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**Aerospace and Defence**

# 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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**N**umerous changes have occurred in global markets in the aerospace and defence sectors. While Canada's performance in world markets has kept pace, increased competition worldwide, new ways of doing business globally, and reduced resources in support of industry efforts are having a major impact on the Canadian industry's ability to compete effectively. Thus it is important to carefully examine new markets in order to assess the export and trade opportunities in the medium to long term, and to strategically direct resources to achieve the maximum impact.

The creation of the National Sector Team (NST)<sup>1</sup> provides an ideal opportunity to examine the fundamental changes that are occurring globally in the aerospace and defence industries, to evaluate Canada's position in the international context, and to identify the strategies and resources that will best assist the Canadian industry's efforts to increase its share of the world market.

This is a transition document pending the formation of the NST, whose responsibility will be to guide the process and develop future international trade strategies for the aerospace and defence sectors. It establishes the broad parameters for the development of future strategies and sets the framework for activities to be undertaken in 1996-97.

The aerospace<sup>2</sup> and defence sectors consist of approximately 500 firms that develop, produce and maintain commercial and military aerospace products as well as defence-related products for marine and land-based applications for domestic and international markets. Many are also active in other sectors such as automotive, and only a few have annual sales in excess of \$100 million.

### **Canadian Position**

The Canadian aerospace industry is predominantly foreign-owned. It is unusual among major international competitors in the extent to which it relies on foreign rather than domestic procurement. Several firms, although foreign-controlled, have achieved important business and product/

market mandates, resulting in a significant level of autonomy. A few companies are becoming increasingly multinational.

The aerospace and defence industries represent annual sales of \$11.6 billion (excludes ships and space), of which defence represents approximately \$3.4 billion (excludes light armoured

<sup>1</sup> The National Sector Team (NST) is being established to bring together the knowledge and capabilities of all federal and provincial government players to develop and implement action plans, deliver international business development to clients and improve overall communications and consultation with clients. The NST will be supported by a private sector advisory group, charged with providing counsel and advice on strategic policy directions.

<sup>2</sup> For the purposes of this document, the aerospace sector includes aircraft, aircraft systems and subsystems, and systems that support and maintain aircraft.



vehicles). These industries combined employ approximately 53 000 people. The industry exports over 70 percent of its commercial products, of which approximately 60 percent go to the U.S. About 35 percent of the defence products are exported in any year; over 70 percent of these typically go to the United States. Canada has captured 4 percent of the world aerospace market, estimated at US\$259 billion in 1991.

The aerospace and defence sectors' value-added performance is second among major Canadian manufacturing sectors, after the automotive sector. These sectors create high-value jobs, and investments in research and development (R&D), as a percentage of sales, traditionally run in excess of 8 percent annually.

New enabling technologies developed in the aerospace and defence sectors are most often transferable within these sectors themselves and to domains such as space, marine, telecommunications, informatics, systems integration, advanced materials and manufacturing. As such, the markets for applied products, both civil and military, are worldwide and diverse.

The Canadian aerospace industry, consisting primarily of niche market players, is ranked sixth in the Western world and, since the mid-1970s, has led the world in growth. Canada's share of world output has continued to increase even during the market downturn of the early 1990s. However, the Canadian market is insufficient to sustain the industry, which makes it highly dependent on exports. Growth must therefore be achieved through the export market, in line with existing niches and strengths.

The Canadian aerospace sector has strength in fixed- and rotary-wing aircraft, small gas turbine engines, flight training, flight and air traffic control simulators and systems, systems integration, subassemblies, repair and overhaul, communications systems, remote sensing, and environmental control systems.

Canadian defence firms have concentrated their efforts on developing subsystems and components for niche markets where they can be world leaders. The Canadian defence industry supports a competitive domestic industrial base in areas such as light armoured vehicles, marine systems and platforms, informatics, aircraft upgrades, precision optics, robotic systems, explosive and narcotics

detectors, shipboard systems acoustics, communications systems, helicopter haul-down systems, and avionics. The vast majority of Canadian defence firms have successfully diversified their production to dual-use or commercial products, increasing their export potential and their ability to survive in the face of defence budget cuts.

Canada markets niche military products and services, in accordance with Canada's export controls policy, primarily to allied countries under the North Atlantic Treaty Organization (NATO) and under bilateral defence industry co-operative arrangements.

### **Key Companies, Products and Innovations**

Aircraft manufacturers with a full systems-integration capability make up the first tier of companies in the aerospace and defence sectors. Bombardier, based in Montreal, includes two major Canadian aerospace operations, Canadair (Montreal) and de Havilland (Downsview), as well as its U.S. operations, Learjet in Wichita, Kansas. Together these operations constitute Canada's largest Canadian-controlled global aircraft manufacturer. The company is aggressively developing new products for the business jet and regional aircraft market. Recent successes include the Canadair regional jet as well as the recently certified upgrade of the Challenger 604 business jet. Canadair and de Havilland, in co-operation with international partners, are about one year from completion of the long-range business jet, the Global Express.

