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Space

Canada's International Business Strategy

1996-1997



Team Canada - Équipe Canada

Canada's International Business Strategy

is made up of an **Overview** highlighting Canada's international business development priorities, and a series of **Industry Sector Strategies**, which include lists of planned international activities.

The following documents are available:

- | | |
|--|---|
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| 1. Advanced Manufacturing Technologies | 15. Information Technologies and Telecommunications |
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| 3. Agriculture, Food and Beverages | <i>Telecommunications Equipment and Services</i> |
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| <i>Tools, Hardware and Housewares</i> | <i>Ocean and Marine Shipboard Technology</i> |
| <i>Residential Furniture</i> | 20. Space |
| <i>Business and Institutional Furniture</i> | 21. Tourism |
| <i>Giftware and Crafts</i> | 22. Urban Transit and Rail Equipment |
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| 12. Environmental Industry | |
| 13. Fish and Seafood Products | |

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Aussi disponible en français sous le titre Industrie spatiale.

The space industry is made up of companies and organizations that provide products, including hardware and software, that generally form part of larger space systems such as satellites, space vehicles, ground stations for communicating information and/or controlling space assets, and launch vehicles, including expendable and reusable rockets, space planes and the international Space Station. It also includes a range of service providers such as geomatics and telecommunications firms whose business activities depend on the use of space systems.

International Environment

Global expenditures on space in 1994 amounted to about US\$40 billion, the vast majority of which was due to governmental procurement. The space industry and market remain concentrated in the United States (75 percent), although Europe (14 percent) and Japan (5 percent) are important centres. The Commonwealth of Independent States (CIS), particularly Russia and the Ukraine, are also important.¹

The global space industry and market have in recent years witnessed the convergence of a number of important geopolitical, economic and technological trends. These trends have resulted in a global market that is extremely competitive and they have important implications for the Canadian space industry. The most important trends include:

- **Although overall global expenditures on space are diminishing, some sectors of the international space market, in which Canadian industry is competitive, are growing.** Since the end of the Cold War, global activity in space has diminished from an estimated \$US55 billion in 1992 to \$US40 billion in 1994. Part of this reduction is a result of decreased military space procurement in both the United States and Russia due to the end of the Cold War, but reductions are also occurring in several of the world's civil space programs because of fiscal constraints. At the same time, some sectors of the market where Canadian industry is successful such as commercial markets for mobile personal satel-

lite communications and remote sensing (hardware, data, applications) are growing quickly, driven by consumer demand.

- **The global space market is becoming increasingly commercialized and government activity in space is being privatized,** as government expenditures on space diminish and as consumer demand for space-based products and services grows, especially in the areas of telecommunications, earth observation, and launch services. The private sector's involvement in financing of research and development (R&D) and providing services on international markets is growing substantially, particularly in the United States. In satellite communications, for instance, traditional government-supported monopolies such as Inmarsat and Intelsat are being displaced by new private-sector global consortia of manufacturers and service providers such as Odyssey, Globalstar, Iridium and OrbComm.

- **The global space industry is undergoing massive restructuring and consolidation.** A handful of space companies, the most significant of which are U.S.-owned, now dominate the world space market for complete systems: Lockheed-Martin (U.S.); Hughes (U.S.); Space Systems/Loral (U.S.); TRW Inc. (U.S.); Rockwell International (U.S.); Matra Marconi Space (France); Aérospatiale (France); and Daimler Benz Aerospace (Germany).² These companies possess resources far beyond those of Canadian companies and are often vertically integrated to

¹ No dollar estimate of this activity is available.

² Discussions are continuing for the merger of the satellite manufacturing businesses of Aérospatiale and Daimler Benz Aerospace, and this process of rationalization and consolidation could extend to other European firms as a European response to competition from abroad, primarily from the United States.

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such an extent that a Canadian company must often compete against a division of a company to which it is attempting to sell.

