



House of Commons  
Canada

# **THE FUTURE OF CANADIAN MILITARY GOODS PRODUCTION AND EXPORT**

**STANDING COMMITTEE ON EXTERNAL AFFAIRS AND  
INTERNATIONAL TRADE**

**SUB-COMMITTEE ON ARMS EXPORT**

**The Honourable John Bosley, P.C., M.P.  
Chairman**

**Peter McCreath, M.P.  
Chairman of the Sub-Committee**

**October 1992**



J  
103  
H7  
34-3  
A756  
A12

HOUSE OF COMMONS

Thursday, April 30, 1992  
Thursday, May 7, 1992  
Thursday, May 21, 1992  
Thursday, June 4, 1992  
Thursday, June 18, 1992  
Thursday, September 10, 1992

Chairperson: Peter McCreath

CHAMBRE DES COMMUNES

Le jeudi 30 avril 1992  
Le jeudi 7 mai 1992  
Le jeudi 21 mai 1992  
Le jeudi 4 juin 1992  
Le jeudi 18 juin 1992  
Le jeudi 10 septembre 1992

Président: Peter McCreath

Minister of Proceedings and Evidence of the Sub-Committee / Procédures et témoignages du Sous-comité de l'

Arms

Exports

Exportation

des armes

# THE FUTURE OF CANADIAN MILITARY GOODS PRODUCTION AND EXPORT

RESPECTING

Pursuant to Standing Order 107(1), regarding the  
Canadian arms production and export

CONFÉRENCE  
Conférence d'ordre de l'ordre de l'Assemblée, étude de  
la production et de l'exportation des armes canadiennes

INCLUDING

The first report to the Standing Committee on External  
Affairs and International Trade

Y COMPRIS  
Le premier rapport au Comité permanent des affaires  
étrangères et du commerce international

## STANDING COMMITTEE ON EXTERNAL AFFAIRS AND INTERNATIONAL TRADE

### SUB-COMMITTEE ON ARMS EXPORT

The Honourable John Bosley, P.C., M.P.  
Chairman

Peter McCreath, M.P.  
Chairman of the Sub-Committee



October 1992



HOUSE OF COMMONS

Issue No. 14

Thursday, April 30, 1992  
Thursday, May 7, 1992  
Thursday, May 21, 1992  
Thursday, June 11, 1992  
Thursday, June 18, 1992  
Thursday, September 10, 1992

**Chairperson:** Peter McCreath

CHAMBRE DES COMMUNES

Fascicule n° 14

Le jeudi 30 avril 1992  
Le jeudi 7 mai 1992  
Le jeudi 21 mai 1992  
Le jeudi 11 juin 1992  
Le jeudi 18 juin 1992  
Le jeudi 10 septembre 1992

**Président:** Peter McCreath

*Minutes of Proceedings and Evidence of the Sub-Committee on*

## Arms Exports

*of the Standing Committee on External Affairs and International Trade*

*Procès-verbaux et témoignages du Sous-comité de l'*

## Exportation des armes

*du Comité permanent des affaires étrangères et du commerce extérieur*

**RESPECTING:**

Pursuant to Standing Order 108(2), consideration of Canadian arms production and export

**INCLUDING:**

The first report to the Standing Committee on External Affairs and International Trade

**CONCERNANT:**

Conformément à l'article 108(2) du Règlement, étude de la production et de l'exportation des armes canadiennes

**Y COMPRIS:**

Le premier rapport au Comité permanent des affaires étrangères et du commerce extérieur

Third Session of the Thirty-fourth Parliament,  
1991-92

Troisième session de la trente-quatrième législature,  
1991-1992

SUB-COMMITTEE ON ARMS EXPORTS OF THE  
STANDING COMMITTEE ON EXTERNAL AFFAIRS  
AND INTERNATIONAL TRADE

*Chairperson:* Peter McCreath

Members

Lloyd Axworthy  
John Bosley  
John Brewin  
Jean-Guy Guilbault  
Pat Sobeski  
Christine Stewart

(Quorum 4)

Jacques Lahaie

*Clerk of the Sub-Committee*

Other Members of Parliament who participated in the study on  
the Future of Canadian Military Goods Production and Export:

Warren Allmand  
Beryl Gaffney

SOUS-COMITÉ DE L'EXPORTATION DES ARMES DU  
COMITÉ PERMANENT DES AFFAIRES ÉTRANGÈRES  
ET DU COMMERCE EXTÉRIEUR

*Président:* Peter McCreath

Membres

Lloyd Axworthy  
John Bosley  
John Brewin  
Jean-Guy Guilbault  
Pat Sobeski  
Christine Stewart

(Quorum 4)

*Le greffier du Sous-comité*

Jacques Lahaie

Autres Membres du Parlement ayant participé à l'étude sur  
l'Avenir de la production et de l'exportation de matériel militaire  
par le Canada:

Warren Allmand  
Beryl Gaffney

Published under authority of the Speaker of the  
House of Commons by the Queen's Printer for Canada.

Available from Canada Communication Group — Publishing,  
Supply and Services Canada, Ottawa, Canada K1A 0S9

Publié en conformité de l'autorité du Président de la Chambre  
des communes par l'Imprimeur de la Reine pour le Canada.

En vente: Groupe Communication Canada — Édition,  
Approvisionnement et Services Canada, Ottawa, Canada K1A 0S9

## Members of the Sub-Committee



Peter McCreath, M.P.  
(South Shore, Nova Scotia)  
Chairman



John W. Bosley, P.C., M.P.  
(Don Valley West, Ontario)  
(Chairman of the Standing Committee)



Lloyd Axworthy, P.C., M.P.  
(Winnipeg South Centre, Manitoba)



Jean-Guy Guilbault, M.P.  
(Drummond, Quebec)



Christine Stewart, M.P.  
(Northumberland, Ontario)



Pat Sobeski, M.P.  
(Cambridge, Ontario)



John Brewin, M.P.  
(Victoria, British Columbia)





The Standing Committee on External Affairs and International Trade has the honour to present its

## ACKNOWLEDGEMENTS

### SIXTH REPORT

In accordance with its mandate under Standing Order 108(2), your Committee assigned to its **Sub-Committee on Arms Export** the responsibility of enquiring into the subject of the future of Canadian military goods production and export. The Sub-Committee has heard evidence from a wide range of witnesses and reports its findings and recommendations.

I would also like to thank our special researchers—Ken Epps of Project Pivotal, David Crompton of the Arms Control Centre, William Landon of Harvill Technologies, and Sean Henry of Thrust Line International—whose studies added immeasurably to the value of our report.

Final thanks are extended to our witnesses, to the many individuals and organizations who took the time to prepare written submissions, and to the several companies who agreed to allow us to tour their operations and borrow their facilities. Canada is well served by their interest and expertise.

Peter McCreath, M.P.  
Chairman



# Acknowledgements

Many acknowledgements are due for the successful completion of our task. On behalf of the Sub-Committee, I would like to thank our research staff—led by Nicholas Swales of the Parliamentary Centre for Foreign Affairs and Foreign Trade seconded by Jim Lee from the Library of Parliament and assisted by Katherine Baird also from the Parliamentary Centre—for their diligent efforts, particularly in the drafting of the report. Our great appreciation goes as well to the House of Commons staff, in particular the Clerks—most notably Jacques Lahaie—and the many interpreters, translators, technicians, secretaries and others who supported our work both in Ottawa and on the road.

I would also like to thank our special researchers—Ken Epps of Project Ploughshares, David Crenna from the Arms Control Centre, William Lemmon of Harwill Technologies and Sean Henry of Thrust Line International—whose studies added immeasurably to the value of our report.

Final thanks are extended to our witnesses, to the many individuals and organizations who took the time to prepare written submissions and to the several companies who agreed to allow us to tour their operations and borrow their facilities. Canada is well served by their interest and expertise.

