OPTICAL FIBRE CABLES

JANUARY TO DECEMBER 1990

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REFERENCE SOURCES

Industry, Science and Technology Canada
Statistics Canada, Tel.: (613) 951-9647
Revenue Canada, Tel.: (613) 954-7020
U.S. Department of Commerce,
Bureau of the Census,
Tel.: (301) 763-7754

TARIFFS

Enquiries concerning Canadian tariffs
should be directed to the nearest Customs
and Excise office or to:

Tariff Programs
Revenue Canada
Customs and Excise
Ottawa, Ontario K1A 0L5
Tel.: (613) 954-7020
Fax.: (613) 954-2509

Enquiries concerning tariffs and other
government trade regulations in foreign
countries should be directed to:

Info Export
External Affairs
Ottawa, Ontario
K1A 0G2
Tel.: (613) 993-6435 OR
1-800-267-8376
Fax.: (613) 996-9709

EXPLANATORY NOTES

Commodity Classification

Canadian Trade statistics are classified and published according to the International Convention on the
Harmonized Commodity and Description Coding System (H.S.), as defined by the Canadian Customs Tariff
and Statistical Nomenclature.

Valuation

Dollar values shown in this report are based on selling price F.O.B. plant, in Canadian dollars. This selling
price represents the value paid by the importer, excluding all freight, packing and insurance costs when
specified. All trade discounts, when applicable, are also deducted from the selling price.

Rounding

Figures may not add due to rounding.

Canada - U.S. Exchange Rate

The Bank of Canada exchange rates were used to convert U.S. imports reported in $US to $Cdn.
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I. INTRODUCTION AND SCOPE

This Import Analysis is one of a continuing series of market intelligence reports designed to increase business awareness of the potential existing for production in Canada and to assist businesses and other organizations in their market research of specific products. The detailed information provided in these reports supports studies by organizations seeking to expand existing production lines, change individual product characteristics or engage in new manufacturing investment in Canada. The coverage of a market intelligence report is developed in close consultation with the client, and is tailored to meet their specific requirements. Thus while more current invoices were available for analysis, it was decided to cover the period January to December 1990. It is important to emphasize that this report does not attempt any assessment as to the feasibility of competing in a particular market.

This analysis of imports of optical fibre cables is based on a detailed examination of Revenue Canada customs import documents for the period January to December 1990 for the following Harmonized System (H.S.) import commodity code:

<table>
<thead>
<tr>
<th>Description</th>
<th>H.S. Commodity Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optical fibre cables, made up of individually sheathed fibres</td>
<td>8544.70.00.00</td>
</tr>
</tbody>
</table>


For the purposes of this analysis, only those shipments with a value of $10 000 or more were studied. These shipments amounted to $14 million or 85 per cent of the total imports of $16.5 million during the period January to December 1990. Of the 171 shipments analyzed, 119 of them contained data on the length of optical fibre cables shipped. The total length shipped was 1.2 million metres with a value of $9.7 million. Fibre optic cable varies considerably in thickness and type. More detailed data on length and unit price are not available due to inconsistent information contained in Revenue Canada customs invoices.
### OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

#### II. ANALYSIS OF IMPORTS
JANUARY TO DECEMBER 1990

#### SUMMARY OF IMPORTS BY MODALITY

<table>
<thead>
<tr>
<th>Modality</th>
<th>Value ($000)</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Mode</td>
<td>10 524</td>
<td>75</td>
</tr>
<tr>
<td>Multi Mode</td>
<td>2 446</td>
<td>18</td>
</tr>
<tr>
<td>Not Known</td>
<td>997</td>
<td>7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13 967</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

#### IMPORTS BY COUNTRY OF ORIGIN AND MODALITY

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Modality</th>
<th>Value ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>Single Mode</td>
<td>10 167</td>
</tr>
<tr>
<td></td>
<td>Multi Mode</td>
<td>2 142</td>
</tr>
<tr>
<td></td>
<td>Not Known</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>12 409</strong></td>
</tr>
<tr>
<td>Other Countries*</td>
<td>Single Mode</td>
<td>357</td>
</tr>
<tr>
<td></td>
<td>Multi Mode</td>
<td>304</td>
</tr>
<tr>
<td></td>
<td>Not Known</td>
<td>897</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>13 558</strong></td>
</tr>
</tbody>
</table>