- **New players are entering the global space market and industry.** These include companies from the defence and communications sectors, just entering the commercial space business, that have enormous financial reserves and very advanced technology. New players also include countries, such as those of the former Soviet Union (FSU), with whom trade restrictions have evaporated since the end of the Cold War, and countries such as China and India that offer relatively sophisticated space technology, often with a cost advantage.

- **Important new geographic markets are developing, of which Asia-Pacific markets are the fastest growing.** Latin American markets also possess considerable growth potential. Several countries in these regions are creating new space agencies and adopting space programs to address their development needs. In doing so, they often bypass terrestrial-based communications systems in favour of space-based systems, leaving opportunities open in the terrestrial systems area.

- **A "smaller, better, cheaper" approach** to space projects is being pursued by governments and industries worldwide due to increasing cost and competitive pressures, leading to the development of small (and micro) satellites and launchers.

Based on estimates of market size and growth, Canadian strengths, and access considerations, a group of the largest Canadian space companies has rated the global market as follows: the United States, Europe and Japan, as the largest, most diverse and most technologically advanced markets, continue to be of primary importance. Important new growth areas include China, the Pacific Rim countries and Latin America. Other regions of less immediate, but still important, market interest are Eastern Europe and the Middle East. Increasing export performance to all countries remains a priority.

Canadian Position

To compete in the highly competitive international environment that is dominated by a small number of very large industrial players with a full range of capabilities, Canadian companies must

maintain excellence in carefully chosen niche technologies; respond effectively to market opportunities; form partnerships with major industrial players; and gain access to emerging new markets. An effective partnership between industry and government can play an important role in this effort.

In 1994, the space industry in Canada employed an estimated 3000 people and generated sales of over \$700 million. The Canadian domestic market of \$400 million amounts to less than 1 percent of the world space market. Seven Canadian companies had space-related annual revenue in excess of \$15 million, and accounted for over 85 percent of total industry sales. The largest company, Spar Aerospace, represents about half of total industry sales and employment. In all, over 150 Canadian companies, mostly small and medium-sized enterprises (SMEs), currently sell some space-related products and services. More of these companies, particularly in remote sensing, are expected to enter the international market. The majority of companies in the industry are Canadian-owned.

A number of key features of the Canadian space industry's position internationally should be highlighted:

- **The Canadian space industry is oriented toward niche technologies and markets.** Its strengths lie, generally, in robotics, system and component design and integration (e.g. SatCom, remote sensing) and knowledge-intensive as opposed to mass-produced hardware. Canadian firms, on the whole, do not make parts and components, nor do they produce high-volume products. Canada does not possess an orbital launcher capability but has maintained the capability to construct satellite buses.

- **The Canadian space industry works closely with the Canadian government in the development of leading-edge technologies in selected niches.** This has been achieved largely through government assistance in funding R&D (e.g. Industry Canada's Defence Industry Productivity Program, the Canadian Space Agency's Space Technology Development activities). Tax credits have also been instrumental in funding these technologies.

- **Most Canadian firms are considerably smaller than foreign competitors.** In fact, the principal challenge to the Canadian space industry stems from the relative size of Canadian companies in the global space market. The space revenues of Lockheed-Martin alone, the largest U.S. space company, with sales in 1994

of US\$6.7 billion, amount to more than 10 times the entire Canadian space industry's revenues.³ Canadian firms encounter fierce competition from foreign companies that have enormous economies of scale and whose R&D efforts are subsidized by the large civil and defence space programs that Canada's key competitors maintain. However, size is not always the determining factor in a fast-changing world market, and Canadian companies have proven adept at quick and focussed selection of niches and the pursuit of commercial opportunities.

- **The Canadian space industry exports a larger proportion of its total production than any other major space-faring country**, although in terms of per-capita sales and employment, the Canadian industry is comparable to those of most other industrialized countries. Exports have grown from about \$10 million in 1977 (17 percent of sales) to an estimated \$315 million in 1994 (45 percent of sales), a 5-percent increase over 1993.

