and commercial standards meeting MIL-Q-9858A, AQAP-1, AQAP-4, AQAP-6, FAA and DOT requirements.

EXPERIENCE: Since its inception in 1940, Dowty Canada has provided landing gear for many successful commercial and military aircraft, ranging from business jets and commuter transports to military fighters, jet trainers and helicopters.

Current programs include main landing gear for the Bell-Boeing V-22 Joint Services Vertical Lift Aircraft and the Kaman Aerospace USN SH-2F (LAMPS MK1) Helicopter. Dowty is also providing a wide range of equipment, including main and nose landing gear and steer-by-wire nosewheel steering systems, for the deHavilland Dash 8 Short Haul Transport and the Canadair CL-601 Jet Transport. Dowty also supplies outrigger landing gear for the McDonnell Douglas USMC AV-8B V/STOL Light Attack Aircraft.

Dowty Canada also designs and manufactures a wide range of marine equipment and systems. Currently in production are lightweight capstans for the Bell Aerospace US Navy Aircushion Landing Craft (LCAC). Dowty also supplies the hydraulic power pack and constant tension winch for the DAF Indal Helicopter Recovery Assist, Securing and Traversing (RAST) System, which is in service with the US, Japanese and Canadian Navies.