* Comprising Finland, Japan, Sweden and the United Kingdom. Detailed data on modality for individual countries cannot be shown due to the confidentiality provisions of the Statistics Act.
OPTICAL FIBRE CABLES  
(H.S. 8544.70.00.00)

II. ANALYSIS OF IMPORTS (Cont'd)

JANUARY TO DECEMBER 1990

IMPORTS BY PROVINCE OF CONSIGNEE AND MODALITY

<table>
<thead>
<tr>
<th>Province of Consignee</th>
<th>Modality</th>
<th>Value ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ontario</td>
<td>Single Mode</td>
<td>8 590</td>
</tr>
<tr>
<td></td>
<td>Multi Mode</td>
<td>1 723</td>
</tr>
<tr>
<td></td>
<td>Not Known</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>10 336</strong></td>
</tr>
<tr>
<td>Québec</td>
<td>Single Mode</td>
<td>456</td>
</tr>
<tr>
<td></td>
<td>Multi Mode</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>Not Known</td>
<td>931</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1 592</strong></td>
</tr>
<tr>
<td>Other Provinces*</td>
<td>Single Mode</td>
<td>1 478</td>
</tr>
<tr>
<td></td>
<td>Multi Mode</td>
<td>518</td>
</tr>
<tr>
<td></td>
<td>Not Known</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>2 039</strong></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>13 967</strong></td>
</tr>
</tbody>
</table>

* Comprising Alberta, British Columbia, New Brunswick and Nova Scotia. Detailed data on modality for these provinces cannot be shown due to the confidentiality provisions of the Statistics Act.
Statistics Canada reports that there were two Canadian manufacturers of optical fibre cables with estimated shipments of $112.1 million in 1987 (latest year for which data are available).

Any enquiries and/or comments regarding Canadian shipments should be directed to:

Statistics Canada
Industry Division
Survey of Manufactures Section
Ottawa, Ontario
K1A 0T6
Tel.: (613) 951-3523

Source: Catalogue #43-250, annual, "Electrical and Electronic Products Industries".
### OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

#### IV. CANADIAN EXPORTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>15 205</td>
<td>U.S.</td>
<td>21 233</td>
<td>U.S.</td>
<td>17 100</td>
</tr>
<tr>
<td>U.K.</td>
<td>616</td>
<td>U.K.</td>
<td>1 662</td>
<td>China</td>
<td>5 613</td>
</tr>
<tr>
<td>Jamaica</td>
<td>350</td>
<td>China</td>
<td>1 127</td>
<td>Guyana</td>
<td>953</td>
</tr>
<tr>
<td>Taiwan</td>
<td>200</td>
<td>Taiwan</td>
<td>558</td>
<td>U.K.</td>
<td>119</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>96</td>
<td>Australia</td>
<td>142</td>
<td>Italy</td>
<td>85</td>
</tr>
<tr>
<td>Australia</td>
<td>91</td>
<td>Barbados</td>
<td>84</td>
<td>Grenada</td>
<td>48</td>
</tr>
<tr>
<td>France</td>
<td>15</td>
<td>N.Zealand</td>
<td>27</td>
<td>W.Germany</td>
<td>29</td>
</tr>
<tr>
<td>Japan</td>
<td>7</td>
<td>W.Germany</td>
<td>17</td>
<td>Turkey</td>
<td>16</td>
</tr>
<tr>
<td>German Democratic Republic</td>
<td>3</td>
<td>Bermuda</td>
<td>16</td>
<td>France</td>
<td>16</td>
</tr>
<tr>
<td>Mali</td>
<td>3</td>
<td>Japan</td>
<td>12</td>
<td>Netherlands</td>
<td>13</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>Other</td>
<td>28</td>
<td>Other</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>16 591</td>
<td></td>
<td>24 906</td>
<td></td>
<td>23 998</td>
</tr>
</tbody>
</table>

Note: Major countries in descending order based upon value.