In June 1995, de Havilland launched the Dash 8 series 400, a 70-seat turboprop. Like the Global Express, it was developed with international partners from the United States, Europe and Asia. De Havilland also played an important risk-sharing role in the development of the Learjet 45 business jet, which was rolled out in September 1995. De Havilland manufactures the aircraft's wings. The company is also reviewing the possibility of launching a 70-seat follow-on to the Canadair regional jet. Lastly, Canadair's defence systems division is in the business of support for military aircraft, pilot training, drones and remotely piloted vehicles.

Bell Helicopter Textron (Canada) designs, develops and manufactures the entire line of Bell's civilian helicopters. The company is currently



developing the Bell 430 intermediate and the Bell 407 light helicopters. Bell has almost 50 percent of the world market for civilian helicopters.

Pratt & Whitney Canada (P&WC) has a 30-percent share of the global market for small gas turbine engines (for which it has a world product mandate) that power the world's fleet of regional aircraft, general aviation aircraft, military trainers and helicopters. The company also has worldwide service centres. P&WC has venture partners in Germany, Russia, Eastern Europe and China, and is well positioned to realize its goal of a 40-percent market share in the coming decade. It uses the services of some 60 Canadian small and medium-sized enterprises (SMEs) in the development and production of turbine engines and auxiliary power units.

CAE Electronics Ltd. is the world leader in design and manufacture of sophisticated commercial and military aircraft flight simulators and training devices. Its simulators include state-of-the-art technology such as digital motion, control loading systems, sound systems, reduced instruction set computers (RISC), and visual systems. CAE simulators reproduce aircraft performance in all flight regimes, in particular the critical landing phase. In addition to providing simulators for all of the leading commercial airplane manufacturers, CAE also produces a wide range of simulators and flight-training devices for military aircraft including tactical jet fighters, jet trainers, anti-submarine patrol aircraft, transports and helicopters. The company has also developed a Joint Enroute/Terminal Data Processing System (JETS) and an Oceanic Flight Data Processing System (OFDPS) for air traffic control.

Second-tier subsystem and subassembly manufacturers have a wide range of complementary and specialized capabilities that have been strategically developed through individual company investment and in partnership with major customers. Second- and third-tier manufacturers excel in a number of areas. For example, Menasco, Messier-Dowty, and Heroux design, develop and manufacture landing gear in Canada. AlliedSignal Aerospace Canada designs and produces a variety of aircraft systems: environmental control system controllers, electric power management systems, de-icing/anti-icing systems and emergency location transmitters. In addition, the company produces engine fuel control units and electro-optical systems

for civil and military use. Boeing manufactures composite airframe components and structures, and McDonnell Douglas produces wings for McDonnell Douglas aircraft. These companies also engage many SMEs and specialty companies, all of which are seeking to expand or broaden their customer base.

Third-tier firms manufacture components or subassemblies. A few highly specialized third-tier companies, such as Mecair (aerospace fasteners), Novatronics (aircraft position and motion sensors), Aerosystems International (aircraft engine testers and monitors) and Haley Industries (advanced light alloy foundry), are active exporters. Many others have the potential to export or to expand their efforts, if provided with the right support.

Canada's repair and overhaul (R&O) subsector<sup>3</sup> employs some 14 000 people in Canada. R&O represents sales in the order of \$2 billion, of which some 30 percent is exported. A major portion of the subsector is derived from the commercial airlines support systems for major airlines, the military inventories of the Department of National Defence (DND) and the specialty areas of support for light aircraft and general aviation. Canada has a complete range of R&O capabilities in structures, engines, avionics and support systems, service life extensions, major assembly overhaul and conversion. This extends equally to ground vehicle and marine equipment.

While Canada has a well-established R&O capability, recent developments in the industry (maintenance overcapacity, new facilities in Southeast Asia and overcapacity in the U.S.) are key issues that need to be addressed in identifying market potential.

Canada has world-class capabilities in training, which represent excellent export opportunities. Companies such as CAE, ATS Aerospace Inc. and Atlantis excel in the fields of flight simulation, air traffic training, diagnostics, pilot training and management systems. These are complemented by Transport Canada's training and consulting services, which include air traffic control/air navigation services; aviation meteorology services; airport planning, design, operations, maintenance and management; and so on. The Canadian Aerospace Training Corporation (CATC), established following the June 1995 release of the Report of the Ministerial Advisory Committee on the Canadian

<sup>3</sup> The R&O subsector is not well defined statistically. Consequently, the data cited herein are estimates and reflect some duplication of aircraft and parts production and exports, as well as some elements of aircraft operators' sales.



