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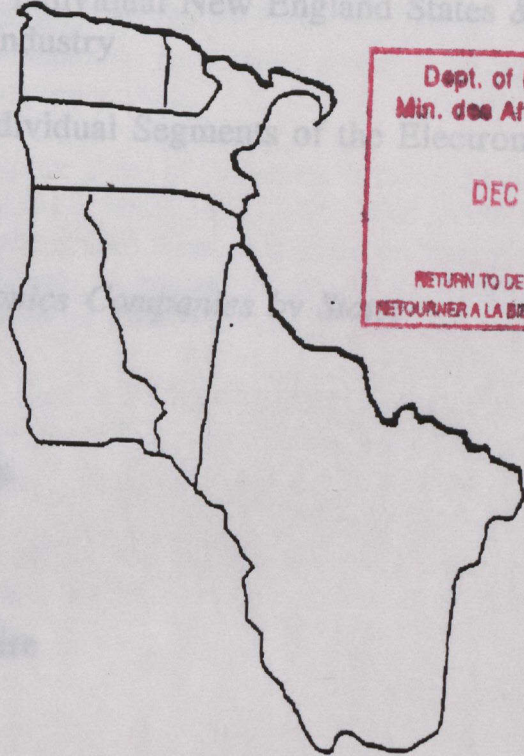
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The Commercial Electronics Industry In New England

A Market Study of Commercial Electronic Companies and Overview of
Canadian Industry Opportunities

1. Introduction
2. Overview of Individual New England States & Their Commercial Electronics Industry
3. Profile of Individual Segments of the Electronics Industry
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The New England Electronics Industry

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Preface

The following study of the commercial electronics industry in New England reflects the findings of a study conducted from August, 1994.

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2. Overview of Individual New England States & Their Commercial Electronics Industry

3. Profile of Individual Segments of the Electronics Industry

Although detailed in section three of this study, it is important to note that while ten specific SIC codes (3568, 3612, 3613, 3621, 3625, 3669, 3674, 3724, 3825, 3829) were to be the basis for this study (their inclusion is based on size, growth or potential for Canadian manufacturers and suppliers to the commercial electronics industry), all 300-3800 SIC commodity companies were included in the study to point out electronics potential or involvement.

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Introduction

The New England Electronics Industry

Preface

The following study of the commercial electronics industry in New England reflects the culmination of contact with over 225 companies during June, July and August, 1994.

The 175 companies detailed in this study reflect the gamut of electronics companies. The perspective provided on each company reflects impressions from discussions with people from many disciplines including: purchasing, contracts, manufacturing, sales/marketing, finance and international operations.

Although detailed in section three of this study, it is important to note that while ten specific SIC codes (3568, 3612, 3613, 3621, 3625, 3669, 3674, 3724, 3825, 3829) were to be the basis for this study (their inclusion is based on size, growth or potential for Canadian industry participation). A number of other 3500-3800 SIC commodity companies were also included, based on their commercial electronics potential or involvement.

This study is intended to point Canadian industry towards those companies offering the greatest potential for business involvement. It also attempts to point out those windows of opportunity that may not exist now, but could develop in the years ahead.

It is hoped that this can be a living document to track and monitor opportunities for Canadian manufacturers and suppliers to the commercial electronics industry.

There are a number of bright spots in the New England commercial electronics landscape. The last few years have seen a number of growth companies flourish and many unconventional companies excel.

The New England commercial electronics industry may be influential more than any other industry by the political/economic climate of nearly all states in the U.S. and industrialized countries in Europe and Asia.

A high percentage of companies are based in New England, but many of the facilities of their manufacturing in other regions or foreign countries. There are also a significant number of companies which are a division or subsidiary of a parent company based in a corporation. The influence or control by a parent varies in degree, but the major difficulty is initiating or maintaining a business relationship with the parent or subsidiary.

While adjustments due to a poor economy are happening everywhere, New England has a greater number of companies who are concentrating on cost reduction, streamlining facilities, reducing employment, and reducing production. The result of these changes

Introduction

The New England Electronics Industry

Like most industries in New England, the commercial electronics industry has been affected by a slump in demand for products by foreign competition and by self-inflicted problems resulting from excessive growth, overhead or debt burden in the late 1980's.

As the mid-1990's near, companies that remain do so because of: conservative operation in the boom 80's, development of efficient manufacturing processes, creating unique market demand products, timely downsizing of employment and assets or consolidation/sale involving another company.

The following study reflects a significant shift in commercial electronics companies in New England. Few companies remain anywhere near what they were ten or even two years ago relative to their main products, customers or suppliers.

Companies that were highly centralized have decentralized; those that had a myriad of products now specialize in core products, having divested themselves of incompatible products. The opposite direction has also been followed with some very large companies consolidating administrative functions in a centralized location. The aerospace electronics industry and other threatened industries, including computers and audio/video have expanded their product base. The overriding belief of many New England manufacturers is that the level of change has not settled, nor is survival of a company insured past a year-to-year existence.

There are a number of bright spots in the New England commercial electronics landscape. The last few years have seen a number of growth companies flourish and many unconventional companies excel.

The New England commercial electronics industry may be influenced more than any other industry by the political/economic climate of nearly all states in the U.S. and industrialized countries in Europe and Asia.

A high percentage of companies are based in New England, but carry on the majority of their manufacturing in other regions or foreign countries. There are also a significant number of companies which are a division or subsidiary of a non-New England or U.S. corporation. The influence or control by a parent varies by company, but can create difficulty in initiating or maintaining a business relationship with the division or subsidiary.

While adjustments due to a poor economy are happening nationwide, New England has a greater number of companies who are concentrating on core businesses, closing facilities, reducing employment, and reducing production. The result of these changes

further hurts the New England economy.

The movements of the New England commercial electronics industry mirror those of most industries in the region, whether they are manufacturing a product or providing a service. Most of the movement of companies or parts of companies is out of New England (or out of the Northeast) In some instances, companies have left their corporate staff behind, but moved manufacturing . Many companies have made interim moves of certain business/product lines with plans to move all manufacturing in the future.

Unlike the shoe industry, heavy industries or consumer electronics industry which all left the Northeast for the sunbelt or Asia in the 1960's, 70's and early 80's, the commercial electronics industry was thought to have "staying power" based on the low labor and high technology input. What has occurred is the impact of a world recession and a need to concentrate activities in an optimum location (usually not the Northeast United States or New England).

The companies in this study are comprised of new parents, have new names, have new or fewer products, have a new location or will be moving in the months ahead. Their inclusion is based on consolidation or economic incentive, and a radical reduction in employment.

CONNECTICUT
Overview
ECONOMIC OVERVIEW

The state continues to struggle with the general slowdown in all sectors of the U.S. economy as well as the state's dependence on the defense industry created when programs were cut, the Soviet Union dissipated. Connecticut has the largest amount of defence and aerospace contracts of any state, including California.

**Industrial Base & Economy of
Commercial Electronics Industry**

The other industry dealing Connecticut an economic blow is the service sector, specifically the banking and insurance industries. The insurance industry, which made Connecticut the "insurance capital" of the world, is in a period of major readjustment. Companies are firing people and levels of management they can no longer afford. Insurance companies are also shedding businesses that do not fit their focus, or are pure profit areas.

Connecticut

and followed by Hartford, Aetna and Prudential. Prudential is paying for the poor investments in real estate in the 1970's and 80's. Other service industries have fared no better. There currently is no major Connecticut bank after the purchase of CBT by Fleet (Providence). Commercial banks in Boston and Union Trust by Chase Bank (New York).

Maine

Massachusetts

The banking and insurance industry is possible for the bulk of the 220,000 jobs lost over the last five years.

New Hampshire

With an older and tighter workforce, the level of underemployment in Connecticut may be the highest in the Northeast.

Rhode Island

For these and a number of other reasons, the general cost of doing business, Connecticut's population continues to decline from its 1990 population of 3,299,000. Connecticut, more than any other New England state, has seen the movement of jobs and businesses to other states and overseas. A number of these businesses have moved to other New England states.

Vermont

BUSINESS OVERVIEW

Connecticut went through a rapid growth in employment in the 1980's, with the building of defense systems and equipment. The state is second only to Massachusetts in New England in defence business, and over the last 20 years Connecticut has placed in the top four U.S. states.

CONNECTICUT

ECONOMIC OVERVIEW

The state continues to struggle with the general slowdown in all sectors of the U.S. economy as well as two unique problems. First, the state's dependence on the defence industry created massive displacement of skilled and highly paid workers when programs were cut, slowed down, or drastically reduced as the threat of the Soviet Union dissipated. Connecticut, it appears, will feel a longer term effect from the erosion of defence and world aviation orders than any state, including California.

The other industry dealing Connecticut an economic blow is the service sector, specifically the banking and insurance industries. The insurance industry, which made Connecticut the "insurance capital of the U.S." is now in a period of major readjustment. Companies are finding pockets of excess employment and levels of management they can no longer afford. Insurance companies are also shedding businesses that do not fit their focus, or are poor profit areas. A number of insurance companies led by Travelers and followed by Hartford, Aetna and CIGNA are paying for the poor investments in real estate in the 1970's and 80's. Other service industries have fared no better. There currently is no major Connecticut based bank after the purchase of CBT by Fleet (Providence), Connecticut National Bank by Shawmut (Boston) and Union Trust by Chase Bank (New York).

The banking and insurance industries' problems were responsible for the bulk of the 220,000 jobs lost over the last five years.

With an older and higher paid work force than most states, the level of underemployment in Connecticut may be the highest in the country.

For these and a number of other reasons including the general cost of doing business, Connecticut's population continues to decline from its 1990 population of 3,299,000. Connecticut, more than any other New England state, has seen the movement of jobs and businesses to other states and overseas. A number of these businesses have moved to other New England states.

BUSINESS OVERVIEW

Connecticut went through a rapid growth in employment in the 1980's with the buildup of defence systems and equipment. The state is second only to Massachusetts in New England in defence business, and over the last 20 years Connecticut has placed in the top four U.S. states.

Defence/aerospace companies include UTC (Sikorsky (helicopters) and Hamilton Standard - (jet fuel control propellers and space suits), Textron Lycoming (vehicle engines), Kaman (helicopters) General Dynamics (submarines), Colt (guns), and Barnes Aerospace (precision machining).

As outlined in the economic overview, Connecticut is relying more than ever on the service sector industries such as insurance, banking, health care, and pure service including accounting and law firms, consultants and industry-specific service organizations including environmental testing.

It is important to note that the state has the third highest number of lawyers in the U.S., 40% more than the national average. Since 1991, the state has seen the growth of what could become the largest gambling complex in North America. Foxwoods Casino is currently the largest tax producer for the State.

The size of the service industry is the result of many factors including proximity to New York City, abundance of corporate offices, and the historic presence of industries supporting service providers including insurance, medical and educational institutions and high tech manufacturing.

The service sector in Connecticut, i.e. transportation, communications, utilities, finance, insurance, real estate, medical/health care, education, and government, has outperformed the goods producing sector every year since 1980.

Some of the largest corporations in the U.S. are headquartered in Connecticut. Many of these companies have limited or no manufacturing presence in the state. These companies include: General Electric, GTE, Xerox, American Brands, Champion International, Union Carbide, Olin Corporation, Pittston, and General Signal.

There are a number of Fortune 500 companies that are headquartered in Connecticut and have an appreciable manufacturing presence. These include UTC (Sikorsky, Pratt and Whitney), Pitney Bowes, The Stanley Works, Echlin, Duracell, US. Surgical, Dexter and Perkin-Elmer.

There are a few fully integrated manufacturers in the state. Manufacturing is generally light industry, assembly operations producing a high technology output. There, however, remain nearly 400 machine shops in the state that support Connecticut's aerospace industry with some out-of-state customers.

COMMERCIAL ELECTRONICS INDUSTRY

Though not covered in this study, there are a few consumer electronics products manufacturers in the state. The Waring Corporation (mixers, blenders, etc.) and Remington Products (electric) are the only two recognizable companies of any size.

The commercial electronics industry is comprised of a myriad of specialty application equipment manufacturers including:

- Gerber Garment - Textile Machines
- Gerber Systems - Sign/Graphic Arts
- Perkin Elmer - Thermal Spray Coating Systems
- Branson - Ultrasonic Cleaning
- Package Machinery Company- Injection Molding Equipment

There is also a sizable number of electrical producing, regulating, or management equipment companies including:

- ABB (one of the world's largest nuclear facility developers)
- Superior Electric
- General Electric
- General Signal

A number of in-state companies are involved in electric power generation systems - International Fuels, GE & ABB.

There is limited foreign involvement in the state's electronic products industry. Although there are a number of U.S. and world leading equipment producers including Gerber Garment, Xerox, Otis Elevator, Carrier Air Conditioning, and a wide variety of other electronic product systems companies, there is no concentration in any industry segment.

Since the fallout from reduced U.S. and foreign defence spending, a number of defence aerospace companies have actively explored the development of commercial electronics products.

Some of the specific commercial electronics product areas and manufacturers include:

Instrumentation Control/Display Instruments

- Bristol Babcock - Control Systems
- Dresser Industries - Pressure Gauges, Regulators
- Gerber Systems - Automation Systems

Omega - Process Control Instruments

Electronics Testing Instruments

Anderson Labs
Perkin Elmer

Miscellaneous Machinery

Branson Ultrasonics - Cleaning Equipment
General Signal - Control Systems

Electric Coils/Transformers/Power Supplies

Rapid Power Technologies
Dynamic Controls
Superior Electric

Switch Gear

Carlingswitch
Data Switch
General Electric
M.H. Rhodes

Motors/Generators

Dynamics Corporation
Phillips Technology

Relays and Industrial Controls

Raymond Engineering

There are also a number of component and apparatus manufacturers outlined in chapter four of this study.

MAINE

ECONOMIC OVERVIEW

Known for its ragged coastline, cold weather, potatoes and seafood industry, Maine has been one of the least affected states in the northeast by the economic slowdown which started in the late 1980's.

Maine never experienced the growth of aerospace/defence or computer companies in the 1970's and 80's. This has "somewhat" been a blessing in disguise since Maine has not had to bear the pain of companies pulling out or displacing large numbers of people through transfer or unemployment. The flip side is that Maine could have used any shot in the arm to its economy, however temporary, as its unemployment hovers around 8% , the highest in New England and higher than most other states with the exception of West Virginia, Louisiana, and for a short time, (in 1993) California.

Long recognized for its beauty and attraction as a tourist destination, the state has always been off the path of economic growth or identification with any growth industry.

BUSINESSES OVERVIEW

Other than the tourist industry, Maine relies on a thin list of industries including shoes (Dexter, Bass), paper (Great Northern, International, James River), food products (McCain, Poland Spring Bottling), and a variety of other seafood and agricultural products (including blueberries).

Of major importance to the state is the Bath Iron Works which employs nearly 7,000 and still maintains the capacity of producing naval and commercial ships. Other defence/aerospace companies include Saco Defense System (guns) and Pratt and Whitney. Pratt's status in Maine is strong and the division and parent (UTC) have a long term commitment to maintaining or increasing the manufacturing level of this plant. Unlike other New England states, Maine has very few machine shops devoted to grinding, milling or working metal aerospace parts.

The state still relies and is influenced by the seafood and lumber/wood products industries and devotes a significant amount of its time promoting and protecting these industries.

MASSACHUSETTS

ECONOMIC OVERVIEW

COMMERCIAL ELECTRONICS INDUSTRY

Maine has the smallest electronics industry in New England.

Of all the companies producing electronics and related products, the largest are Shape Ind. (video/audio cassettes), National Semiconductor (employees 1500 and manufactures digital semiconductors), and Vishay Sprague (electronic component including capacitors).

One major change in the industry was the sale of operations at Waldoboro and Bangor, Maine by GTE to Osram/Sylvania. Another division of GTE in Standish was purchased by an investment group and now operates as Control Devices Inc.

In addition to the rapid transition from boom to near bust for the computer industry, the state has had to encounter the perils of shrinking defense/defense products programs. Although the impact on California and Connecticut of defense drawdowns are well publicized, Massachusetts has seen as great an influence from these changes. The state has been the affected thanks to the continued growth of new technology companies and a number of defense products manufacturers whose defense products are only a small portion of their business. Massachusetts state government has also been more successful than Connecticut in assisting companies in diversifying or maximizing their defense profit potential.

The state has long been an international trade center and both the Port of Boston and Logan International Airport continue to grow. Since the mid 1980's there has been an aggressive move by the state to promote and assist the state's products in foreign markets.

There are two somewhat distinct parts to Massachusetts: the eastern part of the state including the Boston area, and as far west as Worcester, and the western part of the state "Worcester West". The western part of the state has had a higher economic time than the rest of the state (even in the 1980's). The major manufacturing areas in this region are Worcester, Springfield and Pittsfield which were the primary manufacturing areas including metal working and finishing. There has been a recent development in these areas of a new product focus, although Pittsfield has of late proved itself as a defense industry center.

MASSACHUSETTS

ECONOMIC OVERVIEW

Over the last few decades Massachusetts has been able to attract new and expanding companies from around the world and throughout the U.S. The state and the greater Boston area have been viewed as the business and technology hub of New England.

From its industrial growth as the textile center of the U.S. to its development of new technologies and products leading to introduction of the first computers, Massachusetts has been the primary focus of New England business. The state also has been the origin of the major advances in software, biotechnology and robotics.

Since the early 80's, however, the attention and advances of computers and software has been shared with the Silicon Valley of California and in a number of specific disciplines the focus is not towards Massachusetts. The Route 128 belt around Massachusetts, specifically, and the greater Boston area in general, has suffered through the economic slump, and with it, a decline in computer sales and upgrades. During the 1980's computer companies increased production and new companies were created. Foreign competition was stiff. The result was an oversupply of computer systems, decreased prices, and decreased profits. Computer companies are still resizing and adjusting products.

In addition to the rapid transition from boom to near bust for the computer industry, the state has had to encounter the perils of shrinking defence/aerospace purchases. Although the impact on California and Connecticut of defence downsizing are well publicized, Massachusetts has seen as great an influence from these changes. The state has been less affected thanks to the continued growth of new technology companies and a number of defence products manufacturers whose defence products are only a small portion of their business. Massachusetts state government has also been more successful than Connecticut in assisting companies in diversifying or maximizing their defence profit potential.

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There are two somewhat distinct parts to Massachusetts; the eastern part of the state including the Boston area, and as far west as Worcester, and the western part of the state "Worcester West". The western part of the state has had a tougher economic time than the rest of the state (even in the boom 80's). The three major cities in this region Worcester, Springfield and Pittsfield were for years heavy industry areas including metal working and finishing. There has never been development in these areas of a new product focus, although Pittsfield has of late pursued becoming a plastics industry center.

Once considered the high cost New England state for business, Massachusetts now has taken a number of steps to be viewed as "business friendly" and at least on a par tax-wise with other New England states.

BUSINESS OVERVIEW

Massachusetts has a large international trade service sector including airlines, ocean carriers and related service organizations. A large portion of New England export and import product flows through the state, making Massachusetts a magnet of international traffic.

With this international trade center identity, the state is also the New England center for both U.S. and foreign companies. Many of these companies have sales, service and distribution facilities in the greater Boston area.

There is also a significant service industry in the state including banking and a number of specialized product service companies, many of which support the computer/software industry.

With the largest university system in New England and one of the largest states in the U.S. for research and development grants (both government and private), the technology/research industry is a major employer and revenue source. MIT, Harvard, and the University of Massachusetts are major recipients of research grants.

From the development of the mainframe computer to the introduction of the personal computer, the state has since the early 1970's, seen the growth of thousands of new companies, many spin-offs from other companies. In spite of competition and uncontrolled growth, many of these companies have entered new markets and reengineered their companies for the years ahead. Some of the largest of these companies struggle to survive. Digital, Data General and several other large computer companies continue to eliminate jobs and businesses. Wang and a number of other well known computer companies exist only as a small reorganized shell of their prior boom years.

There are hundreds of computer component and software companies in the state. The largest of these include both divisions of computer system manufacturers as well as special accessory and component companies (highlighted in the commercial electronics section following).

Defence companies in the state include Raytheon (patriot missiles), General Electric (jet engines), Genrad (avionics), M/A Com (communications equipment), Martin Marietta (guidance systems), and GTE (communications systems).

As a result of the strong information technology base in the state, the telecommunications industry has grown rapidly. These companies include: AT&T (transmission equipment), M/A Com and many others.

Biotechnology, energy and envirotech companies also abound.

Of Fortune's 1994 list of the top U.S. growth companies, Massachusetts was the only New England state to have companies on the list and all seven of these companies are information technology based.

An overview of manufacturing companies in Massachusetts is a review of its commercial electronics/computer industries.

COMMERCIAL ELECTRONICS INDUSTRY

The electronics industry, as discussed previously, is associated to a large extent with the defence/aerospace, and computer industries.

The largest include:

- Augat (controls, switches, terminals)
- Analog Devices (signal processing, ICs)
- Allegro (semiconductors, ICs)
- Aerovox (capacitors for power supplies)
- Altron (printed circuit boards)
- Joseph Pollack Co. (switches)
- Unitrode (electronic components)

Subsystems producers include:

- AT&T (telecommunications and transmission)
- Bolt-Beranek (computer networking)
- Dynamics Research sensors, encoders)
- Chipcom (computer terminals)
- Foxboro (industrial controls)
- Hewlett Packard (peripheral equipment)
- Modicom (logic controllers)

System/Equipment manufacturers are led by:

- Bull (computer systems, accessory equipment)
- Bose (sound systems)
- Digital (computer systems)
- Data General (mini computers)
- General (automatic test equipment)
- Ionics (pollution control equipment)

- Instrom (advanced materials testing equipment)
- LTX (test equipment)
- Simplex (time equipment, fire alarms)
- Teradyne (automatic test systems for electronic components)

As mentioned previously, a significant portion of the state's defence industry is devoted to electronics products. These companies include:

- Ametek (cockpit displays, engine systems)
- Alpha Industries (microwave products)
- E G & G (military electronics)
- GTE (command control communications)
- GE (jet engines and controls)
- Raytheon (military missile systems)

BUSINESS OVERVIEW

Following the exodus of the shoe and textile industry from New Hampshire in the 1950's and 60's, there remain a number of relatively strong companies in these industries. In addition to a number of clothing manufacturers, New Hampshire has experienced somewhat of a resurgence in the last ten years of its shoe industry. Colby Footwear, Eastern Shoe and Timberland Company, which employs 4500, remain and are profitable.

The paper industry continues to be of economic importance to the state and while not a labor-intensive industry, it has been consistent in its work force. Companies include Manadnock Paper, James River and Ludlow. There are also a number of related companies manufacturing wall coverings, paperbook matches and construction products.

New Hampshire also has a number of metal products companies whose condition, in general, is poor. These companies include manufacturers of copper clad laminates, wire and cable, ball bearings and general machinery.

The computer and the office equipment industry continues to be major employers. Digital Equipment and other specialty computer manufacturers are concentrated along the southern border with Massachusetts.

NEW HAMPSHIRE

ECONOMIC OVERVIEW

New Hampshire continues to have one of the highest unemployment rates since the end of the 1980's.

Since the pulling back by out-of-state based companies escalated in 1990, there finally appears to be a settling in of those operations that will remain for the foreseeable future. These manufacturing companies/facilities are either profitable or their relocation is not feasible or would not result in any cost improvement. Most of the companies experiencing this dislocation of manufacturing are associated with the commercial or military electronics industry (aerospace/defence, computers, telecommunication and industrial equipment.)

The state continues to be influenced by the activities of the computer/software industry in Massachusetts, which was responsible for the rapid growth in southern New Hampshire.

BUSINESS OVERVIEW

Following the exodus of the shoe and textile industry from New Hampshire in the 1950's and 60's, there remain a number of relatively strong companies in these industries. In addition to a number of clothing manufacturers, New Hampshire has experienced somewhat of a resurgence in the last ten years of its shoe industry. Colby Footwear, Encore Shoe and Timberland Company, which employs 4500, remain and are profitable.

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The computer and the office equipment industry continue to be major employers. Digital Equipment and other specialty component manufacturers are concentrated along the southern border with Massachusetts.

COMMERCIAL ELECTRONICS INDUSTRY

The electronics industry in the state has a number of traditional electronics producers including Vishay Sprague (capacitors, resistor networks, etc.), and Teradyne (printed circuit boards and other electronic components).

The major portion of the state's electronics and related industries are tied to aerospace/defence. These companies include General Electric, Jewell Electrical Instruments, Kollsman and Lockheed Sanders which is headquartered in Nashua and has 4800 employees corporate-wide. M/A Com, which at one time employed over 600 in New Hampshire, and was hoped to become a major instate employer, is one of many aerospace/defence companies to pull out of the state.

There have also been a number of changes in ownership of commercial electronics companies in New Hampshire, the largest being the recent purchase of GTE's electronic products facility in Hillsborough by Osram/Sylvania Inc. This sale also included GTE's Standish, Maine facility. There is limited foreign ownership of New Hampshire electronics companies. The only major foreign owner is Hawker-Siddeley-U.K., which owns Compton Moductec and Clarostat Manufacturing.

Relative to the six New England states' economic base, New Hampshire is a distant third to Massachusetts and Connecticut.

BUSINESS OVERVIEW

Like other New England states, Rhode Island retains a strong base in its traditional industries - jewelry (primarily costume), broad, yarn, lace and other specialty fabrics, and specialty housewares including tableware, hardware, drapery hardware, shades, etc.

Rhode Island, long a fishing and other traditional ocean industries (boat building, sail) state, has developed an active textile related chemicals industry with production of dyes, pigments and other textile finishing/treatment products. The largest of these companies is Hoechst Celanese.

Two additional companies have long been associated with Rhode Island - A.T. Cross (Cross Pens) and Stanley Bostitch (staples and stapling equipment).

COMMERCIAL ELECTRONICS INDUSTRY

The commercial electronics industry includes some component manufacturers: Cherry Semiconductor (integrated circuits, semiconductors), Elmwood Stearns (thermal fuses),

RHODE ISLAND

ECONOMIC OVERVIEW

The smallest state in land mass, therefore the smallest in other aspects, Rhode Island has had to work at improving, growing, and in these hard times, maintaining its economic base. The state has not had the benefit of drawing business opportunities from other bordering states to the degree that Connecticut (New York City) and New Hampshire (Boston) have had. In the boom times of defence build up years, the state, along with Connecticut, did share in the submarines construction in the Groton, Connecticut - North Kingston, Rhode Island area where Electric Boat - General Dynamics once employed 40,000 directly or through contract work.

The state has aggressively pursued its ocean technology involvement, and through the University of Rhode Island, the relatively new Rhode Island Innovation Center and the active support of the state government, has been successful in creating an economic base of ocean-involved industries.

Providence and Newport continue to be major industrial and economic force areas for the state.

BUSINESS OVERVIEW

Like other New England states, Rhode Island retains a strong base in its traditional industries - jewelry (primarily costume), thread, yarn, lace and other specialty fabrics, and specialty housewares including tableware, flatware, drapery hardware, shades, etc.

Rhode Island, long a fishing and other traditional ocean industries (boat building, sails) state, has developed an active textile related chemicals industry with production of dyes, pigments and other textile finishing/treatment products. The largest of these companies is Hoechst Celanese.

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COMMERCIAL ELECTRONICS INDUSTRY

The commercial electronics industry includes some component manufacturers: Cherry Semiconductor (integrated circuits, semiconductors), Elmwood Sensors (thermal fuses),

AFC Cable (electric wire) and Phillips (semiconductors). The majority of the electronics industry is in subsystem or end item manufacturing.

Companies producing subsystems or multicomponent equipment include: Walco Electric (electric drives and motors), Triangle Wire and Cable (cable and cord sets), Lewiton Manufacturing (electric wiring devices), and Federal Electric (wire harnesses).

End item electronic manufacturers include Federal Products (analog and digital measurement instruments), KVH (heating sensor systems), and Textron (military electronics products).

There are also many companies with electronic component requirements for their end items. These companies include Wardwell Braiding Machine Co., G Tech Corp. (electronic lottery ticket equipment) and John Brown, Inc. (separating machinery for textile and plastics).

BUSINESS OVERVIEW

Although the tourism industry continues to be the most important industry for the state and dominates management of its economy and other businesses, there are other traditionally important industries: lumber/wood products, the granite industry (in the Lake, VT area), agricultural (apples, maple syrup), dairy products (cheese, milk). These continue to be important in dollars and image for the tourist trade.

Some of the other light manufacturing, low technology industries in Vermont include stuffed animals (Mary Meyer, Vermont Teddy Bear), Bennington Pottery and Ben & Jerry's Ice Cream.

There are a number of small precision machinery shops throughout the state.

In recent years Vermont has seen the growth of its publishing industry including graphics, specialized printing and book publishing (including the Book Press in Brattleboro).

Like most of New England, the growth of the aerospace/defense industry caused a number of large companies to open facilities in Vermont as well. The largest of these is the former G.E. Armaments Systems Division in Burlington, now owned by Martin Marietta.

VERMONT

ECONOMIC OVERVIEW

The state's economy, with the exception of the tourist, wood products and agricultural/dairy industries, is driven by the southern portion of the state (Bennington at the New York State border, and Brattleboro at the Massachusetts border) and the Burlington area to the north.