- **The domestic space market in Canada is shrinking, making Canadian space companies increasingly reliant on exports for growth.** The federal government's allocations on space are decreasing under the new Canadian Space Program and the recent federal budget. Moreover, the privatization of such service providers as Teleglobe and Telesat has lessened the government's ability to influence the procurement process for such organizations. And finally, Canada's domestic space needs for the near future will soon be met largely by existing infrastructures (e.g. in communications, earth observation, and robotics). Nevertheless, despite an increasing reliance on exports for growth, the Canadian space industry (given that exports already constitute 45 percent of sales) appears better poised than many foreign space industries to adjust to the new economic realities.

These features of the Canadian space industry's positioning internationally highlight the importance of, and need for, a continuing close relationship between the Canadian space industry and the Canadian government, both in terms of strategic technology development in priority areas and in export market development assistance. This effort will call on organizations such as the Canadian Space Agency (CSA), the Canada Centre for Remote Sensing (CCRS), the Communications

Research Centre (CRC) and Industry Canada (IC) to continue to expand their technology development and marketing support activities. The Department of Foreign Affairs and International Trade (DFAIT) will continue to make available to exporters a wide range of services, including advice from geographical desks, funds for the promotion of co-operative linkages, and export services such as the Program for Export Market Development (PEMD). In addition, the following agencies will continue to provide specialized support to the international marketing initiatives of the industry:

- The Canadian Commercial Corporation (CCC) assists in the development of trade between Canada and other nations. Its role is that of trade facilitator and prime contractor for the sale of Canadian goods and services to foreign governments, international agencies and other approved customers.
- EDC (Export Development Corporation) provides a variety of flexible and innovative financial solutions, including risk-management services such as insurance, financing and guarantees to Canadian businesses competing abroad.
- The Canadian International Development Agency Industrial Co-operation Program (CIDA INC) provides financial incentives to Canadian companies interested in long-term business co-operation agreements in developing countries, thereby reducing the costs and risks of doing business in the developing world.

Canadian Space Companies' Niches

In certain niches of the space market, Canadian firms have specialized areas of expertise in which they have a significant share of the world market. Examples of the strategic niche technologies developed by Canadian industry include:

- Spar Aerospace (Brampton, Ontario and Ste-Anne de Bellevue, Quebec): antenna subsystems, digital electronics, RF components such as amplifiers, receivers, space electronics, remote-sensing satellites, communications satellites, space robotics systems. Spar is the only company in Canada that can market itself as a prime contractor for large integrated space systems;

³ The Lockheed Corporation and Martin Marieta were merged in 1994.

- COM DEV (Cambridge, Ontario and Moncton, New Brunswick): multiplexers/switches, RF signal processors, inter-satellite communication subsystems, space science instruments;
- SED/Calian (Saskatoon, Saskatchewan): telemetry, tracking and control equipment;
- MPR Teltech (Burnaby, British Columbia): ground station network technology;
- MPB Technologies (Dorval, Quebec): expertise and unique capabilities in space photonics;
- Canadian Marconi Company (Montreal, Quebec): mobile satellite terminals;
- CAL Corporation (Ottawa, Ontario): satellite communications systems, mobile communications terminals, antennas, space subsystems;
- MacDonald Dettwiler and Associates (Richmond, B.C.): earth-receiving facilities;
- Intera (Calgary, Alberta): airborne radar, digital terrain modelling software, map-production software;
- Telesat Canada (Gloucester, Ontario): engineering, spacecraft procurement management and launch operations expertise;
- CAE (St-Laurent, Quebec): space simulation capabilities, flight hardware, electrical/electronic, engineering and energy (EEE) parts;
- Bristol Aerospace (Winnipeg, Manitoba): sounding rockets, instrument payloads, support systems;
- RADARSAT International (Richmond, B.C.): worldwide marketing rights to RADARSAT data.