Aerospace Training Partnership, plans to act as a broker and marketer for Canadian training services, ranging from basic and advanced pilot training to air traffic control training, technical training for aerospace trades and accident investigation.

## International Environment

The aerospace and defence industries worldwide are undergoing fundamental structural changes as a result of globalization, the rapid evolution of technology and the general reduction in defence spending. The traditional pattern of managing through to the next upturn is effectively over. Aerospace and defence firms worldwide have to adapt to a totally new environment.

### Structural Factors

Original equipment manufacturers (OEMs) have begun to:

- increasingly demand financial risk sharing from their suppliers (linking paybacks to the OEM's market success, moving design responsibility to suppliers, etc.);
- require suppliers to provide whole subsystems rather than simple components; and
- reduce the number of suppliers with whom they deal.

Restructuring, downsizing and consolidation are now a constant, resulting in fewer but stronger international competitors. Restructuring is expected to be particularly profound in the highly fragmented regional aircraft manufacturing industry. This brings with it the requirement for flexibility in export financing in some markets.

Industry restructuring reduces both the number of opportunities and the number of suppliers, and foreign companies are displacing long-term OEM suppliers, including Canadian firms.

New entrants are appearing on the scene. These are mainly in the Asia-Pacific region (South Korea, Taiwan, Indonesia and Japan) where new demands for civil aircraft services, as well as in defence procurement, have spurred aggressive government support (financial and otherwise) for indigenous aircraft production. This has created a new level of competition in components manufacturing, which is driving down costs. To leverage the growth of local companies, these governments increasingly require local industry participation,

partnering, offsets, etc. Canada's export-oriented companies are particularly affected by these heightened demands.

## Policies and Practices of Foreign Governments

Most governments consider their aerospace and defence industries to be strategically important to their economic and industrial growth. Through procurement practices, governments often set standards and regulations; as investors, they establish green-field investments and new capabilities; as partners, they provide direct or indirect financial support, notably in R&D, often in the form of innovative funding practices. For example:

- The Clinton administration is consistently striving to develop programs in support of its industry's export efforts, with the objective to "dominate world markets." Traditionally, 70 percent of U.S. aerospace and defence R&D is financed by the federal government, mostly through procurement, and financing is generally non-refundable. In its 1994 fiscal year alone, the U.S. spent about US\$3.5 billion on manufacturing technologies, improving the way things are built. The U.S. defence R&D budget alone is estimated at US\$34 billion a year for the next few years;
- Germany is planning to invest US\$1.37 billion by 1998, to fund technology programs for the development of new aerospace products;
- The European Union (EU) has budgeted US\$500 million over seven years for new aerospace and material technology programs, and is harmonizing its aerospace research establishments, which have an annual budget of US\$315 million;
- Britain's Aerospace Manufacturing Initiative is budgeted at US\$210 million by 1997;
- Japan is developing a turboshaft helicopter engine and a helicopter, a project with a budget of US\$500 million over three to five years; and
- Indonesia is spending US\$1.7 billion on developing a commuter aircraft industry.

## Markets

Although the market for civil aircraft is relatively static at the moment, observers forecast strong underlying demand for civil transports over



the next 15 years, and growing defence markets in the Asia-Pacific region. This will be accompanied by major infrastructure development, implementation of new air navigation systems, and substantial training in aeronautical fields. Shared development for new platforms through consortia and strategic alliances is the accepted business strategy.

In the defence sector, the markets for arms continue to decline, dropping 8 percent to \$US37.5 billion in 1994. This is less than half the \$US76.5 billion figure for 1988. There was also a sharp drop in U.S. sales in 1994, at \$US12.5 billion. Between 1990 and 1993, U.S. sales ranged from \$US19.6 billion to \$US23.9 billion.

The Aerospace Industries Association of Canada (AIAC) Trade and Marketing Committee has provided a well-researched list of priority markets for the aerospace and defence industries. The following illustrates the scope of some of these markets.

The major area of growth in demand over the next few years is expected to be the Pacific Rim. British Aerospace, for example, predicts that defence spending in the Asia-Pacific region will overtake that of Western Europe and equal approximately two thirds of U.S. spending by 2010. Meridian International Research forecasts that the total market in the Asia-Pacific region from 1993 to 1998 will be in the range of 500 aircraft, of which 69 percent will be for aircraft between 50 and 100 seats, and 23 percent for aircraft between 25 and 40 seats.

Latin America also offers interesting long-term prospects. The rate of commuter travel in countries such as Brazil, Chile and Argentina is expected to increase at an annual rate of 8 percent.

China is expected to experience rapid economic growth, which will stimulate demand for air travel. However, constraints on the expansion of China's aviation infrastructure are expected to slow the recent 30-percent annual growth rate in air travel to 16 percent between 1993 and 1999.