With by far the smallest population of all the New England states (580,000), New Hampshire the next smallest (1,120,000), Vermont has a low gross state product. The low population and a fairly constant employment level has enabled Vermont to manage and maintain the lowest unemployment rate (4.3%) of the New England states, and all but a few other states.

BUSINESS OVERVIEW

Although the tourism industry continues to be the most important industry for the state and dominates management of its economy and other businesses, there are other traditionally important industries: lumber/wood products, the granite industry (in the Barre, VT area), agricultural (apples, maple syrup), dairy products (cheese, milk). These continue to be important in dollars and image for the tourist trade.

Some of the other light manufacturing, low technology industries in Vermont include stuffed animals (Mary Meyer, Vermont Teddy Bear), Bennington Potters and Ben & Jerry's Ice Cream.

There are a number of small precision machinery shops throughout the state.

In recent years Vermont has seen the growth of its publishing industry including graphics, specialized printing and book publishing (including the Book Press in Brattleboro).

Like most of New England, the growth of the aerospace/defence industry caused a number of large companies to open facilities in Vermont as well. The largest of these is the former G.E. Armaments Systems Division in Burlington, now owned by Martin Marietta.

COMMERCIAL ELECTRONICS INDUSTRY

With a very limited electronics industry, Vermont does not offer great potential for Canadian involvement. There are several small companies that are stable and whose size offer opportunity for partnering and increased access to the U.S. market.

These companies include Arrowsmith (commercial and military cables and switches) Bio-Tek (safety and test equipment) Dynapower (rectifiers), Nexus (printed circuit boards).

Electronics companies in Vermont with a large corporate parent include Eveready (energy products), GE Aircraft Engine Division, IBM and B.F. Goodrich-Simmonds (engine sensing systems).

Due to the high concentration of computer / business machine and component manufacturers in New England, those companies (even where non-electronic product producers) with sizable operations or making significant changes to their businesses are covered in this study.

The following classes of companies are detailed in the state sections of this market study:

COMPONENT MANUFACTURERS

Many component manufacturers long ago concentrated on a single product but protect their futures by developing a full line of that product. The best example is the integrated circuit industry where companies who looked to manufacture their own products with unique general applications IC's. As a new well-developed market for their products was created, without any protection for entrepreneurs through long term relationships, "based on necessity", many single product manufacturers now have protected their futures by developing a full line of a given product or marketing their products to all classes of customers.

Companies producing electronic components usually have a multiple product line. During the latter part of the 1980's, many New England companies found it necessary to narrow their line of products to concentrate on specific items and customers. As the economy

Profile of Individual Segments of the Commercial Electronics Industry

Companies from the following major segments of the commercial electronics industry are profiled in the individual state segments of this study:

- Electrical, Electronic Machinery
- Transportation Equipment (primarily limited to aerospace/defence)
- Measuring, Analyzing and Controlling Instruments

Due to the high concentration of computer / business machine and component manufacturers in New England, those companies (even where not electronic predicted producers) with sizable operations or making significant changes to their businesses are covered in this study.

The following classes of companies are detailed in the state sections of this market study:

COMPONENT MANUFACTURERS

Many companies had decided long ago to concentrate on a single product but protect their futures by developing a full line of that product. The best example is the integrated circuit industry where companies who looked to maximize short term profits with volume general applications IC's. As is now well documented, the price dropped out of the market as excess capacity was created, without any protection for companies through long term relationships, "based on necessity". Most single product manufacturers now have protected their futures by developing a full line of a given product or marketing their products to all classes of customers.

Companies producing electronic components usually have a multiple product line. During the latter part of the 1980's, many New England companies found it necessary to narrow their line of products to concentrate on specific items and customers. As the economy

slowed it was also important for manufacturers to eliminate products where profits were below average, or products they were not competitively manufacturing.

Over the last few years, companies have eliminated classes of products or items that are sold to a customer base that they are not able to reach effectively. Examples are companies who have elected to eliminate military specification items, because of difficult manufacturing criteria and an unfamiliar marketing strategy.

A number of component manufacturers are also principally end item (system) manufacturers. Both very large and very small companies have elected to produce a number of their own component requirements. To enable competitive production most of these companies also sell to other companies (including their competitors). A number of system or end use manufacturers got into the component business in the 1980's when supply, not cost, was the concern. To insure availability they created their own manufacturing capability. For this reason many of these companies are now leaving the component business and have sold these operations.

Companies also manufacture components where the technology edge in their end item is a specific component(s). Technology protection is a driving force for in-house production, and a number of these companies;(even where they wish to transfer production out) must produce internally to maintain quality.

SYSTEM /SUBSYSTEM MANUFACTURERS

Many of the companies included in this market study of the New England Commercial Electronics Industry are manufactures of equipment for the computer/business equipment, telecommunications, energy/power generation, aerospace/defence, automotive/transportation, or medical industries.

Again, many of the companies manufacturing computer power supplies, jet engine fuel controls or fiber optic cable, do so as a division of a computer, jet engine, or telecommunications system company. Like the component manufacturers many system and subsystem manufacturers are leaving the market as their parent concentrates on its core business.

END USE PRODUCT MANUFACTURERS

All products are end-use relative to a customer sale. The term "end use" is intended to denote application of its intended function. Companies in this study falling into this category include manufacturers of:

Industrial Manufacturing Equipment

Test/Inspection Equipment

Business Machines, including Computers

Industrial Products, including Power Generation & Telecommunications

Transportation Equipment - Helicopters, Ships and Special Purpose Vehicles

A significant number of the end-user item manufacturers also produce a number of their component, subsystem and system requirements, based on need or a desire to maintain manufacturing capability of certain important items. Many New England end item manufacturers are evaluating their past make/buy decisions based on their current capabilities.

A large number of the equipment manufacturers detailed in this study are involved in the metal fabrication and machining business as well. A large portion of these companies are in the aerospace/defence industry.

Finally there are two very different segments of the Commercial Electronics Industry - Commercial Customers (either "further manufacturers" or industrial end-users) and Military/Defence Customers (either direct sale to the U.S. or other foreign government, or in a subcontract role to another company).

Company: Amphenol Corp.

Market: Corporate Office Headquarters

Address: 150 Hill Ave.

CONNECTICUT

City: Wallingford

State: CT Zip Code: 06492

Telephone: (203) 261-8600

Fax: (203) 265-9628

SIC: 3356
Assemblies
1855
3663

Products: Coaxial Cable, Modular Wire, Microwave Transmission

Annual Sales: 270M

Employees: 3,500

Key Management: Martin H. Loeffler-Pres.

Key Contacts: Don Reed-Purch. Mgt.

Business Overview: Amphenol manufactures and markets electrical, electronic and fiber optic connectors, cables and cable assemblies for aerospace, industrial, data systems and communications worldwide. The company has over 30 foreign subsidiaries including Pyle-National of Canada. U.S. subsidiaries include two Amphenol(CT) facilities and Times Fiber Communications located in Wallingford (a manufacturer of coaxial cable). This company was previously a subsidiary of LPL Technologies.

Canadian Opportunity: As company develops new products and markets via its independence from the control of a diversified company (LPL) they will be available for new venture projects.

New England Commercial Electronic Companies

Company: Amphenol Corp.

Parent: Corporate Office Headquarters

Address: 358 Hall Ave.

City: Wallingford

State: CT **Zip Code:** 06492

Telephone: (203) 265-8600

Fax: (203) 265-8628

SIC: 3356
Assemblies
3355
3663

Products: Coaxial Cable, Metallic Wire, Microwave Transmission

Annual Sales: 270M

Employees: 5,300

Key Management: Martin H. Loeffler-Pres.

Key Contacts: Don Read-Purch. Mgr.

Business Overview: Amphenol manufactures and markets electrical, electronic and fiber optic connectors, cables and cable assemblies for aerospace; industrial, data systems and communications worldwide. The company has over 20 foreign subsidiaries including Fyle-National of Canada. U.S. subsidiaries include two Amphenol(CT) facilities and Times Fiber Communications located in Wallingford (a manufacturer of coaxial cable). This company was previously a subsidiary of LPL Technologies.

Canadian Opportunity: As company develops new products and markets with its independence from the control of a centralized company (LPL) they will be available for new venture proposals.

New England Commercial Electronic Companies

Company: Amphenol/Spectra Strip Division

Parent: Amphenol Corp.-Wallingford, CT

Address: 720 Sherman Ave.

City: Hamden

State: CT **Zip Code:** 06514

Telephone: (203) 281-3200

Fax: (203) 281-5872

SIC: 3357
3643

Products: Flat Cable and Connectors - Metal Home

Annual Sales: 35M

Employees: 125

Key Management: Don Eisenberg - GM

Key Contacts: Kevin Cassidy - Purch.

Business Overview: Small division of company, but good customer base and product production cost. Another division is in Danbury that produces microwave components - Purchasing Manager (Tony Gugliotti - (203) 743-9272).

Canadian Opportunity:

Canadian Opportunity: Company may be available for working relationship to grow this part of their business. Both Hamden and Danbury divisions rely on outside vendors for precious metal plating.

New England Commercial Electronic Companies

Company: Anamet Inc.

Parent:

Address: 698 S. Main St.

City: Waterbury

State: CT **Zip Code:** 06725

Telephone: (203) 574-8500

Fax: (203) 574-5174

SIC: 3644

Products: Electrical Conduits, Flexible Metal Hose

Annual Sales: 160M

Employees: 950

Key Management: G.A. Scutt-Pres.

Key Contacts: John Lenz - Purch. Mgr.

Business Overview: Division and subsidiaries include J.M. Ney Co., Ney Dental, Ney Electronics, Ney Laminatics, Ney Refining, Clear Cellular, Seratronics, Mid South Cellular. Ney companies were a May 1992 acquisition. Anderson is a diversified

Canadian Opportunity: company that has specialized manufacturing of electronic components prior to the Ney purchase.

Canadian Opportunity: The ultrasonic business and electronics operations have Canadian sales potential that could be used for entry into involvement in their specialized businesses.

New England Commercial Electronic Companies

Company: Andersen Group, Inc.

Parent: ABB AG Sweden

Address: 1280 Blue Hills Ave.

City: Bloomfield

State: CT **Zip Code:** 06002

Telephone: (203) 242-0761

Fax: (203) 242-9876

SIC: 3674
3679

Products: Electronic Components Gas Petrochemical Utility

Annual Sales: 50M

Employees: 520

Key Management: Francis E. Baker-Pres.

Key Management: Timothy Powers-VP

Key Contacts: Joyce Thompson - Purch. Mgr.

Key Contacts: Robert Mason-VP Int'l Ventures

John Stauffer-(ABB Energy Ventures) Princeton, NJ

Bruce R. Jackson-Manager Corp. Purchasing - Mannheim, Germany

Business Overview: Division and subsidiaries include J.M. Ney Co., Ney Dental, Ney Electronics, Ney Ultrasonics, Ney Refining, Clear Cellular, Seratronics, Mid South Cellular. Ney companies were a May 1992 acquisition. Anderson is a diversified holding company that has specialized manufacturing of electronic components prior to the Ney purchase.

Canadian Opportunity: The ultrasonic business and electronics operations have Canadian sales potential that could be used for entry into involvement in their specialized businesses.

New England Commercial Electronic Companies

Company: Asea-Brown-Boveri Inc.

Parent: ABB AG Sweden

Address: 900 Long Ridge Rd.

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 329-8771

Fax: (203) 328-7788

SIC: 3823
Industries

Products: Equipment for the Oil Gas Petrochemical Utility

Annual Sales: 4.6 B

Employees: 22000 (U.S.) 14000(New Engl.)

Key Management: Timothy Powers-VP

Key Contacts: Robert Masson-VP Int'l Ventures
John Stauffer-(ABB Energy Ventures) Princeton, NJ
Bruce R. Jackson-Manager Corp. Purchasing - Mannheim, Germany

Business Overview: ABB has facilities in nearly every state. The company has only recently completed its integration of Combustion Engineering businesses. In the late 1980's Combustion had over 35,000 U.S. employees. Connecticut businesses remaining-Power Generation, Process Industries, Environmental Systems.

Canadian Opportunity: With the elimination of thousands of jobs in Connecticut and the U.S., ABB has a number of engineering and development projects without sufficient staffing. Opportunities may be in services area - software and engineering support.

New England Commercial Electronic Companies

Company: Baldwin Technology Co.

Parent: Baldwin Technology-Stamford, CT

Address: 401 Shippin Ave.

City: Stamford

State: CT Zip Code: 06904

Telephone: (203) 325-3581

Fax: (203) 359-8631

SIC: 3861
3583

Products: Machines for Printing Press Industry

Annual Sales: 42M

Employees: 960

Key Management: Peter E. Anselmo-Pres.

Key Contacts: Howard Pisan - Purch. Agent
Bill Green - Purch. Agent

Business Overview: Company has four overseas facilities as well as operations in New Jersey, Kansas, California and Illinois.

Canadian Opportunity: Baldwin looking for outsourcing of components. Key may be electronics for their end products.

New England Commercial Electronic Companies

Company: Baldwin Technology Co.

Parent: Baldwin Technology-Stamford, CT

Address: 401 Shippan Ave.

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 325-3581

Fax: (203) 359-8631

SIC: 3861
3555

Products: Machines for Printing Press Industry

Annual Sales: 42M

Employees: 960

Key Management: Peter E. Anselmo-Pres.

Key Contacts: Howard Plasan - Purch. Agent
Bill Green - Purch. Agent

Business Overview: Company has four overseas facilities as well as operations in New Jersey, Kansas, California and Illinois.

Canadian Opportunity: Baldwin looking for outsourcing of components. Key may be electronics for their end products.

New England Commercial Electronic Companies

Company: Barnes Group, Inc.

Parent: Corporation Office for Barnes Group, Inc.

Address: 123 Main St.

City: Bristol

State: CT **Zip Code:** 06010

Telephone: (203) 583-7070

Fax: (203) 589-3502

SIC: 3495
3469
3724

Products: Aerospace Products

Annual Sales: 515M

Employees: 4,200

Key Management: A. Stanton Wells-Pres. & COO
Alexander Jackson-Pres. Aerospace

Key Contacts: Don Hartman-Purch. Mgr. Aerospace Group (203) 688-6411

Business Overview: Operating units include: Barnes Aerospace Group (Windsor, CT) Aircraft Component Machining; Component repair/overhaul, welding vacuum brazing etc. Group's divisions include: Windsor Airmotive-East Granby, CT; Windsor Manufacturing - Windsor, CT. Barnes recently announced that its second quarter of 1994 was best profit quarter in five years. Barnes currently operates 16 manufacturing plants and warehouses throughout the U.S., Canada, Mexico, and Singapore.

Canadian Opportunity: Limited electronics products involvement, but may offer potential for Canadian electronics (aerospace/defence) component producer involvement for Barnes joint investment venturing.

New England Commercial Electronic Companies

Company: Branson Ultrasonics Corp.

Parent: Emerson Electric Co.-St. Louis, MO

Address: 41 Eagle Rd.

City: Danbury

State: CT **Zip Code:** 06810

Telephone: (203) 796-0400

Fax: (203) 796-0450

SIC: 3695

Products: Ultrasonic Assemblies and Cleaning Equipment

3699

Control Systems

Annual Sales: 150M

Employees: 525

Key Management: Charles Nims-Pres.

Key Management: Greg A. Altman - CEO

Key Contacts: Roger Martin-Purchasing

Key Contacts: Paul Messago-Purchasing-Electronics Products

Business Overview: Manufacturers of ultrasonic cleaning equipment as well as welding equipment for plastics.

Business Overview: Industrial Instrumentation. Company recently bought the assets of Amocans/Modular, Inc. from Ameca Oil Company (August, 1994). This company manufactures computer and information systems for oil and gas production.

Canadian Opportunity: Company relies on vendors for component supply and component improvement design. Has expressed interest in Canadian involvement through some business arrangement.

Canadian Opportunity: Company is receptive to opening new business operations. New purchase of Amocans is an opportunity for Canadian component/system products to approach Branson.

New England Commercial Electronic Companies

Company: Bristol Babcock Inc.

Parent: FKI Babcock Plc-UK

Address: 1100 Buckingham St.

City: Watertown

State: CT **Zip Code:** 06795

Telephone: (203) 575-3000

Fax: (203) 575-3170

SIC: 3625
Instrumentation and
3823

Products: Aircraft Pressure and Vacuum Switches, Industrial
Control Systems

Annual Sales: 110M

Employees: 425

Key Management: Greg A. Altman - CEO

Key Contacts: Paul Massago-Purchasing-Electronics Products

Business Overview: Primary business is industrial instrumentation. Company recently bought the assets of Amocams/Modular, Inc. from Amoco Oil Company (August, 1994). This company manufactures computer and information systems for oil and gas production.

Canadian Opportunity: Company is actively seeking foreign relationship and is receptive to opening new business operations. New purchase of Amocams is an opportunity for Canadian component/system producers to approach Bristol Babcock.

New England Commercial Electronic Companies

Company: Burndy Corp.

Parent: Framatome SA-France

Address: 51 Richards Ave.

City: Norwalk

State: CT **Zip Code:** 06856

Telephone: (203) 838-4444

Fax: (203) 852-6228

SIC: 3643
3678

Products: Electrical Connectors

Annual Sales: 360M

Employees: 1,400

Key Management: Elaine Morin-Pres.

Key Contacts: David Straznitskas - Sr. Purch. Agent
Ira Waley - Sr. Purch. Agent

Business Overview: In late 1980 the company was purchased by Framatome, a manufacturer of nuclear reactors. Burndy also had plants in Waterbury and Bethel, CT and Canada, Australia, Europe, Mexico, Brazil and Japan.

Canadian Opportunity: They have limited research financing and need to add to their product offering to expand. It is recommended that

Canadian Opportunity: complementing companies discuss joint venture and marketing/product development. Component supply is but secure hardware support has potential.

New England Commercial Electronic Companies

Company: Canberra Industries, Inc.

Parent:

Address: One State St.

City: Meriden

State: CT **Zip Code:** 06450

Telephone: (203) 238-2351

Fax: (203) 235-1347

SIC: 3829

Products: Nuclear Instrumentation

Annual Sales: 240M

Employees: 880

Key Management: Emery G. Olcott-Pres.

Key Contacts: Benjamin Campagnolo - International Programs (not Canberra employee)
Donna Stack - Purch. Mgr.

Business Overview: Canberra has been successful in marketing nuclear test equipment overseas. They have also expanded into a number of other environmental test areas, soil/air contaminants, etc.

Canadian Opportunity: They have limited research financing and need to add to their product offering to expand. It is recommended that complementing companies discuss joint venture and marketing/product development. Component supply is

limited

but certain hardware support has potential.

New England Commercial Electronic Companies

Company: Carlingswitch, Inc. *and System Division*

Parent: *Carl Industries Inc. NYC*

Address: 60 Johnson Ave.

City: Plainville *and*

State: CT **Zip Code:** 06062

Telephone: (203) 793-9266

Fax: (203) 793-9231

SIC: 3613
3679
3643

Products: Electrical Switches & Circuit Breakers

Annual Sales: 125M est.

Employees: 970

Key Management: R.W. Sorenson-Pres.

Key Contacts: John Murphy-Purch. *Mgr.*

Business Overview: Company has centralized purchasing to support their Brownsville, TX and Mexico manufacturing operations. Very limited manufacturing in Connecticut. *offices for Hamilton*

Canadian Opportunity: Company looks for foreign vendor opportunities. Would advise using their Mexico (primary manufacturing) activities to sell Canadian supply benefits (NAFTA). *Standard Fuel Controls. In late August, the National Transportation Safety Board reported that the failure of a Chandler Evans pump most likely caused the crash of a helicopter in Hawaii. Over 2,000 of these pumps are in service*

Canadian Opportunity: *Would be receptive to the purchasing but tends to be inflexible relative to selling off businesses. May be a good acquisition process through a licensing route with part of joint agreement and loss of intellectual capital.*

New England Commercial Electronic Companies

Company: Chandler Evans Control Systems Division

Parent: Colt Industries Inc.-NYC

Address: Charter Oak Blvd.

City: West Hartford

State: CT **Zip Code:** 06110

Telephone: (203) 236-0651

Fax: (203) 236-1062

SIC: 3724
3812
3769

Products: Gas Turbine Controls, Fuel Pumps

Annual Sales: 60M

Employees: 410

Key Management: Robert Snow-Pres.

Key Contacts: Chet Zekreski-Purch. Mgr.

Business Overview: Company continues to exist but has limited products and no new development products of any growth. Continues to be sub-supplier to Dowty and offload for Hamilton Standard-Fuel Controls. In late August, the National Transportation Safety Board reported that the failure of a Chandler Evans pump most likely caused the crash of a helicopter in Hawaii. Over 2,000 of these pumps are in service worldwide.

Canadian Opportunity: Would be receptive to and partnering but, tends to be inflexible relative to selling off businesses. May be a good acquisition prospect through a decreasing value with age of plant equipment and loss of technological advances.

New England Commercial Electronic Companies

Company: Circuit-Wise, Inc.

Parent:

Address: 400 Sacket Point Rd.

City: North Haven

State: CT **Zip Code:** 06473

Telephone: (203) 281-6511

Fax: (203) 287-8409

SIC: 3672
3679

Products: Printed Circuit Board , Electronic Components

Annual Sales:

Employees: 520

Key Management: John H. Mattler-Pres.

Key Contacts: Mike Baranowski - Purch. Mgr.

Business Overview: Having dealt with striking workers since 1989 ,when workers voted to join the union. Strike did not end until May 1994 when employees agreed to a contract. Meanwhile the company struggles to maintain customers and survive.

Canadian Opportunity: Management is now looking for an opportunity to grow and feels that its business is sound, but needs new approaches and affiliations.

New England Commercial Electronic Companies

Company: Data Switch Corp. England Inc.

Parent: Dataproducts Corp. Woodland Hills, CA

Address: One Enterprise Dr. Park Rd.

City: Shelton Conn

State: CT **Zip Code:** 06484

Telephone: (203) 926-1801

Fax: (203) 929-6408

SIC: 3613
Equipment
3625

Products: Switching and Control Systems for Data Processing

Ice Detection
3769
3723

Equipment-Airid Refueling, Environmental/Flight Sensors,

Annual Sales: 125M

Employees: 670

Annual Sales: 105M

Employees: 230

Key Management: J. Roger Moody-Pres.

Key Management: Joseph A. Menniti-GM

Key Contacts: Peter Citrone - Purch. Mgr.

Key Contacts: Tom Bloom-Purch.

Business Overview: Company is using IBM to market and sell their channel extension and switching products through IBM's Japan Ltd. Large portions of the company's U.S., customers are financial institutions, insurers, and airlines. Also has computer switch facility in Stamford, CT.

Canadian Opportunity: Component Supply and software support.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: Dataproducts New England Inc.

Parent: Dataproducts Corp.-Woodland Hills, CA

Address: 50 Barnes Industrial Park Rd.

City: Wallingford

State: CT **Zip Code:** 06492

Telephone: (203) 265-7151

Fax: (203) 265-7801

SIC: 3663

Electronic

3575

Ice Detection

3769

3728

Products: Telecommunications Printers and Terminals, Aircraft
Equipment-Ariel Refueling, Environmental/Flight Sensors,

Annual Sales: 75M

Employees: 1,200

Annual Sales: 105M

Employees: 230

Key Management: John W. Caldwell

Key Management: Joseph A. Menniti-GM

Key Contacts: John Glorie - Purch. Mgr.

Key Contacts: Tom Bloom-Purch.

Business Overview: Manufacturer of Ashcroft's Heise precision instruments including gauges, remote recording thermometers, transmitters and transducers. Product used in fluid power, photochemical, pollution control, hydraulics and refrigeration.

Canadian Opportunity: Customers include U.S. government and food, pulp, and paper industries. Opportunity for like product producers to explore teaming to expand both companies markets.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: Dresser Industries/Ashcroft Instrument

Parent: Corporate Office

Address: 250 East Main St. Park

City: Stratford

State: CT **Zip Code:** 06497

Telephone: (203) 378-8281

Fax: (203) 385-0499

SIC: 3613
and Switches
3823

Products: Industrial Pressure Gauges, Thermometers, Regulators

Annual Sales: 75M

Employees: 1,200

Key Management: John W. Caldwell

Key Contacts: John Gloria - Purch. Mgr.

Business Overview: Manufacturer of Ashcroft's Heise precision instruments including gauges, remote recording thermometers, transmitters and transducers. Product used in fluid power, photochemical, pollution control, hydraulics and refrigeration.

Canadian Opportunity: Customers include U.S. government and food, pulp, and paper industries. Opportunity for like product producers to explore teaming to expand both companies markets.

Canadian Opportunity: Contact by related product electronics companies advised. Duracell is a rapid growth company.

New England Commercial Electronic Companies

Company: Duracell Inc.

Parent: Corporate Office

Address: Berkshire Industrial Park

City: Bethel

State: CT **Zip Code:** 06801

Telephone: (203) 796-4000

Fax: (203) 796-4187

SIC: 3691
Battery Products
3692
3728

Products: Lighting Products, High-Performance Batteries and other

Annual Sales: 2.3B

Employees: 8,800

Key Management: Charles R. Perrin-Pres.

Key Contacts: Frank Santora - Purch. Mgr.

Business Overview: Included in survey due to rapid growth and an aggressive expansion of business. Company may be entering related products filed in late 1995 or beyond.

Canadian Opportunity: Although U.S. military business has decreased the company is interested in keeping active in military business and would look favorably on Canadian partnering to gain access and contacts with Canadian military.

Canadian Opportunity: Contact by related product electronics companies advised. Duracell is a rapid growth company.

New England Commercial Electronic Companies

Company: Dynamic Controls Corp.

Parent: Eaton Corp. Cleveland, OH

Address: 8 Nutmeg Road South

City: South Windsor

State: CT **Zip Code:** 06074

Telephone: (203) 528-9971

Fax: (203) 282-1075

SIC: 3694

Systems

3612

3728

Products: Aircraft Power Supplies, Electronic Controls and

Annual Sales: 50M

Employees: 450

Key Management: Thomas Farkus-Pres.

Key Contacts: Ray Sherman-Purch.

Business Overview: Military weapons systems are still an important part of their business, although they are attempting to increase commercial product sales (emphasis on power supplies).

Canadian Opportunity: Although U.S. military business has decreased the company is interested in keeping active in military business and would look favorably on Canadian partnering to gain access and contacts with Canadian military.

New England Commercial Electronic Companies

Company: Eaton Corp./Pressure Sensors Div.

Parent: Eaton Corp.-Cleveland, OH

Address: 15 Durant St. Bethel Rd.

City: Bethel

State: CT **Zip Code:** 06801

Telephone: (203) 796-6000

Fax: (203) 796-6313

SIC: 3829

Products: Control Systems and Instrumentation

Annual Sales: 95M

Employees: 710

Key Management: J.K. Engelberger-Pres.

Key Contacts: Nicholas J. Tarasovic - Purch.

Business Overview: Company operates numerous divisions and operating units in the U.S. and overseas. One of their largest units (Automotive Control Group Inc.) also located in Branford. produces ignition contact sets, condensers and other automotive electronics replacement parts.

Canadian Opportunity: Company produces numerous replacement parts (NAPA etc.) and electronics components for the automotive industry. With longer life of cars and profit from this component of their business, outsourcing is an option that may be a need for company 1995 and beyond.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: Echlin Inc.

Parent:

Address: 100 Double Beach Rd.

City: Branford

State: CT **Zip Code:** 06405

Telephone: (203) 481-5751

Fax: (203) 488-0370

SIC: 3629
3694
3714

Products: Vehicle Replacement Parts and Equipment

Annual Sales: 1.8B

Employees: 16,500

Key Management: C. Scott Greer-Pres.

Key Contacts: Mary Lazinski-Purch. Coordinator
Robert F. Kelly-Sr. VP Strategic Business Div.

Business Overview: Company operates numerous divisions and operating units in the U.S. and overseas. One of their largest units (Automotive Control Group Inc.) also located in Branford. produces ignition contact sets, condensers and other automotive electronics replacement parts.

Canadian Opportunity: Company produces numerous replacement parts (NAPA etc.) and electronics components for the automotive industry. With longer life of cars and profit from this component of their business, outsourcing is an option that may be a need for company 1995 and beyond.

Canadian Opportunity: Potential for software development both development and contract.

New England Commercial Electronic Companies

Company: EIS International Inc.

Parent: General Dynamics Corp.-Pall's Church, VA

Address: 131 Washington Blvd.

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 351-4800

Fax: (203) 961-8632

SIC: 3669
3577

Products: Computerized Outbound Call Center Technology

Annual Sales: 52M

Employees: 300

Key Management: Joseph J. Porfeli-Chairman/Pres.

Key Contacts: Robert L. Schwartz-Sr. VP Int'l Operations
Robert F. Kelly-Sr. VP Strategic Business Div.

Business Overview: In November 1993 Electronic Information Systems merged with International Telesystems Corp to form EIS Int'l Inc.

Canadian Opportunity: Significant portion of electronic hardware for the next generation of submarines at conceptual development stage only. Upgrade systems for existing submarines will

Canadian Opportunity: Potential for software involvement - both development and contract.

New England Commercial Electronic Companies

Company: Electric Boat Div.

Parent: General Dynamics Corp.-Falls Church, VA

Address: 75 Eastern Point Rd.