Peter McCreath, M.P.  
Chairman



# Table of Contents

<b>INTRODUCTION</b> .....	1
The Issue of Canadian Arms Exports .....	1
Mandate and Activities of the Sub-Committee .....	2
<b>CHAPTER 1: THE GLOBAL ARMS TRADE AND CANADA'S PARTICIPATION</b> .....	5
The Structure of the Arms Trade .....	5
Canadian Defence Production and Trade .....	6
<b>CHAPTER 2: DEFENCE MARKETS IN TRANSITION</b> .....	9
International Efforts to Curb the Arms Trade .....	10
<b>CHAPTER 3: THE ROLE OF DEFENCE PRODUCTION AND EXPORT IN CANADA</b> .....	13
Defence Production and Regional Development .....	13
The Defence Industry and Self-Sufficiency .....	14
The Future Need for Military Goods .....	15
Defence Industry Competitiveness .....	17
<b>CHAPTER 4: CURRENT CANADIAN EXPORT CONTROLS</b> .....	19
Military Exports .....	20
Sub-systems and Components as Exports .....	22
Nuclear Exports .....	23
<b>CHAPTER 5: THE FUTURE OF CANADIAN ARMS EXPORT CONTROLS</b> .....	25
Improving Efficiency .....	25
Controlling Destinations .....	26
The Proposed New System .....	29
Proposed Canadian Export Control Process .....	30
Controlling Products .....	32
Controlling End-Use .....	32
<b>CHAPTER 6: CONVERSION AND DIVERSIFICATION:</b>	
<b>THE RESPONSE TO MARKET TRANSITION</b> .....	35
Competitive Impact .....	35
Challenge and Opportunity .....	35
A New Approach to the Defence Industrial Base .....	38
Preserving Technology .....	39
Supporting Conversion and Diversification .....	41
<b>SUMMARY AND CONCLUSIONS</b> .....	43
<b>APPENDICES</b>	
A. Summary of Recommendations .....	45
B. Global Arms Trade Statistics .....	49
C. Dual-Use Diversification Options .....	57
D. List of Witnesses .....	67
E. List of Submissions .....	77
<b>REQUEST FOR GOVERNMENT RESPONSE</b> .....	81



# INTRODUCTION

## THE ISSUE OF CANADIAN ARMS EXPORTS

For decades, the legitimate right of nations to import military goods for their own defence and the pursuit by defence industries of new markets has seemed to contradict and defeat efforts to limit the international trade in arms. The August 1990 invasion of Kuwait by Iraq highlighted the excessive buildup of conventional weapons in that region, and led to many high-level public statements that the international arms trade required further restriction. Members of Parliament from all parties welcomed a set of Canadian Government proposals put forward in February 1991 to develop stronger controls on the arms trade and to hold an international political summit to demonstrate a commitment to curbing it.

The results were not encouraging. Within months, increasingly large deals were being announced between Western arms manufacturers and the countries in the Middle East most endangered by the Gulf War. As well, hopes that the transformation of Eastern Europe and the Soviet Union would take them out of the arms trade were dashed when it became evident that their need for exports and hard currency outweighed their concern for the future international order. Not long afterwards, Canadians themselves were to find that the issue of defence production and export was not so clear-cut.

In May 1991 the government introduced Bill C-6 to allow the export of automatic firearms. While Canada has an elaborate export control system to scrutinize military exports, anomalies in the Criminal Code meant that Canadian manufacturers of automatic weapons were under greater export restrictions than manufacturers of other military goods. The purpose of Bill C-6 was to remove the anomalies in the Criminal Code and allow Canadian manufacturers to become more competitive internationally. To critics, the fact that the government seemed to be loosening restrictions on Canadian military exports so soon after it had called for further restraint of the arms trade appeared hypocritical. The government pointed out that automatic weapons would still be subject to Canada's export control system, and that, without the changes, two Canadian firms would be unable to compete effectively for major contracts.

Raising the profile of the issue even further was the fact that one imminent sale affected by the C-6 amendments was for 1,117 light armoured vehicles to Saudi Arabia. As Trade Minister Michael Wilson said in the parliamentary debate on the bill:

Due to our relatively small domestic market, Canadian defence industry must have access to selected legitimate foreign military markets. Like other Canadian producers and manufacturers, it needs to export to survive.<sup>1</sup>

The debate surrounding Bill C-6 turned on two seemingly contradictory points. On one hand, a defence industrial base is necessary in a world in which sovereign nations are responsible for their own defence, and once such defence industries are established, they become important to national economies. On the other hand, if all states were to create large defence industries, an overcapacity of defence production would result in a scramble for diminishing export markets, and would make further restraint of the international arms trade almost impossible.

While the Gulf War highlighted the danger of excessive arms buildups and the need for greater restraint in the arms trade, other changes are equally important for defence industries around the world. With the end of the Cold War and of several regional conflicts, the international demand for

---

<sup>1</sup> *House of Commons Debates*, May 30, 1991, p. 786.

arms has steadily decreased since the mid-1980s. As well, there are many calls to realize a “peace dividend”; to shift resources expended on defence to other concerns, such as repairing the environment or promoting global development. And even for resources that continue to be devoted to defence, with a growing emphasis being placed on confidence-building, arms control verification, peacekeeping and peacemaking, the types of military equipment required in the future may differ substantially from those in the past.

Although Canada is not a major player in the international arms trade it is a significant one, and Canada’s defence industry will face increasing strain in the years to come. Given the apparently contradictory pressures to preserve the Canadian defence industry while at the same time restricting the export of military goods, Canada’s military export control system has come under increasing criticism in recent years. While it is acknowledged that the Canadian system is one of the most restrictive in the world, it is criticised from both sides: industry representatives often claim that it represents a bureaucratic hurdle and unreasonably prevents sales, while arms control and other critics claim that in practice the system is not as restrictive as the government’s arms export policy.

The combination of these pressures means that fundamental decisions concerning Canadian defence production and export must be made in the next few years. As Professor Keith Krause of the Centre for International and Strategic Studies at York University told the Committee in its first meeting:

I think Canada is at or near a fairly decisive turning point with respect to its defence industrial base. It is similar in some respects to the situation Canada found itself in in the late 1950s and early 1960s, when the decision was taken largely around the Avro Arrow project — at least, that was the most high-profile one — to abandon the quest then to be a major producer of complete weapons systems using our own technology.

Today the choices are different, but I think the major significance of the next few years is roughly the same. The decisions taken by the government and various other people are going to have a similar impact on the future shape of Canadian defence production, and therefore Canadian arms exports.<sup>2</sup>

## MANDATE AND ACTIVITIES OF THE SUB-COMMITTEE

As a result of the debate surrounding Bill C-6 and the broader questions of Canadian defence production and export, the House of Commons Standing Committee on External Affairs and International Trade agreed to establish a Sub-Committee on Arms Export. This Committee was to hold public hearings on the issues of Canadian defence production and export, the new challenges facing the defence industry and the question of converting the industry to civilian production.<sup>3</sup> While the issue of nuclear, chemical, biological and other weapons of mass destruction is of great importance, the Committee focused on the production and export of conventional arms, which constitute the bulk of the international arms trade and virtually all of Canadian military production. The Committee began its hearings in Ottawa, in October 1991, and during the following months travelled to Victoria, Vancouver, Winnipeg, Montreal and Halifax, and heard from academics, government officials, industry spokespersons and concerned citizens. Dozens of written briefs were also submitted to the Committee. This report is the result of the Committee’s hearings.

---

<sup>2</sup> *Minutes of Proceedings and Evidence of the Sub-Committee on Arms Export of the Standing Committee on External Affairs and International Trade*, October 10, 1991, p. 1:14 (hereafter referred to as *Proceedings*).

<sup>3</sup> For the “mandate” of the committee, see *House of Commons Debates*, June 18, 1991, p. 2030.



Reliable statistics on the global arms trade are notoriously difficult to obtain, and are usually not available until after a lapse of several years. In its work, the Committee has relied upon standard sources such as the yearbooks of the United States Arms Control and Disarmament Agency and the Stockholm International Peace Research Institute (SIPRI), as well as the testimony of experts. In terms of Canadian defence production and export, the statistics are better but still inadequate. While all military exports to non-United States destinations require an export permit, for reasons of “commercial confidentiality” only an aggregate of annual sales is published by the Department of External Affairs and International Trade. Even this is better than the information available on defence exports to the United States since, as a result of special arrangements between the two governments, no permits are required for such exports. The only information available in this case is based on voluntary reporting by the Canadian firms involved. Since the United States is the destination for over 70% of Canada’s defence exports, this represents a serious gap in the information available.

In Chapter 1, the Committee describes the global arms trade, its size, principal exporters and importers and addresses some of their motivations. The Chapter also describes the structure of the Canadian defence industry and Canadian defence exports.

Chapter 2 identifies the factors which are acting to transform the global arms trade. The Chapter also describes multilateral efforts to control and limit conventional arms transfers.

Chapter 3 explains the role that the Canadian military goods production industry has played in supporting governmental economic and strategic policies. The Chapter further explains the context for future Canadian military goods exports and the consequent need for support and export control policies.

Chapter 4 explains the principle features of the current Canadian export control system and identifies a number of flaws which prevent the existing system from living up to the standards expected of it by the Canadian people. The Chapter also briefly addresses the issues of exports of nuclear materials and technology.

Chapter 5 outlines the Committee’s proposals for changes to the military goods export control system which would plug the gaps and achieve the sought-after standard.

Chapter 6 explains how the government can help the Canadian defence production industry adapt to the new realities of changing markets and a modified export control system without forcing Canada to give up the industry’s contribution to the economy.

Finally, the Committee summarizes its main points and draws some conclusions.



# CHAPTER 1

## The Global Arms Trade and Canada's Participation

The international arms trade is a monument to Cold War international relations. In the years following the Second World War, the superpowers increased their production of conventional weapons for their own use, and sold or otherwise transferred arms to their allies and client states as well. While the European members of NATO and the WTO developed their own weapons production capabilities, they still accounted for some 40% of the arms transferred in the early 1960s. Over the next several decades, the pattern of arms transfers shifted to the developing world, fuelled both by decolonisation and petrodollars. By 1977, some 80% of the arms transferred internationally were destined for the developing world, and by the latter half of the 1980s the list of major conventional arms importers in the developing world included: India, Saudi Arabia, Iraq, Afghanistan, North Korea, Egypt, Syria, Angola, South Korea and Iran. While this flow of arms had been apparent for years, it took the invasion of Kuwait by Iraq to bring home to many the dangers of a wide-open international arms trade.