The countries of the former Soviet Union (FSU) have advanced aircraft and parts technologies, along with highly skilled, well-trained, low-paid workers, technologists and engineers. However, their ability to organize, manage and market these assets competitively remains questionable. Russia's aircraft industry is focussing on improving its aircraft to the standards required for

certification in Western countries, and is eager to collaborate with Western firms that can assist in this effort. The most immediate opportunities in these countries are in technological collaboration, but more substantive trade opportunities will be available over the longer term.

International market prospects for the R&O subsector appear to be increasing; however, with an estimated overcapacity in this sector, this is a market that requires careful assessment. In the short term, airline overcapacity is leading to storage of functional aircraft. The prices for used aircraft are declining as a result, providing a basis for economical conversion or upgrading of the aircraft to meet new environmental and safety regulations and improve operating costs. Over the longer term, the world's airline fleet is expected to grow substantially, and the expanded fleet will require R&O support. In the United States, military R&O opportunities are expanding: military bases and repair centres are closing and R&O is increasingly being contracted out to the private sector.

### **Priority and Emerging Markets**

The Canadian industry has identified the following priority markets for aerospace products: the United States, the United Kingdom, Australia, China, Indonesia, Singapore, South Korea, India, Thailand, Saudi Arabia, the United Arab Emirates, Chile, Argentina, Brazil and Mexico. Priority markets for training are Southeast Asia and Eastern Europe.

The priority market for the defence industry is the United States. Growth or emerging markets identified by the industry include South Korea, Malaysia, Indonesia, China, Taiwan, Saudi Arabia, Kuwait and Turkey.

### **Factors Affecting the Defence Industry**

Government fiscal restraints, declining defence budgets and significant cuts in procurement are having a major impact on industrialized nations, resulting in changing policies for the development and acquisition of new systems and weapons. While many countries are still scaling down defence-related programs, there is growing recognition that lighter modern conventional forces are required for national and international security commitments.

Today's defence industry is characterized by high-technology products incorporating sophisticated hardware and software. Defence procurement



worldwide is expected to shift from specialized defence-only products to dual-use ones, including commercial off-the-shelf products.

Key defence markets are shifting from NATO countries to the Asia-Pacific region and the Middle East. Despite large cuts in its defence budget, the United States is still by far the largest defence market in the world. On the other hand, the domestic situation is forcing U.S. companies to compete more vigorously in the international market, supported by the government. Consequently, the U.S. has increased its share of the international defence market over the past four years.

In the face of growing competition, firms in the defence industry are increasingly seeking to share technology and facilities such as R&O services, government-owned equipment and pilot training in order to maintain vital capability.

The most promising areas for the global defence market's future growth are in the defence electronics area, life-extension and improvement programs, R&O and spare parts for existing equipment, environmental technology, and the acquisition of equipment for rapid-response peacekeeping forces for United Nations and NATO commitments.

## Main Challenges

Canada's aerospace and defence industry will continue to face difficult challenges in the 1990s. Key among them are:

### Size of Market

- The Canadian market is insufficient to support the industry, making it extremely dependent on exports. However, exporting of aerospace and defence products and services is a very long-term, capital-intensive process, requiring careful planning and a solid assessment of markets.

### Firm Size

- Industry rarely has the breadth to bid on major offshore systems without foreign partnering. With the exception of the large "primes" (e.g. Bombardier, P&WC, Bell Helicopter), Canadian firms are not as large as most of their international competitors; nor do they have the scale of domestic markets or direct government invest-

ment as others. In addition, with large firms subcontracting in other countries, many SMEs that were established suppliers now have to go abroad to compete for work on contracts for subsystems awarded abroad.

## Restructuring

- Consolidation or rationalization is difficult, because of factors such as strong niche orientation, regional competition and foreign ownership. Canadian companies are therefore being challenged to form strategic alliances and joint ventures to penetrate new markets or protect existing ones. European competitors (e.g. Jetstream, Alenia and Aérospatiale) are also doing this around product lines in which Canadian firms excel. National efforts such as Team Canada<sup>4</sup> are now tied to investment, globalization and risk sharing. The challenge is to find the right fit.

## Technology

- In order to maintain their competitive position, Canadian firms will need to develop new technologies to improve products and reduce costs. The right skills mix to manage these technological processes is increasingly important to the Canadian industry's competitiveness.

## Strategic Partnering

- More than ever, SMEs need to maintain a global view of their industry. Canadian SMEs are increasingly required to participate in joint ventures with firms in the countries of the FSU while at the same time developing alliances with these same technological allies in the FSU to secure new customers in markets such as China and Latin America. Many, though technically capable, are not financially equipped to do so.

## Financing

- Competitors around the world are heavily supported by their governments. Innovative financing solutions must be found to support the export development efforts of the Canadian industry. (In 1993, EDC (Export Development Corporation) provided \$1.6 billion in financing to the aerospace sector, accounting for 43 percent of EDC signings.)

