

Field's engineering department specializes in custom modification of aircraft to meet any unusual needs of its customers. Their custom designs of aerial survey installations and fire bombing systems are flying in many part of the world, and include both fixed and rotary wing systems.

Specialized expertise exists for repair/modification of Twin Otter, Buffalo, Convair 580, SD3-30, SD3-60, Gulfstream G1, HS 748, Bell Helicopters and the full spectrum of general aviation aircraft.

**AVERAGE WORK FORCE:** Engineers – 2  
Technologists/Design Spec – 8  
Others – 450

**GROSS SALES:** 1986 – \$40.0M  
1987 – \$41.0M

**PLANT SIZE:** 175,000 Sq Ft (Toronto)  
250,000 Sq Ft (Calgary)  
(Plus aircraft parts, offices/warehouses at branch locations)

**EQUIPMENT:** Standard FBO facilities at Toronto and Calgary for aircraft up to small airliner size; major overhaul jigs for Twin Otter, Buffalo and Bell helicopters; hydraulic test facility; specialized aircraft salvage equipment; B737-sized paint shop; precision machine shop; and aircraft seat manufacture and assembly line.

**EXPERIENCE:** Field Aviation's regular customers include the Canadian Department of National Defense; Canadian Department of Transport; Royal Canadian Mounted Police; US Navy; US Army; and numerous regional airlines and corporate flight departments.

**KEYWORDS:** Aerial Spray/Water Bombing; Aerial Survey Systems; Hydraulics; Modification (Aircraft); Non-Destructive Testing; R&O (Aircraft); Seat Manufacture; Spares Supply; Survey Systems; Water Bombing.

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## FLEET INDUSTRIES (A Fleet Aerospace Company)

**ADDRESS:** P. O. Box 400  
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**CONTACT:** Mr H B MacRitchie, VP, Marketing – (416) 871-2100

**HISTORY:** Fleet Industries began operations in Canada in 1930 as Fleet Aircraft of Canada Ltd.

**CAPABILITY:** Fleet Industries manufactures major components for the prime Canadian and US manufacturers of commercial and military aircraft, helicopters, satellites, and radar and sonar systems. Fleet was established in Canada in 1930 to design and manufacture aircraft for the world's civilian, transport, and military markets. Between 1930-1950, almost 4,000 complete aircraft were built at Fleet and flown from the company's 2,400-ft on-property runway.

Today the company concentrates its efforts on the production of major components. Fleet has enclosed facilities of approximately 500,000 sq ft, and about 800 employees. Assembly and test methods meet the latest requirements of both civil and military authorities in Canada and the US. Fleet's ability to produce quality products on schedule and at competitive prices has won a high reputation for the company in both commercial and defense work. In 1987, Fleet's sales were more than \$56M.

• **AIRCRAFT:**

- Boeing – E3A/E6A fin and rudder; 727 aft engine fairing; 747 SP wing-to-body fairing structure; Boeing E3A TF33 engine nacelles; 757 APU doors; Boeing A6 Rewing – Flaperon.
- Canadair – Challenger CL600 rudder assembly.

- deHavilland – DHC-5 bonded components; DHC-6 bonded components; DHC-7 bonded components and engine nacelles; DHC-7 wing leading edges, ailerons; and DHC-8 bonded wing and fuselage panels, inboard and outboard flap assy.

- Grumman – A6 inboard and outboard flaps, and bonded honeycomb assemblies.

- Lockheed – L-1011 main landing gear doors (aft dorsal structure & aft engine cowlings), and CP140/P3C flight station.

- McDonnell-Douglas – A4E speed brakes and flaps; F/A-18 graphite avionics doors; DC-9 flaps and ailerons (Canada); DC-10/MD-11 Flapvanes; spoilers, and access doors; and F-15 Rudder fairings.

- Sikorsky Aircraft – Black Hawk UH60A Medevac kits, and blade sub-assemblies.

• **RADAR:**

- General Electric – ASR welded antennas. Lockheed Electronics – Gun fire control system antennas and cabinets.

- Raytheon – Phased array antennas "Pave Paws" & "Cobra Judy", AEGIS.

- Sperry – Gun fire control system antenna and cabinet.

• **SATELLITE:**

- Hughes Aircraft – Solar panel substrates, Anik C, SBS, NASA, Anik D, GOES/GMS, Westar/Palapa B, Leasat, and AT&T.

- Spar Aerospace – Bonded panels/structures, Anik C, SBS, Anik D, and Westar, spun/despun assemblies for Brasilsat.

• **SONAR:**

- Dept of Supply & Services – Retractable fixed hull mounted, towed bodies, VDS systems and faired tow cables; and repair and overhaul.

- EDO Corp – Transducer structure.

- General Electric – Heat exchangers.

- Westinghouse Canada Ltd – Retractable fixed hull mounted, towed bodies, VDS systems and faired tow cables.

- Raytheon – Variable depth sonar (VDS) hoist system.

**AVERAGE WORK FORCE:** Total – 800

**GROSS SALES:** 1986 – \$47.0M  
1987 – \$56.0M

**PLANT SIZE:** 500,540 Sq Ft

**EQUIPMENT:** Fleet Industries' equipment includes Kearney & Trecker, Sundstrand and Cincinnati numerically controlled equipment, autoclaves, mills, lathes, presses, furnaces and other special equipment associated with aerospace manufacturers. New bonding facility includes 10' x 31' autoclave, water jet cutting, 5-axis NC core cutting and C-scan inspection equipment.

**EXPERIENCE:** In 1987, from sales of over \$57M, some 80% was exported to the US. Commercial sales accounted for 53% with 47% military.

Facilities and skills have been developed to produce a diversified list of mechanical structures which include radar, sonar, air cushion vehicles, and other defense and commercial assemblies. In the bonding field, Fleet Industries manufactures a wide range of structural components such as antennas, space satellites, electronic cabinets and other specialized items requiring composite technology.