In terms of dollar value, the international trade in arms has amounted to some \$50 billion (U.S.) annually in recent years, and some estimates credit up to another \$10 billion in "grey" and "black" market sales. In 1988 some 50 states exported arms and 120 imported them, but in reality the bulk of the arms trade is much more concentrated. In recent years, the top five arms exporters (the USSR, the United States, Britain, France and Germany) have supplied more than 80% of the weapons, and the top ten importers have purchased more than half of them.

### THE STRUCTURE OF THE ARMS TRADE

It is important to realize that producers and importers of arms have different motivations. For the recipient countries, the reasons are usually national security and regional tensions. By definition, states which feel threatened have the most basic motivation to buildup their arsenals. For this reason, it is obvious that although the arms trade can be addressed on its own, it is only a symptom of the international and regional political climate of the time. In fact, the \$50 billion in arms production transferred represents only about one sixth of the estimated \$300 billion spent annually on military production world-wide; the vast majority of arms are designed for use by the producing nations themselves.

The motivation of exporters varies among the states involved. Traditionally, the most useful way to group arms exporters has been into three "tiers". In the first tier are Russia (formerly the Soviet Union) and the United States, superpowers able to produce and export any weapons system they desire. Throughout the Cold War, both superpowers transferred arms to their allies on favourable terms, and for ideological reasons supplied the hardware for proxy wars between their client states. Together, the superpowers accounted for some 60% of the arms transferred in the past decade. The second tier of arms producers is composed of states such as Britain, France, Germany and, until recently, Czechoslovakia. While these states have important national defence industries, their domestic markets are not large enough to allow them to benefit from economies of scale, and so they are highly dependent on the export of their products to survive and remain competitive. The exports of these states are almost entirely based on commercial considerations, and they account for some 25% of annual global arms exports. The third and final tier is composed of countries such as China, Brazil, India and Israel, which are capable of producing large quantities of less sophisticated but still functional (and cheap) weapons on short notice. These "wildcards" account for the balance of the international arms trade.

The quantity of weapons traded has attracted the most attention over the decades but it is important to consider their quality as well. Supplier states often chose not to provide their front-line equipment to developing states. Nevertheless, the sophistication of the weapons transferred has risen dramatically over the years. As an example, in 1960 one country in the developing world had supersonic aircraft, six had missile technology and thirty-two had tanks. By the mid-1980s these numbers had changed to fifty-five, seventy-one and sixty respectively.<sup>4</sup> While most of these weapons were imported, a growing number of developing nations have also built up their own basic military production capacity.

## CANADIAN DEFENCE PRODUCTION AND TRADE

Canada is neither a major player in the international arms trade, nor is it a negligible one. Canada ranks about eighth on the list of global arms producers, producing approximately \$3 billion worth of military goods per year, or about 1% of the world total.<sup>5</sup> According to SIPRI, Canada was the fourteenth largest exporter of major conventional weapons in the world for the period 1986-1990.<sup>6</sup> Canada is situated at the bottom of the second tier of suppliers with states such as Sweden, Switzerland, Italy and Spain, and is at least as dependent on exports as the others given its small domestic market for defence products.

The current shape of the Canadian defence industrial base can be traced back to the decisions, in the late 1950s, to cancel the CF-105 Avro Arrow interceptor aircraft and to negotiate the Defence Production Sharing Agreement with the United States. While the Canadian-designed Arrow grew more and more impressive as new capabilities were added, it was finally decided that given the changing strategic situation and the lack of guaranteed export sales, the aircraft was simply too expensive to produce for Canadian use alone. Not content to equip Canada's military with only cheaper second-rate equipment in the future, the government entered into special Defence Production and, later, Defence Development Sharing Agreements (DD/DPSA) with the United States over the next several years. These events amounted to an acknowledgement that Canada was not going to design, develop and produce complete weapon systems and thereby maintain any sort of self-sufficient defence industry. Instead, Canadian industry would contribute to supplying components and sub-systems, and filling niches in the global market for weapons production, from which Canada would then buy larger defence systems.

The DD/DPSA arrangements did not technically constitute "free trade" in defence equipment, but they did guarantee Canadian defence firms special access to the huge US market in return for a Canadian commitment to purchase American weapons systems. From the Canadian government's point of view, these arrangements permitted the maintenance of a Canadian defence industrial base while also providing the military with access to the most sophisticated weapons at a reasonable cost. According to a later agreement between the two states, over the long term total purchases were to be in "rough balance", although Canada's cumulative deficit now stands at some \$4 billion.

---

<sup>4</sup> *Proceedings of the House of Commons Standing Committee on National Defence and Veterans Affairs*, February 28, 1991, p. 55:6.

<sup>5</sup> Keith Krause, "Arms Transfers and International Security: The Evolution of Canadian Policy", in *Canada Among Nations 1992-93: A New World Order?*, edited by Fen Hampson and Christopher Maule, Ottawa: Carleton University Press, 1992; p. 294.

<sup>6</sup> Stockholm International Peace Research Institute, *SIPRI Yearbook 1991: World Armaments and Disarmament*, Oxford University Press, 1991, p. 198.

Several industry representatives expressed the view to the Committee that, in spite of the DD/DPSA, the United States defence market remains very difficult to penetrate on a large scale, due to a variety of small-scale protectionist measures. Canada currently provides only 0.7% of annual Department of Defence purchases (around \$900 million per year), approximately equivalent to the DoD sales of the state of Nebraska.<sup>7</sup> Nevertheless, industry generally accepted that the agreements were better than nothing.

As a result of the special defence production sharing arrangements with the United States, Canada's defence industry has taken on a unique character over the past thirty years. In the words of Ken Epps of Project Ploughshares:

If you were to try to present an average or typical Canadian military producer, you would say that it is an aerospace or electronics component manufacturer located in either Ontario or Quebec, with about an even chance of being foreign owned.<sup>8</sup>

Like other Canadian industries, the defence industry is concentrated in Ontario and Quebec, although an increasing percentage is based in Western Canada and, in the case of shipbuilding and related production, Atlantic Canada. Over the years the Canadian defence industry has developed particular expertise in the areas of aerospace, electronics and communications components, and is one of the more high-technology and research-intensive sectors of the Canadian economy. It is difficult to specify where the "defence" industry begins and ends, given that most defence firms also produce civilian goods, but the Canadian industry is probably composed of some 1,000 firms employing 60,000-80,000 people directly and indirectly for which defence is an important part of their operations. Robert Gillespie, the Assistant Deputy Minister (Materiel) in the Department of National Defence, told the Committee:

There are estimated to be something like 100,000 people directly and indirectly working in the Canadian defence industry. Although the average skill level is high, the impact of the defence industrial base is in fact limited in terms of its percentage of the GNP, its percentage of trade and, indeed, its share of employees in the Canadian work force.

Our industry is composed of only a few large companies with sales in excess of \$100 million per year. The vast majority of firms are, in fact, quite small and very few of those produce purely military products. The industry is over 50% foreign-owned, with U.S. companies dominating the group, and is very heavily dependent on the export market. Some estimates have almost 70% of our production going offshore and of that amount something like 80% goes to the U.S. Our industry is, therefore, very sensitive to changes in the U.S. defence market.<sup>9</sup>

Of the \$3 billion worth of annual defence production in Canada in recent years, some \$1.5 billion is exported, with \$1 billion going to the United States and the rest to other countries. Canadian military exports have declined steadily from a peak of \$1.9 billion in 1985. In 1990, Canada exported approximately \$1.04 billion worth of military equipment, with \$885 million going to the United States, \$119 million going to NATO/OECD countries and \$39.6 million going to the developing world. In 1991, the totals were \$726 million to the United States, \$131.5 million to NATO/OECD members, and \$57.7 million to the developing world, for a grand total of \$915.2 million.

---

<sup>7</sup> *Proceedings*, 2:27.

<sup>8</sup> *Proceedings*, 1:16.

<sup>9</sup> *Proceedings*, 2:4-5.

Firms such as Bristol Aerospace, Computing Devices Co. and Canadian Marconi are among the largest of the traditional aerospace-electronics-communications firms in Canada, and all have ranked high on the list of military prime contractors in recent years. Internationally, Canadian firms have recognized expertise in such areas as unmanned air vehicles, flight simulators, inertial navigation systems and satellite sub-systems. These niche markets will be very important in the years to come, since, as a result of the increasing sophistication and soaring cost of modern weapons, the international arms market has focused more on the production of high-tech components and upgrade packages in recent years.

It should be evident by now that Canadian defence products do not fit the traditional image of what "arms" exporting is all about. Canada does not export tanks, artillery guns, fighter aircraft, bombs, missiles or most of the things that are brought to mind by the word "arms". Rather, Canada produces "military goods" and components; the vast range of other equipment, often built to unique and demanding military specifications, which is required to allow the tanks, guns and fighter aircraft to perform their military roles.