City: Groton

State: CT **Zip Code:** 06340

Telephone: (203) 433-3000

Fax: (203) 433-1400

SIC: 3731

Products: Nuclear Submarine and Marine Systems

Annual Sales: 1.3B

Employees: 9,800

Key Management: James E. Turner Jr.-Pres.

Key Contacts: Thomas A. Brown-VP Contracts

Business Overview: Produces Seawolf submarines and tentatively next generation submarines (Centurion) late 1997. With Seawolf fleet cut from 29 ships to at the most 3. They continue to be concerned about new business in the future. GD will cut additional workers (by 1998 plans are to have division with 7000 or fewer) - 1000 will have to be at hull fabrication facility in Quonset Point, RI.

Canadian Opportunity: Significant portion of electronic hardware for the next generation of submarines at conceptual development stage only. Upgrade systems for existing submarines will become sizable in 1996 and beyond. Both offer potential for Canadian Industry.

New England Commercial Electronic Companies

Company: Vermont Division of Industries Inc.

Parent: Dynamics Corp of America-Greenwich, CT

Address: 141 North Ave.

City: Bridgeport

State: CT **Zip Code:** 06606

Telephone: (203) 366-5211

Fax: (203) 367-3642

SIC: 3679
3670

Products: AC and DC Generator Sets and Switch Gear

Annual Sales: 25 M

Employees: 90

Key Management: William F. Tuxburg-Pres.

Key Contacts: Pete Mikulak-Purch. Mgr.

Business Overview: Dynamics Corporation has five high tech operating units involved in energy, advanced material, medical, subassembly and test and measurement industries. Corporation employees 1400. Other division in Wallingford, CT (software), the rest are out of New England.

Canadian Opportunity: Environmental application products are underdeveloped with potential for Canadian involvement.

New England Commercial Electronic Companies

Company: General DataComm Industries Inc.

Parent: Corporate Office

Address: Park Road Extension

City: Middlebury

State: CT **Zip Code:** 06762

Telephone: (203) 574-1118

Fax: (203) 758-8507

SIC: 3661
3663
3577

Products: Modems, Multiplexers and Network Systems

Annual Sales: 68M

Employees: 1,910

Key Management: Robert Smith-VP Bus. Devel.

Key Contacts: John Harneck-Purch.

Business Overview: With sales and services offices located in Europe (UK & France), Asia and South America, General DataComm is well positioned for the 1990's. The company was an early entrant to the multimedia network business. Sale to China in early September, 1994 opens a new market for company.

Canadian Opportunity: Potential for upgrade/repair activities as this end of business increases. Company also very interested in foreign relationships as this end of business is a major growth area. Recommend vendors approach company with opportunity as supplier and "systems partner".

New England Commercial Electronic Companies

Company: General Electric Co. Dist. & Control

Parent: Corporate Office

Address: 3135 Easton Tpke.

City: Fairfield

State: CT **Zip Code:** 06431

Telephone: (203) 373-2211

Fax: (203) 373-3131

SIC: 3632

Aircraft Engines

3641

3672

3679

Products: Electrical and Technical Products, Major Appliances,

Products: Switches, Panelboards, Switchgear, Switchboard and

Annual Sales: 62B

Employees: 4500 in CT 18000 Corp Wide

Key Management: John F. Welch Jr.-Pres. Employees: 1,100

Key Contacts: Gary M. Reiner-VP Corporate Div.

Purchasing for aerospace engine div. in Evandale, OH

Purchasing for commercial div. is primarily the responsibility of individual units.

Business Overview: Restructuring as a result of sale of aerospace operations is over and GE looks to firm its position in its remaining aerospace hardware -aircraft engines and related products. Company also is reevaluating commercial product and service businesses, many of which are in Northeast U.S.(several in CT) Connecticut facilities producing electronic products include: Accessories Equipment Division -manufacturers switches and lamp sockets. Electrical Distribution&Control Division-manufacturers switches&switch gear. Aerospace division strongest of twelve GE operated businesses in New England.

Canadian Opportunity: With 9 of 12 units showing a strong gain in the first half of 1994 the company looks to strengthen or add to its existing businesses (even though it has itself divested itself of a number of businesses). Best opportunity is with various Massachusetts, Maine and New Hampshire Divisions.

New England Commercial Electronic Companies

Company: General Electric/Elec. Dist. & Control

Parent: G.E.-Fairfield, CT

Address: 41 Woodford Ave. P.O. Box 10010

City: Plainville

State: CT **Zip Code:** 06062

Telephone: (203) 747-7111

Fax: (203) 747-7543

SIC: 3613
Circuit Boards

Products: Switches, Panelboards, Switchgear, Switchboard and

Annual Sales: 310M

Employees: 1,100

Key Management: Samuel Carpenter-CEO

Key Contacts: Peter A. Laing - VP Operations (contact for purchasing of long-term)
Renaldo Garcia - Purch. Mgr.

Business Overview: A significant amount of General Signal's operations are run in New England. Company manufactures semiconductors in the UK and has a number of transportation electronics businesses including New York Air Brake. Company does bulk of transportation business for the rail and transit industry.

Canadian Opportunity: Limited sales available to company through corporate office. General Signal has minimal manufacturing presence in New England. Corporate Office discussion approach should be made along the lines of a joint venture/investment in Canada.

New England Commercial Electronic Companies

Company: General Signal Corp.

Parent: (Corporate Office)

Address: One High Ridge Rd., P.O. Box 10010

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 329-4100

Fax: (203) 329-4159

SIC: 3625
3699

Products: Control Systems & Electrical Equipment

Annual Sales: 1.9B

Employees: 13400-worldwide

Key Management: Edmond Carpenter-COO

Key Contacts: Peter A. Laing - VP Operations (contact for purchasing of long-term contracts).

Business Overview: Divisions consist of

A significant amount of General Signal's operations are not in New England. Company manufactures semiconductors in the UK and has a number of transportation electronics businesses including New York Air Brake. Company does bulk of transportation business for the rail and transit industry.

Canadian Opportunity: Limited sales available to company through corporate office. General Signal has minimal manufacturing presence in New England. Corporate Office discussion approach should be made along the lines of a joint venture/investment in Canada.

New England Commercial Electronic Companies

Company: Gerber Scientific Inc.

Parent: Headquarters Of Corp.

Address: 83 Gerber Rd. West

City: South Windsor

State: CT **Zip Code:** 06074

Telephone: (203) 644-1551

Fax: (203) 643-7039

SIC: 3559

Products: Computer Aided Design and Manufacturing Systems

Tele: 3569 locations and

3823

Electronic Products in Addition to Defence Electronics

3829

3572

Annual Sales: 280M

Employees: 1,000

Annual Sales: 14B

Employees: 116,000 corp.

Key Management: H. Joseph Gerber-Pres. (and founder)

Key Management: Charles Kidge-CEO

Edward C. Schmultz-VP Contracts & Counsel

Key Contacts: Gerber Garment-Michael Israel-Purch.

Key Contacts: Corporate office carries out no operational activities (including purchasing).

Business Overview: Divisions Consist of:

Gerber Garment-Mfg. of textile cutting machinery-major Gerber business
Gerber Optical-ophthalmic manufacturing equipment
Gerber Systems-Automation systems for drafting and graphic arts industry
Gerber Systems Technology-interactive turnkey CAD and CAM systems

Canadian Opportunity: Company has seen significant increases in foreign business with strongest areas in Asia and South America. Conservative in foreign procurement, but as such may be good candidate for Canadian supply.

New England Commercial Electronic Companies

Company: GTE Corp. Stamford Div.

Parent: Headquarters Of Corp. Corp.-Hartford, CT

Address: One Stamford Forum

City: Windsor Locks

City: Stamford

Telephone: (203) 654-0000

Telephone: (203) 965-2000

SIC: 3724

SIC: 3641

Telecommunications and

3648

3661

State: CT Zip Code: 06096

State: CT **Zip Code:** 06904

Fax: (203) 654-2020

Fax: (203) 965-2277

Products: Propellers, Fuel Controls, Aircraft

Products: Primary Business-Telephone Operations,

Systems, Sea & Space Systems, Aircraft

Electronic Products in Addition to Defence Electronics and Control

Systems

Annual Sales: 1B est.

Annual Sales: 14B

Employees: 1650

Employees: 116,000 corp.

Key Management: Robert M. Kuhn-Pres.

Key Management: Charles Ridge-CEO

Edward C. Schmultz-VP Contracts & Counsel

Key Contacts: SALLY STEWART JR.-Dir. of Purch. (203) 654-2693

Gregory T. Horton- Mgr. Operations Support Procurements

Key Contacts: Corporate office carries out no operational activities(including purchasing).

Business Overview: Company has continued to reduce employment (14,000 in 1986 to 7,600 in August 1994) and products over the last five years.

Company

Business Overview: GTE Telecommunications has cut 8,000 positions out of 17,000 total cuts to take place by the end of 1995. Company's operations include the nation's second largest cellular telephone business, military electronics and telephone book advertising, but local telephone service is responsible for 79 cents of every revenue dollar.

Canadian Opportunity: Corporation continues to streamline operations and is a prime candidate for component vendor supply.

Company: Hamilton Standard Div.

Parent: United Technologies Corp.-Hartford, CT

Address: Bradley Field Rd.

City: Windsor Locks

State: CT **Zip Code:** 06096

Telephone: (203) 654-6000

Fax: (203) 654-2620

SIC: 3724

Products:

Propellers, Fuel Controls, Aircraft
Environmental Control
Systems, Sea & Space Systems, Aircraft
Diagnostic Systems and Guidance and Control
Systems

3728

Annual Sales: 1B est.

Employees: 7,650

Key Management: Robert M. Kuhn-Pres.

Key Contacts:

Shelly Stewart Jr.-Dir. of Purch. (203)654-2633

Gregory T. Horton- Mgr. Operations Support Procurements

Donald Tetreault-VP Hamilton Support Systems

Fred Morris-VP Space Systems-NASA Contracts including Space Suite
Contracts

Business Overview: Company has continued to reduce employment (14,000 in 1986 to 7,600 in August 1994) and products over the last five years.

Company

is still the major U.S. manufacturer of propellers, fuel controls and aircraft environmental systems, but has shed a number of unprofitable electronic black box systems and other low profit systems. On July 27, 1994 it was formally announced that 20% of the space systems (numerous NASA products) unit of the division was being sold to Sumitomo Corp.-Japan. Other space ventures/divestments are being sought by the corporation.

Canadian Opportunity: Due to major changes to the contracts, procurement and material operations there are more open doors to supply sale than in years past when entry to HSD was difficult. Business is not as good as in years past, but the smaller, more directed HSD may offer current benefits with current growth.

New England Commercial Electronic Companies

Company: Hubbell Inc.

Parent:

Address: 584 Derby Milford Rd.

City: Orange

State: CT **Zip Code:** 06477

Telephone: (203) 799-4100

Fax: (203) 799-4205

SIC: 3643
3661
3679

Products: Electrical and Electronic Components

Annual Sales: 775M

Employees: 5,500

Key Management: G.J. Ratchffe Jr.-Pres.

Key Contacts: Paul Saggese (203) 333-1181

Business Overview: In addition to its corporate office and manufacturing facility in Orange, Hubbell produces ground fault circuit interrupters and wiring devices in Bridgeport, CT. Hubbell produces electronic products for the industrial, commercial, telecommunications and utility markets.

Canadian Opportunity: Purchasing is in Bridgeport and is aggressively pursuing foreign sources.

New England Commercial Electronic Companies

Company: Hughes Danbury Optical Systems, Inc.

Parent: Hughes Aircraft Co.-El Segundo, CA

Address: 100 Wooster Heights Rd.

City: Danbury

State: CT **Zip Code:** 06810

Telephone: (203) 797-5000

Fax: (203) 797-5114

SIC: 3827
Military and
3826

Products: Electro-Optical Systems and Components for Science,
Commercial Application

Annual Sales: 360M est.

Employees: 410

Annual Sales: 150M

Employees: 820

Key Management: B.W. Hall-Operations Manager

Key Management: Prasad R. Akkapeddi-Dir. R&D

Steve Swigert-VP Contracts & Counsel

Key Contacts: Paul Joyce-Purch.

Key Contacts: Lester Jacobs-Purch. Mgr.

Gary Baker-Purch.

Business Overview: Division significantly downsized and a possible candidate for sale or liquidation. Lack of investment commitment by corporation has created a situation where their product is not technology competitive with other U.S. suppliers.

Canadian Opportunity: To survive the company must look to involve technology capable partners or subsystem vendors. This may be a window of opportunity if investment is protected with sales potential.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: International Fuel Cell Co.

Parent: United Technologies Corporation, Hartford, CT

Address: 193 Governor's Highway

City: South Windsor

State: CT **Zip Code:** 06074

Telephone: (203) 727-2200

Fax: (203) 727-2202

SIC: 3629
3674

Products: Power Fuel Cells

Annual Sales: 360M est.

Employees: 410

Key Management: E.W. Hall-Operations Manager

Curt Zimmer-Contracts Manager

Key Contacts: Steve Swigert-VP Contracts & Counsel

Key Contacts: Paul Joyce-Purch.

Roy Evasius-Purch.

Gary Baker-Purch.

Business Overview: Division significantly downsized and a possible candidate for sale or liquidation. Lack of investment commitment by corporation has created a situation where their product is not technology competitive with other U.S. suppliers.

Canadian Opportunity: To survive the company must look to involve technology capable partners or subsystem vendors. This may be a window of opportunity if investment is protected with sales potential.

New England Commercial Electronic Companies

Company: Kaman Corp. Inc.

Parent: Parent of Connecticut Based Companies

Address: Blue Hills Ave., P.O. Box 1

City: Bloomfield

State: CT **Zip Code:** 06002

Telephone: (203) 243-8311

Fax: (203) 243-6365

SIC: 3728

Products:

37812

3931

Annual Sales: 760M

Employees: 3,600

Key Management: Charles H. Kaman-CEO(founder)
Harvey L. Levenson-Pres. Kaman Corp.
Walter K. Kozlow-Pres. Kaman Aerospace

Key Contacts: John Eager-Dir. of Purch.-Kaman Aerospace
James W. Agonis-VP-Kaman Diversified Tech.
John Harris-Purch.-Raymond Engr (203)632-1000

Business Overview: Kaman manufactures helicopters (primarily for U.S. military) and aircraft components and subcontracts to fixed wing aircraft producers including Boeing. Kaman operates a successful bearing distribution operation and factory management/research and development business.

Major effort being made to sell new "air truck" helicopter that is a "back to basics" commercial hauling and construction helicopter. Kaman also owns Raymond Engineering located in Middletown, CT which produces electro-mechanical devices (est. sales \$40 M).

Canadian Opportunity: With age of SH-2 military helicopter, company will look to develop upgrade systems (many of which involve electronic systems). With the amount of downsizing during the past several years, company has limited electronics systems development/manufacturing capabilities. Also teaming possible in the factory automation area

for

Kaman to grow this business.

New England Commercial Electronic Companies

Company: Landis & Gyr Inc.

Parent: Landis & Gyr AG-Switzerland

Address: 596 North Mountain Road

City: Newington

State: CT **Zip Code:** 61111

Telephone: (203) 953-7520

Fax: (203) 953-1765

SIC: 3825
3572

Products: Electric Meters, Management Computer Control Systems

Annual Sales: 350M

Employees: 3,700

Key Management: James Bell-Pres.

Key Contacts: Russell Tanguay - Operations Mgr. (responsible for purchasing)

Business Overview:

Company's only New England manufacturing is in Terryville, CT. They also manufacture in Georgia, Oklahoma and several other U.S. locations. Corporate office directs activities of all manufacturing and operations.

Canadian Opportunity:

Company's business has increased over last several years and they are actively pursuing new business and new relationships. Component supply offers excellent potential.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: O-Z/Gedney

Parent: General Signal Corp.-Stamford, CT

Address: Main St. Ridge Rd.

City: Terryville

State: CT **Zip Code:** 06786

Telephone: (203) 584-0571

Fax: (203) 584-9560

SIC: 3644

Products: Electrical Conduit Fittings and Controls for Defence,
Specialty Chemicals, Brass

Annual Sales: Corp. figures

Employees: 240 CT Mfg. 1,100 Corp. Wide

Key Management: Thom Bach-VP Operations

Key Management: Johnnie Jackson-VP Contracts/Counsel

Key Contacts: John Lenhart-Purch.

Key Contacts: William Schmitt-VP Int'l (for corporate contact with division)

Business Overview: Company's only New England manufacturing is in Terryville, CT.

Business Overview: They also manufacture in Georgia, Oklahoma and several other U.S. locations. Corporate office directs activities of all manufacturing and operations.

the company announced sale of its corporate office to GE capital.
Move to be made by end of year to new facility in Stamford, CT area.

Canadian Opportunity: Company's business has increased over last several years and they are actively pursuing new business and new relationships. Component supply offers excellent potential!

purchasing opportunities. Also, favorable interest in involvement with foreign supplier to expand international exposure. There is no purchasing from Stamford (corporate office).

New England Commercial Electronic Companies

Company: Olin Corp.

Parent: Corporate Headquarters

Address: 120 Long Ridge Rd.

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 356-2000

Fax: (203) 356-3595

SIC: 3669
Specialty Chemicals,

Products: Simulation Systems, Rocket Engines for Defence,
Brass

Annual Sales: 2.5B
Wide

Employees: 500 Corp office 12,300 Corp

Key Management: Betty R. Hollander-Pres.

Key Management: Johnnie Jackson-VP Contracts/Counsel

Key Contact: Iodi Rich-Int'l Dist.

Key Contacts: William Schmitt-VP Int'l (for corporate contact with division)

Business Overview: A company that started as a one person operation 20 years ago grew All defence divisions are outside New England. Corporate Office directs all businesses including chemicals, metals, electronics and other defence products. On August 4, 1994 the company announced sale of its corporate office to GE capital. Move to be made by end of year to new facility in Stamford, CT area.

Canadian Opportunity: Contracts in Stamford should be contacted to explore corporate purchasing opportunities. Also, favorable interest in involvement with foreign supplier to expand international exposure. There is no purchasing from Stamford (corporate office).

New England Commercial Electronic Companies

Company: Omega Engineering, Inc.

Parent:

Address: 1 Omega Dr.

City: Stamford

State: CT **Zip Code:** 06907

Telephone: (203) 359-1660

Fax: (203) 359-7770

SIC: 3823

Products: Measurement and Process Control Instruments

Annual Sales: 170M

Employees: 370

Key Management: Betty R. Hollander-Pres.

Key Contacts: Jodi Rich-Int'l Dept.

Rick Frank-Purch. Mgr.

Business Overview: A company that started as a one person operation 20 years ago grew rapidly in the late 1980's. They have encountered some product cost and quality control problems in last years.

Canadian Opportunity: Although company divested themselves (through sale) of a number of businesses in the mid to late 1980's they remain active in product development and new business growth. Good candidate for government contract partnering in space

Canadian Opportunity: Company has made extensive reorganization and is now in a good position to seek new vendor relationships.

New England Commercial Electronic Companies

Company: Perkin-Elmer Corp.

Parent: Perkin-Elmer Corp.

Address: 761 Main St.

City: Norwalk

State: CT **Zip Code:** 06851

Telephone: (203) 762-1000

Fax: (203) 762-6000

SIC: 3825
Systems
3826

Products: Analytical Instrument Systems and Thermal Spray Coating

Annual Sales: 810M

Employees: 5,700

Key Management: Gaynor N. Kelly-Pres.

Key Contacts: Richard J. De Angelo-Purch. Agent Corporate

Business Overview: The company has recently sold \$500,000 in water quality analysis equipment, \$250,000 worth of atomic absorption spectrometers and other equipment including gas chromatography to Mexico's regional water laboratories. They continue to be involved in space and defence programs.

Canadian Opportunity: Although company divested themselves (through sale) of a number of businesses in the mid to late 1980's they remain active in product development and new business growth. Good candidate for government contract partnering in space and specialty instrumentation.

New England Commercial Electronic Companies

Company: Philips Technologies

Parent: NV Philips-Netherlands

Address: 7 McKee Place

City: Cheshire

State: CT **Zip Code:** 06410

Telephone: (203) 271-6000

Fax: (203) 271-6100

SIC: 3621
3672
3625

Products: Small Motors, Actuator, Indicators, Timers and Sensors

Annual Sales: 220M

Employees: 750

Key Management: Jerry Gabbard-GM

Key Contacts: Mike Ritucci-Purch. Mgr.

Business Overview: Company announced in early 1994 that it would phase out most of its small-motor operations. This has resulted in as many as 100 layoffs since late June 1994. Most of the manufacturing activity at the Cheshire facility is devoted to automotive electronics. This company was formerly Air Pax Corp.

Canadian Opportunity: Most of the small motor manufacturing was to support the defence industry. This motor business would be a viable business for a manufacturer with a compatible product. These products also have commercial computer application.

New England Commercial Electronic Companies

Company: Pitney Bowes, Inc.

Parent: Corporate Office

Address: One Bincroft Pl.

City: Stamford

State: CT Zip Code: 06926

Telephone: (203) 356-5000

Fax: (203) 351-6158

SIC: 3529
Equipment, Copy
3661
3672

Products: Printed Circuit Boards and other Components/Mailing
Machines, Counters and Imprinters

Annual Sales: 3.3B

Employees: 26,800

Key Management: George Hawey-Pres.

Key Contacts: Sal Carbiro-Dir. of Procurement

Business Overview: Company's major manufacturing facility is also in Stamford. Dictaphone Corp. (dictating and answering machine) is a subsidiary of Pitney Bowes. Dictaphone has corporate offices in CT with all manufacturing done in Melbourne, FL. Company has manufacturing primarily in Stamford, but also in the UK and Canada.

Canadian Opportunity: Contact with the Stamford purchasing recommended as excellent opportunity exists as vendor options being evaluated.

New England Commercial Electronic Companies

Company: Pitney Bowes, Inc.

Parent: Corporate Office

Address: One Elmcroft Rd.

City: Stamford

State: CT **Zip Code:** 06926

Telephone: (203) 356-5000

Fax: (203) 351-6158

SIC: 3579
Equipment, Copy
3661
3672

Products: Printed Circuit Boards and other Components/Mailing
Machines, Counters and Imprinters

Annual Sales: 3.3B

Employees: 26,800

Key Management: George Hawey-Pres.

Key Contacts: Sal Carbino-Dir. of Procurement

Business Overview: Company's major manufacturing facility is also in Stamford. Dictaphone Corp. (dictating and answering machine) is a subsidiary of Pitney Bowes. Dictaphone has corporate offices in CT with all manufacturing done in Melbourne, FL. Company has manufacturing primarily in Stamford, but also in the UK and Canada.

Canadian Opportunity: Contact with the Stamford purchasing recommended as excellent opportunity exists as vendor options being evaluated.

New England Commercial Electronic Companies

Company: Pratt & Whitney Aircraft Div.

Parent: United Technologies Corp.-Hartford, CT

Address: 400 Main St.

City: East Hartford

State: CT **Zip Code:** 06108

Telephone: (203) 565-4321

Fax: (203) 565-3382

SIC: 3724
3728

Products: Large Commercial Jet Engines, Military Aircraft Engines

Annual Sales: Corp figures

Employees: 36,000

Key Management: Karl J. Krapek-Pres. & CEO

Key Contacts: Vince Fulcetta - Purchasing Coordinator (there are eight different purchasing groups)

Business Overview: Pratt & Whitney is currently going through another major layoff to get the Pratt division below 30,000 employees by the end of 1994. The layoffs in 1989-92 were much needed and in many regards eliminated

a number of over employment pockets within the division. The jobs and positions eliminated in 1993-94 left a number of areas of expertise shallow and many administrative and production capabilities in poor condition. Southington plant to shut down March 31, 1995 and move to Middletown facility.

Canadian Opportunity: As Pratt considers future layoffs, certain manufacturing activities and plant operations are being evaluated. With a cost per hour of \$31.05 at their Connecticut facility Pratt in spite of sales tax and other incentives is looking to offload many in-house manufacturing/assembly operations. It is anticipated that Pratt will move most of its overhaul & repair operations out of the state and look to strengthen its subcontractors for gear boxes, sheet metal

rings

and seals, steel disks and spacers. Number of plant shutdowns and moves could present opportunity for Canadian interim assistance to

New England Commercial Electronic Companies

Company: *Electro* establish a relationship with Pratt.

Parent:

Address: 18 Graybridge Rd., Box 391

City: Brookfield

State: CT Zip Code: 06804

Telephone: (203) 775-0411

Fax: (203) 775-0666

SIC: 3612
Regulators
3679
3677

Products: Direct Current Power Supplies, Transformers and Voltage

Annual Sales: 40M

Employees: 125

Key Management: Riley Wilson-Pres.

Key Contacts: Mike Dabo- Paroh.

Business Overview: Company near bankruptcy in 1993, but survived due to niche, quality product. Sales through its small sales force and agent difficult. Limited capital has reduced product development. Change of executive officers took place late last year.

Canadian Opportunity: Good potential for venture partnering or manufacturing licensing. With recent changes company is receptive to new business relationships.

New England Commercial Electronic Companies

Company: Rapid Power Technologies, Inc.

Parent:

Address: 18 Graysbridge Rd., Box 291

City: Brookfield

State: CT **Zip Code:** 06804

Telephone: (203) 775-0411

Fax: (203) 775-0666

SIC: 3612
Regulators
3679
3677

Products: Direct Current Power Supplies, Transformers and Voltage

Annual Sales: 40M

Employees: 125

Key Management: Riley Wilson-Pres.

Key Contacts: Mike Dube- Purch.

Business Overview: Company near bankruptcy in 1993, but survived due to niche, quality product. Sales through its small sales force and agent difficult. Limited capital has reduced product development. Change of executive officers took place late June.

Canadian Opportunity: Good potential for venture partnering or manufacturing licensing. With recent changes company is receptive to new business relationships.

New England Commercial Electronic Companies

Company: Rogers Corp.

Parent: UTC-Hartford, CT

Address: One Technology Dr.

City: Stratford

State: CT **Zip Code:** 06601

City: Rogers (203) 386-4000

State: CT **Zip Code:** 06263

Telephone: (203) 774-9605

Fax: (203) 774-5852

SIC: 3678
3082

Products: Electronic Interconnection Products and Polymer Products

Annual Sales: 1.2B est.

Employees: 19,700

Key Management: Eugene Buckley-Pres.

Annual Sales: 170M **Employees:** 2,200

Key Management: Donald O'Leary-Asst. Controller (int'l)

Key Contacts: Mark Evans-VP Purch.

Bill Morgan - Small Business Liaison/Purch.

Key Contacts: Jerrold Abell-Corporate Purch.

Business Overview: Business through mid 1995 should hold steady, but U.S. govt. funding

discussions continue and a shortfall could exist for the next generation helicopter, the Comanche. Production scheduled for 1295 aircraft.

Recent glitch was sensed with congressional proposal July 15, 1994 to

Business Overview: Focus of company is on production of specialty polymer composite materials. Until 1992, the company had entered into a number of new businesses. It has divested a number of businesses including flexible interconnect business in Wellesley, MA and Mexican manufacturing facility. Awaiting new CEO to be named in end of August.

be the Division's commercial hedge in the early 1980's.

Canadian Opportunity: Several business units remain available for sale or venture arrangements including Latin American manufacturing. Due to depressed business, vendor potential not a high prospect. R&D projects are underfunded or on hold

with potential for Canadian input. The Blackhawk/Sesihawk helicopter seems to be budget secure and well received by Congress and DOD as the next round of multi-procurement contracts by

New England Commercial Electronic Companies

Company: Sikorsky Aircraft Div.

Parent: UTC-Hartford, CT

Address: 6900 Main St.

City: Stratford

State: CT **Zip Code:** 06601

Telephone: (203) 386-4000

Fax: (203) 386-4601

SIC: 3724
3728

Products: Helicopters including s61-Black Hawk/Sea Hawk CH53 and development with Boeing of RAH-66 Comanche, Commercial Helicopter S-76

Annual Sales: 1.2B est.

Employees: 10,700

Key Management: Eugene Buckley-Pres.
Roger Bougie-VP Contracts & Counsel

Key Contacts: Mark Evans-VP Purch.
Bill Morgan -Small Business Liaison/Purch.

Business Overview: Business through mid 1995 should hold steady, but U.S. govt. funding discussions continue and a shortfall could exist for the next generation helicopter, the Comanche. Production scheduled for 1295 aircraft. Recent glitch was sensed with congressional proposal July 15, 1994 to have both Comanche and Apache handled by a contract team which could dilute Sikorsky sales. Blackhawk continues to find new foreign markets most recently large volume purchase by government of Turkey. Commercial S76 aircraft remains a question although it was to be the Division's commercial hedge in the early 1980's.

Canadian Opportunity: With anticipated production of limited S76's through 1995 subcontract, potential is limited. There may be a next generation replacement for the S76 reaching final design stage in 1996. This new helicopter will in all likelihood be some type of joint venture with potential for Canadian input. The Blackhawk/Seahawk helicopters seems to be budget secure and well received by Congress and DOD so the next round of multi-procurement contracts by

New England Commercial Electronic Companies

Company: Superior Sikorsky is secure.

Parent: Dana Corp.-Toledo, OH

Address: 383 Middle St.