Source: Statistics Canada.
### OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

#### V. UNITED STATES’ IMPORTS

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>1989 (000 FBM)</th>
<th>1990 (000 FBM)</th>
<th>1991 (000 FBM)</th>
<th>Average Annual Growth Rate 1989-91 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>18 073</td>
<td>14 035</td>
<td>15 110</td>
<td>-8.6</td>
</tr>
<tr>
<td>Japan</td>
<td>40</td>
<td>1 102</td>
<td>174</td>
<td>107.9</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>248</td>
<td>7 094</td>
<td>12 221</td>
<td>602.5</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>276</td>
<td>2 791</td>
<td>448</td>
<td>27.4</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>678</td>
<td>6 337</td>
<td>2 189</td>
<td>79.7</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>23</td>
<td>-</td>
<td>24</td>
<td>3.0</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>91</td>
<td>-</td>
<td>1 095</td>
<td>247.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>115</td>
<td>1 353</td>
<td>321</td>
<td>67.0</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>1 329</td>
<td>1 381</td>
<td>1 080</td>
<td>-9.9</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4</td>
<td>0</td>
<td>24</td>
<td>147.9</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>7</td>
<td>2</td>
<td>196</td>
<td>424.5</td>
</tr>
<tr>
<td>France</td>
<td>24</td>
<td>1</td>
<td>9</td>
<td>-38.4</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>59</td>
<td>120</td>
<td>128</td>
<td>47.2</td>
</tr>
<tr>
<td>Singapore</td>
<td>20</td>
<td>-</td>
<td>4</td>
<td>-57.1</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>26</td>
<td>-</td>
<td>48</td>
<td>35.5</td>
</tr>
<tr>
<td>Israel</td>
<td>15</td>
<td>10</td>
<td>2</td>
<td>-62.5</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>16</td>
<td>42</td>
<td>16</td>
<td>2.0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>28</td>
<td>10</td>
<td>63.5</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>55</td>
<td>757</td>
<td>53</td>
<td>-1.5</td>
</tr>
<tr>
<td>Total</td>
<td>18 594</td>
<td>19 320</td>
<td>16 205</td>
<td>-6.6</td>
</tr>
<tr>
<td>Value ($000)</td>
<td>16 749</td>
<td>37 139</td>
<td>34 146</td>
<td>42.8</td>
</tr>
</tbody>
</table>

Ranked in descending order by 1991 value.
Canada ranked 1 overall.
FBM - fibre metres.
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VI. MARKET OVERVIEW

The Canadian electrical wire and cable industry includes manufacturers of bare and insulated conductors for the transmission and distribution of electrical energy, and manufacturers of telephone cables, coaxial cables and fibre-optics cables for telecommunication applications. The sector consists of over 30 firms and employs about 8500 people. In 1991, shipments totalled an estimated $2.3 billion, while exports were about $240 million and imports about $300 million.

Of the 30 firms in the industry, two manufacture fibre optic cable.

The major materials used in the industry are copper and aluminum, together with rubber or plastic insulating compounds purchased from petrochemical producers. Specialized materials such as glass optical fibres are becoming more widely used as new communications cable products are developed.

The three main market segments in the electrical wire and cable sector are the electrical utilities, the construction industry and the telecommunications utilities. Each has specific product requirements. Electrical utilities purchase conductors for overhead transmission and distribution lines as well as high-voltage power cables, which make up about 40 per cent of the Canadian market. The construction industry purchases mainly electrical building wire and construction cables, representing some 35 per cent of the domestic market. The telecommunications portion accounts for about 25 per cent of the domestic market and is the sole purchaser of telephone cables, coaxial cables and optical fibre cables.

The five largest firms in the sector operate 31 manufacturing plants across the country. The remaining 27 plants are individually owned by different firms. More than 50 per cent of the plants are located in Ontario, with another 20 per cent in Québec and most of the remainder in the western provinces.