<sup>4</sup> To serve business more effectively, the Government is pursuing new approaches, based on a Team Canada partnership with the provinces and the private sector, to help Canadian enterprises compete internationally.



## Market Access

- Exports in the aerospace and defence sectors are most often linked to national security, the control of advanced technologies and the distribution and assembly patterns of OEMs. Competition is fierce, and industry-government partnerships are often mandatory, particularly in facilitating the understanding of government policies and regulations.

For most defence firms, the current international context poses the following challenges:

- most firms will require restructuring, including diversifying from military applications toward civilian applications for aerospace and other dual-use technologies;
- firms will have to put more emphasis on competitiveness criteria and less on technical performance, as domestic procurement rules will progressively adopt value-for-money principles and favour off-the-shelf products, and as foreign markets become more competitive; and
- companies will have to move toward international co-operation, in order to share costs and lengthen production runs.

## Strategic Direction

The overall goal of the aerospace and defence strategy is to increase the Canadian industry's share of the world market, by targeting specific international markets that are profitable and growing, taking into account the capabilities and interests of all stakeholders.

Many elements of the strategy apply to both the aerospace and the defence sectors. However, given the special nature of defence exports, a separate section further defines the approach for that sector.

Key to the strategy is the recognition of a number of factors:

- Developing export markets in the aerospace and defence industries requires long-term strategic planning and patient investment. Aerospace and defence firms that are successful in international markets have invested considerable time and effort in developing and nurturing contacts.
- An aerospace international business development strategy must reflect the integrated efforts of all partners and stakeholders; it should encompass a "portfolio of strategies" that reflect regional and subsectoral interests.

- While the strategy is for the long term, it must also be dynamic and establish a flexible framework that recognizes the changing nature of competitive forces.

Underlying thrusts of the aerospace and defence strategy will be to:

- develop a Canadian flagship presence in the international aerospace and defence market. Promotional activities should be linked to ministerial agendas. Industry and government efforts should converge to maximize the Canadian presence at international events (e.g. build on the Prime Minister's vision of Team Canada by participation in prime ministerial, ministerial or secretary of state visits to targeted countries);
- increase partnering between stakeholders and ensure co-ordination of interdepartmental aerospace and defence activities, policies and investments, to integrate efforts and maximize the leverage of Canadian investment (Industry Canada [IC], Department of Foreign Affairs and International Trade [DFAIT]/missions and headquarters, DND, Canadian International Development Agency [CIDA], Public Works and Government Services Canada [PWGSC], Transport Canada [TC], Federal Office of Regional Development-Quebec [FORDQ], Western Economic Diversification [WED], Atlantic Canada Opportunities Agency [ACOA], National Research Council [NRC], Canadian Commercial Corporation [CCC], EDC, industry associations); and
- effectively support SMEs in developing their exporting capabilities and international market penetration via direct participation in missions or aerospace exhibitions, or as part of Team Canada or ministerial visits, with the support of larger Canadian firms, government agencies (e.g. CCC, EDC) and associations (AIAC, Canadian Defence Preparedness Association [CDPA], Canadian Exporters' Association [CEA], regional associations) or as suppliers to large firms that are well established in identified markets.

In parallel, the National Sector Team will undertake a number of activities, including:

- an assessment of the global context of Canadian government activities and policies that impact on the aerospace and defence industries, and of how these translate into opportunities (e.g. air transportation, devolution of airport management, CIDA investments in infrastructure);



- continuation of market segment analyses and assessment of industry products and services in existing and new niches with potential for export, in conjunction with the IC market segment analysis team (e.g. R&O, training, air traffic control, security products, and simulation and training), and identification of potential markets for these;
- building on the work done by the AIAC Trade and Marketing Committee, an assessment and full-range plan for development of each target market, on a priority basis, taking into account potential growth in markets, changes to economic and political regimes, and the match between supply and demand for Canadian products and services (e.g. market intelligence and assessments, market entry strategies, promotional activities, participation in trade fairs, missions and air shows, and follow-up);
- a complete evaluation of activities (traditional and new) to ensure the most effective use of resources and to ensure consistency with and relevance to the global strategy (e.g. assess participation in major air shows vs. niche shows, objectives, ways of doing things)<sup>5</sup>; and
- an analysis of the factors that impede firms in their export efforts, and an identification of relevant support initiatives.