City: Bristol

State: CT Zip Code: 06010

Telephone: (203) 583-9561

Fax: (203) 584-1483

SIC: 3612
Motors, Controls
3625

Products: Voltage Control Systems, Synchronous and Stepping

Annual Sales: 70M

Employees: 400

Key Management: Willis J. Kasloey-Plant Mgr.

Key Contacts: Fred Jobb - Sr. Buyer

Business Overview: A private company that was purchased by Dana Corp. in 1989. Superior currently manufactures direct drive motors (eliminating gears and the chain drive) for heavy moving equipment. The company has been in Bristol since the late 1930's and has a solid customer base.

Canadian Opportunity: There are a number of holes in Superior's product offering that could be filled by Canadian product using Superior's strong U.S. customer contacts.

New England Commercial Electronic Companies

Company: Superior Electric

Parent: Dana Corp.-Toledo, OH

Address: 383 Middle St.

City: Bristol

State: CT **Zip Code:** 06010

Telephone: (203) 582-9561

Fax: (203) 584-1483

SIC: 3612
Motors, Controls
3625

Products: Voltage Control Systems, Synchronous and Stepping

Annual Sales: 70M

Employees: 400

Key Management: Willis J. Kanaley-Plant Mgr.

Key Contacts: Fred Jubb - Sr. Buyer

Business Overview: A private company that was purchased by Dana Corp. in 1989. Superior currently manufactures direct drive motors (eliminating gears and the chain drive) for heavy moving equipment. The company has been in Bristol since the late 1930's and has a solid customer base.

Canadian Opportunity: There are a number of holes in Superior's product offering that could be filled by Canadian product using Superior's strong U.S. customer contacts.

New England Commercial Electronic Companies

Company: Tech Systems

Parent: Datron Inc.-Hoffman Estates, IL

Address: 401 Watertown Rd.

City: Thomaston

State: CT **Zip Code:** 06787

Telephone: (203) 283-5801

Fax: (203) 283-5777

SIC: 3625
Generators and
3679
3621

Products: Waveguides and Microwave Components, Motors,
Controls

Annual Sales: 58M

Employees: 240

Key Management: Robert Gavazzi-Pres.

Key Contacts: Bill Hynes-Purch. Dir.

Business Overview: Company has halved its size in last 18 months with sale of microwave business to NEC Corp. in Massachusetts. Their business is now exclusively motors and motor generators for nuclear, shipboard, mass transit and electric cars.

Canadian Opportunity: Size of company dictates a limited R&D or expansion capability. Offload or component improvement should be sold in a vendor approach effort. Company has excellent potential for project effort into expanded application of specialty motors.

New England Commercial Electronic Companies

Company: Textron Lycoming

Parent: Textron Inc.-Providence, RI

Address: 550 Main St.

City: Stratford

State: CT **Zip Code:** 06497

Telephone: (203) 385-2000

Fax: (203) 385-3352

SIC: 3724
and 3511

Products: Gas Turbine Engines for Aircraft, Marine & Tanks

Annual Sales: 775M

Employees: 3,600

Key Management: Michael Propen - VP Material

Key Contacts: Dave Tericciano- Dir. of Purch.
Itzhak Ben-Dor-Mgr. Int'l Procurement

Business Overview: Manufacturer of engines for M1 tank which has been major program over last five years. Production has slowed down and requirements are less than initial orders. Program was to be ended in 1994, but has a temporary new life until 1996.

Canadian Opportunity: Like any defence downsizing impacted company, Lycoming has lost a number of production/development capabilities through layoff activities. Limited capabilities for electronics firms as company has a number of long-term procurement commitments.

New England Commercial Electronic Companies

Company: United Technologies Corp.

Parent: Corporate Headquarters

Address: United Technologies Building

City: Hartford

State: CT **Zip Code:** 06101

Telephone: (203) 728-7000

Fax: (203) 728-7881

SIC:

Products: Aircraft Engines, Helicopters and Aerospace/Space & Defence Systems; Elevators/Escalators, Air-Conditioning and Building Electronics, Automotive Parts and Electronic Systems

Annual Sales: 20B

Employees: 184,000

Key Management: Robert F. Daniell-Chairman and CEO
George David-Pres.

Key Contacts: George Sanford Jr. -VP Purch.

Business Overview: The corporation continues to cut its corporate staff in Hartford and has decentralized all functions except top corp jobs, tax and some public relations/communications functions to the divisions. Sale of Norden (radar systems) to Westinghouse finalized in May. Other non-core or undesired business including UT Automotive (\$1.4B) also have been divested. Focus is now on key businesses: defence/aerospace-Sikorsky (Helicopters), Pratt & Whitney(engines), Hamilton Standard(aircraft systems) and commercial Otis (elevators), Carrier(air conditioning).

Canadian Opportunity: Large procurement of multidivision components equipment are coordinated by the VP of Procurement at the corporate office.

Capital

Equipment is also directed through the corporate office where a perceived corporate benefit can be realized. Companies failing to make access with the various divisions should explore this contact. UTC has had two excellent profit quarters in 1994 and is receptive to new ventures with an international connection. Other non-New England divisions: Pratt-Florida/Pratt-Canada; Chemical Systems-San Jose, CA; USBI-Huntsville, AL.

New England Commercial Electronic Companies

Company: Vitatron, Inc.

Parent: Thomas & Betts Corp. Bridgewater, NJ

Address: 5675 Route 25

City: Monroe

State: CT Zip Code: 06468

Telephone: (203) 268-6264

Fax: (203) 261-4446

SIC: 3675
3629

Products: Ceramic Chip Capacitors

Annual Sales: \$3M

Employees: 513

Key Management: Everett D. Aradt-Contracts VP

Key Contacts: Tad O. Hjerpe-Purch.

Business Overview:

Canadian Opportunity:

New England Commercial Electronic Companies

Company: Vitramon, Inc.

Parent: Thomas & Betts Corp.-Bridgewater, NJ

Address: 5675 Route 25

City: Monroe

State: CT **Zip Code:** 06468

Telephone: (203) 268-6261

Fax: (203) 261-4446

SIC: 3675

Products: Ceramic Chip Capacitors Propulsion Systems,

3629 Computers

3764

3571

Annual Sales: 60M

Employees: 515

Annual Sales: 220M

Employees: 1350 in CT 1600 div. wide

Key Management: Everett D. Arndt-Contracts VP

Key Management: John Wohler-Pres.

Key Contacts: Tad O. Hjerpe-Purch.

Key Contacts: Eugene Fox-Purch./Material

Business Overview:

Business Overview: Sale and transfer to Westinghouse from UTC is complete with major changes expected over the next 18 months. Company recently threatened to move from Connecticut unless major tax incentives were made.

Canadian Opportunity:

Canadian Opportunity: Westinghouse is exploring various options for what to do with Norden. This is an excellent time to approach Westinghouse for purchasing/leasing/offload options.

Company: Westinghouse Norden Systems Inc.

Parent: Westinghouse Electric Co.-Phil., PA

Address: Norden Place

City: Norwalk

State: CT **Zip Code:** 06856

Telephone: (203) 852-5000

Fax: (203) 852-6363

SIC: 3812

Militarized Computers

3764

3571

Products: Radar, Electronic & Space Propulsion Systems,

Annual Sales: 220M

Employees: 1350

1350 in CT 1600 div. wide

Key Management: John Wohler-Pres.

Key Contacts:

Joseph Duffy-Purch. Mgr.

Eugene Fox-Purch./Material

Business Overview:

Operates as a contract company due to involvement in mostly

Sale and transfer to Westinghouse from UTC is complete with major changes expected over the next 18 months. Company recently threatened to move from Connecticut unless major tax incentives were made.

Canadian Opportunity: Westinghouse is exploring various options for what to do with Norden. This is an excellent time to approach Westinghouse for purchasing/teaming/offload options.

New England Commercial Electronic Companies

Company: Winchester Electronics

Parent: Litton Industries Inc.-Beverly Hills, CA

Address: 400 Park Rd.

City: Watertown

State: CT **Zip Code:** 06795

Telephone: (203) 945-5000

Fax: (203) 945-5191

SIC: 3643
3678

Products: Connectors & Electrical Contacts

Annual Sales: 78M

Employees: 370

Key Management: George Mulligan-Materials Mgr.

Key Contacts: Joseph Duffy-Purch. Mgr.

Business Overview: Operates as a contract company due to involvement in mostly telecommunications/ computer projects. Additional Litton division in CT is Litton-Veam Inc. (also in Watertown) that manufacturers specialized electrical connectors.

Canadian Opportunity: In search of low cost supplies or joint buying relationships to reduce costs.

Canadian Opportunity: Limited potential, as company is a subcomponent producer and vendor supply is mostly raw materials.

Company: Wiremold Co.

Parent: Headquarters of Corporation

Address: 60 Woodlawn St.

City: West Hartford

State: CT **Zip Code:** 06110

Telephone: (203) 233-6251

Fax: (203) 232-0596

SIC: 3644

Products: Wiring Devices and Wire Management Systems Copiers,

3643

3577

3861

Annual Sales: 90M

Employees: 430

Annual Sales: 75

Employees: 3600 worldwide

Key Management: Frank Giannattasio-VP Operations

Key Management: Paul A. Abshire-Direc.

Key Contacts: Frank Silvey - Purch. Mgr.

Key Contacts: Ronald B. Campbell Jr., -VP Strategy

William Howe-Exec. VP Mfg.

Business Overview: Company is actively pursuing foreign markets.

Business Overview: Company was one of the first major U.S. corporations to announce leading toward reducing staff by 12,500. Recently the corporation entered into a contract with EDS to run Xerox's computer and communications network. About 1,700 current Xerox workers will be shifted to EDS. Company continues to streamline business and concentrate on copiers and related business machines.

Canadian Opportunity: In search of low cost supplies or joint buying relationships to reduce costs.

Canadian Opportunity: A significant amount of purchasing decisions (and Manufacturing) is done in Rochester, NY there are many corporate decisions that could be influenced through contacts with strategy or planning groups at corporate office. A number of products are undeveloped or at design stage at Xerox with no intention of production or marketing. There could be potential for low cost partnering with Canadian specialized machine manufacturer.

Company: Xerox Corp.

Parent: Headquarters of Corporation

Address: 800 Long Hill Rd.

City: Stamford

State: CT **Zip Code:** 06904

Telephone: (203) 968-3000

Fax: (203) 968-3188

SIC: 3579

Business Products

3577

3861

Products: Electronic Printing Systems Primary Products Copiers,
and Systems

Annual Sales: 7B

Employees: 86000worldwide

Key Management: Paul A. Allaire-Pres.

Key Contacts: Ronald B. Campbell Jr.,-VP Strategy
William Howe-Exec. VP Mfg.

Business Overview: Company was one of the first major U.S. corporations to announce staff cuts as a strategy to increase profits. Since 1991, Xerox has been heading toward reducing staff by 12,500. Recently the corporation entered into a contract with EDS to run Xerox's computer and communications network. About 1,700 current Xerox workers will be shifted to EDS. Company continues to streamline business and concentrate on copiers and related business machines.

Canadian Opportunity: Although significant amount of purchasing decisions (and Manufacturing) is done in Rochester, NY there are many corporate decisions that could be influenced through contractors with strategy or planning groups at corporate office. A number of products are undeveloped or at design stage at Xerox with no intention of production or marketing. There could be potential for low cost partnering with Canadian specialized machine manufacturer.

Company: Augat Inc. **New England Commercial Electronic Companies**

Parent: Augat Inc., Andover, MA

Address: Community Dr., Sanford Route

City: Sanford

State: ME Zip Code: 04073

MAINE

Telephone: (207) 324-9381

Fax: (207) 324-3461

SIC: 3678

Products: Printed Circuit Connectors and Switches

Interconnection Socket

3679

Lines

Annual Sales: \$2M

Employees: 260

Key Management: Allan Aschoff-Plant Mgr.

Key Contacts: Donna Park-Purch.

Business Overview: (See Augat Massachusetts listing)

Canadian Opportunity: (See Augat Massachusetts listing)

Company: Augat Inc./Interconnection Components Div.

Parent: Augat Inc.-Mansfield, MA

Address: Community Dr., Sanford Estates

City: Sanford

State: ME **Zip Code:** 04073

Telephone: (207) 324-9381

Fax: (207) 324-3461

SIC: 3678

Interconnection Socket

3679

Products: Printed Circuit Connectors and Switches,

Products

Lines

Annual Sales: 12M

Employees: 260

Key Management: Allan Aschoff-Plant Mgr.

Key Contacts: Donna Park-Purch.

Business Overview: (See Augat Massachusetts listing)

Canadian Opportunity: (See Augat Massachusetts listing)

Company: Control Devices Inc.

Parent: GE Fairfield, CT

Address: 228 Standish Rd.

City: Standish

State: ME **Zip Code:** 04084

Telephone: (207) 642-4535

Fax: (207) 642-0199

SIC: 3613 **Products:** Thermo Protectors, Circuit Breakers, Insulators, Transformers
Telecommunications Products
3661

Annual Sales: 85M

Employees: 300

Key Management: Bruce D. Alkinson-GM

Key Contacts: (No purchasing done here, contact G.E. Schenectady, NY.)
(position recently vacated, no replacement as of 8/15/94)

Business Overview: Facility remains in operation despite fear it would close in early 1994. Effective August 1, 1994 this facility was purchased by an investment group from GTE. With this sale GTE's commercial electronics presence in New England is eliminated with the exception of some CT investments.

Canadian Opportunity: Since no purchasing carried out in Bangor, GE in Schenectady, NY, must be contacted. Contact should be done with assistance of provincial and federal governments as it is difficult to arrange meaningful vendor contacts with company (if new supplier).

Canadian Opportunity: Once the sale settles in and a new purchasing agent is hired this operation should be receptive to new vendor relationship.

Company: General Electric Co.

Parent: GE-Fairfield, CT

Address: 534 Griffin Rd.

City: Bangor

State: ME **Zip Code:** 04401

Telephone: (207) 941-2500

Fax: (207) 941-2526

SIC: 3621
3443
3563

Products: Turbine Buckets, Rotors and Oil Tanks, Diaphragms

Annual Sales: 38M

Employees: 460

Key Management: Steve Graebert-Plant Mgr.

Key Contacts: (no purchasing done here, contact G.E. Schenectady, NY.)

Business Overview: Facility remains in operation despite fear it would close in early 1993. There is limited administrative activity at this facility.

Canadian Opportunity:

Canadian Opportunity: Since no purchasing carried out in Bangor, GE in Schenectady, NY must be contacted. Contact should be done with assistance of provincial and federal governments as it is difficult to arrange meaningful vendor contacts with company (if new supplier).

Company: National Semiconductor Corp.

Parent: National Semiconductor Corp.-Santa Clara, CA

Address: 333 Western Ave.

City: South Portland

State: ME **Zip Code:** 04106

Telephone: (207) 775-8100

Fax: (207) 775-8014

SIC: 3674

Products: Digital Semiconductors

Annual Sales: 425M

Employees: 1,500

Key Management: Kirk Pond-Pres.

Key Contacts: George Madden-Purch. Agent

Business Overview:

Canadian Opportunity:

Company: Osram/Sylvania Inc.

Parent: Osram Sylvania-Danvers, MA

Address: 200 Sylvan Rd.

City: Bangor

State: ME **Zip Code:** 04401

Telephone: (207) 947-8386

Fax: (207) 942-8226

SIC: 3679

Wires

Products: Precision Weided Electronic Components, Lead

Annual Sales: 12 M

Employees: 130

Key Management: John Anderson-Plant Mgr.

Key Contacts: Kathy Cyr-Purch.

Norm Violette-Purch.

Business Overview: Operation has shrunk over last several years and survival is under consideration following the sale from GTE to Osram/Sylvania. This facility (weld plant) is attempting to find long term contracts to spread out production.

Another facility is in Hillsborough, NH.

Canadian Opportunity: Limited sales or venture potential, but may see offload activity if business grows.

Company: Osram/Sylvania, Inc.

Parent: Osram Sylvania Inc.-Danvers, MA

Address: Friendship Rd., P.O. Box N

City: Waldoboro

State: ME **Zip Code:** 04572

Telephone: (207) 832-5313

Fax: (207) 832-7800

SIC: 3677
and Filaments

Products: Current Carrying Wiring Devices, Tungsten Coils

Annual Sales: N/A

Employees: 240

Key Management: David Brown-Plant Mgr.

Key Contacts: William G. Little-Purch. Mgr.

Business Overview: Company purchased from GTE in 1993 with final transfer in early 1994. Osram/Sylvania is headquartered in Danvers, MA (508)777-1900 and manufactures quartz lamps and lights at that facility. Osram/Sylvania is owned by Osram GmbH-Germany. Another facility is in Hillsborough, NH.

Canadian Opportunity:

Canadian Opportunity: Recent changes have not settled in as yet with operation and procurement opportunities for Canadian suppliers unknown.

New England Commercial Electronic Companies

Company: Pratt & Whitney Manufacturing Co.

Parent: Div. Pratt & Whitney-UTC-Hartford, CT

Address: Wefle Rd. Industrial Park

City: North Berwick

State: ME **Zip Code:** 03906

Telephone: (207) 676-4100

Fax: (207) 676-4122

SIC: 3724

Products: Aircraft Engine Parts

Annual Sales: 170M

Employees: 900

Key Management: Robert E. Ponchak-Plant Mgr.

Key Contacts: Ted Harris - Purch. Mgr.

Business Overview: Not an electronics manufacturer, but a basic component producer (injection molded cassettes for audio and video cassettes). Company is growing after a growth problem several years ago.

Canadian Opportunity:

Canadian Opportunity: As a basic component producer, only vendor opportunity is in raw materials and specialized machines for production.

Company: Shape Inc.

Parent: Vishay Instrumentation, Inc., Malvern, PA

Address: Biddeford Industrial Park

City: Biddeford

State: ME **Zip Code:** 04005

Telephone: (207) 282-6155

Fax: (207) 283-9130

SIC: 3695

Products: Video and Audio Cassettes *Capacitors*

Annual Sales: 200M

Employees: 880

Key Management: Michael Thomas - Pres.

Key Contacts: Diane Turgeon-Purch. Mgr.

Business Overview: Not an electronics manufacturer, but a basic component producer (injection molded cassettes for audio and video cassettes). Company is growing after a growth problem several years ago.

Canadian Opportunity: Recommend contact with Vishay purchasing to offer new source of material supply and development assistance

Canadian Opportunity: As a basic component producer, only vendor opportunity is in raw materials and specialized machines for production.

Company: Vishay Sprague

Parent: Vishay Intertechnology, Inc.-Malvern, PA

Address: Lower Main St., Box 231

City: Sanford

State: ME **Zip Code:** 04073

Telephone: (207) 324-4140

Fax: (207) 324-7223

SIC: 3675

Products: Electronic Components, Tantalum Capacitors

3679

Annual Sales: 100M

Employees: 1,100

Key Management: Hank Powell-GM

Key Contacts: Al Murelli-Purch.

Business Overview: A growth division with a multiple number of new application products introduced between 1993/94.

Canadian Opportunity: Recommend contact with Vishay purchasing to offer new source of material supply and development assistance.

Company: Watts Fluidair

Parent: Siebe Plc-Windsor, UK

Address: Cutts Rd.

City: Kittery

State: ME **Zip Code:** 03904

Telephone: (207) 439-9511

Fax: (207) 439-5632

SIC: 3569

Compressed Air Line

3613

Products: Filters, Lubricators and Regulators for

Equipment

Annual Sales: 40M

Employees: 200

Key Management: Richard H. DeMarle-GM

Key Contacts: Jerry Jordan-Purch. Agent

Business Overview:

Canadian Opportunity:

Company: **Aerover** **New England Commercial Electronic Companies**

Parent: Aerover Inc., North Dartmouth, MA

Address: 740 Sclafette Ave.

City: New Bedford

State: MA Zip Code: 02743

MASSACHUSETTS

Telephone: (508) 994-9502

Fax: (508) 925-3000

SIC: 3629

Products: Capacitors for Power Supplies

Annual Sales: \$0M

Employees: 530

Key Management: Ron Rice-Dir. of Mfg.

Key Contacts: Bernie Lane-Purch.

Business Overview: Corporate office of Aerover handles foreign supplier purchases.

NOTE: Fax referenced above is for the corporate office.

Canadian Opportunity: Contact should be made with both corporate office and New Bedford, MA facility.

Company: Aerovox Inc.

Parent: Aerovox Inc.-North Dartmouth, MA

Address: 740 Belleville Ave.

City: New Bedford

State: MA **Zip Code:** 02745

Telephone: (508) 994-9661

Fax: (508) 995-3000

SIC: 3629

Products: Capacitors for Power Supplies

Annual Sales: 80M

Employees: 680

Key Management: Ron Rice-Dir. of Mfg.

Key Contacts: Bernie Lane-Purch.

Business Overview: Corporate office of Aerovox handles foreign supplier purchases.
NOTE: Fax referenced above is for the corporate office.

Canadian Opportunity: Contact should be made with both corporate office and New Bedford, MA facility.

New England Commercial Electronic Companies

Company: Aerovox, Inc.

Parent: Headquarters for Aerovox

Address: 370 Faunce Corner Rd.

City: North Dartmouth

State: MA **Zip Code:** 02747

Telephone: (508) 995-8000

Fax: (508) 995-3000

SIC: 3629
Lights

Products: AC Oil Capacitors for Air Conditioners, Motors and

Annual Sales: 120M

Employees: 1,100

Key Management: Earl Sherman-Sr. VP

Key Contacts: Steve Santos-Dir. of Purch.

Business Overview: Corporate office of Aerovox handles foreign supplier purchases. Allegro continues to find new product applications for its integrated circuits.

Canadian Opportunity: Contact should be with both corporate office and New Bedford, MA facility.

Coastal Opportunity: Company is looking to increase its foreign supply and would be attracted to a Canadian affiliate for sales or assembly and application uses.

Company: Allegro Microsystems, Inc.

Parent: Sankon Electric, Ltd.-Japan

Address: 363 Plantation St.

City: Worcester

State: MA **Zip Code:** 01605

Telephone: (508) 853-5000

Fax: (508) 856-7434

SIC: 3674

Products: Semiconductors and Integrated Circuits

Annual Sales: 215M

Employees: 2,000

Key Management: Dennis Fitzgerald-VP Operations

Key Contacts: Ed Lenard - Purch. Mgr.

Business Overview: Company operates independent of parent control. Their production of semiconductors is both specialized and general purpose product. Allegro continues to find new product applications for its integrated circuits.

Canadian Opportunity: Company is looking to increase its foreign supply and would be attracted to a Canadian alliance for sales or alternate end application uses.

Company: Alpha Industries Inc.

Parent:

Address: 20 Sylvan Rd.

City: Woburn

State: MA **Zip Code:** 01801

Telephone: (617) 935-5150

Fax: (617) 935-2359

SIC: 3663
for Defence
3674
3679

Products: Microwave, Semiconductors, Electronic Components
Systems

Annual Sales: 60M

Employees: 600

Key Management: Robert Goldwasser-VP of R&D

Key Contacts: Paul Therrien-Purch. Agent
Lillian Davis-Purch. Mgr.

Business Overview: Defence system work continues to be profit portion of business. Company has pursued commercial application product development and is starting to see costing potential for sales.

Canadian Opportunity: They may be receptive to offload of certain assembly activities
Canadian Opportunity: Good opportunity as there are a number of underdeveloped programs with funding shortfalls. May be a key to accessing the specialized defence semiconductor products market.

New England Commercial Electronic Companies

Company: Altron, Inc. *Space Products Inc.*

Parent: *Amesbury, NYC*

Address: One Jewel Dr.

City: Wilmington

State: MA **Zip Code:** 01887

Telephone: (508) 658-5800

Fax: (508) 657-9340

SIC: 3679
Wire Wrap
3672
3825

Products: Printed Circuit Boards, Multilayer Boards, Back and
Panels *Engine Rooms, Signal Conditioning & Monitoring
Systems & Flight Systems Reference*

Annual Sales: 65M

Employees: 700

Key Management: Samuel Altschuler-Pres.
Ronald J. Casagrande-Mgr. Business Develop.

Key Contacts: Matthew Palance-Purch. Agent
Lillian Davis-Purch. Mgr.

Business Overview: Company has expanded business into a number of specialized product and end application areas. They have recently obtained several large multi-year contracts.

Canadian Opportunity: They may be receptive to offload of certain assembly activities to avoid excess capacity in years ahead.
Canadian Opportunity

New England Commercial Electronic Companies

Company: Ametek Aerospace Products Inc.

Parent: Ametek, NYC

Address: 50 Fordham Rd. Way, Box 9106

City: Wilmington

State: MA **Zip Code:** 01887

Telephone: (508) 988-4945

Fax: (508) 988-4944

SIC: 3728
Cockpit

3812
3825

Products: Mfr. Aircraft & Turbine Engine Products relating to
Displays, Engine Sensors, Signal Conditioning & Monitoring
Systems & Flight Systems Reference

Annual Sales: 130M

Employees: 740

Key Management: Robert W. Harris-VP/GM
Ronald J. Casagrande-Mgr. Business Develop.

Key Contacts: Craig Maedel-Purch. Mgr.

Business Overview: Company is in a major management reshuffle with the sale of IAD
division taking place in early fall.

Canadian Opportunity: Not a good time for contacting Analog because there is no
purchasing dept. It will fall out from shake up. It would, however
beneficial to contact Analog
at the end of the fall when they have a purchasing staff.

Company: Analog Devices, Inc.

Parent:

Address: One Technology Way, Box 9106

City: Norwood

State: MA **Zip Code:** 02062

Telephone: (617) 329-4700

Fax: (617) 326-8703

SIC: 3674

Products: Mixed Signal Processing, Integrated Circuits

Annual Sales: 175M

Employees: 4700(corp)

Key Management: Jerald Fishman VP Admin.

Key Contacts: Robert George-Purch. /Operations

Business Overview: Company is in a major management reshuffle with the sale of IAD division taking place in early fall. Quebec(1818) and a small facility at Wakefield, Massachusetts. Headquarters are in Peabody in addition to a significant amount of the manufacturing.

Canadian Opportunity: Not a good time for contacting Analog because there is no purchasing dept. It will fall out from shake up. It would , however be beneficial to contact Analog at the end of the fall when they have a purchasing staff.

New England Commercial Electronic Companies

Company: Analogic Corp.

Parent:

Address: 8 Centennial Dr.

City: Peabody

State: MA **Zip Code:** 01960

Telephone: (508) 977-3000

Fax: (508) 531-7386

SIC: 3841
3823

Products: Signal Conversion Products

Annual Sales: 175M

Employees: 1,100

Key Management: John Tarello-Sr. VP Admin.

Key Contacts: Tony DelMoral-Dir. of Material Sourcing

Business Overview: Analogic is made up of five separate companies in Wisconsin, California(Altraanalog), Denmark, Quebec(ISIS) and a small facility in Wakefield, Massachusetts. Headquarters are in Peabody in addition to a significant amount of the manufacturing.

Canadian Opportunity: Company offers Componentsent supply potential through direct contact with the Director of Sourcing in Peabody.

New England Commercial Electronic Companies

Company: Ark-Les Corp.

Parent:

Address: 51 Water St.

City: Watertown

State: MA **Zip Code:** 02172

Telephone: (617) 924-2330

Fax: (617) 924-5460

SIC: 3643
3613

Products: Electric Switches and Interconnect Devices, Terminals

Annual Sales: 45M

Employees: 150 in Stoughton 660 corp wide

Key Management: Thomas F. Prince-VP Operations

Key Contacts: Joseph Paraboschi-VP Mfg.

Business Overview: This is the corporate office. Purchasing is at Stoughton, MA although corporate office is involved in large buys. Purchasing function decentralized with each department controlling their own procurement requirements.

Canadian Opportunity: All purchasing in Spartanburg, SC. Contact with headquarters only for project or long term program relationship.

Canadian Opportunity: With growth of the Raleigh, NC and Mexican operations, it is important to contact the Raleigh facility purchasing dept.

Company: Arrow Automotive Industries Inc.

Parent: American Telephone & Telegraph-NYC

Address: 3 Speen St.

City: Framingham

State: MA **Zip Code:** 01701

Telephone: (508) 872-3711

Fax: (508) 872-2045

SIC: 3694
Clutches

Products: Automotive Electrical Equipment, Water Pumps and

Annual Sales: 125M

Employees: 1,100

Key Management: Jim Ocmont-Pres.

Key Contacts: Bill Ledbetter-Material Mgr.

Business Overview: Company has no manufacturing in New England. *mainly for copper and fiber optics. Federal Systems Div of AT&T also has operations in Andover.*

Canadian Opportunity: All purchasing in Spartansburg, SC. Contact with headquarters only for project or long term program relationship.

Canadian Opportunity: Changes in purchasing management occurred during the past few months.

Company: AT&T, Inc./Merrimack Valley Works

Parent: American Telephone & Telegraph-NYC

Address: 1600 Osgood St.

City: North Andover

State: MA **Zip Code:** 01845

Telephone: (508) 960-2000

Fax: (508) 960-1132

SIC: 3661

Components

Products: Telecommunications Transmission Equipment and

3663

Connectors

3678

Annual Sales: N/A

Employees: 6,000

Key Management: John F. McKinnon-VP Mfg.