Other Canadian companies have also developed important capabilities in specific niches, including spacecraft integration and testing and solar arrays.⁴

The Canadian Space Industry By Subsector⁵

Communications

This sector is strongly commercial, driven by the rapidly growing demand for communications services around the world, including for military

support operations. It is witnessing the emergence of global, multi-satellite communications networks that will be almost exclusively privately developed and operated. Virtually all of these satellites will be built by a handful of U.S. and European space companies — the customers for Canadian space equipment manufacturing firms. There will be strong growth in the provision of ground segment equipment, with an estimated world market of \$70 billion (1992 to 2004), which is between three to five times the market for satellite equipment.

Canadian industry has real opportunities in areas in which it has developed leading-edge capabilities, such as in the provision of major components for both space (switches, multiplexers, antennas) and ground segments (control and reception/transmittal subsystems). Canadian industry is well-positioned and active in global projects for mobile personal communications (e.g. Odyssey, Iridium and Orbcomm), which will be undertaken by alliances between the largest service providers and manufacturers in the industry. Canadian satellite communications service providers (Telesat Canada, TMI Inc., Teleglobe Canada Inc.) have become increasingly interested in joining projects involving the creation of new satellite and ground infrastructures, as well as the possible involvement of Canadian manufacturers in providing satellite communications services to new foreign markets (COM DEV with Orion and Iridium, and Spar with COM DEV in the SovCanStar project). Spar has acted as payload prime contractor for the Canadian and U.S. Mobile Communications Satellites (MSAT).

Remote Sensing

The satellite-based earth observation market is not as commercially mature as the communications market. However, recent developments in commercial high-resolution optical systems will accelerate the trend to commercialization. The world market for geographic information systems (GIS) is expected to be \$13 billion per year between 1996 and 2000. The greatest growth is expected in the development and provision of value-added products and services, driven by the growing need for environmental monitoring and

⁴ More details on the Canadian space industry's capabilities can be found in the *Canadian Space Directory*, available on diskette from the CSA.

⁵ The Space Science subsector is also of interest, although activities thereunder are dominated by government procurement in the context of co-operative arrangements, with few genuine commercial export opportunities.

resource management. The market for such value-added products and services is expected to be about \$9 billion over the 1995-2000 period, growing from \$550 million in 1995 to \$2.6 billion by the end of 2000.

Geographic information-related products and services is an area where Canadian companies have achieved a leading position. Canadian companies now supply about 10 percent of the world value-added market, with sales of about \$85 million in 1993, estimated to grow to \$240 million by 1998. Canadian value-added companies that are able to demonstrate their superiority in working with radar data, in combination with other sources of data, should be able to capture greater market share as demand increases around the world for complete information products. In addition, Canadian expertise in natural resource management, environmental monitoring, mapping and remote sensing can be a valuable tool to increase sales of related products and services. In the ground segment market, Canadian firms are already established world leaders in ground station and processing system design and equipment. MacDonald Dettwiler and Associates has installed 80 percent of the present worldwide base of remote-sensing reception facilities.

Synthetic Aperture Radar (SAR) is the remote-sensing market niche Canada has been pursuing. RADARSAT, launched November 4, 1995, is Canada's first remote-sensing satellite and the world's first operational satellite to provide SAR data. As the prime contractor for RADARSAT, Spar has built unique expertise and facilities in providing complete payload solutions for the provision of SAR data. RADARSAT International of Richmond, B.C., is mounting a concerted effort to promote global awareness and sales of RADARSAT data and of Canadian goods and services related to RADARSAT. This should provide continuity in radar imagery to help maximize exports for the value-added industry.

Space Infrastructure and Robotics

Space infrastructure and robotics in particular are government-funded areas. Firms participate under contracts to their governments which are financial partners in major space projects. Most activities in this area are now concentrated around the International Space Station Program project, but terrestrial applications of these technologies are also being developed. The applications of space robotics software and techniques with terrestrial robotics hardware is seen as one

potential solution to the problems of handling hazardous nuclear waste. The exact size of the market is difficult to estimate, but could reach several billion U.S. dollars over the next decade, with strong potential in Eastern Europe.