Activities in 1996-97 should focus on:

- identification and monitoring of technology markets: industry and government will work together to develop and implement a monitoring and reporting process in the U.S. (through the Defence Development Sharing Agreement Office) and in Europe, and will seek investment partners and opportunities for technology transfers (e.g. in the countries of the FSU). Activities will be identified to sustain the development of and access to these technologies;
- identification and development of intelligence required on developing markets (based on AIAC Trade and Marketing Committee report and template): involve missions, TC, WED, ACOA, DND, CCC, EDC, etc.;
- international promotion: develop approach for each market, including participation in world-class aerospace exhibitions, missions, conferences, etc. (includes preparation and follow-up,

involvement of SMEs). Support for air shows and outgoing trade missions will be founded on specific aircraft marketing, development, conversion, or life-extension programs and similar targeted or niche market opportunities; and

- trade activities: focus on main marketable products; support efforts using a team approach, including government agencies and departments and input from missions abroad. Bolster this with comprehensive government advocacy support; enhance liaison with key contacts in embassies and missions; ensure monitoring of and contribution to negotiation of international trade agreements.

### Strategic Direction for Defence

Although worldwide defence spending has declined notably, there is still a very large market that the highly qualified Canadian defence sector can successfully tap.

The following factors must be kept in mind in developing and implementing an international trade strategy for defence:

- market access is a key factor in the exporting of defence products;
- the marketing of defence products requires government involvement, although the level of this involvement varies greatly from one region to another;
- the U.S. represents the primary market for defence products and services. While it is an "established" market, it cannot be taken for granted, as rules for market access are constantly being modified. Similarly, Europe requires specific attention to monitoring and access issues; and
- strategies must be tailored to the particular market, whether emerging markets like Southeast Asia or existing markets like the Middle East.

Key elements of the strategy will be to:

- ensure market access for Canadian firms in the North American Defence Industries Base and NATO allies markets; and

<sup>5</sup> Important air shows include: Paris '97, Farnborough '96 (Great Britain, in alternate years), Asian Aerospace (Singapore), Fidae (Santiago, Chile), HAI (Helicopter Association), Helitech (Great Britain), Airshow Canada (foreign customers to see Canadian capabilities) and the National Business Aircraft Association show.



- ensure that Canadian firms participate in international defence contracts, as subcontractors for large Canadian and foreign primes.

Specific activities in support of international business development in the defence sector will include:

- identifying, monitoring and disseminating of information on important policies affecting purchasing decisions, such as government procurement requirements, financing requirements, import restrictions, internal industrial support programs, requirements for local manufacturing content, technology transfer and/or joint venture participation as conditions of sale (CCC, DFAIT, IC, TC, DND, PWGSC);
- participating in strategically directed outgoing and incoming missions, international trade fairs and workshops and "Canada days" in the U.S., in Europe and in Asia-Pacific priority countries, particularly in the fields of avionics, simulation and training, robotics, advanced materials, defence security products, marine and environmental products and services (DFAIT, DND, PWGSC, CCC, IC);
- promoting Canadian industrial (and government) participation in the U.S. Navy's Best Manufacturing Practices (BMP) program (IC, DND);
- arranging visits to Canadian companies by U.S. military representatives (through the Defence Development Sharing Agreement Office), arranging visits by Canadian industry representatives to U.S. facilities and laboratories, and matching Canadian companies with potential U.S. requirements (DND, PWGSC, CCC, DFAIT, IC);
- facilitating liaison between the Canadian and foreign military and providing contact points between representatives of Canadian companies and foreign military through established industrial co-operation memorandums of understanding (MOUs) with priority countries in the Asia-Pacific and Middle East regions (DFAIT, DND, IC);
- providing Canadian suppliers with unique export assistance, including counter-trade agreements, to assist them in exploiting emerging markets in the Asia-Pacific and Middle East regions (CCC, EDC);
- participating in the North American Technology Industrial Base Organization to encourage Canadian participation in activities that promote the integration of the defence and commercial sectors and the greater use of dual-use products and technologies (DND, IC); and

- strengthening ties between government and industry associations by liaising with existing industry associations (CDPA, AIAC) to develop and implement joint projects focussing on marketing, new technology developments, investment, joint ventures, skills upgrading, purchasing and contracting (IC, DFAIT, PWGSC, CCC, DND).

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Fax: (613) 944-0050

Trade Opportunities Division (for defence)  
125 Sussex Drive  
Ottawa K1A 0G2  
Tel: (613) 996-1758  
Fax: (613) 944-0050