Key Contacts: Jim Mills-Purch. Mgr.

Business Overview: Division manufactures transmission equipment primarily for connect and fiber optics. Federal Systems Div of AT&T also has operation in Andover.

1981 that produces printed circuit connectors and switches. President of company assumed position on September 6, 1994. He was previously president of the Barnes Group in Bristol, CT

Canadian Opportunity: Due to changing customer base, both actual customers and sales volume, there has been a rapid turnover of vendors. There may

Canadian Opportunity: Changes in purchasing management expected during the next few months.

requirements of Augat. It is also an opportune time as the new president is expected to implement a number of changes.

Company: Augat, Inc.

Parent:

Address: 89 Forbes Blvd.

City: Mansfield

State: MA **Zip Code:** 02048

Telephone: (508) 543-4300

Fax: (508) 339-5747

SIC: 3625
Communication

Products: Electronic Controls, Switches, Terminals,
Connectors

3663
3678

Annual Sales: 420M

Employees: 3,900

Key Management: William R. Fenoglio-Pres.

Key Contacts: Dorothy O'Brien-Purch . Mgr.-(Mashpee, MA)

Business Overview: Company also has operation in Mashpee, MA(230 employees) that manufacturers electronic interconnect Components and Sanford, ME (207)324-9381 that produces printed circuit connectors and switches. President of company assumed position on September 6, 1994. He was previously president of the Barnes Group in Bristol, CT

Canadian Opportunity: Due to changing customer base, both actual customers and sales volume, there has been a rapid turnover of vendors. There may be a good opportunity in the fall to revisit the vendor/supplier and outsourcing requirements of Augat. It is also an opportune time as the new president is expected to implement a number of changes.

Company: Bolt-Beranek & Newman Inc.

Parent:

Address: 150 Cambridge Park Dr.

City: Cambridge

State: MA **Zip Code:** 02138

Telephone: (617) 873-3700

Fax: (617) 873-3405

SIC: 3661
3663

Products: Computer Networking Products Amplifiers

Annual Sales: 320M

Employees: 2,500

Key Management: Stephen R. Levy-Pres.

Key Contacts: Linda Thomas - Purch. Admin. (contact for identifying appropriate buyer)

Business Overview: Company also operates additional facility in Cambridge, MA (BBN Communications) that produces wide area network systems.

Canadian Opportunity: The next few years are expected to be a growth time for the company. Large contracts to foreign and domestic customers are under consideration. Recommend contacting Bolt-Beranek as soon as possible in 1994 for future supplier requirements.

Company: Bose Corp. *Worldwide Information Systems*

Parent: *Group Bell-Paris, France*

Address: The Mountain Rd.

City: Framingham

State: MA **Zip Code:** 01701

Telephone: (508) 879-7330

Fax: (508) 872-6541

SIC: 3651
3556

Products: High Fidelity Sound Systems & Amplifiers *Printed Circuit*

Annual Sales: 620M

Employees: 1,200

Key Management: Sherwin Greenblatt-Pres.

Key Contacts: Lance Dixon - Dir. Purch.

Business Overview: Most business growth is in consumer products. The company during the last ten years has aggressively pursued its commercial products business, including aviation headsets and communications equipment.

Canadian Opportunity: Their commercial products are underdeveloped in marketing. Opportunities exist for tie in with Canadian audio/communications manufacturers.

New England Commercial Electronic Companies

Company: Bull H N, Worldwide Information Systems

Parent: Group Bell-Paris, France

Address: 300 Concord Rd.

City: Billerica

State: MA **Zip Code:** 01821

Telephone: (508) 294-6000

Fax: (508) 294-4851

SIC: 3672
Boards

Products: Small and Medium Computer Systems and Printed Circuit

Annual Sales: 13M

Employees: 150

Annual Sales: 630M

Employees: 1,500

Key Management: James Walsh-Pres.

Key Management: Ronald D. Pampel-Pres.

Key Contacts: Gerald Indignaro-Purch.

Key Contacts: Bob DeFusco-Purch. Mgr.

Business Overview:

Business Overview: U.S. manufacturing has all but been eliminated. All hardware is produced in France through parent. Bull U.S. is a software producer. Employment in U.S. is 10% of 1987 level. Brighton, MA facility does purchase some production hardware and equipment.

Canadian Opportunity:

Canadian Opportunity: Billerica facility buys accessory items to support Bull Systems. Connectors and other special application Components are among a number of items that Bull is now sourcing out of MA facility for U.S. customer support.

Company: C & K Components, Inc.

Parent:

Address: 15 Riverdale Ave.

City: Newton

State: MA **Zip Code:** 02158

Telephone: (617) 964-6400

Fax: (617) 527-3180

SIC: 3613

Products: Miniature Switches and Peripheral Equipment

Annual Sales: 15M

Employees: 550

Key Management: James Walsh-Pres.

Key Contacts: Gerald Indignaro-Purch.

Business Overview: One of Fortune's 100 fastest growing companies in the U.S. .
Company has created a number of specialized and creative application systems.

Canadian Opportunity:

Canadian Opportunity: Based on growth and knowledge of pitfalls of other high growth companies (DNC in the 1970's, Wang in the 1980's) .
Company is looking for partnering with value added suppliers. Canadian circuit board and industry Component companies should explore.

Company: Chipcom Corp.

Parent:

Address: 118 Turnpike Rd.

City: Southboro

State: MA **Zip Code:** 01772

Telephone: (508) 460-8900

Fax: (508) 490-5726

SIC: 3575

Products: Computer Terminals and Peripheral Equipment

Annual Sales: 260M

Employees: 560

Key Management: Rob Heid-CEO

Key Contacts: Joan Clare-Purch.

Business Overview: One of Fortunes 100 fastest growing companies in the U.S..
Company has created a number of specialized and creative application systems.

Canadian Opportunity: Based on growth and knowledge of pitfalls of other high growth companies (DEC in the 1970's. Wang in the 1980's) .
Company is looking for partnering with value added suppliers. Canadian circuit board and memory Componentsent companies should explore.

Company: Cole-Hersee Co.

Parent:

Address: 20 Old Colony Ave.

City: South Boston

State: MA **Zip Code:** 02127

Telephone: (617) 268-2100

Fax: (617) 268-9490

SIC: 3643

Plugs

3679

Products: Vehicle Electrical Equipment, Switches, Connectors and

Annual Sales: 70M

Employees: 490

Key Management: Robert L. Mayer-Pres.

Key Contacts: Francis Tighe-Purch.

Business Overview: After a decade of declining sales and reduced profits growth in auto sales by domestic manufacturers has enlivened Cole-Hersee's business.

Canadian Opportunity: Limited potential for marketing or vendor supply relationship, but next year could offer new contract opportunities.

Company: Data General Corp.

Parent:

Address: 4400 Computer Dr.

City: Westborough

State: MA **Zip Code:** 01581

Telephone: (508) 366-8911

Fax: (508) 898-5412

SIC: 3571

Products: Minicomputers Components and Subsystems

Annual Sales: 670M

Employees: 5,800

Key Management: Ronald L. Skates-CEO/Pres.

Key Contacts: Al Regina-Purch. Mgr. & Sales

James Cervery-Purch.

Business Overview: An outgrowth of DEC in the early 1970's , Data General never has had its own niche market or class of customer. Downsizing like DEC and every other computer manufacturer. DG is eliminating a number of internal manufacturers operations.

Canadian Opportunity: At one time company was thought to be a small vendor.
Canadian Opportunity: As company establishes right size, consideration will be given to value added relationships. This may be the right time to propose a supplier plus vendor/customer association.

New England Commercial Electronic Companies

Company: Datel Inc.

Parent: Computer Control/Headquarters

Address: 11 Cabot Blvd.

City: Mansfield

State: MA **Zip Code:** 01754

City: Mansfield

State: MA **Zip Code:** 02048

Telephone: (508) 339-3000

Fax: (508) 339-6356

SIC: 3571
3577
3551

Products: Data Acquisition Components and Subsystems

Annual Sales:

Employees: 90,000

Key Management: Robert E. Palmer-Pres.

Annual Sales: 120M **Employees:** 300

Key Management: Nicholas G. Tagaris-Pres.

Key Contacts: Due to major staff changes taking place September-October recommend contact to fax number above for appropriate purchasing contact.

Key Contacts: Leif Jacobson-VP Mktg. & Sales

Business Overview: James Caverly-Purch. will tries to find its way in the computer industry. With the departure of its founder Ken Olson almost two years ago, DEC continues to make major changes to its organization including massive layoffs and early retirement buyouts. The most recent quarter report in July showed continued losses. The DEC PDP line has not fared well in the market.

Business Overview: Not an SIC 3600-3800 commercial electronics or systems manufacturer but, a purchaser of electronic Components for their data acquisition systems. and office space 10 M sq. feet.

Canadian Opportunity: It is anticipated that DEC will sell off divisions outside its core business. At one time company was thought to be a growth system producer, but has now settled into subsystem/Componentsent manufacturing. They do however present good opportunity for connector supply. Ations, have high growth potential. Would advise that a wish list of value added DEC technology operations be reviewed and explored for Canadian investment/purchase.

Company: Digital Equipment Corp.

Parent: Corporate Office/Headquarters

Address: 146 Main St.

City: Maynard

State: MA **Zip Code:** 01754

Telephone: (508) 493-5111

Fax: (508) 493-4173

SIC: 3674
Network

Products: Computers, Components, Peripheral Equipment,

Computer Systems

Annual Sales:

Employees: 90,000

Key Management: Robert E. Palmer-Pres.

Graham Long-VP Sales

Key Contacts:

Due to major staff changes taking place September-October recommend contact to fax number above for appropriate purchasing contact.

Business Overview: The company still tries to find its way in the computer industry. With the departure of its founder Ken Olsen almost two years ago, DEC continues to make major changes to its organization including massive layoffs and early retirement buyouts. The most recent quarter report in July showed continued losses. The DEC PDP line has not found a replacement and other attempts to compete in the minicomputer market have not been encouraging. On July 14, 1994 DEC announced plans to reduce its factory and office space 10 M sq. feet.

Canadian Opportunity: It is anticipated that DEC will sell off divisions outside its core business and possibly some of its core business in 1995 if losses do not diminish. One business that is sure to go is the disk storage business. This business, plus a number of Componentsent manufacturing operations, have high growth potential. Would advise that a wish list of value added DEC technology operations be reviewed and explored for Canadian investment/purchase.

Company: Dynamics Research Corp.

Parent:

Address: 60 Concord St. Executive Park

City: Wilmington

State: MA **Zip Code:** 01887

Telephone: (508) 658-6100

Fax: (508) 658-0522

SIC: 3663
3812

Products: Digital Position Sensors and Encoders Auto Diagnostic

Annual Sales: 110M

Employees: 1,000

Key Management: Albert Rand-Pres.

Key Contacts: Bob Felsberg- Purch.

Business Overview:

Business Overview: The only remaining Massachusetts manufacturing facility is Usax Corp. (Chelmsford) which will be moving to New Hampshire in September. Whistler Corp. in Westford, MA was sold 18 months ago.

Canadian Opportunity:

Canadian Opportunity: Company has 25 facilities manufacturing throughout the world. Several sales offices in Canada with several expanding markets in Canada.

Company: Dynatech Corp.

Parent: Corporate Headquarters

Address: 3 New England Executive Park

City: Burlington

State: MA **Zip Code:** 01803

Telephone: (617) 272-6100

Fax: (617) 272-2304

SIC: 3651

Products: Data, Video, Communications Test, Auto Diagnostic,

Medical

3841

Equipment

3663

3651

3821

Annual Sales: 410M

Employees: 3,200

Key Management: John F. Reno-Pres.

Key Contacts: Robert Hertz - VP Contracts/Purch.

Business Overview: The only remaining Massachusetts manufacturing facility is Uxex Corp. (Chelmsford) which will be moving to New Hampshire in September. Whistler Corp. in Westford, MA was sold 18 months ago. facilities in MA with the exception of oil seal operations in RI. Recent sale of EG&G Wakefield operation to private company. This division manufactured very limited defence related/lead use Components.

Canadian Opportunity: Company has 25 facilities (production) throughout the world. Several sales offices in Canada with hope of expanding presence in Canada. under bid process.

Company: E G & G Inc.

Parent: Corporate Headquarters

Address: 45 William St.

City: Wellesley

State: MA **Zip Code:** 02181

Telephone: (617) 237-5100

Fax: (617) 431-4115

SIC: 3812

Products: Military Electronics Biomedical and Laboratory

Equipment

3826

33821

3679

Annual Sales: 2.4B

Employees: 30,500

Key Management: John M. Kucharski-Pres.

Key Contacts: Alyn Rovin-Dir. of Worldwide Procurement

Business Overview: EG&G has manufacturing operations in several other states including Pennsylvania and California and overseas, but most of their manufacturing is through various facilities in MA with the exception of oil seal operations in RI. Recent sale of EG&G Wakefield operation to private company. This division manufactured very limited defence related/end use Componentsent.

Canadian Opportunity: Opportunity for codevelopment of biomedical and laboratory systems under bid process.

Company: E G & G, Inc./Electrooptics & Components

Parent: E G & G-Wellesley, MA

Address: 35 Congress St.

City: Salem

State: MA **Zip Code:** 01970

Telephone: (508) 745-3200

Fax: (508) 745-0894

SIC: 3679
Components
3827

Products: Electrooptic Systems, Light Sources and Electronic

Annual Sales: 40M

Employees: 440

Key Management: Paul Beach-GM

Key Contacts: William McKenny-Purch.

Business Overview: Division produces navigation positioning application hardware for both military and commercial ships. In addition to Salem division which is detailed, EG&G has the following MA electronics products divisions that employ between 50-100 people:

Environmental Equipment Div.-Burlington, MA-Oceanographic & Industrial Equip-ment and Woburn Cathode Ray Tube Div.-Woburn, MA-Special Purpose cathode ray tubes.

Canadian Opportunity: Vendor opportunities should be explored end of year for opening of contract requirements in mid 1995. Environmental Equipment Division - Burlington (contact John Darcy - Purchasing (617) 270-9100).

Company: Eaton Semiconductor Equipment Division

Parent: Eaton Corp.-Cleveland, OH

Address: 108 Cherry Hill Dr.

City: Beverly

State: MA **Zip Code:** 01915

Telephone: (508) 921-0750

Fax: (508) 927-3652

SIC: 3674

Products: Semiconductor Equipment and Recording Instruments

Annual Sales: 130M

Employees: 620

Key Management: Peter Younger-GM

Key Contacts: Maria Phillips-Materials Mgr.

Business Overview: Company is a manufacturer of large systems.

Canadian Opportunity: This division of Eaton has concentrated on U.S. market. Opportunity for accessory equipment producers to team with Eaton as they expand markets including foreign. New materials manager expected in October.

Company: Foxboro Co., The

Parent: Siege-UK

Address: 38 Neponset Ave.

City: Foxboro

State: MA **Zip Code:** 02035

Telephone: (508) 543-8750

Fax: (508) 549-4380

SIC: 3823
and

Products: Industrial Control Indicating and Recording Instruments
and
Systems

Annual Sales: 420M

Employees: 4,300

Key Management: Stanley Shaffran-Pres.

Key Contacts: Peter Lovelace - Material/Purchasing

Business Overview: Company continues to concentrate on foreign markets as major growth area. Recently entered into a joint venture with Chino Corp. - Japan.

Canadian Opportunity: Foxboro is open to joint ventures as a method of growing foreign developed markets. Potential exists for marketing/sales, value added participation.

Company: G E Aircraft Engines

Parent: GE-Fairfield, CT

Address: 100 Western Ave.

City: Lynn

State: MA **Zip Code:** 01910

Telephone: (617) 594-0100

Fax: (617) 594-2243

SIC: 3724

Products: Jet Engines

Annual Sales: 1.6B

Employees: 4,100

Key Management: B.H. Rowe-Sr. VP

Key Contacts: Dan Sandrone-Purch. Liaison

Evandale, OH is headquarters for G.E. Purchasing related to aircraft engines.

Business Overview: The aircraft engine division is headquartered in Cincinnati, Ohio. In the latter part of 1992, GE (this facility) was able to win a \$754 M contract to develop a jet engine for a new Navy fighter. This was the largest contract the Lynn plant had ever received, but did not increase employment. Current programs of GE include the F404 engine for the F-18 aircraft and the F414 new development engine for the Navy. GE, Cincinnati has reduced its work force from 17,000 to 8,000. Lynn produces small class engines (up to 18,000 hp.) Cincinnati produces engines 20,000 - 80,000 and Durham facility produces intermediate engines.

Canadian Opportunity: Expected that Navy will continue to purchase F-18 aircraft. Currently 84% of the work on the F-18, F-404 engine is done at the Lynn facility. It is expected that upgrades and improvement development will become active from 1995 on. Also supplier contracts will be revisited in early 1995 for multi-year requirements.

Company: G T E Government Systems Corp.

Parent: GTE Corp.-Stamford, CT

Address: 77 A St. Quincy Adams Rd.

City: Needham Heights

State: MA **Zip Code:** 02194

Telephone: (617) 449-2000

Fax: (617) 446-3294

SIC: 3600
System

Products: Command, Control, Communication and Intelligence

Radio

Needham-(Military Satellite Terminals and Antennas, UHF
for the Shuttle

Annual Sales: 1B

Employees: 2600(Needham)

Key Management: Francis A. Gicca-Pres.

Gail King-Contracts/Counsel

Key Contacts:

Purchasing at Taunton (No Purchasing at this Facility)

Business Overview: In December, 1993 the division received a \$6.8M contract from the U.S. Air Force for a ground communications systems prototype, designed to improve the Air Force's voice and data links with the Army and Navy. Production contract to be issued around 1996. This system is based on a commercial program that will be completed end 1994.

Canadian Opportunity: (see GTE Taunton)

Company: G T E Government Tactical Systems

Parent: GTE Corp.-Stamford, CT

Address: 400 John Quincy Adams Rd.

City: Taunton

State: MA **Zip Code:** 02780

Telephone: (508) 880-4000

Fax: Not Available

SIC: 3669

Products: Communication Systems

Annual Sales: 240M

Employees: 720

Key Management: Bernard Resnik-VP

Key Contacts: Dorothy Cochrane - Purch. Mgr.

Business Overview: Taunton facility is the only GTE - MA manufacturing facility. Manufacturing until a year ago was carried out in Waltham, MA with some at Needham.

Canadian Opportunity: GTE continues to concentrate on both its commercial telephone and military businesses. Company is looking for subcontractors to share development costs. Procurement operation at Taunton is a good candidate to initiate joint project discussions.

Company: Genrad, Inc.

Parent:

Address: 300 Baker Ave.

City: Concord

State: MA **Zip Code:** 01742

Telephone: (508) 369-4400

Fax: (508) 371-7597

SIC: 3825

Products: Automatic Test Equipment

Annual Sales: 240M

Employees: 1,500

Key Management: Richard C. Tippett-GM

Key Contacts: Don Witherwell-Purch. Mgr.

Business Overview: The company recently completed the development and first production of test systems for printed boards. Genrad, as a policy, avoids direct bidding on U.S. military contracts, but does appreciable business with companies who integrate their hardware into defence packages. Company also operates a smaller manufacturing facility in Bolton, MA that produces Componentsent test sets.

Canadian Opportunity: Company would be interested in working with a Canadian company who could provide access military contract or subcontract work. Genrad is very progressive and can be approached with pricing and product improvement proposals.

Company: Hewlett-Packard

Parent: Hewlett-Packard - Palo Alto, CA

Address: 300 Appolo Dr.

City: Chelmsford

State: MA **Zip Code:** 01824

Telephone: (508) 256-6600

Fax: (508) 250-9286

SIC: 3572

Units,

3571

3577

Products: Computer Peripheral Equipment, Computer Storage

Minicomputers

Annual Sales: 720M est.

Employees: 800

Key Management: Gary Eichhorn - GM

Key Contacts: (No current purchasing manager)

Business Overview: Following the acquisition of Appolo Computer by Hewlett-Packard in 1989 the operation was known as Hewlett Packard /Appolo Computer Division. This division is now fully integrated into Hewlett-Packard operations. With revenues increasing 22% to 6.9B, the corporation is strengthening its position as the number two computer company.

Canadian Opportunity: There is currently (as of September 5, 1994) no purchasing manager for this division Potential for both component and subsystem vendors. Storngly recommend contact be made in late fall 1994, as new purchasing staff should be in place.

New England Commercial Electronic Companies

Company: Instron Corp.

Parent:

Address: 100 Royal St.

City: Canton

State: MA **Zip Code:** 02021

Telephone: (617) 828-2500

Fax: (617) 575-5758

SIC: 3829

Products: Instruments and Systems for Advanced Materials Testing

Annual Sales: 240M

Employees: 1,500

Key Management: James M. McConnell-Pres.

Key Contacts: Brad Monroe-Purch. Mgr.

Dave Gurnig - Business Development Division

Business Overview:

Business Overview: Company operates various divisions throughout the U.S., including RCC in Seattle and a manufacturer of water softener equipment in Pennsylvania. Purchasing is divided among the two divisions of the company, referenced above. The purchasing manager for electronic components is Steve Walkerman.

Canadian Opportunity:

Canadian Opportunity: Company relies on vendors for Component supply, and growth will rely heavily on external manufacturers. Contact with issues by metal fabricators and electronics subsystem manufacturers to support their end products (in addition to Component manufacturers) has great potential benefit.

Company: Ionics

Parent: Linn Industries, Inc.-Severely Hills, CA

Address: 65 Grove St.

City: Watertown

State: MA **Zip Code:** 02172

Telephone: (617) 926-2500

Fax: (617) 926-3760

SIC: 3823
3589

Products: Pollution Control Instruments, Water Purification Systems

Annual Sales: 240M

Employees: 1,300

Key Management: William E. Katz - Pres.

Key Contacts: Michael Soper - Operations Division
Dave Gunning - Business Investment Division

Business Overview: Limited commercial electronics involvement except in the accessory equipment for their optical systems.

Business Overview: Company operates various divisions throughout the U.S., including RCC in Seattle and a manufacturer of water softener equipment in Pennsylvania. Purchasing is divided among the two divisions of the company, referenced above. The purchasing manager for electronic Components is Steve Walkerman.

Canadian Opportunity: Electronic manufacturers of support equipment for electrooptical systems.

Canadian Opportunity: Company relies on vendors for Componentsent supply , and growth will rely heavily on external manufacturers. Contact with Ionics by metal fabricators and electronics subsystem manufacturers to support their end products (in addition to Componentsent manufacturers) has great potential benefit.

Company: Itek Optical Systems

Parent: Litton Industries, Inc.-Beverly Hills, CA

Address: 10 Maguire St.

City: Lexington

State: MA **Zip Code:** 02173

Telephone: (617) 276-2000

Fax: (617) 276-3306

SIC: 3663

Products: Film, Electroptical, Ground and Airborne Camera Systems, Mirrors

Annual Sales: 60M

Employees: 450

Key Management: James Frey-Pres.

Key Contacts: Edmund Landers-Purch. Agent

Business Overview: Limited commercial electronics involvement except in the accessory equipment for their optical systems.

Canadian Opportunity: Electronic manufacturers of support equipment for electroptical aerospace systems.

Company: Kidde-Fenwal Inc.

Parent: Williams Holdings Plc-UK

Address: 400 Main St.

City: Ashland

State: MA **Zip Code:** 01721

Telephone: (508) 881-2000

Fax: (508) 881-6729

SIC: 3613
3822
3823

Products: Fire and Temperature Controls, Indicators and Switches

Annual Sales: 120M

Employees: 520

Key Management: Robert T. Wickam-Pres.

Key Contacts: Ms. Bobby Williams-Purch. Mgr.

Business Overview: Company produces direct current and specialty motors, electromechanical instruments, electrical interconnects including printed circuit boards. An early mover out of military /defence business with concentration on growth in commercial products since late 1980's. Company recently sold several defence businesses including Keene, NH and imaging systems business.

Canadian Opportunity:

Canadian Opportunity:

Company: Kollmorgan Corp.

Parent: Corporate Office

Address: 1601 Trapelo Rd.

City: Waltham

State: MA **Zip Code:** 02154

Telephone: (617) 890-5655

Fax: (617) 890-7150

SIC: 3827

Products: Motors and Electrical Interconnects

Annual Sales: 120M

Employees: 860

Key Management: (see corporate office)

Key Contacts: (see Northhampton facility)

Business Overview: Company produces direct current and specialty motors, electroptical instruments, electrical interconnects including printed circuit boards. An early mover out of military /defence business with concentration on growth in commercial products since late 1980's. Company recently sold several defence businesses including Keene, NH
Canadian Opportunity: infared imaging systems business.

Canadian Opportunity:

Company: Kollmorgan Electro-Optical

Parent: Kollmorgan-Waltham, MA

Address: 347 King St.

City: Northhampton

State: MA **Zip Code:** 01060

Telephone: (413) 586-2330

Fax: (413) 584-1324

SIC: 3827

Products: Optical, Electro-Optical Instruments & Sensor Systems

Annual Sales: 80M est.

Employees: 525

Key Management: (see corporate office)

Key Contacts: Jack Ouimet-Dir. of Purch.

Business Overview: (see Kollmorgan-Waltham)

Canadian Opportunity: (see Kollmorgan-Waltham)

Company: Loral Infrared Imaging Systems

Parent: Loral Infrared Imaging Systems-NYC

Address: 2 Forbes Rd.

City: Lexington

State: MA **Zip Code:** 02173

Telephone: (617) 862-6222

Fax: (617) 863-3496

SIC: 3674

Products: Government Contract Infrared Systems, Diodes and

Annual Sales: 50M

Employees: 210

Key Management: Edward Bell-Dir. Mktg.

Key Management: Robert M. Knowles-Pres.

Key Contacts: June May-Lead Buyer (617)863-4900

Key Contacts: Bob Dusho-Purch. Mgr.

Business Overview:

Business Overview:

Canadian Opportunity:

Company: Loral Microwave FSI

Parent: Loral Corp.-Chicago, IL

Address: 16 Maple Rd.

City: Chelmsford

State: MA **Zip Code:** 01824

Telephone: (508) 256-4113

Fax: (508) 256-8227

SIC: 3663
Oscillators
3674
3625

Products: Microwave Signal Sources, Control Devices, Diodes and

Annual Sales: 60M

Employees: 550

Key Management: Robert M. Knowles-Pres.

Key Contacts: Bob Dasho-Purch. Mgr.

Business Overview:

Canadian Opportunity:

Company: LTX Corp.

Parent:

Address: LTX Park
University Ave.

City: Westwood

State: MA **Zip Code:** 02090

Telephone: (617) 461-1000

Fax: (617) 329-8836

SIC: 3825
Equipment

Products: Electrical Signal Instruments, Computerized Test

3669

3577

Annual Sales: 190M

Employees: 1,100

Key Management: Richard Boltrus-Sr. VP Operations

Key Contacts: Glen W. Meloni-Contracts/Purchasing

Business Overview: Their largest competitor is Teradyne in Boston.

Canadian Opportunity:

New England Commercial Electronic Companies

Company: M/A Com, Inc.

Parent: Corporate Headquarters

Address: 401 Edgewater Place

City: Wakefield

State: MA **Zip Code:** 01880

Telephone: (617) 272-9600

Fax: (617) 224-5655

SIC: 3674 **Products:** Communication Equipment and Components
3679

SIC: 3663 **Products:** Cash Assemblies, BCM and GPS Assemblies

Annual Sales: 600M

Employees: 2,400

Key Management: Allan Rayfield-Chief Operating Officer

Annual Sales: 50M **Employees:** 320

Key Contacts: Dave Levine-@ MED Operations

Key Management: Lowell- Handles contracts for many divisions. There is no corporate VP or Dir. of Purch.

Business Overview: Company is still going through reorganization efforts. In 1992 major changes were made to the structure of MA/Com and the relationship of various businesses. A major move from Burlington to Lowell, MA was completed in mid 1993. It is anticipated that additional organizational changes will be made in 1994 causing the structure of their purchasing organization to change.

Canadian Opportunity: The following divisions of MA/Com all present opportunity for Component supply and project participation:
Anzac Operations-Burlington-Mfr. RF and Microwave Signal Processing Components.
Filcom Microwave Inc-Chelmsford-Broadband Microwave Integrated Subsystems-Chelmsford-Integrated Microwave Interconnect Products-Waltham-RF, Microwave Connectors
MED-Lowell-Digital Signaling Processing Systems
Semiconductor-Burlington-Silicon & GaAs Microwave Diodes

Company: M/A Com-Antenna & Cable Division

Parent:

Address: Haverhill Rd.

City: Amesbury

State: MA **Zip Code:** 01913

Telephone: (508) 388-5210

Fax: (508) 834-7110

SIC: 3679

Products: Cable Assemblies, ECM and GPS Antennas

Annual Sales: 50M

Employees: 320

Key Management:

Key Contacts:

George O'Neil-Purch.

Business Overview: Division was previously owned by Adams-Russell. M/A Com purchased div. in 1989 during its growth period.

Canadian Opportunity: Company's division is expected to grow and has recently entered into several promising government bid proposals.

Company: Martin Marietta Aerospace

Parent: Martin Marietta-Bethesda, MD

Address: 163 Bedford St.

