

NORTHERN AIRBORNE TECHNOLOGY Ltd

Code: NAT

Address: 1839 1st Ave
Prince George, British Columbia,
Canada V2L 2Y8

Contact: Mr. W Shawlee, President - (604) 562-2232

Capability: Northern Airborne Technology Ltd has R&D expertise in avionics, flight recorders, computer systems (airborne), lighted panels (LED/fiber optics), and visual information devices. Their avionics products include external/internal airborne sound systems, communication systems (intercomm, audio cont), and custom avionics control & interface systems.

Average Work Force: Management - 3
Engineering - 4
Production - 6
Field Support Staff - 2

Gross Sales: 1980 - \$0.12M (6 months)
1981 - \$0.76M
1982/83 - \$0.85M
1983/84 - \$3.20M (forecast)
1984/85 - \$4.30M (forecast)

Plant Size: 6,800 sq ft

Equipment: Northern Airborne Technology Ltd's equipment include machine shop (metal and plastic), engraving shop, artwork studio, photo lab/photo fabrication lab, ship/size wiring harness production area (life size jigs for Bell 206, Aero-spatiale, Astar, Twinstar), and assembly & testing equipment for avionics products for in-house or vendor produced equipment.

Experience: Listed below are clients of Northern Airborne Technology Ltd and status of their projects:

Client: Wulfsberg Electronics, Quebec Provincial Police, Ontario Provincial Police, Department of National Defense. *Target:* Design a portable clandestine wide-band VHF FM communications system based on the RT7200/RT9600 transceiver core. *Completion:* Complete system designed and built incorporating a unique planar radiator antenna and all voltage switching power supply. The unit was indistinguishable from an ordinary briefcase in all aspects excluding weight, and was tremendously successful in extensive security agency field trials. On proof of concept, Wulfsberg has now offered the TC1 transit case as a standard product.

Client: Department of National Defense. *Target:* Re-design internal illumination of the C722/C962 FM control head to insure consistent performance with other cockpit lighting. *Completion:* Two step LED dimming circuit was modified to provide linear dimming while retaining correct daylight operation. Circuit redesign was simple and easily carried out by Department of National Defense as a field modification without major expense or rework. Adopted into all units in service.

Client: Canadian Coast Guard. *Target:* Provide a high capability audio inter-communication system for the SRN6/Search & Rescue Hovercraft that would interface fundamentally incompatible radios to standard headsets. Reliable multiple station intercom operation was required under extreme noise conditions. *Completion:* A modular, ultra-flexible audio system and interface were designed and installed in the SRN6. The resulting new performance levels and concepts now form the basic craft standards.

Client: National Research Council. *Target:* First hardware phase of the HSA70 Helicopter stress analyzer. The HSA70 is a self-adaptive micro-processor system that provides spoken advisory to helicopter pilots for accident avoidance. Flight data recorder capability via non-volatile storage is also scheduled. *Progress:* Initial hardware/software interaction underway, airframe interface circuitry designed.

Client: R&D. *Target:* Develop an all-attitude crashworthy ELT antenna system for helicopters. *Progress:* Planar antenna feasibility demonstrated, production techniques under consideration.

Client: Hughes Helicopters. *Target:* Design a technically improved, but harness compatible, audio controller to replace the C6533 Military Controller. *Progress:* Working prototypes of all functional blocks produced. Mechanical model demonstrated. Preproduction status at this time. Further research underway to demonstrate feasibility of all solid state 560 nm panel illumination to reduce interference with night vision systems.

Northern Airborne Technology Ltd has also acted as technical advisor in the following projects and assignments:

- Feasibility of low cost computer interface for photogrammetric digitizer.
- Design of solid state control system for Vinten airborne camera.
- Theory proposal for remote real estate monitoring system.
- Theory proposal for computer monitored home and business security system.
- Design of new electrical system for the Canadian Coast Guard SAR Hovercraft.

Keywords: 1 = Aircraft; 3 = Avionics; 5 = Communications; 6 = Computers; 10 = Image Processing & Optics; 12 = Machining; 14 = Protective Equipment; 20 = Miscellaneous; Analyzer = 1, 14; Audio = 3, 5; Cables = 1; Clandestine = 5; Communications Systems = 5; Computer Systems = 1, 6; Controls = 1, 3, 5; Fiber Optics Illumination = 1; Intercommunication Systems = 5; Lighted Panels = 1, 10; LEDs = 10; Noise = 5; Night Vision = 1; Panels = 1, 10; Photo-Fabrication = 20; Speech = 3; Stress Analyzer = 1, 14; Voice = 3; Wiring = 1; Helicopters = 1; Instruments = 1; Flight Recorder = 1; Visual Information Devices = 1; Interface = 3; Electrical System Solid State Systems = 1, 20; Antennas = 3; Plastic Fabrication = 12; Engraving = 12; Harnesses = 1; Repair & Overhaul = 3.

Revised: Dec 83

NORTHWEST INDUSTRIES Ltd

Code: NWI

Address: P. O. Box 9864
Edmonton International Airport
Edmonton, Alberta, Canada T5J 2T2

Contact: Mr. F A (Floyd) Maybee, Operations VP - (403) 955-6300

History: Northwest Industries Ltd, incorporated in 1943, is a subsidiary of CAE Industries Ltd, Toronto, Ontario, Canada.

Capability: Northwest Industries Ltd has the experienced personnel and facilities at the Edmonton International and Municipal Airports, to accommodate complete overhaul,