## **BELL AEROSPACE CANADA** TEXTRON (Division of Textron Canada Ltd)

Code: BEL

Address: P. O. Box 160

Grand Bend, Ontario, Canada NOM 1T0

Contact: Mr J B Timbrell, Managing Director - (519) 238-2333

History: Bell Aerospace was registered to do business in Canada in 1966. The parent company is Bell Aerospace Textron located in Buffalo, New York.

Capability: Bell Aerospace concentrates in the areas of design, development, manufacturing, and production. They specialize in air cushion vehicles and systems.

Average Work Force: Engineering - 6 G & A - 9 Others - 80

Gross Sales: 1982 - \$15M Plant Size:: 38.000 sq ft

Equipment: Data processing on all operations.

Experience: US Army (LACV-30 Program); deHavilland Aircraft (special components and tooling for Dash-8 Program); LACTA Program; Bell/Canadian Federal Government Joint Development Program (Light air cushion triphibious aircraft); Canadian/USAFJoint Defense Program (Air Cushion Equipment Transporter - ACET - Program); and Canadian Coast Guard - Voyageur.

Keywords: 1 = Aircraft; Air Cushion Vehicles = 1; Air Cushion Systems = 1; Air Cushion Equipment Transporters = 1.

Revised: Dec 83

## F. G. BERCHA AND ASSOCIATES Ltd

Code: FGB

Address: 938-2nd Avenue N W

Calgary, Alberta, Canada T2N 0E6

Contact: Dr Frank G Bercha, President - (403) 270-2221

History: The company was incorporated in 1975 and is Canadian owned. There are branch offices in Cochrane, Alberta; Ottawa, Ontario; St John's, Newfoundland; and an affiliate corporation, F. G. Bercha and Associates Inc., located in Texas and Arizona. The US offices are wholly owned by Canadian principals.

Capability: The company specializes in research and development, and engineering and environmental consulting, with particular expertise in the areas of ice mechanics, remote sensing, Arctic engineering, special structures development, system simulation and risk analysis. The company provides a totally integrated capability due to its multidisciplinary workforce consisting of engineers, environmental scientists and systems professionals.

Average Work Force: Professionals - 15 Support Staff - 5

Gross Sales: 1980 - \$1.0M

1981 - \$2.0M

1982 - \$2.0M 1983 - \$3.0M (Projected)

Plant Size: 8,000 sq ft (Head Office)

Equipment: Computer terminals and specialized graphic terminals.

**Experience:** The company is perhaps best known for its capability to generate strategic information in relation to Arctic operations. From remote sensing data, the company is able to generate environmental information on ice and ocean systems applicable to the engineering design of structures. On the basis of this information, company engineers are able to turn the information into specific structural design parameters, and carry out preliminary, as well as detailed engineering designs of structures for service in the Arctic frontier regions. In the area of arctic and ice engineering and consulting, the company has been employed by most of the major US companies, including Exxon, Amoco, ARCO, Sohio, Phillips, Mobile, and Chevron. In addition, principal Canadian clients in the Arctic include Dome, Petro-Canada, and Gulf Resources. Finally, the company is well known for its ability to develop novel structures for service in frontier conditions. Such structures have included portable aircraft shelters made of aerospace materials to military specifications. To date, such aircraft shelters have been developed for the Canadian Department of National Defense for military service in support of Arctic airborne operations.

**Keywords:** 1 = Aircraft; 9 = Environment; 17 = Software Services; 20 = Miscellaneous; Consulting = 9; Ice Mechanics = 9, 20; Remote Sensing = 9; Arctic Engineering = 20; Special Structures = 1, 20; System Simulation = 9, 20; Risk Analysis = 9, 20; Portable Shelters = 1, 20; Mapping = 9; Geographic Analysis = 17; Geologic Analysis = 17.

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## **BOEING OF CANADA Ltd** Winnipeg Division

Code: BOE

Address: 99 Murray Park Road

Winnipeg, Manitoba, Canada R3J 3M6

Contact: Mr. L L Bryson, Vice President - (204) 888-2300

History: The Boeing Winnipeg plant was established in 1971 and is a wholly owned subsidiary of The Boeing Company of Seattle. There is one other Canadian division located in Arnprior, Ontario.

CAPABILITY: Boeing is a Canadian leader in high strength/ weight ratio fiber composite plastic components for aircraft, space, and other advanced technology applications. The company has the engineering, manufacturing and development expertise to design and build solid laminate or sandwich panel components. Glass, high-modulus graphite and organic fibers, and thermosetting resin systems, including epoxies, polyesters, phenolics or polyimides, are used with state-of-the-art capability. Structural and nonstructural glass fiber, and advanced fiber composite components are currently produced for a diversified range of products covering a technological spectrum from aircraft and satellite components, to thermoformed acrylic bathtubs, light rail vehicles, and farm machinery components.

A stated objective of the company's management team is to establish Boeing of Canada as a center of excellence for composites manufactured within the Boeing Company, and as the Canadian leader in the composite industry. To achieve this objective, an expanded research and development program and increased engineering tool design and fabrication capa-