Canadian activity in space robotics is largely driven by Canadian government participation in the International Space Station Program, with Spar as the prime contractor and the world's leading space robotics firm. This work is based on the Canadarm, developed by Spar for the Canadian government and provided to the National Aeronautic and Space Administration (NASA) in the early 1980s. Spar has subsequently sold several more directly to NASA through the Canadian Commercial Corporation as well as providing servicing to NASA for the Canadarm and to other clients around the world.

Conclusion

Canadian space companies are comparatively small niche market players in a global industry dominated by a handful of much bigger companies. As such, Canadian companies face a number of challenges, but the Canadian space industry has several strengths that should allow it to capitalize on emerging opportunities. Canadian companies are small and flexible, are generally involved in sectors of the space market that are likely to continue growing, and have options available to them to use strategic alliances, teaming arrangements and joint ventures to gain access to markets, technologies, and know-how. Further, they have the financial resources to participate in large projects. Canadian companies will need to consider wider use of such arrangements to compete in a world space market dominated by a few giants.

There are a number of factors critical to the success of the Canadian space industry. Government support is required to help companies access and develop foreign markets, including building linkages with foreign governments, providing intelligence and providing export financing, employing the regulatory framework to support Canadian industry, and ensuring closer co-ordination and co-operation between Canadian companies and various levels of government in providing support services. However, other forms of government assistance, beyond the scope of this document, are also crucial. These include stable, continuing government investment in the development of new emerging technologies, government investment in near-market product development, and the creation of

mechanisms that provide better access to venture capital. The second Long-term Space Plan contains several initiatives and programs designed specifically to promote strategic technology development in priority areas, including satellite communications (Advanced Satcom, International Mobile), earth observation (advanced SAR technology development), and space robotics (Strategic Technologies in Automation and Robotics).

Main Challenges

Technological Leadership

- Maintain technological leadership in existing market niches and develop technological leadership in anticipated growth areas, especially in the face of foreign competitors whose R&D activities are often heavily supported by their governments. This is crucial to continued competitiveness and access to large international projects.

Market Access and Development

- Maintain and develop access for Canadian space companies to established foreign markets, particularly the U.S. and Europe.
- Gain access to developing markets dominated by government procurement. Countries in Asia-Pacific and Latin America possess the greatest growth potential, as they tend to view space as an instrument of national economic and technological development. The challenge is to access these foreign markets in the face of local preferences, the need for domestic spin-offs, and strong domestic and foreign competition.
- Maintain and establish supplier relationships with large foreign prime contractors, who are the principal customers for Canadian space products in the U.S. and Europe, in the face of strong competition, often from within the foreign firm itself.
- Join international consortia involving large U.S. and European prime contractors, directly or through supplier relationships. Companies can gain access through government assistance in the form of regulatory support, by developing in-demand advanced niche technologies, and through financial participation at the start of a program.

Intelligence

- Obtain access to timely information concerning procurement and alliance opportunities, competitors' activities in priority markets as well as analyses and assessments of long-term market, industrial and technological trends. This is particularly true for the Asia-Pacific region and Latin America.

Broadening the Export Base

- Increase the number of Canadian companies with export capabilities, thereby broadening the space sector's export base. This is especially true for SMEs. Currently, seven companies in Canada account for 85 percent of the space industry's exports.

Strategic Direction

The Canadian government's strategy for supporting the space industry's international marketing efforts is based upon a recognition of the structural conditions and challenges outlined above, and is oriented toward:

Building Bridges for Technology Development and Leadership

- Promote better linkages within existing international co-operative frameworks (U.S., Europe through the European Space Agency [ESA] and relations with the European Union [EU], Japan) to foster the development of joint ventures, strategic alliances, and industrial co-operation between Canadian space companies and their foreign counterparts to spur development of technological capabilities in Canada (CSA, DFAIT, IC);
- Publicize contract and alliance opportunities arising from the ongoing Canadian membership and participation in the ESA among Canadian companies, and promote knowledge of Canadian companies and capabilities to the ESA (CSA);
- Inform Canadian companies of opportunities in the areas of earth observation and telecommunications under the recent Canada-European Union S&T Agreement and relevant R&D programs in the United States (CSA, DFAIT).