Jim Robinson
Electrical and Energy Equipment Directorate
Industrial and Electrical Equipment and Technology Branch
Telephone: (613) 954-3262
APPENDIX A

OPTICAL FIBRE CABLES
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CANADIAN IMPORTERS
JANUARY TO DECEMBER 1990

Importers of optical fibre cables (shipments of $10,000 or more) during the period January to December 1990, as indicated in this report, are listed below, in alphabetical order. Where the importer is not the same as the consignee (i.e. the recipient of the goods shipped), the name of the consignee rather than that of the importer is listed. The importer or consignee is not necessarily the end-user of the product.

IMPORT MARKET CONCENTRATION

<table>
<thead>
<tr>
<th>Principal Consignees/Importers (By Value)</th>
<th>Cumulative Value ($000)</th>
<th>Cumulative % of Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10,192</td>
<td>73</td>
</tr>
<tr>
<td>10</td>
<td>12,801</td>
<td>92</td>
</tr>
<tr>
<td>20</td>
<td>13,602</td>
<td>97</td>
</tr>
<tr>
<td>All Importers (39)</td>
<td>13,967</td>
<td>100</td>
</tr>
</tbody>
</table>

There were 39 known consignees/importers of optical fibre cables (shipments of $10,000 or more) during the period January to December 1990. The top five consignees/importers accounted for $10.2 million or 73 per cent of the total dollar value of imports.

NOTE: This list includes all importers except individuals.

Name
AMP of Canada Ltd.
Anixter Canada Inc.
Asea Brown Boveri Inc.
AT&T Canada Inc.
B.C. Hydro & Power Authority
Bell Canada
Bull, H.N. Information Systems Ltd.
C - Spec Cables Canada Ltd.
Cabletel Communications Inc.
Canadian Security and Intelligence Service
CN Signals and Communications

Address
Markham, Ont.
Lachine, Qué.
Montréal, Qué.
Willowdale, Ont.
Vancouver, B.C.
Toronto, Ont.
Scarborough, Ont.
Montréal, Qué.
Markham, Ont.
St-Hubert, Qué.
Ottawa, Ont.
Montréal, Qué.
APPENDIX A

OPTICAL FIBRE CABLES
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CANADIAN IMPORTERS (Cont’d)

JANUARY TO DECEMBER 1990

Name

Comlink Systems Inc.
Cyanamid Canada Inc.
D&D Electrocraft Ltd.
Dept. of Energy, Mines and Resources
Digital Equipment of Canada Ltd.
Fenco Engineers Inc.
Fisher Controls Co. of Canada Ltd.
Hiram Walker & Sons Ltd.
Inco Ltd.
JDS Optics Inc.
Laser Fiber Optics Canada Ltd.
Lightel Inc.
Maritime Tel. and Tel.
MLS Cable Installations Inc.
Navistar International Corp.
New Brunswick Telephone
Neptco Inc.
Northern Telecom Ltd.
Nova Scotia Power Corp.
Ontario Hydro
Pirelli Cables Inc.
Roberts Conductor Cable
Rogers Cable TV, Div. of Canadian
Cablesystems (Ontario) Ltd.
Seismic Cable Service Ltd.
Siecor Inc.
Teleglobe Marine Inc.
Texcan Cables Ltd.
Wire Rope Industries of Canada Ltd.

Address

Oshawa, Ont.
Markham, Ont.
Napanee, Ont.
Ottawa, Ont.
Kanata, Ont.
Willowdale, Ont.
Woodstock, Ont.
Windsor, Ont.
Copper Cliff, Ont.
Nepean, Ont.
Nepean, Ont.
Downsview, Ont.
Kentville, N.S.
Etobicoke, Ont.
Hamilton, Ont.
Saint John, N.B.
Mississauga, Ont.
Etobicoke, Ont.
Halifax, N.S.
Toronto, Ont.
Surrey, B.C.
Calgary, Alta.

Don Mills, Ont.
Calgary, Alta.
Hickory, NC, U.S.A.*
Montréal, Qué.
Winnipeg, Man.
Dorval, Qué.