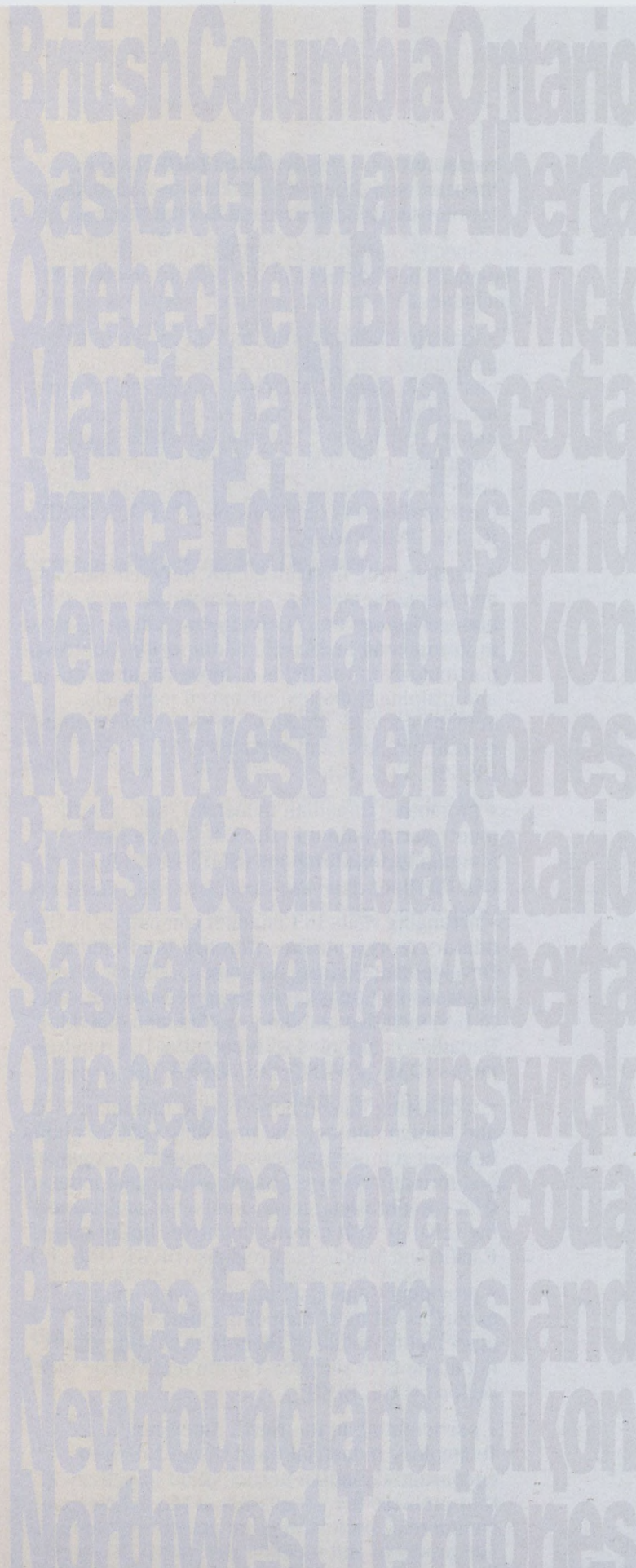


Department of National Defence  
Director General, International  
and Industry Programs  
101 Colonel By Drive  
Ottawa K1A 0K2  
Tel: (613) 992-3719  
Fax: (613) 995-2305

Transport Canada  
International Marketing & Programs (APAA)  
Place de Ville, Tower C, 24th Floor  
Ottawa K1A 0N5  
Tel: (613) 990-5578  
Fax: (613) 993-6699

Canadian Commercial Corporation  
50 O'Connor Street  
Ottawa K1A 0S6  
Tel: (613) 996-0034  
Fax: (613) 947-3903

Export Development Corporation  
151 O'Connor Street  
Ottawa K1A 1K3  
Tel: (613) 598-2500  
Fax: (613) 237-2690





Activity	Date	Location	Dept.	Contact
<b>Africa and the Middle East</b>				
Aviation Africa: Info Booth	24-Apr-96	Johannesburg	DFAIT	613-944-6590
Ethiopia: Aviation Sector Study	01-Sep-96	Addis Ababa	DFAIT	613-944-6586
<b>Asia-Pacific South</b>				
Australian International Airshow and Aerospace Expo: Info Booth	28-Feb-97	Melbourne	DFAIT	613-995-7652
Malaysia: Lima 1997 Aerospace and Defence Exhibition: National Stand	01-Dec-97	Langkawi	DFAIT	613-996-5824
<b>East Asia</b>				
Aviation Industry in Southern China: Market Study	01-Jun-96	China	DFAIT	613-996-2463
Airshow Indonesia '96: National Stand	22-Jun-96	Jakarta	DFAIT	613-992-0959
Taiwan: Airport Ground Equipment Seminar	05-Nov-96	Taipei	DFAIT	613-995-7582
<b>Japan</b>				
Aerospace Industry Mission from Japan	01-Aug-96	Canada TBD	DFAIT	613-995-1677
<b>Multiple Markets</b>				
CCC Services to the Aeronautics Industry: Seminar	01-Aug-96	Vancouver	CCC	613-995-8046
<b>United States</b>				
Aerospace/Defence Market Study Update	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
Aerospace Market Study	01-Apr-96	Los Angeles	DFAIT	613-944-8821
Defence Technology Workshops	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
Trade Mission to Prime Contractors	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
USAF Plant Mission to Eastern Canada	01-Apr-96	Canada TBD	DFAIT	613-944-8821
Warner Robins AFB Contracting: Seminar	01-Apr-96	Warner Robins AFB, Georgia	DFAIT	613-944-8821
TABES '96: Info Booth	14-Apr-96	Huntsville, AL	DFAIT	613-944-8821
Defence/Aerospace Mission to Colorado	11-Jun-96	Colorado Springs	DFAIT	613-944-8821
<b>Western Europe and the European Union</b>				
Farnborough Air Show in the U.K.: Info Booth	01-Sep-96	Farnborough	DFAIT	613-992-7001

Note: Dates and locations are subject to change.