City: Burlington

State: MA **Zip Code:** 01803

Telephone: (617) 229-5000

Fax: (617) 229-3332

SIC: 3825
Systems

Products: Test Equipment Command Controls and Miscellaneous
Components

3663
3827

Annual Sales: 25M

Employees: 220

Key Management: John Hallal-GM

Key Contacts: Arthur Crochetierre - Purch. Mgr.

Business Overview: An ex-GE operation currently building ground vehicle and aircraft test equipment, and command control systems. Limited optical system manufacturing. Company also produces missile parts, inertial guidance systems at facility in Pittsfield, MA. This operation acquired with the purchase of GE's Aerospace Division has greatly reduced staff from a level of near (5000) in 1991 to (1600) in July of 1994. While all core businesses of GE's have been retained at this facility, their profitability and order quantities have greatly diminished.

Canadian Opportunity: This company is operating with a number of new staff, some of them from the outside, but some from GE operations. With new staff or the mere nature of a new parent, Canadian companies should revisit past successes. It is advisable for Canadian defence companies to develop a method for inclusion in the development of systems/Components for new next generation equipment. Good opportunity for electronics Components/subsystem companies as in-house support is limited.

Company: Megapulse Inc.

Parent: ABC Aktiengesellschaft Germany

Address: 8 Preston Court

City: Bedford

State: MA **Zip Code:** 01730

Telephone: (617) 275-2010

Fax: (617) 275-4149

SIC: 3812

Products: Solid State Navigation Transmitter Equipment

Annual Sales: 18M

Employees: 150

Key Management: William Roland

Key Contacts: Bill White-Purch. Mgr.

Business Overview: Currently manufacturing the Loran C transmitting system for the U.S.-DOD.

Canadian Opportunity:

Company: Modicon Inc. *Electronic Systems*

Parent: AEG Akliengesellschaft-Germany

Address: One High St.

City: North Andover

State: MA **Zip Code:** 01845

Telephone: (508) 794-0800

Fax: (508) 975-9046

SIC: 3625

Products: Programmable Logic Controllers *down and Space Systems*

Annual Sales: 360M

Employees: 1,700

Key Management: Paul White-GM

Annual Sales: 130M

Employees: 900

Key Contacts: Ken Holland - Purch. Mgr.
R. Seto-Dir. of Mktg.

Key Contacts: Michael Reagen-Purch. Mgr.

John Sullivan-Buyer

Business Overview:

Business Overview: All procurement for their manufacturing requirements was made at their facilities in Norwood. ABB AAM, Harmon are major products.

Canadian Opportunity:

Canadian Opportunity: Large portion of their multi-year procurement is controlled out of Los Angeles corporate office, but is being transferred to Norwood control during the end of 1994. An important contact (component) manufacturer.

Company: Northrop Corp. Electronics Systems

Parent: Northrop Corp.-Los Angeles, CA

Address: 100 Forse St.

City: Norwood

State: MA **Zip Code:** 02062

Telephone: (617) 762-5300

Fax: (617) 762-2196

SIC: 3812
Systems

Products: Gyroscopes, Accelerometers, Strapdown and Space

Annual Sales: 130M

Employees: 900

Key Management: D.E. Hanlon-VP & GM
R. Sette-Dir. of Mktg.

Key Contacts: Michael Reagen-Purch. Mgr.
John Sullivan-Buyer

Business Overview: All procurement for their manufacturing requirements are made at their facilities in Norwood. AMRAAM, Harpoon are major programs.

Canadian Opportunity: Large portion of their multiyear procurement is controlled out of Los Angeles corporate office, but is being transferred to Norwood control during the end of 1994.
An important contact Components manufacturers.

Company: Orion Research, Inc. Nichols Div.

Parent: Parker Hannifin Corp.-Cleveland, OH

Address: 529 Main St.

City: Boston

State: MA **Zip Code:** 02129

Telephone: (617) 242-3900

Fax: (617) 242-8538

SIC: 3825
Equipment
3823
3826

Products: Electrodes and Meters: Electronic Chemical Analysis

Annual Sales: 170M

Employees: 70

Annual Sales: 40M est.

Employees: 450

Key Management: J. Masera GM

Key Management: Chane Graziano-Pres.

Key Contacts: Jim Clancy-Purch.

Key Contacts: Lance Solimi-Purch. Mgr.

Business Overview: Business held steady until the 1990's, but costs are a concern to maintain business levels. Significant amount of business and profits were related in aerospace application.

Canadian Opportunity: Components supply potential for Canadian companies, but long-term sales/contractual commitments are tied into corporate office contacts.

Company: Parker Hannifin Corp. Nichols Div.

Parent: Parker Hannifin Corp.-Cleveland, OH

Address: 48 Woerd Ave.

City: Waltham

State: MA **Zip Code:** 02154

Telephone: (617) 894-0650

Fax: (617) 899-7057

SIC: 3594
3724

Products: Engine Pumps

Annual Sales: 170M

Employees: 780

Key Management: J. Meston-GM

Key Contacts: Jim Clancey-Purch.

Business Overview: Business held steady until the 1990's, but costs are a concern to maintain business levels. Significant amount of business and profits were related to aerospace application.

Canadian Opportunity: Components supply potential for Canadian companies, but long-term sales/contractual commitments are tied into corporate office contacts.

Company: Picturitel Corp.

Parent:

Address: 222 Rosewood Dr.

City: Danvers

State: MA **Zip Code:** 01923

Telephone: (508) 762-5500

Fax: (508) 762-5106

SIC: 3651
Equipment
3661
3663

Products: Video Conferencing and Visual Telecommunications

Annual Sales: 120M

Employees: 1,100

Key Management: Norman E. Gaut-Pres.

Key Contacts: Steve Johnson - Purch.

Business Overview: Picturitel is one of a handful of 1990's successes in New England. Its growth continues to be rapid and it is anticipated that new offshoot business will emerge as growth progresses. Company hit a bump on the road in mid 1994 with operations control problems.

Canadian Opportunity: If company's attention can be obtained a Canadian venture has a good potential by selling European connection. Also related businesses in Canada have a receptive audience at Picturitel.

Company: Polaroid Corp.

Parent: *Quantity: 1000000, US*

Address: 549 Technology Square

City: Cambridge

State: MA **Zip Code:** 02139

Telephone: (617) 386-2000

Fax: (617) 386-0712

SIC: 3692

Products: Light Polarizing Filters, Films, Batteries, Coatings

Annual Sales: 2.4B

Employees: 9,700

Key Management: I. MacAllister Booth-Pres.

Key Contacts: (Corporate purchasing directory - (617) 386-0712)

Business Overview: Although not in the key focus SIC codes of this study, Polaroid is included due to its activity in advancing photographic technologies with major activity in a myriad of commercial electronics technology. Polaroid has not been successful during the 1990's in bringing new profitable products to the market in spite of their past marketing success.

Canadian Opportunity: Purchasing id divided into a number of groups. Major groups are Chemicals and Capital Projects. Recommend contact with phone number reference above to identify specific buyer for contact.

Company: Pollak, Joseph, Corp.

Parent: Stoneridge Inc.-Warren, OH

Address: 195 Freeport St.

City: Lexington

State: MA **Zip Code:** 02173

City: Boston

State: MA **Zip Code:** 02122

Telephone: (617) 282-9550

Fax: (617) 282-8726

SIC: 3625
3674

Products: Solid State Switches & Electromechanical Controls

3673
3764
3812

other Defence Systems

Annual Sales: 9.8B

Employees: 900

Key Management: Gerald Pisani-Pres. & CEO

Gerald A. Smith-VP Washington Operations (713)456-5400

Key Contact: Marie J. Kane-Dir. Procurement

Key Contacts: Stan Travis - Purch. Mgr.

Charles S. Warner-Small Bus. Chord.

Business Overview: Company looked to the 90's with great anticipation in spite of defense cutback. Patriot was hoped to be growth missile program. In mid

Business Overview: Company manufactures most of its Components for the automotive industry. They also have a manufacturing facility in Stoughton, MA.

foreign competition and foreign defense cutbacks have stalled companies missile programs.

As an electronics company, Raytheon is also a producer of silicon chips, electronic storage tubes, display devices etc.

Canadian Opportunity:

Canadian Opportunity: Difficult to analyze as there are significant changes occurring in company's make/buy policy. It is, however, advisable to approach Raytheon on an initial (and decreasing on product) quarterly basis to track company's approach to vendor supply and Components/subsystem manufacturing capability.

Company: Raytheon Co. Information Systems

Parent: Corporate Headquarters Germany

Address: 141 Spring St.

City: Lexington

State: MA **Zip Code:** 02173

Telephone: (617) 862-6600

Fax: (617) 860-2172 01508

SIC: 3631
Appliance Products

Products: Electronics, Energy, Environmental and Major

3632

in addition to Missiles, Radar, Navigation/Communications

and

3679

other Defence Systems

3764

3812

Annual Sales: 9.8B

Employees: 63,000

Key Management: Dennis Picard-Chairman & CEO

Gerald A. Smith-VP Washington Operations (713)486-5400

Key Contacts: Martin J. Kane-Dir. Procurement

John Harding-VP Contracts

Charles S. Warner-Small Bus. Coord.

Business Overview: Company looked to the 90's with great anticipation in spite of defence cutback. Patriot was hoped to be growth missile program. In mid 1992 Raytheon had over \$8 billion order backlog in missile orders. Questions on Patriot capabilities foreign competition and foreign defence cutbacks have stalled companies missile programs.. As an electronics company, Raytheon is also a producer of silicon chips, electronic storage tubes, display devices etc.

Canadian Opportunity: Difficult to analyze as there are significant changes occurring in company's make/buy policy. It is, however, advisable to approach Raytheon on an initial (and depending on product) quarterly basis to track company's approach to vendor supply and Components/subsystem manufacturing capability.

Company: Siemens Nixdorf Information Systems

Parent: Siemens Nixdorf Systems-Germany

Address: 200 Wheeler Rd.

City: Burlington

State: MA **Zip Code:** 01803

Telephone: (617) 273-0480

Fax: (617) 221-0232

SIC: 3571
Equipment
3572
3577

Products: Computer Terminals, Storage Systems and Peripheral

Annual Sales: 540M

Employees: 1,200

Key Management: Adrian Peters-Pres.

Key Contacts: Michael Scordino-VP Mfg.

Business Overview: Although not a 3600-3800 commercial electronics company (sales product wise) Nixdorf is a sizable purchaser of electronic Components.

Canadian Opportunity: There has been a tendency to purchase locally or from established German parent company suppliers. There is, however, the potential to transplant local vendors that are not viewed by company as reliable long term Components suppliers. Recommend contact with manufacturing to discuss Canadian supply.

Company: Simplex Time Recorder Co.

Parent:

Address: One Simplex Plaza

City: Gardner

State: MA **Zip Code:** 01440

Telephone: (508) 632-2500

Fax: (508) 632-5107

SIC: 3669
3579

Products: Time Equipment, Fire Alarms and Security Systems

Annual Sales: 340M

Employees: 3,900

Key Management: T.A. Curtain-CFO

Key Contacts: S. Lundsted-VP Mfg.
Linda Earl-Purch. Mgr.

Business Overview: Headquarters of company in Gardner, MA. Company also has facilities in various states and foreign locations.

Canadian Opportunity: Electronics Components are sourced from various U.S. and foreign suppliers. Recommend that Simplex be a priority contact for switches, connectors, wire harnesses and other electronic Components.

Company: Sipex Corp.

Parent:

Address: 22 Linnell Circle

City: Billerica

State: MA **Zip Code:** 01821

Telephone: (508) 667-8700

Fax: (508) 667-8310

SIC: 3674
3577

Products: Power Hybrids, Flash Converts, Data Acquisition Systems

Annual Sales: 65M

Employees: 340

Key Management: Frank DiPetro-CFO

Key Contacts: Sam Smookler-Sr. VP GM

Business Overview: Sipex is a fairly new company that has developed attractive products in the data support industry.

Canadian Opportunity: Company has only recently (1992) started to look for international involvement. Recommend the Canadian complementing companies develop joint marketing efforts with Sipex. Due to size of company, recommend that contact be through general manager.

Company: Telco Systems Inc.

Parent:

Address: 63 Nahatan St.

City: Norwood

State: MA **Zip Code:** 02062

Telephone: (617) 551-0300

Fax: (617) 551-0539

SIC: 3663

Products: Fiber Optics Transmission Equipment

Annual Sales: 70M

Employees: 430

Key Management: Paul D. Larzey-Pres.

Key Contacts: Barbara Belkin-Supervising Purch.

Business Overview: Corporate office and manufacturing in Norwood. Company also has a manufacturing facility in California.

Canadian Opportunity: Growing company good prospect for sales. Limited Canadian sales so vendor supply from Canadian source would be viewed as exposure to Canadian market.

Company: Teradyne, Inc.

Parent: Textron Corp. Providence, RI

Address: 321 Harrison Ave.

City: Boston

State: MA **Zip Code:** 02118

Telephone: (617) 482-2700

Fax: (617) 422-3600

SIC: 3825

Products: Automatic Test Systems for Electronic Components

Annual Sales: 350M

Employees: 2,000

Key Management: Alex D'Arbeloff-Pres.

Key Contacts: Stanley Forman-Dir. of Purch.

Business Overview: Company headquartered in Boston, but has offices and manufacturing in California, New Hampshire, Illinois and several foreign operations in Japan.

Canadian Opportunity: With a solid financial picture, customer base and product, company is aggressive in expanding markets and product improvement. Vendor base could be expanded with attraction to foreign second source Canadian suppliers.

Company: Textron Defense Systems

Parent: Textron Corp.-Providence, RI

Address: 201 Lowell St.

City: Wilmington

State: MA **Zip Code:** 01887

Telephone: (508) 657-5111

Fax: (508) 657-3273

SIC: 3669
Systems

3812

3728

Products: Communication, Surveillance, Missile and Landing

Annual Sales: 270M

Employees: 2,000

Key Management: Jules J. Siegel-Sr. VP Strategic Systems
Robert Wilson-VP Tactical Systems

Key Contacts: Barbara Riley-Material Support

Business Overview: Textron's Defence Systems Division designs and manufactures aerospace/defence- Re-Entry Systems & Penetration Aids; Tactical Systems; Smart Submunitions; Spacecraft, Satellite & Optical Systems; Carbon/Carbon Materials; Aircraft Carrier & Microwave Landing Systems; Microwave Antennas & Precision Pointing Systems for the Aerospace/Defence Industry.

Canadian Opportunity: Foreign sales offer greatest growth market. Company looks to expand to commercial aircraft applications. Vendor base will hold fairly constant with most programs already being fixed and new ones being postponed. Expect 1995 upgrade and new development dollars to open bidding and supplier subcontract opportunities.

New England Commercial Electronic Companies

Company: United Electronics Controls

Parent:

Address: 180 Dexter Ave.

City: Watertown

State: MA **Zip Code:** 02172

Telephone: (617) 926-1000

Fax: (617) 926-2568

SIC: 3822

Products: Temperature Controls & Recorders, Pressure Vacuum

Controls

3829

3823

Annual Sales: 40M

Employees: 460

Key Management: B. Hamilton-VP Mfg.

Key Contacts: Sheryl O'Connell-Purch. Mgr.

Dennis Henderson-Purch. (micro network) (508)852-5400

Business Overview: This is the United Senior Division of the company and corp. office.

Business Overview: Also operates Powercube Corp. in Bellersic, MA that manufactures high reliability lightweight power supplies. Micro Networks in Worcester, MA is a manufacturer of

Canadian Opportunity: and miscellaneous data conversion Components. United also recently purchased Microsemi in Watertown, MA. Microsemi manufactures semiconductors-contact Bob Dutton-Purchasing (617)926-0404.

Canadian Opportunity:

Company: Unitrode Corp.

Parent: Varian Assoc. Inc. Palo Alto, CA

Address: 8 Suburban Park Dr.

City: Billerica

State: MA **Zip Code:** 01821

Telephone: (508) 670-9086

Fax: (508) 667-5878

SIC: 3674

Products: Data Conversion Products, Electronic Components, Power

Supplies

3679

3621

3663

Annual Sales: 120M

Employees: 800

Key Management: Robert Gable (Dorothy facility)

Charles McLean (Glover facility) (508) 281-2000

Key Contacts: Tammy Perry-Purch. Coordinator (power cube) (508)667-9500
Dennis Henderson-Purch. (micro network) (508)852-5400

Business Overview: Also operates Powercube Corp. in Bellerica, MA that manufactures high reliability lightweight power supplies. Micro Networks in Worcester, MA is a manufacturer of hybrid and monolithic data conversion Components. Unitrode also recently purchased Microsemi in Watertown, MA. Microsemi manufacturers semiconductors-contact Bob Dutton-Purchasing (617)926-0404.

Canadian Opportunity: Since Varian CERPN's Components and sub-systems (power supplies) products, there is limited potential for extensive value added product sales. There may be benefit

Canadian Opportunity: Establishing a relationship with their drive facilities as a method of becoming a supplier to their California operations. There is the potential that certain in-house work (solid state Components) may be offloaded.

Company: Varian Assoc.

Parent: Varian Assoc. Inc.-Palo Alto, CA

Address: 150 Sohier Rd.

City: Beverly

State: MA **Zip Code:** 01915

Telephone: (508) 922-6000

Fax: (508) 860-5437

SIC: 3674

Products: High Vacuum Pumps, Gauges, Leak Detectors, Radar

&

3679

Communication Assemblies

3823

3563

3599

Annual Sales: 65M

Employees: 260

Key Management: Paul Frasso-GM (Beverly facility)
Charles McKenna (Glouster facility) (508)281-2000

Key Contacts: Scott Sherbondey-Purch. Mgr. (Beverly)

Business Overview: Varian's defence/aerospace activities in New England are located in the Beverly facility. Two other facilities: Varian Ion Inplant Systems-Gloucester and Varian Vacuum Products-Lexington manufacture commercial products exclusively.

Canadian Opportunity: Since Varian CFRPP is a Components and subsystem (power supplies) producer, there is limited potential for extensive value added product sales. There may be benefit in establishing a relationship with their three facilities as a method of becoming a supplier to their California operations. There is the potential that certain in-house work (solid state Components) may be offloaded.

Company: Volex Interconnect Systems

Parent: Volex-UK

Address: 358 Faunce Corner Rd.

City: North Dartmouth

State: MA **Zip Code:** 02747

Telephone: (508) 995-9500

Fax: (508) 995-9893

SIC: 3643
3678
3357

Products: Electrical Connectors and Cable Assemblies

Annual Sales: 75M

Employees: 540

Key Management: D. Christopher Cross-Pres.

Key Contacts: Al Smith-Purch. Mgr.

Business Overview: Company (formerly Components Manufacturing Service, Inc.) was bought by Volex a year ago. No other manufacturing or offices in U.S.

Canadian Opportunity: Company interested in expanding North American presence. Canadian manufacturing explored.

Company: Waters Corporation

Parent:

Address: 34 Maple St.

City: Milford

State: MA **Zip Code:** 01757

Telephone: (508) 478-2000

Fax: (508) 872-1990

SIC: 3826

Products: Instrumentation for Bioengineering Computers

Annual Sales: 420M

Employees: 910

Key Management: Arthur McGowan-Dir. Mfg.

Key Contacts: Mary Kachinsky - Purch. Mgr. (508) 679-8888

Jim Saito - Purch. Mgr. (508) 478-3543

Business Overview: Company went through investor buyout from M Millipore Corporation in August of 1994. No major changes expected within the company.

end of the year. All of company's facilities are in Millis, MA. Corporate office is at 3 Federal Street.

Canadian Opportunity: Letter sent to suppliers on August 15, 1994 notifying them of change in company name and ownership. Recommend contact with company as new suppliers are being sought with evaluation of current vendor base.

market exposure/interest. Contact with two manufacturing facilities purchasing managers is advised. Also contact with administrative staff at corporate office recommended.

Company: Wellfleet Communications Inc.

Parent:

Address: 39 Manning Road

City: Billerica

State: MA **Zip Code:** 01821

Telephone: (508) 670-8888

Fax: (508) 436-3157

SIC: 3661

Products: Data Communications Equipment for Computers

Annual Sales: 440M

Employees: 760

Key Management: Paul Severino-CEO

Key Contacts: Justin O'Connor - Purch. Mgr. (508) 670-8888
Jan Sanzo - Purch. Mgr. (508) 436-3543

Business Overview: Number 12 on Fortunes top growth companies list. Company sees no signs of slowdown or miscue. Planning on merging with Synoptic of California before the end of the year. All of company's facilities are in Billerica. Corporate office is at 8 Federal Street.

Canadian Opportunity: Very progressive company with receptiveness to new ventures and ideas. Canadian suppliers would present an attractive potential for Wellfleet if packaged as foreign market exposure/interest. Contact with two manufacturing facilities purchasing managers is advised. Also contact with administrative staff at corporate office recommended.

Company: Allen Bradley New England Commercial Electronic Companies

Parent:

Address: 460 Elm St.

City: Manchester

State: NH Zip Code: 03101

NEW HAMPSHIRE

Telephone: (603) 623-8209

Fax: (603) 623-9526

SIC: 3674

Products: Photoelectric Controls, Flame Safeguard Controls

Annual Sales: 120M

Employees: 260

Key Management: Ole Inset - VP Mfg.

Key Contacts: Dennis DiRienzo - Purch. Mgt.

Business Overview: Allen Bradley is a subsidiary of Rockwell International.

Canadian Opportunity: Some procurement is controlled out of Milwaukee with balance handled by Manchester facility. Usually special application components are purchased by the New Hampshire facility.

New England Commercial Electronic Companies

Company: Allen - Bradley Co.

Parent:

Address: 460 Elm St.

City: Manchester

State: NH **Zip Code:** 03101

Telephone: (603) 625-8299

Fax: (603) 625-9586

SIC: 3674

Products: Photo Electric Controls, Flame Safeguard Controls

Annual Sales: 120M

Employees: 260

Key Management: Ole Imset-VP Mfg.

Key Contacts: Dennis DiRienzo - Purch. Mgr.

Business Overview: Allen Bradley is a subsidiary of Rockwell International.

Canadian Opportunity: Some procurement is controlled out of Milwaukee with balance handled by Manchester facility. Usually special application components are purchased by the New Hampshire facility.

Company: Cabletron Systems Inc. Co., Inc.

Parent: Hawker-Siddeley Group Plc-U.K.

Address: 35 Industrial Way

City: Rochester

State: NH **Zip Code:** 03867

Telephone: (603) 332-9400

Fax: (603) 332-4616

SIC: 3672

Products: Network Test Instruments, Cable Assemblies &

Hardware

3663

3829

Annual Sales: 410M

Employees: 1,400

Key Management: Robert Levine-Pres.

Key Contacts: John Caruso-Dir. Mfg.
Art Vodicka-Materials Mgr.

Business Overview: Charostat is run as an independent operation of Hawker-Siddeley. Hawker is a large U.K. aerospace company. Due to profitability of the company, they are expected to remain at their existing size with possible growth by mid 1993.

Canadian Opportunity: As a fairly integrated company, offload capabilities are doubtful though business relationship with Hawker should be explored.

Company: Clarostat Manufacturing Co., Inc.

Parent: Hawker-Siddeley Group Plc-UK

Address: One Washington St.

City: Dover

State: NH **Zip Code:** 03820

Telephone: (603) 742-1120

Fax: (603) 742-0481

SIC: 3676
Encoders
3679

Products: Resistors, Rheostats and Switches, Potentiometers,

Annual Sales: 50M

Employees: 480

Key Management: James C. Horne-Pres.

Key Contacts: Floyd Parshley-Purch.

Business Overview: Clarostat is run as an independent operation of Hawker-Siddeley. Hawker is a large U.K. aerospace company. Due to profitability of the company, they are expected to remain at their existing size with possible growth by mid 1995.

Canadian Opportunity: As a fairly integrated company, offload capabilities are doubtful though business relationship with Hawker should be explored.

New England Commercial Electronic Companies

Company: Crompton Moductec, Inc.

Parent: Hawker-Siddeley Plc-England

Address: 920 Candia Rd.

City: Manchester

State: NH **Zip Code:** 03109

Telephone: (603) 669-5121

Fax: (603) 622-2690

SIC: 3613
Pyrometers,
3823

Products: Electrical & Digital Panel Meters, Control Meters,
Thermocouples

Annual Sales: 27M

Employees: 260

Key Management: Glen Campbell-VP Mfg.

Key Contacts: Michael Fitzpatrick-Purch.

Business Overview:

Canadian Opportunity:

New England Commercial Electronic Companies

Company: General Electric Co. Aircraft Engine Div.

Parent: GE- Fairfield, CT

Address: 130 Main St. Park Dr.

City: Sommersworth

State: NH **Zip Code:** 03878

Telephone: (603) 692-2100

Fax: (603) 749-8178

SIC: 3825
Management Devices
3612

Products: Watt-hour Meters, Instrument Transformers, Load

Annual Sales: 40M

Employees: 600

Annual Sales: 145M George Oliver-Plant **Employees:** 1,100

Key Management: John V. Bucci-GM

Key Contact: Nelson Fitzpatrick-Purch. Mgr.

Key Contacts: Daris McCulough-Purch. Mgr.

Business Overview: This has become a solid performer for GE and although employment is down from the nearly 1700 in late 1988, production costs have held steady. Business has picked up over last year.

Canadian Opportunity: Many of GE-Aircraft Engine divisions purchases are carried out in Ohio or Lynn, MA. The management potential directly with

Canadian Opportunity: A niche product manufacturer who presents a long term customer potential for numerous component supply. G.E. companies do not rely on each other for their components and raw materials.

Company: General Electric Co.-Aircraft Engine GRP

Parent: GE-Fairfield, CT

Address: 31 Industrial Park Dr. Box 1409

City: Hookset

State: NH **Zip Code:** 03106

Telephone: (603) 666-8300

Fax: (603) 666-8128

SIC: 3724

Products: Aircraft Engine Components *General Electric*

Annual Sales: 40M

Employees: 600

Key Management: George Oliver-Plant Mgr.

Key Contacts: Nelson Fitzpatrick-Purch. Mgr.

Business Overview: This aircraft component manufacturing facility of GE has been in Hooksett since 1966 and is viewed as a cost effective operation.

Canadian Opportunity

Canadian Opportunity: Many of GE-Aircraft Engine divisions purchases are carried out in Ohio or Lynn, MA. The procurement potential directly with the Hooksett plant is limited.

They are, however, in control of a number of purchased items.

Company: GFS Mfg.

Parent:

Address: 21 Crosby Rd., P.O. Box 1409

City: Dover

State: NH **Zip Code:** 03820

Telephone: (603) 742-4375

Fax: (603) 742-9165

SIC: 3677
3612

Products: High Frequency Transformers, Custom Coils

Annual Sales: 10M

Employees: 210

Key Management: Robert D. Sylvester-Pres. / Operating Officer

Key Contacts: Ed Hudson-Purch. / Mgr. (603) 432-2004

Business Overview: GFS has manufacturing facilities in Salem (headquarters), Derry, and Hudson, NH. All purchasing is done through the Derry facility.

Canadian Opportunity: Company has seen a rapid increase in sales and product offering. Based on the strength in the market there may be opportunity for project sales. Potential is limited based on extensive in-house integrated manufacturing.

New England Commercial Electronic Companies

Company: Hadco Corp. Instrumental, Inc.

Parent:

Address: 12 A Manor Parkway Park

City: Salem

State: NH **Zip Code:** 03079

Telephone: (603) 898-8010

Fax: (603) 898-6227

SIC: 3672

Products: Blanks and Backplanes for Circuit Boards Instruments

Annual Sales: 200M

Employees: 1,300

Key Management: Andrew E. Lietz-VP Chief Operating Officer

Key Contacts: Donald Torrissi-Purch. Mgr. (603)432-2004

Business Overview: Hadco has manufacturing facilities in Salem(headquarters), Derry and Hudson, NH. All purchasing is done through the Derry facility.
Corporation.

Canadian Opportunity: Company has seen a rapid increase in sales and product offering. Based on the strength in the market there may be opportunity for project activity. Vendor potential is limited based on extensive in-house integrated manufacturing.

Company: Jewel Electrical Instruments, Inc.

Parent: Div. of Suga Corp. - TIC

Address: Grenier Field Industrial Park

City: Manchester

State: NH **Zip Code:** 03108

Telephone: (603) 669-6400

Fax: (603) 669-5962

SIC: 3613

Products: Analog & Digital Panel Meters, Avionic Instruments

Annual Sales: 14M

Employees: 260

Key Management: John R. Allard-Pres.

Key Contacts: Craig Hutchinson-Purch.-(603)668-1900

Business Overview: Company operates five different companies (divisions) in Manchester, two at different locations all under the Allard Industries Corporation.

Canadian Opportunity: Employment and sales have been consistent within the company due to their balance of both government contract work and a variety of industry application products.
Recommended contract to explore development work as part of component supply.

Company: Kollsman Sanders Inc. (Corporate Office)

Parent: Div. of Sequa Corp.-NYC, CA

Address: 220 Daniel Webster Highway P.O. Box 0862

City: Merrimack

State: NH **Zip Code:** 03054

Telephone: (603) 889-2500

Fax: (603) 889-7966

SIC: 3669
Equipment

Products: Electoptical Systems, Aircraft Flight Instruments, Test

Equipment

Avionics Signal Processing Ocean Surveillance ASW.