## CHAPTER 2

### Defence Markets In Transition

The international defence market went through a boom period that began in the mid-1970s, but the situation has changed dramatically since the mid-1980s. While international arms transfers peaked at some \$62 billion (U.S.) in 1987, the arms trade has declined by some 4% annually since the middle of the decade, and the 1989 total of \$45 billion represented a ten year low. The primary reason for this decline in the late 1980s was that debt-ridden developing nations could no longer afford to import arms at their previous rates. Also, with the end of the Iran-Iraq war, a major source of demand disappeared. In the last half of the 1980s, the imports of weapons into the developing world declined by some 3.6% annually, and their total imports fell by \$6.6 billion in 1989 alone. The changes in supply and demand resulting from the Gulf War may modify these numbers for 1990-91, but will not reverse the long-term trend. Initial estimates from SIPRI on that total sales have fallen by 25% in 1991.

The end of the Cold War is likely to be even more significant for international defence markets than the decline in developing world imports. For decades the military production of the superpowers has been the backbone of international military production and transfers. With the implosion of one of the rival blocs and the end of the Cold War, a serious overcapacity in military production exists world-wide. Apart from this overcapacity, many nations are beginning to seek "peace dividends" through the reduction of their military forces and weapons purchases, and this decline in demand is likely to continue for the foreseeable future. As the international arms market contracts, competition is increasing for the remaining markets, and greater protectionism is a real possibility as governments act to preserve their own domestic industries. Robert Gillespie summarised the situation for the Committee as follows:

The global defence market in which Canadian firms must participate these days is increasingly subject to a number of dramatic phenomena: overcapacity, intense competition, smaller production runs, increased risk associated with R and D, and not least of all protectionist policies of other nations affecting our export potential.<sup>10</sup>

With the global market contracting, the major conventional weapons suppliers are all responding in different ways. The former Soviet Union is in the unenviable position of needing to convert massive segments of its defence production to the civil sector, while at the same time foregoing sales of one of the few competitive commodities it can produce.

In Europe, the trend in the past few years has been towards co-operation in multinational production in an attempt to reduce costs and develop a common Western European defence base and market. Individual firms have also paid great attention to the need to diversify their activities away from strictly defence production. There have been fears expressed that European states might adopt a "Fortress Europe" approach to future defence development, production and procurement, but events such as the recent German decision not to participate in the new European Fighter Aircraft program suggest that this is unlikely in the short-term.

In the United States, decades of military spending have created an enormous defence industrial base, but may also have contributed to the economy's low productivity, large deficits and negative trade balance in manufactured goods. In response to the shrinking international market, the large U.S.

---

<sup>10</sup> *Proceedings*, 2:5.

defence industrial base is likely to become smaller and more concentrated in the years to come. Whether or not a "Military-Industrial Complex" exists in the United States, it is likely that the written and unwritten rules which govern relations between the defence industries, the military services and elements of the political system will have to change as well. While fears of future European protectionism exist in the United States, the Bush Administration has opposed overtly protectionist measures to shelter the U.S. defence industry. The responses of the American defence industrial base to the contraction of the international market are particularly important for the Canadian defence industry, which depends to a great extent on exports to the United States. Under the Defence Production Sharing Arrangements, Canadian firms are effectively treated as part of the United States' defence industrial base but some Canadians fear that as the American market continues to contract, the U.S. Administration will come under greater pressure to use U.S. suppliers rather than foreign ones.

A further trend is that the arms trade is shifting increasingly towards technology transfer and transfers of components rather than shipments of complete weapons systems. This is the result of globalization of industrial production, but also of countries and companies pooling their expertise to win shares of shrinking military markets. Controlling trade in military components, and especially in the end-use of technology with military and civilian applications, is difficult and is likely to be a growing problem.

## **INTERNATIONAL EFFORTS TO CURB THE ARMS TRADE**

A final factor influencing the future size and shape of international defence markets is renewed multilateral and national efforts to limit the conventional arms trade. While progress has been made over the years in nuclear and other areas of arms control, the trade in conventional weapons has remained untouched. Despite attempts at bilateral Conventional Arms Transfer (CAT) talks between the superpowers in the 1970s, it effectively took the Gulf War and the end of the Cold War to put the issue back on the international agenda.

Over the years, progress has been made in restricting access to strategic technology through multilateral arrangements such as the Coordinating Committee for Multilateral Export Controls (COCOM) and the Missile Technology Control Regime (MTCR). Both of these arrangements involve some mechanisms for arms transfer control but they have had selective memberships and have focused on high profile strategic and dual-use goods. In effect, the relatively low-technology trade in conventional arms was paid less attention than these other areas by arms control advocates, and the major arms suppliers had little reason to advance proposals for restraint.

Toward the end of the Gulf War the Government of Canada released a broad set of Post Hostilities Proposals. While the package included suggestions for limiting the proliferation of weapons of mass destruction, it also made specific recommendations for action on the conventional arms trade. Prime Minister Brian Mulroney pointed out that the five permanent members of the United Nations Security Council had provided most of Iraq's military equipment. Among other measures, Canada proposed a World Summit on the Instruments of War and Weapons of Mass Destruction to demonstrate the political will to address the issue. The response of the United States and the other major suppliers to this Canadian initiative was less than encouraging, but the Committee is convinced that the government was right in stressing the importance of action on the conventional arms trade through transparency, consultations and restraint. Therefore:

- 1. The Committee endorses the efforts to date of the government to achieve tighter multilateral controls on weapons proliferation and recommends that those efforts be redoubled.**



Efforts are currently underway to address the conventional arms trade through intergovernmental organizations such as the European Communities, the G-7, the Organization of American States, the five permanent members of the United Nations Security Council (P-5) and the United Nations itself. Private initiatives are also being undertaken to mobilize support for arms trade control, for example a resolution circulated by the British American Security Information Council. In the most significant development, after years of study and debate, the United Nations member states voted in 1991 to create a global arms register to promote greater transparency in the international arms trade and hopefully contribute to its further restriction. While the registry at the moment is limited to the voluntary disclosure of certain weapons imports and exports by member states, the resolution creating it also "invited" member states to provide information on their national production, procurement and holdings of military equipment as a confidence-building measure. As the report of the experts group which studied the registry concept for the United Nations makes clear, increased transparency is perhaps the key to stemming the arms trade, and the Committee is convinced that it should be vigorously pursued. Therefore:

- 2. The Committee recommends that the government continue to support efforts to expand the United Nations arms registry, with a view to including eventually all global trade in military goods and components, and all national military goods inventories.**

Whether or not these multilateral efforts to limit the arms trade are successful in the short-term, they will contribute to a further contraction of the changing international defence markets Canadian and other firms must compete for in the future.



## CHAPTER 3

### The Role of Defence Production and Export in Canada

Defence production has served a number of purposes in the Canadian context. The industry came into existence as a result of the Second World War when it contributed to the combined allied production necessary to prosecute the war. At the end of the war, Canada had an arms production industry sufficiently large that it did amount to a real defence industrial base; a strategic asset able to supply almost all the principle needs of the Canadian Armed Forces in time of war. As time passed, however, it became increasingly evident that Canada was not going to be able to maintain such a level of defence industrial activity. This fact was officially recognized, as has been noted, when the Avro Arrow project was cancelled.

The result has been a defence industrial base in Canada which is more dependent for its structure and profitability on the marketplace than is common, at least among Canada's allies. This has not prevented the government from attempting to use the defence industrial base to promote its own policy objectives as well.

#### DEFENCE PRODUCTION AND REGIONAL DEVELOPMENT

In Canada, industrial and regional considerations have figured prominently in matters of procurement and in support of the defence industry. In fact, many Canadians consider defence production to be a tool of regional development. And, as certain provinces rely heavily on the presence of both the armed forces and defence industry to provide employment opportunities and to generate wealth, this is not an unreasonable expectation. The problem is that short-term decisions to maintain regional economic activity can have unexpected long-term effects.

An example of this approach is provided by the Canadian Patrol Frigate contract. It has been estimated that the decision to divide the construction of the first six ships among three shipyards in New Brunswick and Quebec added \$58 million to the purchase price of those ships.<sup>11</sup> The end result, from a defence industrial perspective, as the Committee was told in Halifax, is that Canada is now internationally competitive in the construction of frigates, but not civilian vessels, and is primed to export. However, most of Canada's likely customers have naval shipbuilding capabilities of their own that they protect (for strategic and employment reasons), and export sales are likely to be few and far between, even if permits are provided, while domestic procurement will inevitably slow down after such a large initial project. Canada now has a large defence industrial asset whose ongoing economic viability is open to question.

In the long-term, the Canadian defence industry is too small, relative to the Canadian economy, and too unstable, subject to a boom and bust cycle, to be a viable prop for economically depressed regions.