International Marketing Plan

- Develop a marketing plan for the space sector to guide the Government's support to industry (CSA through extensive consultation with space companies and in collaboration with CCC, CRC, EDC, IC, DFAIT);
- Maintain dialogue between industry and technology development managers within the Government, in the context of this marketing plan, to help ensure that its technology development and program funding is oriented toward companies' export priorities and that it addresses the issues of technological leadership and market access (CSA).

Market Access and Development

- Establish government-to-government linkages in foreign countries in support of industrial exports to priority markets in the Asia-Pacific region and Latin America, areas where governments are the principal customers (CSA, CCRS, CRC, IC);
- Support Canadian firms' efforts to maintain access to established markets, to gain access to developing markets dominated by governments, to forge alliances with large foreign prime contractors, and to gain entry into emerging international consortia. This will be achieved through strategic information, technology development funding, export financing, procurement, the regulatory framework, the promotion of knowledge of Canadian capabilities abroad, and training and education (CSA, CCC, CCRS, EDC, CIDA INC, IC, DFAIT);
- Foster, where appropriate, greater co-ordination and co-operation among Canadian companies in their efforts to win foreign contracts and penetrate foreign markets (CSA, IC);
- Work with RADARSAT International and Canadian value-added earth observation companies to maintain Canada's position as the premier global commercial supplier of satellite radar imagery and information products (IC, CSA, CCRS).

Intelligence

- Develop long-term analyses and assessments of market, industrial and technological trends and opportunities, including reports on the space industries and activities of key countries, and distribute regularly to the Canadian space indus-

try, and to technology development managers within the CSA (CSA, DFAIT, IC);

- Develop, in consultation with industry, better mechanisms and practices for gathering and disseminating strategic and timely information concerning procurement opportunities, strategic alliance opportunities, and the activities of the Canadian space industry's competitors around the globe, including making use of embassies and consulates in priority markets (CSA, DFAIT, IC).

Broadening the Export Base

- Initiate a consultative process with the space industry's SMEs to develop support mechanisms and initiatives tailored specifically to fostering growth in SME exports (CSA, IC).