* Non resident importer.
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FOREIGN EXPORTERS TO CANADA  
JANUARY TO DECEMBER 1990

There were a total of 31 exporters to Canada of optical fibre cables (shipments of $10 000 or more) during the period January to December 1990. They are listed below in descending order of dollar value.

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Value of Exports to Canada ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siecor Corp.</td>
<td>Hickory, NC, U.S.A.</td>
<td>4 404</td>
</tr>
<tr>
<td>Alcoa Fujikura Ltd.</td>
<td>Charleston, SC, U.S.A.</td>
<td>4 032</td>
</tr>
<tr>
<td>Pirelli Cables Inc.</td>
<td>Union, NJ, U.S.A.</td>
<td>2 675*</td>
</tr>
<tr>
<td>Asea Brown Boveri</td>
<td>Vasteras, Sweden</td>
<td></td>
</tr>
<tr>
<td>Selko Giken Co.</td>
<td>Tokyo, Japan</td>
<td></td>
</tr>
<tr>
<td>Sumitomo Electric</td>
<td>Research Triangle Park, NC, U.S.A.</td>
<td>1 261*</td>
</tr>
<tr>
<td>Anixter Bros. Inc.</td>
<td>Skokie, IL, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>AT&amp;T International</td>
<td>Basking Ridge, NJ, U.S.A.</td>
<td>247</td>
</tr>
<tr>
<td>Optical Cable Corp.</td>
<td>Roanoke, VA, U.S.A.</td>
<td>207</td>
</tr>
<tr>
<td>Simplex Wire &amp; Cable</td>
<td>Portsmouth, NH, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Rochester Corp., The</td>
<td>Culpeper, VA, U.S.A.</td>
<td>478*</td>
</tr>
<tr>
<td>Rochester Telephone Group</td>
<td>Rochester, NY, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Nokia Corp.</td>
<td>Salo, Finland</td>
<td></td>
</tr>
<tr>
<td>Western Atlas International</td>
<td>Houston, TX, U.S.A.</td>
<td>270*</td>
</tr>
<tr>
<td>Neptco Inc.</td>
<td>Pawtucket, RI, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>AT&amp;T Technologies Inc.</td>
<td>Basking Ridge, NJ, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Advanced Communications Inc.</td>
<td>Sunnyvale, CA, U.S.A.</td>
<td>137*</td>
</tr>
<tr>
<td>Bull Information Systems</td>
<td>Edina, MN, U.S.A.</td>
<td></td>
</tr>
</tbody>
</table>

* Aggregated to preserve confidentiality of Canadian importers.
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FOREIGN EXPORTERS TO CANADA (Cont'd)

JANUARY TO DECEMBER 1990

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Value of Exports to Canada ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCOR Electronics Inc.</td>
<td>State College, PA, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Ensign Bickford Optics</td>
<td>Avon, CT, U.S.A.</td>
<td>68*</td>
</tr>
<tr>
<td>Berk-Tek Inc.</td>
<td>Reading, PA, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Poly Optical Products</td>
<td>Santa Ana, CA, U.S.A.</td>
<td>78*</td>
</tr>
<tr>
<td>Focas Ltd. (Swindon)</td>
<td>Swindon, United Kingdom</td>
<td></td>
</tr>
<tr>
<td>AMP Products Inc.</td>
<td>Harrisburg, PA, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Chromatic Technologies Inc.</td>
<td>Franklin, MA, U.S.A.</td>
<td>54*</td>
</tr>
<tr>
<td>A.D.C. Telecommunications</td>
<td>Minneapolis, MN, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Digital Equipment Corp.</td>
<td>Maynard, MA, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Scientific Atlanta Inc.</td>
<td>Atlanta, GA, U.S.A.</td>
<td></td>
</tr>
<tr>
<td>Okonite Co., The</td>
<td>Ramsey, NJ, U.S.A.</td>
<td>57*</td>
</tr>
<tr>
<td>Seiko Instruments Inc.</td>
<td>Tokyo, Japan</td>
<td></td>
</tr>
<tr>
<td>Optelecom Inc.</td>
<td>Gaithersburg, MD, U.S.A.</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL** 13 967