In fact, as has been noted, Canadian defence and defence-related industries are estimated to provide direct and indirect employment for 60,000 to 80,000 people. This amounts to little more than 1% of the Canadian workforce and of Canadian Gross Domestic Product. However, it is also true that

---

<sup>11</sup> Laurie Watson, "Building Frigates in Canada Cost the Country a Huge Premium," *Forum: Journal of the Conference of Defence Associations*, Fall 1991, p. 14.

the percentage of economic activity, sales and employment generated by the defence trade differs significantly between industrial sectors. For example, defence production amounts to approximately 30% of Canadian aerospace sales whereas the shipbuilding industry relies on Canadian defence procurement for 70% of its activity. Also, the fact that certain industrial sectors, such as aerospace and defence electronics, are so dependent on defence production and on the export of the goods they produce highlights the fact that it is difficult to speak in general terms about the significance of the defence industrial base and its impact on the Canadian economy. In the end, as Professor John Treddenick, from the Royal Military College of Canada, pointed out:

Defence planning is difficult enough without further encumbering it with the necessity to make choices with respect to economic policy goals. That we should even attempt to do so is surprising, given the rather insignificant presence of defence industries in the economy.<sup>12</sup>

That said, the fact that Canada's defence industry does have a role to play in the short-term in meeting "a wider agenda of political, economic and social benefits"<sup>13</sup> means that some care must go into any discussion of its future.

## THE DEFENCE INDUSTRY AND SELF-SUFFICIENCY

It is important to realize that whereas a "classic" defence industrial base would be one designed to meet the military equipment needs of the producing nation, since the 1950s, Canada's defence industry has been shaped almost totally by the component needs of the U.S. industry. It has not been designed to meet Canadian needs, therefore, and according to Robert Gillespie, the Canadian industry "is not at all capable of providing for the total Canadian Forces' operational equipment requirements".<sup>14</sup>

Nevertheless, the government has, in recent years, begun to pursue a defence industrial preparedness policy. Under this policy, the government seeks to ensure that the supply of certain goods, identified as critical to the capability of the Canadian Forces to sustain operations, is assured in time of crisis or war. The results of this in terms of the defence industry and defence expenditure can be demonstrated by two examples. According to information supplied to the Committee by the Department of National Defence, Canada paid 26.1% more to establish a small arms manufacturing capacity in Canada than it would have to buy the same number and type of weapons abroad. Similarly, Canada pays a premium of approximately 35% to buy ammunition in Canada rather than overseas. Both companies involved are identified as strategic assets and centres of excellence. However, both companies are now finding it difficult to stay in business on the basis of Canadian procurement alone, leading to pressures to relax some aspects of Canada's arms export policy.

Ernie Regehr, Research Director of Project Ploughshares, pointed out the unsustainability of such a policy in the future. He argued that supporting the defence industry in Canada in the face of diminishing sales amounts to bad planning in the long-term. As he put it:

In the last half dozen years, military export sales have dropped by about 50%, [thus] it gets down to the industrial strategy which says that we need to maintain military industry functioning in the long-term, such as the manufacture of light armoured vehicles, so that we can resupply our own needs and we will not be caught with a shortage of supply. . .

---

<sup>12</sup> *Proceedings*, 6:10.

<sup>13</sup> *Proceedings*, 12:27.

<sup>14</sup> *Proceedings*, 2:5.

That strikes me as an utterly unworkable strategy because you cannot have that strategy unless you can export these military commodities. Then the question is . . . is every country . . . going to adopt that strategy?<sup>15</sup>

In fact, Canadian industry, supported in some measure by government, has not attempted to become entirely self-sufficient in its quest to achieve sustainment during periods of relative stability. As Robert Gillespie argued:

The question of self-sustainment is not a question of total self-reliance. It is a goal we would never pursue because it would just be totally unachievable. I think as we look at the problem it's a question of where we invest our scarce resources in R & D and in our acquisition budget to foster Canadian capability. We certainly look very heavily at what is most important to us and we also have an eye to what capabilities exist in Canada. It's in this respect that the question of exports becomes very important. There's no question that if the Canadian defence industry could not export then the number of companies we have in Canada that are available to provide support to the Defence Department would be drastically reduced. There are very few areas where the Canadian requirement alone is enough to sustain any kind of competitive industry in Canada.<sup>16</sup>

It is clearly debatable to talk about the Canadian defence industrial base as a strategic *Canadian* asset since it cannot be sustained without either exports or substantial government assistance. Furthermore, only a relatively small proportion of its production is for Canadian needs and, in turn, it only supplies a small proportion of Canadian defence needs. To the extent that it is a strategic asset, it is, in reality, an allied asset, at the same time as it is forced to compete with these same allies for survival. John Treddenick suggested a better approach over the long-term, "The best industrial preparation for mobilization in my mind is an economy that is flexible, adaptable and efficient—in other words, one that works well with as little as possible government direction."<sup>17</sup>

That is not to say that Canada should not be in the business of military goods production, but that our participation should be based on Canada's security requirements and on reasonable and responsible market opportunities.

## THE FUTURE NEED FOR MILITARY GOODS

In light of changing international realities, the question of the continuing need to sustain Canadian defence requirements at all was raised by several witnesses. Specifically, the continuing need to export and import defence related goods to supply the Canadian Armed Forces was an issue raised within the context of the shifting international market and the need for military goods world-wide. Garry Rutledge, President of the NATO Industrial Advisory Group, noted that Canada's defence industry faces an uncertain future in light of reduced defence budgets world-wide, geographic trading blocs restricting Canadian trade, new competitive industrial alliances and the possibility of new government policies further restricting Canada's ability to export defence products. He argued that, "the export restrictions under which we presently operate in Canada are, for the most part, much

---

<sup>15</sup> *Proceedings*, 3:23.

<sup>16</sup> *Proceedings*, 5:25-26.

<sup>17</sup> *Proceedings*, 6:29.

more limiting than those imposed by other nations where our competitors are located.”<sup>18</sup> Making the case as to why Canada should be in the business of exports, he stated, “there is no question. The fact that we are in the export business is supporting the rest of our defence business, and we are major contributors to the economy.”<sup>19</sup>

As was noted in Chapter 2, the traditional Cold War arms market is shrinking, but it is also important to note that it is undergoing changes in term of defence requirements rather than entirely disappearing. This point was expanded on by Brian Schumacher, Assistant Deputy Minister for Trade Development and Chief Trade Commissioner within External Affairs, when he stated:

We foresee continuing market opportunities in some of the following areas... surveillance equipment, training and simulation equipment, electronic warfare, upgrading of older aircraft, as for instance the CF-5 aircraft that Bristol Aerospace in Winnipeg has developed into a very effective package for upgrading, anti-submarine warfare, narcotics interdiction, international peacekeeping.<sup>20</sup>

John Lamb, Executive Director of the Arms Control Centre, made the case as to why there will continue to be a need for military goods in Canada when he argued:

In this post-Cold War period, Canada’s capacity to monitor its own territory, to deal with illegal fishing, drug smuggling, environmental disasters, to assert a presence in the Arctic, and as the recent Hercules tragedy suggests, to carry out effective search and rescue operations there, to participate in international peacekeeping missions and even to help verify arms reduction agreements, will depend on the military. Canadian industry, I believe, especially the high-tech sector, has a role to play in helping meet the current and evolving needs of the Canadian Armed Forces.<sup>21</sup>

Even many of those witnesses less sympathetic to a continuing Canadian role in military production recognized that Canada continues to have legitimate defence requirements, Marion Frank from the Canadian Peace Alliance echoed Mr. Lamb’s concerns about the maintenance of national and international peace and security when she stated, “Certainly as far as peacekeeping commitments are concerned the Canadian Peace Alliance fully supports proposals that are put forward. We also feel very strongly about the importance of maintaining sovereignty, maintaining patrolling [of] Canadian waters, defending Canada [and] search and rescue.”<sup>22</sup> As well, Bill Singleton, the Executive Director of Canadian Physicians for the Prevention of Nuclear War, indicated that “We’re not suggesting the production and export of arms be stopped completely. We are, however, urging that arms manufacture in Canada be directed to supporting the activities of Canadian forces engaged in peacekeeping under the auspices of the United Nations.”<sup>23</sup> And, Mr. Caspar Davis, Treasurer of the World Federalists of Canada remarked, “I certainly don’t think we’d have any problem with exports that were earmarked for United Nations peacekeeping forces.”<sup>24</sup>

---

<sup>18</sup> *Proceedings*, 4:13.

<sup>19</sup> *Proceedings*, 4:17.

<sup>20</sup> *Proceedings*, 2:13.

<sup>21</sup> *Proceedings*, 6:11.

<sup>22</sup> *Proceedings*, 7:14.

<sup>23</sup> *Proceedings*, 9:11.

<sup>24</sup> *Proceedings*, 11:24.