Training and

Simulation, Test Sets

Annual Sales: 155M

Employees: 1,200

Key Management: C.F. Richmond-VP Int'l

C. Bernhardt-VP Military Sales

Key Contacts: Mr. Cris Smith-Dir. Purch. Kollsman-Military

Ron Belden-Small Business Liaison

Bill Slaiby-Purch. Mgr.

Business Overview: High concentration on government contract work. Increased control from parent company.

Canadian Opportunity: Company rumored to be making major changes at the end of this year. It would be advantageous to contact Cris Smith to initiate long term vendor/offload or multi-year supply.

Company: Lockheed Sanders Inc. (Corporate Office)

Parent: Lockheed Corp.-Calabassas, CA

Address: Daniel Webster Highway S, P.O. Box 0868

City: Nashua

State: NH **Zip Code:** 03061

Telephone: (603) 885-4321

Fax: (603) 885-2673

SIC: 3663

Products: Defence Electronics-Electronics and Infrared

Countermeasures Digital

3671

Avionics Signal Processing Ocean Surveillance ASW,

Training and

3679

Simulation, Test Sets

3577

Annual Sales: 550M

Employees: 4,800

Key Management: John R. Kreick-Pres.

Key Contacts: Jack Powell-Dir. of Subcontracts

Business Overview: Still a major builder of electronic counter measures systems for U.S. and foreign military. Optical programs for defence services expanding.

Canadian Opportunity: New Hampshire Divisions of Company:

Avionics Division-Nashua-Cockpit display systems, Ebedded Processors

Submarine warfare Programs Division-Nashua-Low Frequency Sonar System

Countermeasures Division-Nashua-Self Protection Countermeasures Defense Systems Division-Merrimack, NH-Automated Test Systems

Information Systems Division-Nashua-C2 Surveillance

Surveillance Systems Division-Hudson, NH-Precision Direction Finding

New England Commercial Electronic Companies

Company: Osram/Sylvania Inc.

Parent: Osram/Sylvania Inc.-Danvers, MA

Address: 275 West Main St.

City: Hillsborough

State: NH **Zip Code:** 03244

Telephone: (603) 464-5533

Fax: (603) 464-7490

SIC: 3647
3641

Products: Automotive and Miniature Lighting Products

Annual Sales: 175M

Employees: 840

Key Management: Charles Jerabek-VP/GM

Key Contacts: John Patridge-Purch. Mgr.

Business Overview: GTE division was purchased by Osram/Sylvania. This division also has facility in Waldsboro, ME. A number of plant improvement plans have been put on hold pending the settlement of ownership changes/transition.

Canadian Opportunity: Some specialty wire connectors, blocks and switches etc. requirements.

Company: R C D Components, Inc.

Parent: Telephone: 603-669-0054, 2000, CA

Address: 520 East Industrial Park Dr.

City: Manchester

State: NH **Zip Code:** 03101

Telephone: (603) 669-0054

Fax: (603) 669-5455

SIC: 3679

Products: Resistors Coated & Molded Inductor Coils
Interconnect Assemblies

Annual Sales: 48M

Employees: 360

Key Management: Louis J. Arcidy-Mktg. Mgr.
Key Management: Rick Pella-Pres.

Key Contacts: Mark A. Arcidy-VP Operations/Purchasing
Key Contacts: James Suprenant-Purch.

Business Overview: RCD continues to search out new markets for its products.
Business Overview: Company has been a fairly consistent performer through the last five years. widening leveling.

Canadian Opportunity: Their market is improving and with it the requirements in
Canadian Opportunity: Their market is improving and with it the requirements in
and add to their vendor base. Contact is advised to become part of.
Canadian Opportunity: Due to the size of the company and large competitors, there
could be a benefit in contacting RCD to discuss joint ventures or
access new markets (end product
applications). Vendor base fairly well established.

New England Commercial Electronic Companies

Company: Teledyne Electro-Mechanisms

Parent: Teledyne Inc.-Los Angeles, CA

Address: 110 Lowell Rd.

City: Hudson

State: NH **Zip Code:** 03051

Telephone: (603) 889-6191

Fax: (603) 882-4457

SIC: 3672 **Products:** Flexible Printed Circuits and Cables, Electronic
Interconnect Assemblies
3678

Annual Sales: 35M

Employees: 210

Key Management: Rick Pettit-Pres.

Key Contacts: James Suprenant-Purch.

Business Overview: Company also manufactures several soldering machines including hot air soldering leveling. *operations are carried out in Nashua.*

Canadian Opportunity: Their market is improving and with it the requirement to strengthen and add to their vendor base. Contact is advised to become part of developmental team. *An active manufacturing operation with a growing product line. Good candidate for additional source of raw materials and component supply.*

Company: Teradyne Connection Systems Inc.

Parent: Teradyne, Inc.-Boston, MA

Address: 44 Simon St. Blvd.

City: Nashua

State: NH **Zip Code:** 03060

Telephone: (603) 889-5156

Fax: (603) 889-9892

SIC: 3672

Products: Electronic Components, Connectors and Printed Circuit

Boards

3678

3679

Annual Sales: 80M

Employees: 850

Key Management: George W. Chamillard-VP/GM

Key Contacts: Michael Rankins-Purch.

Business Overview: Division operates independent of their Boston headquarters. Purchasing, contracts etc. decisions are carried out in Nashua.

Canadian Opportunity: An active manufacturing operation with a growing product line. Good candidate for additional source of raw materials and component supply.

Company: Unitrode Integrated Circuit Corp.

Parent: Unitrode Corp.-Billerica, MA

Address: 7 Continental Blvd.

City: Merrimack

State: NH **Zip Code:** 03054

Telephone: (603) 424-2410

Fax: (603) 424-3460

SIC: 3674

Products: Integrated Circuits

Annual Sales: 35M

Employees: 220

Key Management: Dennis Peasenell-VP/GM

Key Contacts: Bruce Greenland-Purch. Mgr.

Business Overview: Company has sold a number of their Massachusetts and Maine Divisions to concentrate on their core products. Primary IC business is for general commercial application.

(components) is moving to Nebraska in February 1994

Canadian Opportunity: Remains to be seen what products will be dropped by Vidley at new facility. It is recommended that supply requirements be discussed with General

Canadian Opportunity: As company continues to divest themselves of certain products and production activities there is potential for obtaining supplier relationship without displacing any existing external vendors.

Company: Vishay Sprague

Parent: Vishay Intertechnologies Inc.-Malvern, PA

Address: 70 Pembroke Rd.

City: Concord

State: NH **Zip Code:** 03301

Telephone: (603) 224-1961

Fax: (603) 224-1430

SIC: 3675

Products: Solid Tantalum Capacitors

Annual Sales: 60M

Employees: 260

Key Management: Dean Webber-GM

Key Contacts: Michael T. Lahey-Purch.

Business Overview: Manufacturer of specialty tantalum capacitors.

Vishay Sprague in Hudson, NH (Manufacturers hybrid circuits and other electronic components) is moving to Nebraska in February 1994.

Canadian Opportunity: Remains to be seen what products will be dropped by Vishay at new facility. It is recommended that supply requirements be discussed with Concord facility.

Company: APC Cable Systems - New England Commercial Electronic Companies

Parent: Monogram Industries Inc. - Providence, RI

Address: 50 Kennedy Plaza, 19th Floor

City: Providence

State: RI Zip Code: 02909

RHODE ISLAND

Telephone: (401) 453-2000

Fax: (401) 453-3009

SIC: 3670
3673

Products: Electrical Wiring and Cabling

Annual Sales: \$65M

Employees: 140

Key Management: Harry M. Crump - Pres.

Key Contacts: Nick Montalbano - Purch. Mgr. (508) 998-1131

Business Overview: Company unit recently known as Monogram Industries Inc. now APC Cable Systems. Corporate office is in Providence. Manufacturing in Fitchburg and other locations. Purchasing all done in Fitchburg.

Canadian Opportunity: Specialized product line. Wiring products for under floor or hidden locations. Has possible vendor supply potential.

Company: AFC Cable Systems Inc. *Aftermarket*

Parent: Monogram Industries Inc.-Providence, RI

Address: 50 Kennedy Plaza, 19th Floor

City: Providence

State: RI **Zip Code:** 02903

Telephone: (401) 453-2000

Fax: (401) 453-2009

SIC: 3679
and 3443
3714

Products: Electrical Wiring and Cabling *Wires, Cables, Splice Plugs*

Annual Sales: 165M
Annual Sales: 47M

Employees: 540
Employees: 25,000 (Inv.)

Key Management: Harry M. Crump-Pres.
Key Management: Michael A. Mond Jr. Pres.

Key Contacts: Nick Montalbano-Purch. Mgr. (508)998-1131
Key Contacts: Gary Shump-Purch. Mgr.

Business Overview: Company until recently known as Monogram Industries Inc. now AFC Cable Systems. Corporate office is in Providence. Manufacturing in Fitchburg and other locations. *Aftermarket Division of Allied Signal.*
Purchasing all done in Fitchburg. *this facility.*

Canadian Opportunity: Specialized product line. Wiring products for under floor or hidden locations has possible vendor supply potential.

Company: Allied-Signal Automotive Aftermarket

Parent: Allied-Signal Inc.-Moorestown, NJ

Address: 105 Pawtucket Ave.

City: Rumford

State: RI **Zip Code:** 02916

Telephone: (401) 434-7000

Fax: (401) 431-3162

SIC: 3694
and Brakes
3714

Products: Automotive Oil, Air, Fuel and Water Filters, Spark Plugs

Annual Sales: 470M

Employees: 250 (3600-Div.)

Key Management: Michael A Monti Jr.-Pres.

Key Contacts: Gary Stump-Purch. Mgr.

Business Overview: This facility is the distribution, sales, advertising and purchasing headquarters for the automotive aftermarket division of Allied-Signal. No manufacturing is carried out in this facility.

Canadian Opportunity: Due to the increase in Allied's electronics (automotive) business there is an excellent point of contact for both automotive electronics systems/components sales as well as raw electronics products, wire, semiconductor and connectors etc.

Company: Cherry Semiconductor Corp.

Parent: Cherry Corp.-Waukegan, IL

Address: 2000 South County Trail

City: East Greenwich

State: RI **Zip Code:** 02818

Telephone: (401) 885-3600

Fax: (401) 885-3600

SIC: 3674

Products: Integrated Circuits and Semiconductor Devices

Annual Sales: 60M

Employees: 800

Key Management: Alfred S. Budnick-Pres.

Key Contacts: Leonard Minkin - Purch. Mgr.

Business Overview: Company has grown from around 400 employees to over 800 within the last two years. Primary market is automotive but, they support IBM, Motorola and other computer companies' integrated circuit requirements.

Canadian Opportunity:

Canadian Opportunity: Due to rapid growth company offers a good market for material supply or technology transfer/sharing.

Company: Electro Films, Inc.

Parent: BTR Po-Land

Address: 111 Gilbane St.

City: Warwick

State: RI **Zip Code:** 02886

Telephone: (401) 738-9150

Fax: (401) 738-4389

SIC: 3679

Products: Micro Electronic Components

3674

3623

3829

Annual Sales: 18M

Employees: 225

Key Management: Jean D. Madden, Jr.-Pres.

Key Management: Thomas W. Nelson GM

Key Contacts: Mike Napolitano - Purch. Mgr.

Key Contacts: John Gilroy - Purch. Mgr.

Business Overview:

Business Overview: Involved in temperature control products for numerous industries including commercial and military aerospace, telecommunications and where environmental control required.

Canadian Opportunity:

Canadian Opportunity: Fairly solid supplier base as sales potential is difficult.

New England Commercial Electronic Companies

Company: Elmwood Sensors, Inc.

Parent: BTR Pic-London

Address: 500 Narragansett Park Dr.

City: Pawtucket

State: RI **Zip Code:** 02861

Telephone: (401) 727-1300

Fax: (401) 728-5390

SIC: 3822
Touch Screens
3823
3829

Products: Bimetal Thermostats, Thermal Fuses, Flexible Heaters,

Annual Sales: 70M

Employees: 150

Annual Sales: 40M **Employees:** 550

Key Management: Thomas W. Berlan-GM

Key Contacts: Anne Murphy - Purch. Mgr.

Key Contacts: John Gifford-Purch. Mgr.

Business Overview: Company is family run but has a strong customer base.

Business Overview: Involved in temperature control products for numerous industries including commercial and military aerospace, telecommunications and where environmental control required.

Canadian Opportunity: Opportunity for project work or marketing representation.

Canadian Opportunity: Fairly solid supplier base so sales potential is difficult.

Company: Federal Electronics, Inc.

Parent: Esterline Technologies, Bellevue, WA

Address: 75 Stamp Farm Rd. 02908

City: Cranston

State: RI **Zip Code:** 02921

Telephone: (401) 944-6200

Fax: (401) 272-7840

SIC: 3679

Products: Cables, Wire Harness and Electromechanical Assemblies

Annual Sales: 7M

Employees: 150

Key Management: Romolo Evangelista-Pres.

Key Contacts: Anne Murphy - Purch. Mgr.

Business Overview: Company is family run but has a strong customer base.

Canadian Opportunity: Opportunity for project work or marketing representation.

Canadian Opportunity: Company presents potential candidate for project representation of Canadian complementary technology via through parent.

Company: Federal Products Co.

Parent: Esterline Technologies-Bellevue, WA

Address: 1144 Eddy St., Box 9400

City: Providence

State: RI **Zip Code:** 02940

Telephone: (401) 781-9300

Fax: (401) 941-5280

SIC: 3825

Products: Precision Measuring Instruments, Gauges

3824

3834

3829

Annual Sales: 60M

Employees: 520

Annual Sales: 5.8M

Employees: 70

Key Management: John H. Hubbard-Pres.

Key Management: Chas Burnett-Mgr. Bus. Devel.

Key Contacts: Joseph H. Deslauriers-PA

Key Contacts: Brian Quinn-Purch. Mgr.

Business Overview: Operates as an independent division of Esterline.

Business Overview: Company manufactures both commercial and military advanced sensor systems & digital magnetic compasses for aircraft. Also produces some non-aerospace products including heating sensor systems.

Canadian Opportunity: Company presents potential candidate for product representation of Canadian complementing instruments etc. through parent.

Canadian Opportunity: and aerospace, active potential for Canadian component suppliers unknown.

Company: K V H Industries Inc.

Parent: Lewis Mfg. Co., Inc. Little Neck, NY

Address: 110 Enterprise Center

City: Middletown

State: RI **Zip Code:** 02840

Telephone: (401) 847-3327

Fax: (401) 849-0045

SIC: 3567

Products: Heating Sensor Systems, Compasses and Electronic

Range Finders

3634

3829

Annual Sales: 5.8M

Employees: 70

Key Management: Chris Burnett-Mgr. Bus. Devel.

Key Contacts: Kristen Quinn-Purch. Mgr.

Business Overview: Company manufactures both commercial and military advanced sensor systems & digital magnetic compasses for aircraft. Also produces some non-aerospace products including heating sensor systems.

Canadian Opportunity: Due to the size of the company and impact on profits from decreased aerospace, order potential for Canadian component suppliers unknown.

Company: Leviton Manufacturing Co.

Parent: Leviton Mfg. Co., Inc.-Little Neck, NY

Address: 745 Jefferson Blvd.

City: Warwick

State: RI **Zip Code:** 02886

Telephone: (401) 737-4500

Fax: (401) 736-1454

SIC: 3643
3644

Products: Electric Wiring Devices, Cord Sets and Switches

Annual Sales: 85M

Employees: 1,500

Key Management: Richard Millar-GM

Key Contacts: Elaine Guertin (Little Neck, NY) - (718) 229-4040
(No purchasing at Warwick facility)

Business Overview: Company also operates facility in Providence (known as Cable Electric Products) (401)737-4505. Leviton is a fully integrated manufacturer of electronic components.

Canadian Opportunity: Company has reduced work force by 1 third over last year.
Canadian Opportunity: Potential for raw material (wire, metal components etc.) or outsourcing where production runs are low or their production cost are high.

Company: New England Instrument Products Div.

Parent: Siebe Plc-Windsor, UK

Address: 245 Railroad St.

City: Woonsocket

State: RI **Zip Code:** 02895

Telephone: (401) 769-7274

Fax: (401) 762-2954

SIC: 3823 3674 **Products:** Potentiometers & Sensors Types
3825

Annual Sales: 9m

Employees: 110

Key Management: Robert Cimerol-GM

Key Contacts: Steve Chenard - Purch. Mgr.

Business Overview: Company is a division of Robertshaw Controls which is headquartered in Richmond, VA .
components including resistors, capacitors, discrete semiconductors, magnetic products & optoelectronic products.

Canadian Opportunity: Company has reduced work force by a third over last year. There could be supply potential as they attempt to fill the gaps in manufacturing outsourcing requirements.

Company: Philips Components/Discrete Products Div.

Parent: DV Philips-The Netherlands

Address: 100 Providence Pike

City: Slatersville

State: RI **Zip Code:** 02876

Telephone: (401) 762-3800

Fax: (401) 762-3805

SIC: 3671/3674 **Products:** Semiconductor and Electron Tubes and Guidance Systems

Annual Sales: 130M

Employees: 215

Key Management: Jeff Janssen-GM

Key Contacts: Phil Derocher-Purch. Mgr.

Business Overview: Division headquartered in Riviera Beach, FL (4700 employees). Division produces electronic components including resistors, capacitors, discrete semiconductors, magnetic products & optoelectronic products.

Canadian Opportunity: Due to growth in semiconductor market there is potential for material support and supply.

Company: Textron Inc.

Parent: Corporate Headquarters

Address: 40 Westminister St.

City: Providence

State: RI **Zip Code:** 02903

Telephone: (401) 421-2800

Fax: (401) 421-2878

SIC: 3728
3761
3812

Products: Aerospace & Navigational Control and Guidance Systems

Annual Sales: 6.9B

Employees: 46,500

Key Management: James Hardymon-Pres.

Key Contacts: Ronda Butler-Corp. Purch. Mgr.

Business Overview: Headquarters of Textron Corp. is involved in both aerospace/ defence and commercial electronics products. Primary business remains defence-engines for tanks, helicopters, air cushion craft systems and numerous electronics products.

Canadian Opportunity: Company going through significant adjustments and market so sales opportunity is limited.

Canadian Opportunity: Company is investing heavily in commercial electronics products both for transportation as well as industrial applications. With a solid base of commercial products, company is looking to expand into commercial electronics and other industrial product areas.

New England Commercial Electronic Companies

Company: Triangle Wire and Cable

Parent:

Address: 95 Grand Ave.

City: Pawtucket

State: RI **Zip Code:** 02862

Telephone: (401) 722-8600

Fax: (401) 724-5220

SIC: 3679/3357 **Products:** Industrial Electrical Wire, Cable and Cord Sets

Annual Sales: 120M

Employees: 630

Key Management: William R. Van Fetchmann-Pres.

Key Contacts: Joe Bendavid-Purch.

Business Overview: Company went through a consolidation several years ago. At that time it was known as Royal Electric Co.

Canadian Opportunity: Company going through significant adjustments and market so sales opportunity is limited.

New England Commercial Electronic Companies

Company: Walco Electric Co. *New England Commercial Electronic Companies*

Parent:

Address: 303 Allens Ave

City: Providence

State: RI **Zip Code:** 02905

Telephone: (401) 467-6300

Fax: (401) 941-4451

SIC: 3625
3621

Products: Electric Drives & Control Motors & Generators

Annual Sales: 14M

Employees: 125

Key Management: Ellis S. Waldman-Pres.

Key Contacts: Jim Biera-Purch. Mgr.

Business Overview: Electrical apparatus repair variable speed drives & production control panels manufactured by the company have a very limited market and customer base.

Canadian Opportunity: To expand business (customer base) company would be attracted to joint venture to open international and other U.S. markets through additional product offering.

Company: **Arrow** **New England Commercial Electronic Companies**

Parent:

Address: 3085 Shelburne Rd.

City: Shelburne

State: VT

Zip Code: 05482

VERMONT

Telephone: (802) 985-3621

Fax: (802) 985-2070

EOC: 3683

Products: Military Electronic Systems, Microwave Switches

and Cables

3679

3357

Annual Sales: 12M

Employees: 45

Key Management: Gordon T. Graves-CEO

Key Contacts: Gerald Ray-Purch. Agent

Business Overview: Company produces both military and commercial cables and switches. Commercial electronics items are sold to telecommunications and a number of electronics systems end users. Currently selling to Canadian Marconi and Northern Telecom.

Canadian Opportunity: As a subsystem and component assembler the company relies on vendor manufactured components/parts.

Company: Arrowsmith Shelburne Inc.

Parent: U.S. Commercial Arms Corp.

Address: 2085 Shelburne Rd.

City: Shelburne

State: VT **Zip Code:** 05482

Telephone: (802) 985-8621

Fax: (802) 985-2070

SIC: 3663

Products: Military Electronics System, Microwave Switches

and Cables

3679

Employees: 750

3357

Annual Sales: 12M

Employees: 45

Key Management: Gordon T. Graves-CEO

Key Contacts: Gerald Fay-Purch. Agent

Business Overview: Company produces both military and commercial cables and switches. Commercial electronics items are sold to telecommunications and a number of electronics systems end users. Currently selling to Canadian Marconi and Northern Telecom.

Canadian Opportunity: As a subsystem and component assembler the company relies on vendor manufactured components/parts.

Company: B.F. Goodrich Aerospace

Parent: B.F. Goodrich-Akron, OH

Address: Panton Rd.

City: Vergennes

State: VT **Zip Code:** 05491

Telephone: (802) 877-4559

Fax: (802) 877-4113

SIC: 3829

Products: Commercial and Military Fuel Systems

Annual Sales: 80M

Employees: 760

Key Management: Blake Rane-VP Finance
Joe Wilson - Operations Mgr.

Key Contacts: Jay LaFoy - Purch. Mgr.

Business Overview: Company involved in both military and commercial fuel systems for jet engines.

Canadian Opportunity: Question of possible component sales or manufacturing offload due to depressed market. Advisable to also contact Joe Wilson relative to long term supply agreements.

Company: Bio-Tek Instruments, Inc.

Parent:

Address: Highland Park, P.O. Box 998

City: Winooski

State: VT **Zip Code:** 05404

Telephone: (802) 655-4040

Fax: (802) 655-3399

SIC: 3841

Products: Medical Safety & Test Equipment, Laboratory

Instruments

3845

3826

Annual Sales: 50M

Employees: 260

Key Management: Eric Perron-GM

Key Contacts: John Wilson - VP Mfg.

Key Contacts: Beth Gillespie - Purch./Mfg. Coordinator

Business Overview: Growing company with expected entry into international markets starting in 1995.

Canadian Opportunity: Due to diversity of the company's products they do not
Canadian Opportunity: Beth Gillespie coordinates purchasing and manufacturing requirements. There are four primary buyers within Bio-Tek. Company is in need of new suppliers for general component requirements.

Company: Courtaulds Aerospace

Parent: Courtaulds Advanced Materials-UK

Address: 6 Shields Dr.

City: Bennington

State: VT **Zip Code:** 05201

Telephone: (802) 442-9964

Fax: (802) 447-3642

SIC: 3728

Products: Lightweight Electronic-Enclosures &
Components, Masks &

Annual 2547

Specialty Components for C41 Applications

Annual Sales: 10M

Employees: 120

Key Management: Daniel J. Maneely-GM

Key Contacts: Laurie Tilley-Purch.

Business Overview: Initial business was medical products including knee braces, x-ray tables etc. Since their founding 14 years ago they have diversified into Aerospace products.

Canadian Opportunity: Due to diversity of the company's products they do not devote enough attention to many of their products potential. Opportunity for related products company to act as the marketing arm or sublicensee for product. Due to capacity/production requirements, offload is a potential.

Company: Dynapower Corp.

Parent: Dynapower Corp.-Farmington Hills, MI

Address: 1020 Hinesburg Rd., Box 9210

City: South Burlington

State: VT **Zip Code:** 05403

Telephone: (802) 860-7200

Fax: (802) 864-3782

SIC: 3629

Products: AC to DC Electric Rectifiers

Annual Sales: 8M

Employees: 100

Key Management: Dan Kalman-GM

Key Contacts: Michael Misset-Purch. Agent

Business Overview: Company has remained consistent in size over the early 1990's, but they see an opportunity to fill a need where larger competitors have left the market.

Canadian Opportunity: Interested in material supply alternatives, both raw material and components.

New England Commercial Electronic Companies

Company: Eveready Battery Co.

Parent:

Address: 401 Gage St.

City: Bennington

State: VT **Zip Code:** 05201

Telephone: (802) 442-6301

Fax: (802) 447-3245

SIC: 3692

Products: Dry and Wet Primary Batteries and Lithium

Annual Sales: 42M

Employees: 500

Key Management: J.K. Perryman

Key Contacts: Dan Headly-Purch. Mgr.

Business Overview: (see St. Albans listing)

Canadian Opportunity: (see St. Albans listing)

Company: Eveready Battery Co.

Parent:

Address: 75 Swanton Rd.

City: Saint Albans

State: VT **Zip Code:** 05478

Telephone: (802) 524-2151

Fax: (802) 524-2501

SIC: 3648

Products: Flashlights, Battery Components and Lithium

Batteries

3691

Annual Sales: 35M

Employees: 250

Key Management: Randy Vohyles-Plt. Mgr.

Key Contacts: Kevin McGinn-Purch.

Business Overview: Limited involvement in electronic products, but they have a number of electronic battery associated products under development for production consideration.

Canadian Opportunity: Accessory products to market, support or service Eveready battery items could be of interest.

New England Commercial Electronic Companies

Company: General Electric Co./Aircraft Engines

Parent: G.E. - Fairfield, CT Machine Corp. Armonk, NY

Address: 210 Columbian Ave.

City: Rutland

State: VT **Zip Code:** 05701

Telephone: (802) 773-9121

Fax: (802) 775-3750

SIC: 3724 **Products:** Aircraft Engines Parts Memory Circuitry and Logic

Annual Sales: 170M

Employees: 1,600

Key Management: Richard Michaud-Pres.

Key Management: Douglas Grosse-Pl. Mgr.

Key Contacts: Kathy Vaillancourt-Purch.

Key Contacts: Steve Bergeron-Purch.

Business Overview: Manufacturing for both commercial and military aircraft parts.

Business Overview: This division facility continues to reduce staff and manufacturing

Canadian Opportunity: Procurement for capital items done through G.E. facility procurement operations in Cincinnati, OH.

memory circuitry for IBM

Canadian Opportunity: With employment reductions it is expected that a number of material fabrication and design, including some low volume software will be available for outsourcing.

Company: IBM Corp./Technology Products Division

Parent: International Business Machine Corp.-Arkmonk, NY

Address: 1000 River Rd.

City: Essex Junction

State: VT **Zip Code:** 05452

Telephone: (802) 769-0111

Fax: (802) 769-5503

SIC: 3672
Logic

Products: Semiconductor Computer Memory Circuitry and

Annual Sales:

Employees: 6,700

Key Management: Douglas Grose-Plt. Mgr.

Key Contacts: Steve Burgeron-Purch.

Business Overview: This division facility continues to reduce staff and manufacturing activity. Another major layoff is expected late this fall. Facility will remain an active manufacturer of memory circuitry for IBM.

Canadian Opportunity: With employment reductions it is expected that a number of material fabrication and design, including some low volume software will be available for outsourcing.

Company: Nexus Custom Electronics Systems

Parent: B.F. Goodrich-Akron, OH

Address: Prospect St., P.O. Box 250

City: Brandon

State: VT **Zip Code:** 05733

Telephone: (802) 247-6811

Fax: (802) 247-3946

SIC: 3672

Products: Printed Circuit Boards

Annual Sales: 15M

Employees: 100

Key Management: F.R. Simmons-Pres.

Key Contacts: Mary Cook- Purch. Mgr.

Business Overview: This company was formerly owned by Dowty, who cash tight 18 months ago sold out to an investor/employee group. Since the sale of the company, there has been implementation of expansion plans and financial situation is good.

Canadian Opportunity: With transition of the company to new directions the time is excellent to approach Nexus regarding project or product sharing efforts.

New England Commercial Electronic Companies

Company: Simmonds Engine Sensing Systems

Parent: B.F. Goodrich-Akron, OH

Address: Panton Rd.

City: Vergennes

State: VT **Zip Code:** 05491

Telephone: (802) 877-4497

Fax: (802) 877-4112

SIC: 3724

Products: Engine Sensing Systems

Annual Sales: 35M

Employees: 400

Key Management: Nick Karthaus-VP Finance

Key Contacts: Brad Howe-Engr.

Business Overview: Company manufactures general purpose capacitors.

Canadian Opportunity: Potential joint venture partner or opportunity to market special application products in conjunction with York.

Company: York Capacitors Corp.

Parent:

Address: 450 Weaver St., Box 278

City: Winooski

State: VT **Zip Code:** 05404

Telephone: (802) 655-2550

Fax: (802) 655-4307

SIC: 3675

Products: Capacitors

Annual Sales: 8M

Employees: 120

Key Management: Harold Dubilier-Pres.

Key Contacts: Dennis Getty-Purch. Agent

Business Overview: Company manufacturers general purpose capacitors.