* Aggregated to preserve confidentiality of Canadian importers.
OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

CANADIAN SUPPLIERS

The following lists are taken from two sources: a) the Business Opportunities Sourcing System (BOSS), a computerized data bank established by the Federal Department of Industry, Science and Technology Canada (ISTC); and b) the Canadian Trade Index, published by the Canadian Manufacturers’ Association (CMA). These lists may not include all suppliers of the products in question, as companies must themselves register in BOSS or the Canadian Trade Index. In both cases, information of Canadian products supplied is as given by the companies.

BOSS

Companies are arranged in alphabetical order.

Fibre Optics

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate Devices Ltd.</td>
<td>Fort Langley, B.C.</td>
</tr>
<tr>
<td>Allied Wire &amp; Cable Ltd.</td>
<td>Calgary, Alta.</td>
</tr>
<tr>
<td>*Canadian Instrumentation &amp; Research Ltd.</td>
<td>Burlington, Ont.</td>
</tr>
<tr>
<td>EDO Canada Limited</td>
<td>Calgary, Alta.</td>
</tr>
<tr>
<td>*EFOS Inc.</td>
<td>Mississauga, Ont.</td>
</tr>
<tr>
<td>*Electro Optics Division of RCA Inc.</td>
<td>Vaudreuil, Qué.</td>
</tr>
<tr>
<td>Emcon Ltd.</td>
<td>Nepean, Ont.</td>
</tr>
<tr>
<td>*Fibersense &amp; Signals Inc.</td>
<td>Toronto, Ont.</td>
</tr>
<tr>
<td>*Focal Technologies Incorporated</td>
<td>Dartmouth, N.S.</td>
</tr>
<tr>
<td>Hara Products Ltd.</td>
<td>Swift Current, Sask.</td>
</tr>
<tr>
<td>Kolasa Fibre Optic Systems</td>
<td>Mississauga, Ont.</td>
</tr>
<tr>
<td>*Optikon Corporation Ltd., The</td>
<td>Waterloo, Ont.</td>
</tr>
<tr>
<td>Orlux Engineering &amp; Instrumentation Ltd.</td>
<td>Brampton, Ont.</td>
</tr>
<tr>
<td>*Pocatec Ltée</td>
<td>La Pocatière, Qué.</td>
</tr>
<tr>
<td>Technologies Tassimco Canada Inc., Les</td>
<td>Terrebonne, Qué.</td>
</tr>
<tr>
<td>Williams ESG Inc.</td>
<td>Nepean, Ont.</td>
</tr>
</tbody>
</table>

* Company engaged in export trade.

Any enquiries and/or comments regarding the BOSS list should be directed to:

Business Opportunities Sourcing System
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario K1A 0H5
Tel.: (613) 954-5031
Telex: 053-4123
Fax.: (613) 954-1894

91114-IA
## APPENDIX C

### OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

### CANADIAN SUPPLIERS (Cont’d)

#### CANADIAN TRADE INDEX

Canadian companies are arranged in alphabetical order.

**Fibre Optics**

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Adaptive Microelectronics Ltd.</td>
<td>Thornhill, Ont.</td>
</tr>
<tr>
<td>Advanced Fiberoptic Technologies Corporation</td>
<td>Toronto, Ont.</td>
</tr>
<tr>
<td>*Canada Wire and Cable Limited</td>
<td>Don Mills, Ont.</td>
</tr>
<tr>
<td>*Canadian Instrumentation and Research Ltd.</td>
<td>Burlington, Ont.</td>
</tr>
<tr>
<td>*Communications Division of Canada Wire and Cable Limited</td>
<td>North York, Ont.</td>
</tr>
<tr>
<td>Compucable Inc.</td>
<td>Scarborough, Ont.</td>
</tr>
<tr>
<td>Data-Tel Services Inc.</td>
<td>Concord, Ont.</td>
</tr>
<tr>
<td>*EFOS Inc.</td>
<td>Mississauga, Ont.</td>
</tr>
<tr>
<td>*Focal Technologies Incorporated</td>
<td>Dartmouth, N.S.</td>
</tr>
<tr>
<td>*Foundation Instruments Inc.</td>
<td>Nepean, Ont.</td>
</tr>
<tr>
<td>Laser Fiber Optics Canada Limited</td>
<td>Nepean, Ont.</td>
</tr>
<tr>
<td>*Northern Telecom Limited</td>
<td>Mississauga, Ont.</td>
</tr>
<tr>
<td>*Pirelli Cables Inc.</td>
<td>St-Jean-sur-Richelieu, Qué.</td>
</tr>
<tr>
<td>*Sherrex Systems Limited</td>
<td>Edmonton, Alta.</td>
</tr>
</tbody>
</table>