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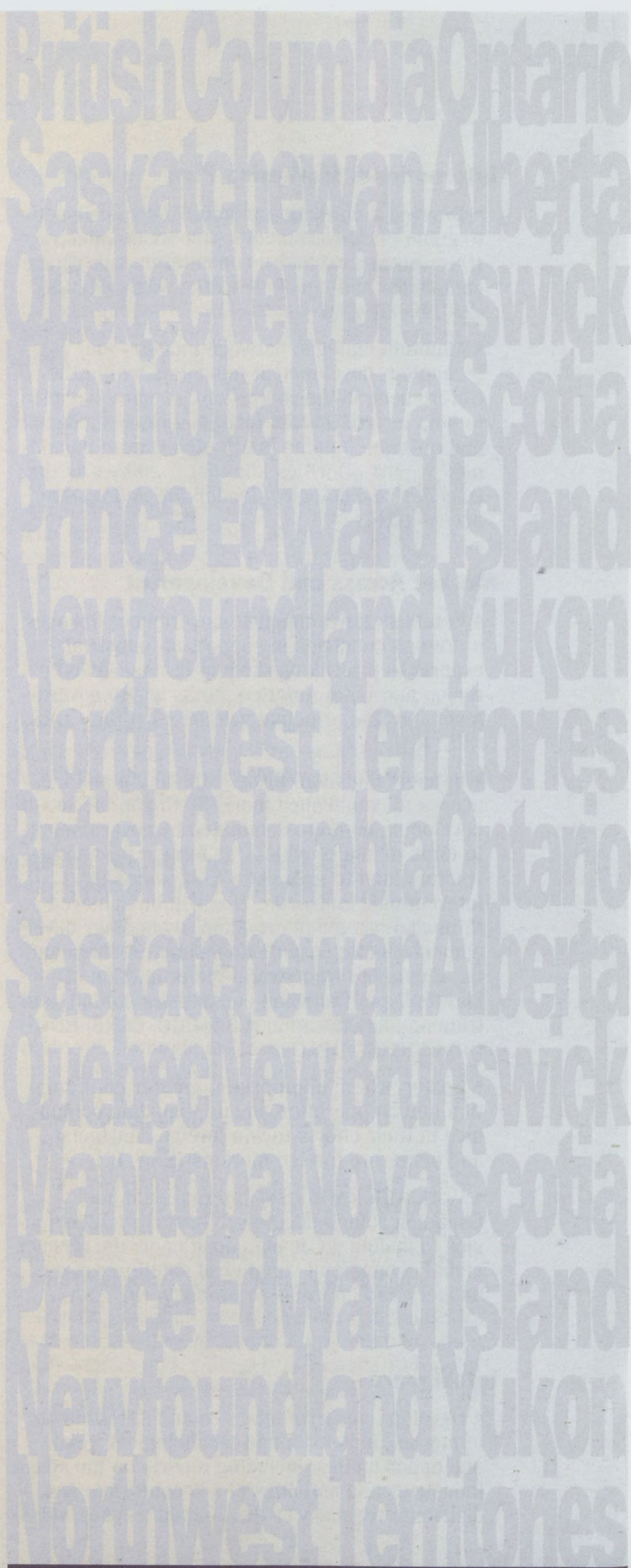
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Activity	Date	Location	Dept.	Contact
East Asia				
China Space Sector Market Study	01-Apr-96	Montreal	CSA	514-926-4358
Mission to China and the Asia-Pacific Region	01-Apr-96	China/ Asia Pacific	CSA	514-926-4358
Latin America and the Caribbean				
Mission to Argentina and Latin America	01-Apr-96	Argentina/ Latin America	CSA	514-926-4369
Multiple Markets				
Canadian Space Directory	01-Apr-96	Montreal	CSA	514-926-4364
Canadian Space Sector Marketing Plan	01-Apr-96	Montreal	CSA	514-926-4361
Space Sector Information and Analyses	01-Apr-96	Montreal	CSA	514-926-4364
Space Sector Suppliers' Visit Program and Seminar	01-Apr-96	Canada TBD	CCC	613-995-8046
Applications Development and Research Opportunities (ADRO) Symposium	01-Sep-96	Montreal	CSA	514-926-4436
Canadian Commercial Corporation (CCC) Services to the Space Sector: Seminar	01-Nov-96	Montreal	CCC	613-995-8046
United States				
U.S. Space Sector Market Study	01-Apr-96	Montreal	IC	613-952-3977
Defence Technology Workshops	01-Apr-96	Washington	DFAIT	613-944-8821
New England Defence Market Study Update	01-Jun-96	Boston	DFAIT	613-944-8821
Defence Trade Mission	01-Oct-96	Los Angeles	DFAIT	613-944-8821
TABES '97: Info Booth	14-May-97	Huntsville, AL	DFAIT	613-944-8821
Western Europe and the European Union				
European Space Agency: Mission	01-Apr-96	Canada TBD	CSA	514-926-4606

Note: Dates and locations are subject to change.

For up-to-date and detailed information on the activities in this document and those contained in other sectors, you may consult the CIBS Compendium. This on-line compilation of activities planned by the federal and provincial governments is continuously revised and is accessible via the Department of Foreign Affairs and International Trade World Wide Web site, at the following address: <http://www.dfait-maect.gc.ca>

Acronyms and Initialisms used in Canada's International Business Strategy

(This list does not include sector-specific references.)