The Committee is generally in agreement that, for the time being, there are areas where legitimate defence requirements will have to continue to be met and, in order to do this, industry will have to receive government support as well as be allowed to export. However, we are also convinced that the areas within which Canada will contribute to the arms market will reflect more benign patterns, such as surveillance and verification equipment. This concern was underscored by Mr. Gillespie's assurance that, "there is a change in the general orientation of the [defence] procurement program. There are areas where I expect industry will find it much easier to use our defence procurement opportunity as a basis for building on other non-military applications, and surveillance is one area."<sup>25</sup>

## DEFENCE INDUSTRY COMPETITIVENESS

In order to continue to supply legitimate defence industry needs in Canada, certain requirements of defence production must be addressed. To stay viable and competitive in international markets, defence industries need, on the one hand, government support, and on the other, an export policy that is not so restrictive as to be unworkable. Industry representatives stressed that an export system should be stringent yet flexible to meet diverse, difficult-to-predict scenarios in a world of international competitiveness as, according to Robert Little, Assistant Deputy Minister Personnel, Finance and Administration in Industry, Science and Technology Canada:

the current industry environment is characterized by relatively high commercial, technical and financial risk, and by foreign firms, which are heavily supported, directly and indirectly, by their respective governments.<sup>26</sup>

Canada's "narrow" defence industry<sup>27</sup> is heavily dependent on the export market, with some 60% of total production being exported. In particular, in areas such as defence electronics and aerospace, exports amount to 70-80% of total shipments. Also, of Canadian exports, up to 85% is exported to the United States.

It is difficult to judge the overall competitiveness of the Canadian industry in the face of rising costs, shorter production runs and tougher competition without considering the assistance given to the industry through government support programs and export promotion. All producing nations support their defence industries in some fashion, though according to figures provided to the Committee by the Aerospace Industries Association, Canada is at the low end of the scale.<sup>28</sup>

In order to remain competitive, defence industries must continue to receive government support. One type of support, the Defence Industry Productivity Program (DIPP), helps drive the defence industry's research and development programs and supports defence related technologies. According to Mr. Little, "the objective of DIPP is to develop and maintain strong defence related industries across Canada which are capable of competing successfully over the long-term in both domestic and

---

<sup>25</sup> *Proceedings*, 2:31.

<sup>26</sup> *Proceedings*, 2:9.

<sup>27</sup> In other words industries producing specialized military equipment — in the Canadian context, Aircraft and Parts, Motor Vehicles, Shipbuilding and Repair, Communications Equipment and Chemical Products — as opposed to the broad defence industrial base composed of all goods bought by military customers.

<sup>28</sup> The AIAC pointed out that government provides 20% of aerospace research and development funding in Canada, compared with a minimum of 26% in the European Community and 75% in the United States. *Proceedings*, 8:15.

particularly export markets.”<sup>29</sup> Because many Canadian exports have both commercial and defence applications they are considered “dual-use” and are also sold to the commercial, non-defence sector. Thus, the DIPP contributes to the promotion of technologies that form part of the civilian economy. This is especially true in the case of the aerospace industry, where some DIPP awards are used for civilian projects within the context of maintaining a military production capability. As William Weston, Vice-President of the Aerospace Industries Association pointed out, “it is difficult to separate purely defence applications from aerospace development programs, primarily because of the many dual-use technologies involved.”<sup>30</sup> Commenting on the impact the aerospace industry has on Canadian industry in general, Mr. Little made the following observations before the Committee:

The aerospace and defence industry investment makes a significant impact and contribution to Canada’s science and technology base, and to the high technology infrastructure necessary for Canada’s future prosperity. The aerospace and defence-related industry’s R & D expenditures account for 21% of Canada’s manufacturing R & D. The industry’s investment in research and development, at 9.7% of sales, is higher than other manufacturing sectors. . . I would like to point out that DIPP investments drive the industry research and development, which in turn correlates strongly with sales.<sup>31</sup>

According to a study conducted for the Committee by Project Ploughshares, direct subsidies and other forms of public support (including DIPP) for Canadian military industry amounted to \$416 million in 1990-91. This was a low estimate since it covers only Federal and Ontario and Quebec programs, does not include any municipal programs and does not include several programs for which figures are unavailable. The most important programs were the DIPP, research contracts from DND’s Chief of Research and Development and the Shipbuilding Industry Assistance Program. Compared to total Canadian defence industry output of \$3 billion, this is a not insubstantial amount of support.

Thus, it is apparent that, although defence and defence-related industries amount to little over 1% of Canadian GDP, the high-tech component of the industry coupled with its dual-use nature means that many of these industries are important contributors to Canada’s manufacturing base. As such, the Canadian government continues to have a role to play in supporting certain aspects of the defence industry that contribute to regional and economic development, promote commercial research and development spin-offs and supply legitimate national and international security requirements.

Given that there appears to be continued justification for the support of a defence industrial base in Canada and that this industrial base relies on exports for its survival, the need for an export control system is obvious.

- 3. The Committee therefore recommends that, as long as Canada continues to produce military goods, the Government of Canada continue to operate a military goods export control system.**

---

<sup>29</sup> *Proceedings*, 2:9.

<sup>30</sup> *Proceedings*, 8:15.

<sup>31</sup> *Proceedings*, 2:9.



## CHAPTER 4

### Current Canadian Export Controls

One of the key issues that faced Committee members is the seemingly fundamental incompatibility between reducing the arms trade and maintaining employment when certain key industrial sectors rely on arms exports for their survival. This also led to the consideration of how to resolve the conflict between arms control objectives and arms export promotion activities. In his paper, *Profit to Losses: The International Arms Trade and Canada's Military Export Policy*, Ernie Regehr highlighted the question that most occupied members during their deliberations:

If it is true that there will continue to be specific requirements for military equipment in the interests of security, and if it is also true that most countries will continue to rely on foreign sources, and that it will continue to be a better use of resources to seek efficiencies in shared production programs, . . . what are the conditions under which Canada should participate in military transfers as a supplier?<sup>32</sup>

Responding to the question of why Canada's export policy should be reviewed, Ernie Regehr made the following observations:

[There are] two important reasons why this policy should be tightened. . . the evidence shows. . . that there has been a certain laxness in applying the restrictions on exports to conflict zones in the past, and second, the international community is calling for tighter controls. . . The official policy guideline is to closely control exports to regions of armed hostilities; yet I am suggesting that the evidence shows that a significant level of military commodities nevertheless goes to these countries, and that is one of the important reasons for tightening that guideline.<sup>33</sup>

[T]he international community is challenging us all to be more restrictive. . . This has created a political opportunity for us to rewrite our own export guidelines and to do it better. We are not the worst. We are amongst the best. Some will always complain until there is perfection, so we will always have something to complain about, but we have an opportunity to improve. That has been created by events in the international community that our own political leadership helped to shape. We had to take advantage of that opportunity.<sup>34</sup>

Mr. Regehr's observations found widespread support among individuals representing peace organizations across Canada. The Committee was therefore concerned that, although Canada is not a primary exporter of military goods, the current export policy may not be as stringent in controlling the sale of arms as it could be. And, if this is the case, then our arms export policy will not engender confidence among the Canadian people as it will not be seen to reflect their values.

Currently, Canadian export controls are administered by the Department of External Affairs and International Trade under the Export and Import Permits Act, in conjunction with the Departments of National Defence, Revenue Canada and Supply and Services. Canada's current policy on export controls was established after review in 1986.

---

<sup>32</sup> Ernie Regehr, *Profits to Losses: The International Arms Trade and Canada's Military Export Policy*, Ploughshares Working Paper, 91-4, p. 17.

<sup>33</sup> *Proceedings*, 3:5.

<sup>34</sup> *Proceedings*, 3:22.

The Export and Import Permits Act empowers cabinet to establish Export and Import Control Lists, which identify specific goods which are controlled, and an Area Control List, which identifies countries to which all exports are controlled. Since the passing of Bill C-6, an Automatic Firearms Country Control List has also been established. The list identifies those countries to which Canadian firms can export automatic weapons and can only include countries with which Canada concludes an intergovernmental defence research, development and production agreement. Companies must obtain permits to export to countries on the Arm Control List, to export goods on the Export Control List, and to export automatic firearms to countries on the Automatic Firearms Country Control List.

Ernie Regehr commented that it remains unclear why special measures should apply to automatic firearms but not to equally or more lethal weapons, such as rockets, which Canada also exports. According to Mr. Regehr:

Ironically, I think we have a model of a system for arms export control in Bill C-6. We have in that bill a legislated provision that before you can sell an automatic weapon to a country, it needs to go through some hoops and be placed on a list of eligibility. That strikes me as a reasonable principle, but it is unreasonable that this is directed toward automatic weapons and not anything else.<sup>35</sup>

Exports that are controlled through the Export Control List (ECL) are now divided into eight groups: industrial goods (Group 1); munitions (Group 2); atomic energy (Group 3); nuclear related technology (Group 4); miscellaneous goods (Group 5); goods agreed upon by the Missile Technology Control Regime (Group 6); chemical and biological equipment (Group 7); and chemicals for the production of illicit drugs (Group 8). The vast majority of items on the ECL stem from Canada's international commitments to control the proliferation of weapons and to deny potential adversaries access to military and strategic goods. The commitments include: the Coordinating Committee on Multilateral Export Controls (COCOM), comprising all NATO members, except Iceland, plus Japan and Australia; the Nuclear Non-Proliferation Treaty (NPT); the Missile Technology Control Regime (MTCR) which aims to prevent the spread of ballistic missile technology; and the Australia Group, which seeks to control the export of chemicals for use in biological and chemical weapons.

