

History: The Environmental Applications Gp Ltd was incorporated in 1977 to provide multidisciplinary environmental services to industry and government. It is entirely Canadian owned by four principals, with its sole office in Toronto.

Capability: The company was formed as a consulting firm with two major divisions – Atmospheric, and Life Sciences. The Atmospheric Division engages in R&D in pure and applied meteorology, climatology, cloud physics, air quality, and air-sea interaction. Scientific expertise includes numerical modelling of atmospheric phenomena, experimental design and field studies, instrumentation, data analyses, and environmental assessment.

Average Work Force: PhDs – 3
MD – 1 (Part-time)
MSs – 3
BSs – 3
Others – 4

Gross Sales: 1978 – \$0.25M
1979 – \$0.32M
1980 – \$0.45M
1981 – \$0.70M
1982 – \$0.50M
1983 – \$0.56M

Plant Size: 3,250 sq ft (Office Space)
750 sq ft (Laboratory/Workshop)

Equipment: Special equipment and facilities include the following:

- Atmospheric – tethersonde (Altitude to 1 Km) and airsonde (Altitude to 25 Km) systems utilizing radiotelemetry and optical theodolites for boundary layer and upper air measurements, and remote meteorological base station.
- Air Quality – high-volume particulate samplers, and SO₂ gas analyzers.
- Remote Field Facilities – winterized trailer, tents, snowmobiles, and electrical generator for a long term remote field camp capable of Arctic operations.
- Laboratory – equipped for physical, chemical, microbial, and biological analyses; and includes an atomic absorption spectrophotometer.
- Data Processing – includes a in-house Wang 2200 VP mini computer with access via timesharing to DEC, IBM, and CDC mainframes.

Experience: Environmental Applications Gp Ltd has experience with Canadian Environmental Protection Service, Atmospheric Environment Service, Transport Canada, Ontario Hydro, Onakawana Development Ltd, Potash Company of America, Oshawa Harbor Commission, Amoco Minerals Ltd, Polar Gas Project and Ontario Ministry of Environment.

Typical Projects of Environmental Applications Gp Ltd include:

- Toxic Organic Emissions Study
- Atmospheric Loadings and Emissions Studies
- Upper Atmospheric Experiments
- National Emissions Inventories – Natural Alkaline Particulate; Organic Compounds; Sulfur, Nitrogen and Mercury Compounds; and Great Lakes Atmospheric Deposition Model.
- Natural Gas Pipeline Associated Studies
- Meteorological Studies using Tethered Balloons
- Air Quality Studies – remote and urban

Keywords: 8 = Energy; 9 = Environment; Meteorology = 9; Micrometeorology = 9; Radar Meteorology = 9; Satellite Meteorology = 9; Climatology = 9; Air Quality = 9; Pollution Monitoring = 9; Environmental Assessment = 9; Dispersion Modelling = 9; Long Range Transport = 9; Boundary Layer = 9; Upper Air = 9; Cloud Physics = 9; Cloud Dynamics = 9; Weather Modification = 9; Solar Energy = 8; Wind Energy = 8; Acoustics = 9; Icing = 9.

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EPIC DATA SALES Ltd

Code: EDS

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History: Epic Data Sales Ltd is a member of the Ebco group of companies (See Ebco Industries Ltd). They are a Canadian owned company incorporated in mid-1974. The large diversification of capability and products associated with Ebco Industries caused many problems in labor and material tracking. They looked for an automated system that would solve these problems and discovered there was no system available that would perform these functions at a reasonable price. They developed their own data collection system and Epic Data Sales Ltd was formed.

Capability: Epic Data Sales Ltd develops and manufactures data collection systems based on microprocessor technology. Their terminals and controllers are designed using solid state components. This enables them to keep down cost while maintaining reliability. The user terminals on the factory floor, the office, or other environments are simple and straightforward to use.

Each Multi-Function Terminal (MFT) model may be upgraded to provide new input devices (e.g., magnetic stripe reader), special interfaces (e.g., weight scale), or peripherals (e.g., CRTs or printers). In almost every case, adding capabilities to a system does not obsolete equipment already purchased. In addition to their MFT terminals, they have developed Single Function Terminals (SFT) and Environmentally Sealed Portable Terminals (ESPT). Their first SFTs collect data solely via a barcode wand. They are planning a single function barcode slot reader and a single function magnetic stripe reader terminal. The ESPT is a battery operated data collection terminal that can be used in hostile, harsh, remote environments where any other method of data collection is impractical. Epic's controller, the System Control Unit (SCU), controls terminal polling, sequencing, editing, transaction assembly, output to host or off-line storage, and time of day generation. A recent announcement is the capability to program the controller's sequencing, prompting and editing functions at the host computer, and down-line loading the new program to SCU. Epic has also developed a system control unit that will be able to perform validation via table lookups from a Winchester disk, a mini/micro computer and turnkey software package (e.g., time and attendance, job costing, and library application programs).

Epic's field of expertise lies in adapting microprocessor technology, both hardware and software, to the broad context of data collection. Specifically, engineering provides support to customers of standard products and in addition, have experience in project management of custom designs.

The capabilities of the assembly group include – PCB component insertion, wave soldering and board cleaning, terminal assembly, cable fabrication, and metallized foil label making. The Manufacturing Test Group performs board and terminal burn-in and test. Self Test Program (STP) prompts are utilized during the terminal burn-in process to check out and monitor