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AAFC	Agriculture and Agri-Food Canada		International Business Opportunities Centre
ACOA	Atlantic Canada Opportunities Agency		Centre
APEC	Asia-Pacific Economic Cooperation forum		Industry Canada
ASEAN	Association of South East Asian Nations		International Development Research Centre
BBS	Bank of Montreal		International financial institution
BOOT	build, own, operate, transfer		International Standards Organization
BOSS	Business Operating System		International Trade Advisory Committee
CCC	Canadian Council of Ministers of the Environment		International Trade Centre
CIBS	Canada's International Business Strategy		Ministry of Agriculture, Fisheries and Food of Quebec
CIDA	Canadian International Development Agency		Multilateral development bank
CIS	Commonwealth of Independent States		Multinational enterprise
CSA	Canadian Standards Association		North American Free Trade Agreement
DFAIT	Department of Foreign Affairs and International Trade		North Atlantic Treaty Organization
DFO	Department of Fisheries and Aquaculture		National Research Council
DND	Department of National Defence		Natural Resources Canada
EC	Environment Canada		Natural Resources Canada — Canadian Forest Service
EDC	Export Development Corporation		National Sector Team
EU	European Union		Organization for Economic Co-operation and Development
FITT	Forum for International Trade Training	CARR McCLEAN 38-296	Program for Export Marketing Development
FORDQ	Federal Office of Regional Development — Quebec	R&D	research and development
FSU	former Soviet Union	S&T	science and technology
FTA	Canada-U.S. Free Trade Agreement	SAGIT	Sectoral Advisory Group on International Trade
GATT	General Agreement on Tariffs and Trade	SME	small and medium-sized enterprise
GDP	gross domestic product	UNEP	United Nations Environmental Program
GNP	gross national product	WED	Western Economic Diversification
HRDC	Human Resources Development Canada	WTO	World Trade Organization



Acronyms and in Business Strategie

national

(This list does not include)

AAFC	Agriculture and Agri-Food Canada	IBOC	International Business Opportunities Centre
ACOA	Atlantic Canada Opportunities Agency	IC	Industry Canada
APEC	Asia-Pacific Economic Co-operation forum	IDRC	International Development Research Centre
ASEAN	Association of Southeast Asian Nations	IFI	international financial institution
BBS	electronic bulletin board system	ISO	International Standards Organization
BOOT	build, own/operate, transfer	ITAC	International Trade Advisory Committee
BOSS	Business Opportunities Sourcing System	ITC	International Trade Centre
CCC	Canadian Commercial Corporation	MAPAQ	Ministry of Agriculture, Fisheries and Food of Quebec
CIBS	Canada's International Business Strategy	MDB	multilateral development bank
CIDA	Canadian International Development Agency	MNE	multinational enterprise
CIS	Commonwealth of Independent States	NAFTA	North American Free Trade Agreement
CSA	Canadian Standards Association	NATO	North Atlantic Treaty Organization
DEAIT	Department of Foreign Affairs and International Trade	NRC	National Research Council
DFO	Department of Fisheries and Oceans	NRCan	Natural Resources Canada
DND	Department of National Defence	NRCan-CFS	Natural Resources Canada — Canadian Forest Service
EC	Environment Canada	NST	National Sector Team
EDC	Export Development Corporation	OECD	Organization for Economic Co-operation and Development
EU	European Union	PEMD	Program for Export Marketing Development
FITT	Forum for International Trade Training	R&D	research and development
FORDQ	Federal Office of Regional Development — Quebec	S&T	science and technology
FSU	former Soviet Union	SAGIT	Sectoral Advisory Group on International Trade
FTA	Canada-U.S. Free Trade Agreement	SME	small and medium-sized enterprise
GATT	General Agreement on Tariffs and Trade	UNEP	United Nations Environmental Program
GDP	gross domestic product	WED	Western Economic Diversification
GNP	gross national product	WTO	World Trade Organization
HRDC	Human Resources Development Canada		





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