## MILITARY EXPORTS

Military exports (defined as Group 2 of the ECL, comprising goods and technologies that are specifically designed or modified for military purposes, plus ECL line item 5500, automatic firearms) are more tightly controlled than other strategic goods. Some confusion was evident concerning the definition of an "arm" or an "offensive weapon", and witnesses before the Committee were divided on the validity of the existing definition of military goods. Some argued that the existing list was too restrictive, that it defined too many things as military goods.<sup>36</sup> Others argued that the list was basically adequate.<sup>37</sup> Still others felt that the list was not restrictive enough.<sup>38</sup> In particular, critics pointed out that almost anything can be used for military purposes, from civilian engines in crop-spraying helicopters used for riot control to toilet paper on long-range bombers, and that perhaps some means should be devised to control that.

---

<sup>35</sup> *Proceedings*, 3:20.

<sup>36</sup> Submission to the Sub-Committee on Arms Export by the SNC Group, January 20, 1992, p. 10.

<sup>37</sup> *Proceedings*, 3:17.

<sup>38</sup> *Proceedings*, 12:43.

The Committee believes, however, that what is more at issue is the criteria for choosing countries to which military goods should be closely controlled.

The government has established criteria to determine countries to which exports of Canadian military goods must be closely controlled. The criteria are: (1) countries which pose a threat to the security of Canada and its allies, (2) countries involved in or under imminent threat of hostilities, (3) countries under United Nations Security Council sanctions, and (4) countries whose governments have a persistent record of serious violations of the human rights of their citizens, unless it can be demonstrated that there is no reasonable risk that goods might be used against the civilian population. Exports of offensive military goods, defined in the policy as particular line items within ECL Group 2, or cases that officials feel are contentious under any of the above four criteria, are referred to the Secretary of State for External Affairs for final approval.

The difficulty with the established criteria is that, according to Project Ploughshares, as well as various disarmament organizations and Church groups, Canadian arms exports are finding their way into countries where there is deemed to be "frequent, official violence against citizens."<sup>39</sup> In fact, current military export guidelines do not prohibit military sales to countries engaged in human rights violations or involved in armed conflict. While the guidelines are supposed to "closely control" Canadian military exports to these trouble-spots, according to several witnesses it is possible that the extent of shipments being exported to countries engaged in armed conflict or where there are serious violations of human rights is understated. According to Project Ploughshares, between one quarter and one third of all Canadian military exports to the Third World have been to conflict areas. Ploughshares also estimates that during the last three years, almost 43% of the countries to which Canada exported military commodities were "frequent" in their use of violence against citizens.

The Committee is aware of the difficulty inherent in attempting to determine exact figures for Canadian exports. Not only can statistics vary according to certain methodological assumptions, but there remain definitional problems surrounding such terms as "Third World countries", "armed conflicts" and "frequent violence against citizens". According to the *First Annual Report of Exports of Military Goods from Canada*, in 1990, non-OECD countries received about 4% of the total value of Canadian military goods exported for that year. In any case, according to Mr. Tom MacDonald, Director General of the Export and Import Permits Bureau with External Affairs, military goods for export to these countries must meet specific criteria and each permit is assessed on a case-by-case basis.<sup>40</sup> This, then, is the process by which exports are "closely controlled".

Appearing before the Sub-Committee, Mr. MacDonald explained the process whereby an export permit application is assessed and issued or denied. It is worth explaining this process in some detail in view of the criticisms that have been levelled against it.<sup>41</sup>

All export applications are filed with the Export Controls Division of the Special Trade Relations Bureau where they are first assessed by technical experts. These experts are tasked with examining the technical aspects of the proposed export products and identifying under which item number of the ECL they fall. In the case of military goods, the application is then passed to a permit officer whose task it is to initiate consultations within External Affairs and with other government departments. The permit application is reviewed by the Bureau of International Security, Arms Control and CSCE

---

<sup>39</sup> *Proceedings*, 3:6.

<sup>40</sup> *Proceedings*, 3:35.

<sup>41</sup> *Proceedings*, 3:33-34.

Affairs, by the International Human Rights Division, by the appropriate geographic division, by the International Defence Programs Division, as well as by the Department of National Defence and Industry, Science and Technology Canada.

At this stage, the permits are assessed according to the four 1986 criteria which were outlined earlier. If any of the consultative bodies raises serious concerns, the permit application is either denied at the level of officials, or the matter is conveyed to the Minister. If any proposed export falls within the four criteria, the decision to issue the permit can only be made by the Secretary of State for External Affairs. As well, permits for offensive military equipment require the approval of the SSEA for all destinations except NATO countries and a few other friendly countries such as Sweden, Switzerland, Australia, New Zealand, Japan and Mexico. In 1990, 1,200 permits were approved for exports of military goods. About 58% of the permits issued were used.

Although it seems to be the case that the permit application process is a rigorous one, it is also apparent that there is room for considerable judgement and, potentially, ambiguity. While the Committee takes the point that exports to potential trouble-spots might be small in relation to total exports, and that the military commodities exported could be considered non-offensive, there seems to be enough evidence to suggest that these are unacceptable mitigators.<sup>42</sup>

Mr. Regehr urged Committee members to consider some important points. Given the fact that no permits are required for military sales to the United States, and that the *Annual Report* focuses on military sales to OECD states, most of which are Canada's NATO allies, the figures presented by External Affairs are inadequate in measuring the effectiveness of Canada's screening process. This is especially significant considering that export permits are routinely provided to these countries.<sup>43</sup> In order to present a clearer picture of Canada's export screening process, Mr. Regehr suggested that the data collected should reflect that group of countries, i.e. Third World countries, for which the screening process is more directly relevant.<sup>44</sup>

Ultimately, the Committee believes that there should exist within Canada's export control policy more effective control on sales in particular to areas of conflict and human-rights-violator countries. The Committee also agrees with the proposition that there should be a process through which "regions of tension", "excessive buildups" and "areas of conflict" can actually be defined and made operative.

## SUB-SYSTEMS AND COMPONENTS AS EXPORTS

Another weakness in the current export control process is the fact that it does not adequately control the ultimate destination of components or sub-systems of military goods. End-user documentation of various types is required for military goods export permits indicating that such goods will not be re-exported from the destination country. In the case of components, however, the country of final manufacture is considered to be the end-user. The final product into which the component is integrated can then be exported at will. This represents a significant loophole in Canada's export control system, especially considering the importance of components in Canadian military goods production. The Committee was assured during its hearings that Canadian

---

<sup>42</sup> *Proceedings*, 3:6, 7:7, 12:36.

<sup>43</sup> *Proceedings*, 3:51-53.

<sup>44</sup> Letter from Ernie Regehr to Peter McCreath, MP, Chairman of the Sub-Committee on Arms Export, February 11, 1992, p. 2.

components were rarely (if ever) re-exported to countries to which they could not be directly exported.<sup>45</sup> On the other hand, nothing in the present system prevents such re-export and we cannot have a high confidence that it does not happen.<sup>46</sup> As Ken Epps noted:

The Canadian industry, because it is oriented more toward production of components and sub-systems, is more prone to this situation of indirect exports, much more so than other countries involved in the arms trade, by and large. It is the uniqueness of the Canadian industry that raises the issue of indirect sales, of components being built here and transferred to another country where they are integrated into a weapons system that is then transferred to a third country.<sup>47</sup>

This “third country” issue becomes even more apparent when one considers that the bulk of Canada’s military goods is exported to the United States—a destination for which no Canadian export permit is required for military goods. Without such a permit system, according to Mr. Regehr, “Canada cannot fulfil its obligations to the international community, as defined by the United Nations in the new conventional arms register, [because] we don’t have a way to tabulate the level of exports from Canada.”<sup>48</sup> Some witnesses did suggest, however, that the restrictive export control policy of the United States should alleviate some of the fear that Canadian components are being shipped as finished goods to unauthorized countries. As Dr. James Fergusson argued:

Most of Canadian production goes for American interests, for American demands, and that reflects the high-technology nature of Canadian industry, . . . [as well,] among the allies, among all the western allies, including Canada, the United States has the most restrictive export controls. It is the United States that is constantly being taken to task by her European allies, and by Canada as well, to loosen up their export controls.<sup>49</sup>

Although it is apparent that the current export policy needs to be tightened, some witnesses before the Committee raised concerns about the extent to which we depend on the United States’ market for our exports. As Keith Krause put it, “the more stringent your end-user certificates, the more sales you lose”.<sup>50</sup> As the Canadian defence industry relies very heavily on its ability to export to survive, this is a legitimate concern. Industry representatives responded to this concern by suggesting that, given this dependence on the United States’ markets, the application of more stringent export controls to countries other than the United States would not adversely affect the industry as a whole.

## NUCLEAR EXPORTS

Although outside of the mandate of the Committee, the issue of exports of nuclear materials and technology was raised by various witnesses. Their testimony was disturbing enough to convince committee members that the issue merited further consideration.

Witnesses before the Committee pointed out that, not only does Canada provide components for nuclear weapon delivery systems, but we also produce and supply nuclear reactors which raises questions about the nature of our export control system as it relates to the sale of nuclear component parts, as well as nuclear-related materials such as uranium and plutonium.

---

<sup>45</sup> *Proceedings*, 12:37.