Canadian Opportunity: Potential joint venture partner or opportunity to market special application product in conjunction with York.

Products Represented by Companies

Although most of the manufacturers' representatives cover a wide range of commercial electronics products, their specialization is as follows:

CM	Components & Materials
CP	Computer Products
SS	Sensit. Signal, Security and Audio Visual
COM	Communications
RF	RF/Microwave
IN	Instrumentation
PE	Production & Packaging Equipment
CE	Consumer Electronics

MANUFACTURERS' REPRESENTATIVES

ELECTRICAL AND ELECTRONIC PRODUCTS

New England manufacturers' representatives of commercial electronics and electrical products and components are concentrated in the greater Boston area.

Approximately 150 electronic and electrical products manufacturers' representatives are located in New England. There are also fifty or so other multiple industry/product manufacturers' representatives, who handle some electronic components or equipment.

The following listing includes representatives located in New England with the best opportunity to represent Canadian products.

All of the manufacturers' representatives referenced cover the six New England states and, based on their industry expertise and contacts, may also market products in other states, primarily the northeast. With rare exception, all but a few have five or fewer employees. Many are one person operations.

Products represented are for various end application products/industries including: defence/aerospace, computer, medical, utilities, communications and manufacturing equipment.

Products Represented by Companies

Although most of the manufacturers' representatives cover a wide range of commercial electronics products, their specialization is as follows:

CM	Components & Materials
CP	Computer Products
SSS	Sound Signal, Security and Audio Visual
COM	Communications
RF	RF/Microwave
IN	Instrumentation
PPE	Production & Packaging Equipment
CE	Consumer Electronics

Company: Zaslow Sales Company
Address: 800 Cottage Grove Road
City: Bloomfield **State:** CT **Zip Code:** 06002
Telephone: (203) 242-7781 **Fax:** (203) 243-9442
Contact: Chester Zaslow - Pres.
Products: CM

Company: Abbott-Allison Co., Inc.
Address: P.O. Box 825
City: Branford **State:** CT **Zip Code:** 06405
Telephone: (203) 481-0450 **Fax:** (203) 488-5637
Contact: Claire Palmieri - Pres.
Products: CM, IN

Company: Addelco Corporation
Address: 20 Freeman Place
City: Needham **State:** MA **Zip Code:** 02192
Telephone: (617) 444-4754 **Fax:** (617) 455-8274
Contact: Maurice B. Polayes
Products: CM, SSS, IN

Company: Apex Associates, Inc.
Address: 21 Highland Circle
City: Needham **State:** MA **Zip Code:** 02194
Telephone: (617) 444-8070 **Fax:** (617) 455-9148
Contact: Brian Doherty - Pres.
Products: CM

Company: Atlantic Component Marketing
Address: 249 Roosevelt Ave.
City: Pautucket **State:** RI **Zip Code:** 02862
Telephone: (401) 727-1400 **Fax:** (401) 723-2670
Contact: Timothy Danby - Pres.
Products: CM

Company: Barton Associates, Inc.
Address: 808 Commerce Street
City: Glastonbury **State:** CT **Zip Code:** 06033
Telephone: (203) 727-9417 **Fax:** (203) 633-4754
Contact: Charles K. Barton - Pres.
Products: CM

Company: Bell Controls Inc.
Address: 23 Factory Street
City: Nashua **State:** NH **Zip Code:** 03060
Telephone: (603) 882-6984 **Fax:** (603) 882-9049
Contact: R.J. Bell - Pres.
Products: CM

Company: Berberian & Associates, Inc.
Address: 857 Turnpike Street
City: North Andover **State:** MA **Zip Code:** 01845
Telephone: (508) 689-0155 **Fax:** (508) 682-6866
Contact: Gerald H. Berberian - Pres.
Products: CM, CE, CP

Company: Coakley Boyd & Abbett
Address: 10 Speen Street
City: Framingham **State:** MA **Zip Code:** 01701
Telephone: (508) 820-0800 **Fax:** (508) 820-4607
Contact: Tim Coakley - Pres.
Products: CM

Company: Comp Rep Associates, Inc.
Address: 100 Everett Street
City: Westwood **State:** MA **Zip Code:** 02090
Telephone: (617) 329-3454 **Fax:** (617) 329-6395
Contact: Lloyd Mullin - Pres.
Products: CM

Manufacturers' Representatives

Company: Computech, Inc.
Address: 1 Bridgeview Circle
City: Tyngsboro **State:** MA **Zip Code:** 01879
Telephone: (508) 649-3030 **Fax:** (508) 649-3276
Contact: Nizar Jhaver - Pres.
Products: CM, CP

Company: Conti-Younger Associates, Inc.
Address: 12 Blanchard Road
City: Burlington **State:** MA **01803** **Zip Code:** 01803
Telephone: (617) 273-1582 **Fax:** (617) 270-0310
Contact: Robert Conti - Pres.
Products: CM, PPE

Company: Crawford Associates Inc.
Address: 7 Exeter Way
City: Andover **State:** MA **Zip Code:** 01810
Telephone: (508) 470-2122 **Fax:** (508) 474-0594
Contact: William K. Crawford ; - Pres.
Products: CM

Company: DAS Inc.
Address: P.O. Box 404
City: West Suffield **State:** CT **Zip Code:** 06093
Telephone: (203) 668-1664 **Fax:** (203) 668-5869
Contact: Gary J. Galka - Pres.
Products: CP, PPE, IN

Company: Datcom, Inc.
Address: 2 Winter Street (617) 891-4600
City: Waltham **State:** MA **Zip Code:** 02154
Telephone: (617) 891-4600 **Fax:** (617) 899-0393
Contact: Lawrence C. Eisenhauer - Pres.
Products: CM

Company: Electronic Equipment Sales Corp.
Address: 69 S t. George Street
City: Duxbury **State:** MA **Zip Code:** 02331
Telephone: (617) 934-6210 **Fax:** (617) 934-0776
Contact: David A. Raymond - Pres.
Products: PPE, IN

Company: Electronic Marketing Company
Address: 1092 Johnson Road
City: Woodbridge **State:** CT **Zip Code:** 06525
Telephone: (203) 397-1461 **Fax:** (203) 387-6111
Contact: Joseph F. Hellauer - Pres.
Products: CP

Company: Gerber Sales Corp.
Address: 15 Church Street
City: Burlington **State:** MA **Zip Code:** 01803
Telephone: (617) 229-1150 **Fax:** (617) 272-0203
Contact: Eugene M. Megna - Pres.
Products: CM, CP, PPE

Company: Hathaway Electronics, Inc.
Address: P.O. Box 8
City: Lexington **State:** MA **Zip Code:** 02173
Telephone: (617) 861-7010 **Fax:** (617) 861-7014
Contact: Stephen L. Stanford - Pres.
Products: CM

Company: Kitchen & Kutchin, Inc.
Address: 87 Cambridge Street
City: Burlington **State:** MA **Zip Code:** 01803
Telephone: (617) 229-2660 **Fax:** (617) 273-5895
Contact: Melvin Kutchin - Pres.
Products: CM

Company: Magyar and Associates, Inc.
Address: P.O. Box 1121
City: Bennington **State:** VT **Zip Code:** 05201
Telephone: (802) 442-5858 **Fax:** (802) 442-3189
Contact: Jules L. Magyar - Pres.
Products: CM, IN

Company: New England Network
Address: 105 Webster Street
City: Tilton **State:** NH **Zip Code:** 03276
Telephone: (603) 286-8600 **Fax:** (603) 286-7779
Contact: Patrick ;J. Clark - Pres.
Products: CM, PPE

Company: Newby Inc.
Address: 105 Webster Street
City: Hanover **State:** MA **Zip Code:** 02339
Telephone: (617) 878-1512 **Fax:** (617) 878-6708
Contact: Mark A. Newby - Pres.
Products: CM, PPE

Company: Northeast Sales and Distribution Company
Address: P.O. Box 17039
City: Esmond **State:** RI **Zip Code:** 02917
Telephone: (401) 231-8223 **Fax:** (401) 232-7847
Contact: Norman Harrington - Pres.
Products: CM

Company: Ray Perron and Company, Inc.
Address: 1040 Great Plain Avenue
City: Needham **State:** MA **Zip Code:** 02192
Telephone: (617) 449-6162 **Fax:** (617) 444-1074
Contact: Dean R. Perron - Pres.
Products: CM, CP

Manufacturers' Representatives

Company: Rosenbaum Electronics
Address: 83 Boston Post Road
City: Guilford **State:** CT **Zip Code:** 06437
Telephone: (203) 453-4524 **Fax:** (203) 458-6961
Contact: Robert N. Rosenbaum - Pres.
Products: CM

Company: S-J Associates New England
Address: 44 Mall Road
City: Burlington **State:** MA **Zip Code:** 01803
Telephone: (617) 272-5552 **Fax:** (617) 272-5515
Contact: Joseph Younger - Div. Mgr. (company has 10 offices and 45 employees)
Products: CM

Company: Sales Engineering Co.
Address: 153 Main Street
City: Salem **State:** NH **Zip Code:** 03079
Telephone: (603) 893-5521 **Fax:** (603) 893-7680
Contact: Stephen Curran - Pres.
Products: CM

Company: Sequel Associates, Inc.
Address: 1501 Main Street, #1
City: Tewksbury **State:** MA **Zip Code:** 01876
Telephone: (508) 851-4010 **Fax:** (508) 851-0527
Contact: Daniel P. Armstrong - Pres.
Products: CM

Company: The Macinnis Co., Inc.
Address: 106 Access Road
City: Norwood **State:** MA **Zip Code:** 02062
Telephone: (617) 762-8090 **Fax:** (617) 762-5059
Contact: Norm Macinnis - Pres.
Products: CM, PPE

Manufacturers' Representatives

Company: Trident Systems
Address: 82 Rye Hill Circle
City: Somers **State:** CT **Zip Code:** 06071
Telephone: (203) 749-2521 **Fax:** (203) 749-2521
Contact: Ralph Burnette - Pres.
Products: CM, CP

Company: W.A. Hendrickson Co., Inc.
Address: 766 Country Way, P.O. Box 450
City: North Scituate **State:** MA **Zip Code:** 02060
Telephone: (617) 545-0652 **Fax:** (617) 545-1485
Contact: Robert Hendrickson - Pres.
Products: CM, SSS, COM

Manufacturers' Representatives

Association: Aerospace Industries Association
Address: 1200 Connecticut, N.W.
 Washington, D.C. 20004
Telephone: (202) 371-5400 Fax: (202) 371-5470
Contact: Mr. Richard A. Linder - Pres.
Memberships: Represents U.S. manufacturers of commercial, military and business aircraft, helicopters, aircraft engines, missiles, spacecraft and related components and

TRADE ASSOCIATIONS

**ELECTRICAL & ELECTRONIC SPECIFIC
 AND
 GENERAL U.S. INDUSTRY**

Association: Electronics Industries Association
Address: 1000 Pennsylvania Ave., N.E.
 Washington, DC 20002
Telephone: (202) 394-3404 Fax: (202) 394-2175
Contact: Thomas O'Neil - Pres.
Memberships: Represents manufacturers and distributors in the aviation field.

Association: National Association of Manufacturers
Address: 1251 Pennsylvania Ave., N.W., Suite 1500 N.
 Washington, D.C. 20004
Telephone: (202) 626-3700 Fax: (202) 626-5720
Contact: Alexander H. Frowbridge - Pres.
Memberships: Represents industry in taxation, industrial relations, government relations and international affairs.

Association: Motor & Equipment Manufacturers Association
Address: P.O. Box 13960
 10 Laboratory Drive
 Research Triangle Park, NC 27709
Telephone: (202) 559-2500 Fax: (202) 559-0139
Contact: Chris M. Davis - International Trade Director
Memberships: Association of auto and light-duty vehicle manufacturers; parts and equipment

Association: Aerospace Industries Association
Address: 1250 Eye Street, N.W.
Washington, D.C. 20005
Telephone: (202) 371-8400 **Fax:** (202) 371-8470
Contact: Mr. Richard A. Linder - Pres.
Membership: Represents U.S. manufacturers of commercial, military and business aircraft, helicopters, aircraft engines, missiles, spacecraft and related components and equipment.

Association: Aviation Distributors & Manufacturers Association
Address: 1900 Arch Street
Philadelphia, PA 19103
Telephone: (215) 564-3484 **Fax:** (215) 564-2175
Contact: Thomas O'Neil - Pres.
Membership: Represents manufacturers and distributors in the aviation field.

Association: National Association of Manufacturers
Address: 1331 Pennsylvania Ave., N.W., Suite 1500 N.
Washington, D.C. 20004
Telephone: (202) 626-3700 **Fax:** (202) 626-3720
Contact: Alexander B. Trowbridge - Pres.
Membership: Represents industry in taxation, industrial relations, government relations and international affairs.

Association: Motor & Equipment Manufacturers Association
Address: P.O. Box 13966
10 Laboratory Drive
Research Triangle Park, NC 27709
Telephone: (201) 569-8500 **Fax:** (201) 569-0159
Contact: Chris M. Bates - International Trade Director
Membership: Association of auto and heavy duty vehicle manufacturers, parts and equipment.

Trade Associations

Association: Computer and Business Equipment Manufacturers Association
Address: 120 Eye Street, N.W., Suite 200
Washington, D.C. 20005

Telephone: (202) 737-8888 **Fax:** (202) 638-4922

Contact: John L. Pickitt - Pres.

Membership: Manufacturers of information processing, business, and communications products. Serves as secretariat for information processing standards group. Conducts public policy programs, and compiles industry statistics.

Association: Electrical Equipment Representatives Association
Address: 406 W. 34th Street, Suite 628
Kansas City, MO 64111

Telephone: (816) 753-0210 **Fax:** (816) 753-1954

Contact: John S. McDermott - Exec. Dir.

Membership: Sales agents for manufacturers of electrical equipment used by utilities, industrial firms, and the government.

Association: Electrical Generating Systems Association
Address: 10251 W. Sample Road, Suite B
Coral Springs, FL 33065

Telephone: (305) 755-2677 **Fax:** (305) 755-2679

Contact: David L. Kellough - Exec. Dir.

Membership: Manufacturers, distributor / dealers, and manufacturers' representatives of devices used to generate electrical power through the use of an internal combustion engine or a gas turbine coupled to a generator, usually of portable size.

Association: Electrical Manufacturing and Coil Winding Association
Address: P.O. Box 278
Imperial Beach, CA 91933

Telephone: (619) 575-4191 **Fax:** (619) 575-5009

Contact: Charles E. Thurman - Exec. Dir.

Membership: Electric motor, coil, and transformer manufacturers; suppliers; firms and individuals with an interest in the field.

Trade Associations

Association: National Association of Electrical Distributors
Address: 45 Danbury Road
Wilton, CT 06897
Telephone: (203) 834-1908 **Fax:** (203) 834-1555
Contact: Richard A. Coldrick - Pres.
Membership: Wholesale distributors of electrical supplies and apparatus. Maintains numerous committees.

Association: National Association of Relay Manufacturers
Address: 9459 N. Broadmoor Road
Milwaukee, WI 53217
Telephone: (414) 351-4548 **Fax:** (414) 351-4548
Contact: Donald E. Dangott - Exec. Dir.
Membership: Manufacturers of relays. Works to standardize technical ratings, nomenclature, and testing methods.

Association: National Electrical Manufacturers Association
Address: 2101 L Street, N.W., Suite 300
Washington, D.C., 20037
Telephone: (202) 457-8400 **Fax:** (202) 457-8411
Contact: Malcolm E. O'Hagan - Pres.
Membership: Companies that manufacture equipment used for the generation, transmission, distribution, control, and utilization electric power, such as electrical machinery, motors, industrial automation, construction, utility, transportation and communication.

Association: National Electrical Manufacturers Representatives Association
Address: 200 Business Park Drive, Suite 301
Armonk, NY 10504
Telephone: (914) 273-6780 **Fax:** (914) 273-6785
Contact: Henry P. Bergson - Exec. Dir.
Membership: Electrical sales representatives and manufacturers who use independent representatives.

Trade Associations

Association: American Electronics Association
Address: 5201 Great American Parkway, Suite 520
P.O. Box 54990
Santa Clara, CA 95054
Telephone: (408) 987-4200 **Fax:** (408) 970-8565
Contact: J. Richard Iverson, CEO
Membership: Trade Association Representing U.S. electronics industry. New England offices are in Woburn, MA (617) 938-1925 and Hauppauge, NY (203) 978) 1081, which covers Connecticut only.

Association: Electronic Industries Association
Address: 2001 Pennsylvania Avenue, N.W.
Washington, D.C. 20006
Telephone: (202) 457-4900 **Fax:** (202) 457-4985
Contact: Peter F. McCloskey - Pres.
Membership: Represents U.S. electronics industry. Largest electronics industry association.

Association: Electronics Representatives Association
Address: 20 East Huron
Chicago, IL 60611
Telephone: (312) 649-1333 **Fax:** (312) 649-9509
Contact: Raymond J. Hall - CEO
Membership: Manufacturers' representations selling components and materials; computer, instrumentation, and data communications products to electronics industry.

Association: Institute for Interconnecting and Packaging
Address: 7380 N. Lincoln Avenue
Lincolnwood, IL 60646
Telephone: (708) 677-2850 **Fax:** (708) 677-9570
Contact: Thomas J. Dammrich - Exec. Dir.
Membership: Companies that are producers and users of electrical interconnections for electronic equipment.

Association: National Electronic Distributors Association
Address: 35 East Wacker Drive, Suite 1100
Chicago, IL 60601

Telephone: (312) 558-9114 **Fax:** (800) 347-6332
Contact: Mary Sue Lyons - Exec. VP
Membership: Wholesale distributors of electronic components and computer products.

Association: Semiconductor Equipment and Materials International
Address: 805 E. Middlefield Road
Mountain View, CA 94043

Telephone: (415) 964-5111 **Fax:** (415) 967-5375
Contact: William H. Reed - Pres.
Membership: Firms, corporations, and individuals engaged in supplying fabrication equipment, materials, or services to the semiconductor industry.

Association: Semiconductor Industry Association
Address: 4300 Stevens Creek Blvd., No. 271
San Jose, CA 95129

Telephone: (408) 246-2711 **Fax:** (408) 246-2830
Contact: Andrew Procassini - Pres.
Membership: Companies that produce semiconductor products such as discrete components, integrated circuits, and microprocessors.

Association: Surface Mount Equipment Manufacturers Association
Address: 4113 Barberry Drive
Lafayette Hill, PA 19444

Telephone: (215) 825-1008 **Fax:** (215) 941-6773
Contact: Judith Ginsberg - Exec. Dir.
Membership: Manufacturers of equipment or software used by the electronics industry.
Works to develop standards for equipment used to create circuit board assemblies in order to allow manufacturers to integrate equipment.

TRADE SHOWS

COMMERCIAL ELECTRICAL & ELECTRONIC

Please note that all trade shows are annual events and are usually at the same place and time year to year.

Check with the organizer of the show for confirmation of actual dates and location.

Telephone: (214) 239-3660 Fax: (214) 419-7875

Name: Electronic Imaging International

Focus: Integrated conference & exhibition on OEM's, system integrators, design, etc.

Dates: September 13-15

Location: Providence Convention Center - Providence, RI

Organizer: Miller Freeman, Inc.

Telephone: (214) 239-3060 Fax: (214) 419-7875

Name: HVAC & R Show

Focus: International air-conditioning, heating & refrigeration exposition

Dates: January 23-25

Location: New Orleans Convention Center - New Orleans, LA

Organizer: International Exposition Company

Telephone: (202) 221-9232 Fax: (202) 221-9260

Name: NORTHCON '94

Focus: Electronics exhibition emphasizing design, test, production & software

Dates: October 11-13

Location: Washington State Convention Center - Seattle, WA

Organizer: Electronics Convention Management

Telephone: (310) 215-3976 Fax: (310) 641-5117

Trade Associations

Trade Shows

Name: ELECTRO Intenational
Focus: Producers of high-technology electronics, software engineering and computers
Dates: June 2-6
Location: Hynes Convention Center - Boston, MA
Organizer: Miller Freeman Inc.
Telephone: (214) 239-3060 Fax: (214) 419-7875

Name: Electronic Imaging International
Focus: Integrated conference & exhibition on OEM's, system integrators, design, etc.
Dates: September 13-15
Location: Providence Convention Center - Providence, RI
Organizer: Miller Freeman, Inc.
Telephone: (214) 239-3060 Fax (214) 419-7875

Name: HVAC & R Show
Focus: International air-conditioning, heating & refrigeration exposition
Dates: January 23-25
Location: New Orleans Convention Center - New Orleans, LA
Organizer: International Exposition Company
Telephone: (203) 221-9232 Fax (203) 221-9260

Name: NORTHCON '94
Focus: Electronics exhibition emphasizing design, test, production & software equipment
Dates: October 11-13
Location: Washington State Convention Center - Seattle, WA
Organizer: Electronics Convention Management
Telephone: (310) 215-3976 Fax(310) 641-5117

Trade Associations

Trade Shows

Name: SEMICON- Southwest

Focus: Showcase for equipment, materials & supplies used in manufacture of semiconductors

Dates: October 18-19

Location: Austin Convention Center - Austin, TX

Organizer: SEMI

Telephone: (415) 964-5111 Fax (415) 940-7932

Name: SEMICON- West

Focus: Showcase for equipment, materials & supplies used in manufacture of semiconductors

Dates: July 19-21

Location: Moscone Center - San Francisco, CA

Organizer: SEMI

Telephone: (415) 964-5111 Fax (415) 940-7932

Name: Aircraft Electronics Association, Exposition & Convention

Focus: Aviation electronics, test equipment and services

Dates: April 28 - May 4

Location: Bally's Hotel - Las Vegas, NV

Organizer: Aircraft Electronics Association

Telephone: (816) 373-6565 Fax (816) 478-3100

Name: ASME Cogen Turbo Power

Focus: Gas turbine engine technology, gas turbo manufacturers, industry service equipment

Dates: October 25-27

Location: Red Lion Hotel - Jantzen Beach, Portland, OR

Organizer: International Gas Turbine Institute

Telephone: (404) 847-0072 Fax (404) 847-0151

Trade Associations

Trade Shows

Name: Computer and Electronics Show
Focus: Computer hardware, software, peripherals, systems, modems, electronic equipment
Dates: November 8-10
Location: Hartford Civic Center - Hartford, CT
Organizer: Daniels Productions, Inc.
Telephone: (203) 561-3250 Fax (203) 561-2473

Name: Electrical Industry & Fibre Optics Expo
Focus: Electrical construction products used primarily by electrical contractors
Dates: October 23 -25
Location: McCormick Center - Chicago, IL
Organizer: National Electrical Contractors Association
Telephone: (301) 657-3110 Fax (301) 215-450

Name: Electronic Industry Show - Corporation Convention
Focus: Electronic distributors, sales reps, manufacturers of electronics, int'l trade co's
Dates: April (1995 date open)
Location: Convention Center - Las Vegas, NV
Organizer: Electronic Industry Show Corp.
Telephone: (312) 648-1140 Fax (312) 648-4282

Name: Ideas in Science and Electronics Exposition and Symposium
Focus: Electronic test and measurement instrumentation and control, computer aided design
Dates: May 9-11
Location: Albuquerque Convention Center - Albuquerque, NM
Organizer: Ideas in Science and Electronics Inc.
Telephone: (505) 262-102 Fax (505) 265-1143

Name: International Coil Winding '95
Focus: Electrical manufacturing & coil winding industry
Dates: September 22-24
Location: Convention Center - Cincinnati, OH
Organizer: Professional Expo Management Co.
Telephone: (708) 260-9700 Fax (708) 260-0395

Trade Associations

Trade Shows

Name: ISHM '94
Focus: Engineers & Scientists in Circuitry
Dates: November 15-17
Location: Hynes Convention Center - Boston, MA
Organizer: International Society Hybrid Microelectronics
Telephone: (703) 471-0066 Fax (703) 471-1937

Name: Mid West Electronics
Focus: Electronic equipment & products used in production, assembly, design & packaging
Dates: May 9-11
Location: Minneapolis Convention Center - Minneapolis, MN
Organizer: Miller Freeman, Inc.
Telephone: (214) 239-3060 Fax (214) 419-7875

Name: National Electrical Equipment Show
Focus: Power generation, transmission & distribution, lighting, wiring, etc.
Dates: March (date open)
Location: McCormick Place - Chicago, IL
Organizer: Cahners Exhibitions Ltd.
Telephone: (203) 964-0000 Fax (203) 964-0176

Name: NEPCON East
Focus: Design, fabrication & assembly of circuits & electronic assemblies
Dates: June 13-15
Location: Bayside Convention Center - Boston, MA
Organizer: Cahners Exposition Group
Telephone: (708) 299-9311 Fax (708) 635-1571

Name: NETCOM/Networks & Communications
Focus: Computer and communication equipment, supplies and services
Dates: May 1-3
Location: Hartford Civic Center - Hartford, CT
Organizer: Daniels Productions Inc.
Telephone: (203) 561-325 Fax (203) 561-2473

Trade Associations

Trade Shows

Name: Networks Expo 95 in Boston
Focus: International show & conference focusing on computer networking and connectivity
Dates: February 13-15
Location: Hynes Convention Center - Boston, MA
Organizer: Blenheim Jewelry Shows Inc.
Telephone: (201) 346-1400 Fax (201) 346-1532

Name: San Diego Electronics Show
Focus: Electrical, mechanical, production, test engineers in electronics industry
Dates: January 11-12
Location: Convention Center - San Diego, CA
Organizer: Epic Enterprises, Inc.
Telephone: (619) 294-2999 Fax (619) 294-6699

Name: SOUTHCON '95
Focus: Electronic manufacturability, design for testability, quality management
Dates: March (date open)
Location: Orange County Convention Center - Orlando, FL
Organizer: Electronic Conventions Management
Telephone: (310) 215-3976 Fax (310) 641-5117

Name: Technet '95
Focus: Communication, electronics, computer sciences in government, armed forces & industry
Dates: June 6-8
Location: Convention Center - Washington, DC
Organizer: Armed Forces Communication Electronics Association
Telephone: (703) 631-6200 Fax (703) 818-9177

Name: United States Air & Trade Show
Focus: Aviation & aerospace industry
Dates: July 17-24
Location: International Airport - Dayton, OH
Organizer: United States Air & Trade Show
Telephone: (513) 898-5901 Fax 898-512

Trade Associations

Trade Shows

Name: WESCON '94
Focus: High tech OEM electronics expo
Dates: September 27-29
Location: Anaheim Convention Center - Anaheim, CA (1995 show in San Francisco in October)
Organizer: Electronics Convention Management
Telephone: (310) 215-3976 Fax (310) 641-5117

Summary Conclusions and Recommendations

While there are a number of recommendations provided in the individual analysis for a specific company, one general observation was made from this study. All companies are searching for the best mix of people, products and administrative/manufacturing locations.

The changes occurring, or caused by the actions of companies in the commercial electronics industry over the last five years are greater than any similar period of time since a commercial electronics industry existed. While the 1970's and 1980's were a period of unparalleled growth and new business introduction, the 1990's have been and will continue to be the period of unparalleled readjustment and reshuffling. Unlike any other industry that is experiencing or has encountered radical change, companies involved are with few exceptions healthy and prospering. Changes have occurred generally based on a slow down in business, reduction in profits, or increased competition. As mentioned previously in other sections of this study, a large number of commercial electronics companies have an appreciable aerospace/defence business, and the changes affecting these companies is more pronounced and with a more urgent need.

Thirty five companies reviewed in this study have a different parent than they did at the end of 1989. Over forty companies (or divisions) have consolidated their operations with other units/divisions or have been sold to another company. There are also twenty five companies that closed or ceased business at locations where they found operations unprofitable or excessively costly. The fate of most of these facilities is subject to potential sale or startup at a future date.

The major choices for company moves have been to the southeastern states of South Carolina, North Carolina and Georgia. There also have been a number of relocations to Kansas, Ohio and other midwest states. Few of the companies reviewed for this study have left New England for a foreign location. Those with foreign locations (either a parent or subsidiary) have in a few cases closed those facilities, but in most cases increased activity carried on at those facilities. Few companies surveyed in this study have opened any foreign manufacturing or other sales office, etc. during the 1990's.

There also were (surprisingly) only a handful of foreign acquisitions of U.S. companies or divisions during the last few years.

Trade Associations

In general, the climate seems to have been a pulling back of business activity, and a readjustment of manufacturing locations in anticipation of a business recovery.

The decrease in staff at the various companies has resulted in a number of deficiencies in key functions. It remains to be seen what effect this will have on individual companies when business activity picks up and customer demands mount.

On the plus side for Canadian commercial electronics companies is the potential opened up by these changes, and an elimination of ingrained supply and vendor attitudes of the past.

There also have emerged from the business malaise of the last few years, very strong and newly aggressive companies. These companies including both defence products companies - UTC, Martin Marietta, and the Barnes Group as well as commercial products companies - Hewlett -Packard, General Signal, and a number of specialty product manufacturers.

1995 should be a year of positive change for the commercial electronics industry. It will also be the best time since the arrival of the 1990's to approach companies about long term relationships. The movement of companies toward "just in time inventory", vendor participation in product design phases and a new desire to revisit existing supplier relationships should present countless opportunities for Canadian component and system suppliers and service organizations.