* Company engaged in export trade.

Any enquiries and/or comments regarding the Canadian Trade Index list should be directed to:

The Canadian Manufacturers’ Association  
4th Floor  
75 International Boulevard  
Etobicoke, Ontario  
M9W 6L9  
Tel.: (416) 798-8000  
Fax.: (416) 798-8050
OPTICAL FIBRE CABLES
(H.S. 8544.70.00.00)

CANADIAN AND FOREIGN TARIFFS

Optical fibre cables included in this analysis were dutiable under the following Canadian tariff item.

<table>
<thead>
<tr>
<th>Tariff Item</th>
<th>Description of Goods</th>
<th>Tariff Treatment - 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>8544.70.00</td>
<td>Optical fibre cables</td>
<td>10.2% 6.5% 7.1%</td>
</tr>
<tr>
<td></td>
<td>On and after January 1, 1992</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

TARIFF ARRANGEMENTS AND FOREIGN COUNTRIES OF EXPORT

Exporting countries which qualify for the Most Favoured Nation tariff treatment: Finland, Japan, Sweden, United Kingdom.

Enquiries concerning tariffs should be directed to the nearest Revenue Canada Customs and Excise office as listed on page two of this report.
**APPENDIX D**

**OPTICAL FIBRE CABLES**

*(H.S. 8544.70.00.00)*

**CANADIAN AND FOREIGN TARIFFS (Cont'd)**

Optical fibre cables included in this report are dutiable under the following U.S. tariff item:

<table>
<thead>
<tr>
<th>Tariff Item</th>
<th>Description of Goods</th>
<th>Rates of Duty - 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>8544.70.00</td>
<td>Optical fibre cables</td>
<td>8.4% General</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Free (A,E,IL) 65%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5% (CA)</td>
</tr>
</tbody>
</table>

**FOREIGN COUNTRIES**

Enquiries concerning tariffs and other government trade regulations in foreign countries should be directed to External Affairs as listed on page two of this report.

---

1. Generalized System of Preferences
2. United States - Canada Free-Trade Agreement
3. Caribbean Basin Economic Recovery Act
4. United States-Israel Free Trade Area

2 Rates of Duty Column 2. Notwithstanding any other provisions, the rates of duty shown in column 2 shall apply to products, whether imported directly or indirectly, of the following countries and areas pursuant to section 401 of the Tariff Classification Act of 1962, to section 231 or 257(e)(2) of the Trade Expansion Act of 1962, to section 404(a) of the Trade Act of 1974 or to any other applicable section of law, or to action taken by the President thereunder:

- Afghanistan
- Albania
- Bulgaria
- Cuba
- Czechoslovakia
- Estonia
- German Democratic Republic
- Kampuchea
- Laos
- Latvia
- Lithuania
- Mongolia
- North Korea
- Romania
- Union of Soviet Socialist Republics
- Vietnam

91114-IA
DID YOU KNOW?

Effective May 1, 1991, the Market Intelligence Division of the Services to Business Branch of Industry, Science and Technology Canada became the Office of Primary Interest (OPI) for dISTCovery. This service, developed by the New Brunswick Regional Office, is being implemented on a national basis and is available in most regional offices.