Activity	Date	Location	Dept.	Contact
<b>Africa and the Middle East</b>				
IDEX '97: National Stand	16-Mar-97	Dubai	DFAIT	613-944-6983
<b>Asia-Pacific South</b>				
1996 Defence Procurement Conference: Workshop	01-Aug-96	Canberra	DFAIT	613-995-7652
Ausmarine '96: Workshop	22-Nov-96	Perth	DFAIT	613-995-7652
Australian International Airshow and Aerospace Expo: Mission	28-Feb-97	Melbourne	DFAIT	613-995-7652
Malaysia: Lima 1997 Aerospace and Defence Exhibition: National Stand	01-Dec-97	Langkawi	DFAIT	613-996-5824
<b>East Asia</b>				
Airport Ground Equipment Seminar Multiple Markets	05-Nov-96	Taipei	DFAIT	613-995-7582
CCC Workshop on Defence Procurement	01-Oct-96	Toronto	CCC	613-995-8046
<b>United States</b>				
Aerospace/Defence Market Study Update	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
Defence Trade Mission to California	01-Apr-96	Los Angeles	DFAIT	613-944-8821
DPSA/DDSA Defence Economic Arrangements Project: Seminars and Other Activities	01-Apr-96	TBD	DFAIT	613-944-8821
Simulation and Training Mission from the U.S. Southeast	01-Apr-96	Montreal/Ottawa/Toronto	DFAIT	613-944-8821
Northeast U.S. Defence Market Study Update	01-Apr-96	Boston	DFAIT	613-944-8821
Defence Technology Workshops	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
USAF Plant Mission to Eastern Canada	01-Apr-96	Canada TBD	DFAIT	613-944-8821
Trade Mission to Prime Contractors	01-Apr-96	Washington, D.C.	DFAIT	613-944-8821
TABES '96: Info Booth	14-May-96	Huntsville, AL	DFAIT	613-944-8821
CECOM Defence Electronics: Mission	01-Jun-96	Fort Monmouth, NJ	DFAIT	613-944-8821
Defence Informatics and Procurement: Study	01-Jun-96	Los Angeles	DFAIT	613-944-9440
Subcon VIII: Mission from the U.S.	01-Jun-96	Toronto	DFAIT	613-944-8821
Defence/Aerospace Mission	11-Jun-96	Colorado Springs	DFAIT	613-944-8821
Mission to Hanscom AFB Electronic Systems Laboratory	01-Aug-96	Boston	DFAIT	613-944-8821
Watervliet Arsenal Liaison Program: Mission	23-Oct-96	Watervliet	DFAIT	613-944-8821
Information Technology Security (ITSEC): Info Booth	01-Nov-96	Orlando, FL	DFAIT	613-944-8821
TACOM Defence Vehicles: Mission	01-Jan-97	Warren, MI	DFAIT	613-944-8821
Warner Robins AFB Contracting: Seminar	20-Mar-97	Warner Robins AFB	DFAIT	613-944-8821



Activity	Date	Location	Dept.	Contact
<b>Western Europe and the European Union</b>				
Defendory '96: Info Booth and Seminar	01-Oct-96	Athens	DFAIT	613-992-7001
IMDEX '97: Info Booth	17-Mar-97	London	DFAIT	613-992-7001

*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-maeci.gc.ca>*



## Acronyms and initialisms used in Canada's International Business Strategy

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

		DATE DUE DATE DE RETOUR
AAFC	Agriculture and Agri-Food Canada	International Business Opportunities Centre
ACOA	Atlantic Canada Opportunities Agency	entrepreneurship
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	North American Free Trade Agreement
CSA	Canadian Standards Association	North Atlantic Treaty Organization
DFAIT	Department of Foreign Affairs and International Trade	National Research Council
DFO	Department of Fisheries and Aquaculture	Natural Resources Canada
DND	Department of National Defence	Natural Resources Canada — Canadian Forest Service
EC	European Commission	National Sector Team
EDC	Export Development Corporation	Organization for Economic Co-operation and Development
EU	European Union	Program for Export Marketing Development
FITT	Forum for International Trade Training	
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

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## Acronyms and i Business Strate

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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
DFAIT	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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