For helicopters, Spar provides an authorized customer service facility for Bell, Aerospatiale and Hughes. Services include the sale of parts and accessories, the repair and overhaul of mechanical, hydraulic and avionic components, rebuilding and maintaining airframes, and providing field service. Customers are located in Canada, the US, Mexico, Central and South America, and Indonesia.

• Mapping – Northway-Gestalt Corporation, with offices in Toronto, Ontario; Vancouver, British Columbia; Dartmouth, Nova Scotia; and Denver, CO is in the business of acquiring, processing, analyzing and displaying data on the earth's terrain, including natural resources and man-made features, and producing, through remote sensing techniques, conventional graphic maps. In addition, the company provides digital mapping services, gathering information in digital form from aerial photos and maps to provide a data base for land information systems. Half of Northway-Gestalt's services and products are sold to the government for project design, resource evaluation and land use studies and the balance to private enterprise, such as engineering, natural resources, forestry and surveying companies.

Average Work Force: Engineers & Technicians - 600 Others - 1400

Gross Sales: 1980 - \$128M 1981 - \$123M 1982 - \$178M

Keywords: 1 = Aircraft; 3 = Avionics; 5 = Communications; 6 = Computers; 7 = Electronics; 8 = Energy; 9 = Environment; 10 = Image Processing & Optics; 12 = Machining; 18 = Space Systems; 19 = Testing/Test Equipment; 20 = Miscellaneous; Airframe Components = 1; Antennas = 5, 7, 18; Communications = 18; Computer Produced Maps = 6; Controls = 18; Digital Mapping = 8, 9; Engine Components = 1; Gear Boxes = 1, 12, 18, 19, 20; Ground Stations = 5, 18; Helicopter Subsystems = 1; Infrared Instrumentation = 7, 10, 20; Lift Cycle Support = 1, 20; Mapping = 8, 9; Mechanical Arms = 8, 18, 20; Remote Sensing = 7, 18, 20; Repair & Overhaul = 1, 3, 7; Satellite Subsystems = 5, 18; Satellites = 5, 18; Structures = 5, 18, 20; Systems = 5, 7, 10, 18; Transmissions = 1, 19.

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SPERRY COMPUTER SYSTEMS Division of Sperry Canada Inc

Code: SUD

Address: 200 Saulteaux Crescent

Navy P3C and S3A Aircraft.

Winnipeg, Manitoba, Canada R3J 3W3

Contact: Mr. G R Smith, Dir, Canadian Operations – (204) 888-4222

History: Sperry's Winnipeg Manufacturing Plant was established in 1977 as the first facility of the Defense Systems Division of Sperry to be located outside the Continental US. The establishment of this plant was a direct result of the procurement policy of the Canadian Department of National Defense as it related to the CP-140 Aurora Patrol Aircraft. The company operates exclusively at the Tier 3 level of the industry. The initial plant charter was to assemble components for the Sperry CP-140 Computer which is the heart of the sophisticated computer technology developed for submarine detection. This computer is also deployed on the US

A Systems Engineering and Marketing facility was established in Ottawa in December 1980 to assist in the integration of the Engineering Systems requirements for the Canadian Patrol Frigate Program with hardware design, software

development, manufacturing, and system integration efforts in Winnipeg.

Capability: The charter of the Winnipeg Plant has expanded from assembly to complete design, software development, testing, and system integration of its own product line. Presently, the Winnipeg plant is engaged in assembly and test of coil wound products, core memory arrays, power supplies, magnetic tape transports, maintenance consoles, switches, printed circuit assemblies, harnesses, and the start up of a product mandated Microcomputer.

The rapid expansion of their areas of endeavor required a new facility which started operation in April 1981. The new plant has the latest in high technology manufacturing, test and office facilities, and is certified by the Department of National Defense as a manufacturer and repair facility of electronic equipment. The final test area contains environmental chambers that meet the complete range of military specifications and are large enough to accommodate entire computer and avionics systems. Random vibration capabilities will be installed to meet the workmanship screen required on all new Canadian and international avionics military procurements. Sperry recently started development of the AN/UYC-501 (V) SHINPADS (Shipboard Integrated Processing and Display System), a product conceived by the Canadian Forces for use on the new Canadian Patrol Frigates.

Average Work Force: Engineers - 39

Manufacturing – 141 Administrative – 23

Gross Sales: 1980 - \$ 1.5M 1981 - \$ 5.0M

1981 - \$ 5.0M 1982 - \$10.0M 1983 - \$10.0M

1984 - \$15.0M (Projected)

Plant Size: 40,000 sq ft (Winnipeg Facility) 5,000 sq ft (Ottawa Facility)

Equipment: Sperry employs such equipment as Environmental Test Chamber; Random Vibration; Automated Card and Final Test Systems; Flow Solder; Component Lead Formers; Semi-Auto Dip Insertion; and Static Controlled Work Stations.

Experience: Sperry Defense Systems is a major supplier of high technology, reliable and ruggedized information handling products and systems. Customers include the US military, US industry, and International military procurements.

Keywords: 1 = Aircraft; 6 = Computers; 7 = Electronics; 15 = Radar; 17 = Software Services; 20 = Miscellaneous; Cockpit Displays = 1, 7; Computer Parts = 6; Measurement & Control Systems = 7; Multi-Layered Board Assemblies = 7; Pre-Wired Board Assemblies = 7; PC Board Design = 7; PC Board Fabrication = 7; Power Supplies = 7; Repair & Overhaul = 7; Video Display Systems = 7, 20; Surveillance/Navigation = 15; Core Wound Products = 7; Core Memory Arrays = 7; Magnetic Tape Transports = 7; Maintenance Consoles = 7; Harnesses = 7; Switches = 7; Information Handling Products = 7; Navigation = 15; Microcomputer = 6; Software Services = 17; Integrated Processing & Display Systems = 17, 20.

Revised: Dec 83

SPERRY Inc (Electronic Systems)

Code: SPE

Address: Highway 17, P. O. Box 1300

Rockland, Ontario, Canada K0A 3A0