WHAT IS dISTCovery? dISTCovery is a tool for discovering and acquiring new manufacturing opportunities emerging from a worldwide explosion in technological developments, new products and new processes.

dISTCovery introduces you to companies and organizations from around the world who are willing to licence the right to manufacture and sell their product in an agreed market area. The reverse is also possible. A Canadian company can also use dISTCovery to promote their unique product or process for licensing internationally.

dISTCovery provides access to international data bases containing thousands of licensing offers for new products, processes and technology originating from around the world.

For more information on this service, contact the Market Intelligence Division at (613) 954-4970 or the nearest ISTC Regional Office listed at the end of this publication.
FOR MORE INFORMATION PLEASE CONTACT:

Market Intelligence Division
Services to Business Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Tel.: (613) 954-4970
Fax.: (613) 954-5463

OR

Electrical and Energy Equipment Directorate
Industrial and Electrical Equipment and Technology Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Tel.: (613) 954-3262
Fax.: (613) 954-1894

ISTC BUSINESS SERVICE CENTRES

These centres have been established at headquarters and in every regional office to provide clients with a gateway into the complete range of ISTC services, information products, programs and expertise.

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Tour de la Bourse, Suite 3800
800 Victoria Place
P.O. Box 247
Montréal, Qué. H4Z 1E8
Tel.: (514) 283-8186
or 1-800-361-5367
Fax.: (514) 283-3302

ONTARIO

ISTC
Dominion Public Building
1 Front Street West, 4th Floor
Toronto, Ont. M5J 1A4
Tel.: (416) 973-ISTC
Fax.: (416) 973-8714

NEWFOUNDLAND

ISTC
Atlantic Place
215 Water Street, 5th Floor
P.O. Box 897
St. John's, Nfld. A1B 3R9
Tel.: (709) 772-ISTC
Fax.: (709) 772-5093

NOVA SCOTIA

ISTC
Central Guaranty Trust Tower
1801 Hollis Street, 5th Floor
P.O. Box 940, Station 'M'
Halifax, N.S. B3J 2V9
Tel.: (902) 426-7259
Fax.: (902) 426-2624

NEBRASKA

ISTC
Assumption Place, 12th Floor
770 Main Street
P.O. Box 1210
Moncton, N.B. E1C 8P9
Tel.: (506) 857-ISTC
Fax.: (506) 851-6429

PRINCE EDWARD ISLAND

ISTC
Confederation Court Mall
134 Kent Street, Suite 400
P.O. Box 1115
Charlottetown, P.E.I. C1A 7M8
Tel.: (902) 566-7400
Fax.: (902) 566-7450

NEW BRUNSWICK

ISTC
Suite 900
Scotia Tower
650 West Georgia St.
P.O. Box 11610
Vancouver, B.C. V6B 5H8
Tel.: (604) 666-0266
Fax.: (604) 666-0277

MANITOBA

ISTC
8th Floor
330 Portage Avenue
P.O. Box 981
Winnipeg, Man.
R3C 2V2
Tel.: (204) 983-ISTC
Fax.: (204) 983-2187

SASKATCHEWAN

ISTC
401-119 4th Avenue South
Saskatoon, Sask.
S7K 5X2
Tel.: (306) 975-4386
Fax.: (306) 975-5334

BRITISH COLUMBIA
REGIONAL OFFICES (Cont'd)

ALBERTA

ISTC
Room 540
Canada Place
9700 Jasper Avenue
Edmonton, Alta. T5J 4C3
Tel.: (403) 495-ISTC
Fax.: (403) 495-4507

YUKON

ISTC
Suite 210
300 Main Street
Whitehorse, Y.T. Y1A 2B5
Tel.: (403) 667-3921
Fax.: (403) 668-5003

NORTHWEST TERRITORIES

ISTC
10th Floor
Precambrian Building
P.O. Bag 6100
Yellowknife, N.W.T. X1A 2R3
Tel.: (403) 920-8568
Fax.: (403) 873-6228

HEADQUARTERS

ISTC
1st Floor, East Tower
235 Queen Street
Ottawa, Ont. K1A 0H5
Tel.: (613) 952-ISTC
Fax.: (613) 957-7942