<sup>46</sup> Indeed, in his 1987 book *Arms Canada* (James Lorimer & Company, publishers), Ernie Regehr provides several examples of such re-export, as well as an extensive appendix of possible Canadian re-exports, pp. 143-146, 218-230.

<sup>47</sup> *Proceedings*, 1:18-19.

<sup>48</sup> *Proceedings*, 9:31.

<sup>49</sup> *Proceedings*, 12:38-40.

<sup>50</sup> *Proceedings*, 1:18.

Ken Epps indicated that "there are many examples of Canadian components for both nuclear weapon systems in the United States and nuclear-capable weapon systems, such as fighter or bomber aircraft that are designed to carry either conventional or nuclear weapons."<sup>51</sup> As well, Maggie Helwig, representing Act for Disarmament, suggested that "the CANDU nuclear reactor has to be considered a form of weapons technology, [as it] produces very large quantities of weapons-grade plutonium."<sup>52</sup> Finally, Fred Knelman of the Greater Victoria Disarmament Group, argued that "there is some Canadian uranium in many of the thermonuclear weapons of France and Great Britain, [and] a little Canadian uranium. . . in nearly all weapons of the United States."<sup>53</sup>

These concerns were raised on several separate occasions before the Committee and we considered them important enough that they be included in our report. However, the Committee was not in a position to consider the issues adequately under its existing mandate and did not hear from all sides of the question. Therefore:

- 4. The Committee recommends that the nature, results and controls over exports of nuclear-related materials, systems, technology and components be the subject of a parliamentary study in the near future.**

---

<sup>51</sup> *Proceedings*, 1:20.

<sup>52</sup> *Proceedings*, 7:8.

<sup>53</sup> *Proceedings*, 11:9.

## CHAPTER 5

### The Future of Canadian Arms Export Controls

It is clear from the preceding discussion that, while the Canadian military goods export control system is one of the most restrictive in the world, it has been criticised on the one hand by industry as unreasonably preventing export sales, and on the other by arms control and other critics who claim that it fails to prevent exports to unacceptable customers.

The export control permit system in Canada is, for the most part, much more restrictive than those operated by other OECD countries, including our major competitors. Canadian military exports tend to be components. The Canadian system controlling the export of military goods seeks to take into account not only a thorough assessment of the situation in the destination country, but also a careful consideration of the nature and potential end-use of the specific goods in question. The enforcement of controls requires vigilance and good intelligence by officials administering the policy and close international co-operation between governments. The system also requires honest disclosure by exporters in reporting their proposed and actual exports. In the circumstances, Canada's record, in terms of adhering to export control commitments, is probably as good as or better than that of any arms exporter in the world.

Nevertheless, in the changing international environment, the Committee believes that the export control system still falls short of the expectations of Canadians. The Committee's objective is to ensure that the sale of Canadian military equipment abroad is controlled more effectively. Canadian manufacturers must not be placed at a competitive disadvantage in that small part of the international market to which the Export and Import Permits Act quite properly limits their access.

#### IMPROVING EFFICIENCY

Since industry expressed concerns about the amount of time it can take to process an Application to Export, the Committee makes the following recommendations:

5. **The Committee recommends that the Department of External Affairs undertake a comprehensive review of the Export Control Permit application process, with the objective of providing better turnaround times to industry when measured against turnaround times in other NATO countries.**
6. **The Committee further recommends that a two-week approval process be developed for Canadian exporters who are only seeking a temporary export permit to send a very limited number of samples of their product for demonstration or testing purposes to prospective buyers.**

The Committee is very supportive of the government's decision to begin publishing an *Annual Report on the Export of Military Goods from Canada*, and a further report on some of the details of the operations of the export control system. Nevertheless, we believe that the existing reports are not as complete as they can or should be. The Committee feels that other information currently available from the existing export control permits should be made available in summary format on an annual basis. The current *Annual Report* lists only successful export sales but the Canadian public should also be conscious of potential sales and of trends developing in particular countries or regions. Therefore:

7. **The Committee recommends that the *Annual Report of Exports of Military Goods from Canada* be expanded to report the following information already provided on the current application for permit to export goods:**
  - **the total value of outstanding, unused export control permits at the end of the calendar year by country of destination;**
  - **the total value of unused export control permits that expired during the past calendar year by country of destination.**

**As well, the report should include all details of exports by amount, line item and country for the past four calendar years.**

The above recommendations represent points on which all members of the Committee were able to agree. They aim to improve the efficiency and transparency of the military goods export control system and could be implemented without substantially overhauling the current approach.

While some members of the Committee believed that such limited modifications within the current system would be sufficient, several others felt that they had to be included in a more complete overhaul. Recommendations 8-12 outline a new Canadian military goods export control system supported by a majority of Committee members.

## **CONTROLLING DESTINATIONS**

The system outlined below only applies to Export Control List Group 2 and line item 5500. As well, where changes are not specified, the system would continue to follow current procedures.

As has already been noted, the Canadian military goods industry indicated that they wanted a system which operated more quickly and with a greater degree of certainty. Therefore:

8. **The Committee recommends that the government establish a Munitions Country Control List. The list would replace the Automatic Firearms Country Control List. The list would indicate countries to which exports of items on the Export Control List Group 2 (munitions) are considered approved in principle. Exports could not be made to countries not on the Munitions Country Control List. Exporters would still be required to submit an export permit application and report on exports made under the permit, for the purposes of data collection, but permits would be issued without delay except under the most unusual circumstances. The United States would be placed on the list automatically and export permits and reports would be required for the purposes of data collection, but would be granted as a matter of course.**

This recommendation would add certainty to the system by clearly establishing destinations to which exports of military goods could be made. Because, as is explained below, much of the analysis of conditions in the destination country, which is currently conducted on a permit application case-by-case basis, would have been done to place countries on the MCCL, only limited further review would be required of the application itself. However, since it is recognized that not all situations can be foreseen, the government should retain the right to deny an export permit application even for a Group 2 item to a country on the MCCL. Such a denial would, however, only occur under unusual circumstances.

Several Committee members believe that placing the United States on the MCCL would also increase transparency by ensuring that exports there are recorded and could be included in Canada's *Annual Report of Exports of Military Goods* and be reported to the United Nations under its arms



register. Considering that exports to the United States represent approximately 85% of total Canadian military goods exports, this would be a significant and important improvement considering Canada's role in initiating and promoting that multilateral initiative.

There was a difference of view among those Committee members who favoured an overhaul of the export control system on the mechanism for placing countries on an MCCL, particularly on the role Parliament should play in the process. The majority believed that Parliament should perform a reviewing function. Therefore:

- 9. The Committee recommends that additions to or deletions from the Munitions Country Control List be made by the government. Such additions or deletions must then be tabled in Parliament and referred to a parliamentary committee not later than five sitting days after they are made public, for consideration within sixty sitting days. A country would be removed from the MCCL after six months, unless the government concluded an intergovernmental defence, research, development and production arrangement with the country, in which case it would remain on the list until deleted or suspended. The government would retain the right to suspend countries from the list on short notice, thereby cancelling or suspending all outstanding permits to that country, pending review by Parliament.**

One member of the Committee took the position that the list and additions to it should be subject to parliamentary approval before coming into force. In such circumstances, Parliament would be obliged to act promptly on government proposals for the list.

Involving Parliament in the process of adding to and subtracting from the MCCL would add further transparency to the system, and would permit public input. Nevertheless, not all recommendations for inclusion on the MCCL would be controversial enough to warrant parliamentary review, so Parliament would have to take a proactive role if it considered a country merited further investigation.

Once a country was placed on the MCCL, the government would have to take a further step if it believed that Canada should have an ongoing military goods production and export relationship with the country. An intergovernmental defence, research, development and production agreement is already required with countries to which Canada wishes to export automatic firearms. This provision in the recommendation would extend the requirement to all military goods destination countries. If the government did not think it was worthwhile to maintain an ongoing relationship with a country, or had doubts that it was going to continue to be an appropriate destination for Canadian military goods exports, then an intergovernmental agreement would not be concluded and the country would lapse from the list. Permits granted while the country was on the list would continue to be valid until they reached their expiry date after one year, as per the current export control policy.

Presence on the MCCL accompanied by an intergovernmental agreement would not confirm permanent acceptability as a destination for Canadian military goods exports. Events could occur quite rapidly which would call into question a country's acceptability, for example a military coup, the start of a conflict or the discovery of gross human rights violations. In such circumstances, the government must retain the right to suspend countries from the MCCL and cancel outstanding export permits.

At any time, of course, Parliament could initiate a review of the MCCL, or of a country's participation, but any recommendations coming out of such a self-initiated review would be advisory only.

The current export control system establishes formal criteria to guide decisions on granting or denying export permits, criteria which have come under considerable criticism. Under the recommended system, since the focus is on the acceptability of a country, such criteria should be applied to the MCCL ratification decision. Therefore:

**10. The Committee recommends that, in making their decisions, the government and Parliament be guided by the following criteria:**

- whether military exports to the country contribute to international security under the United Nations Charter;
- whether the country represents a threat to Canada or to Canada's allies;
- whether the country is under United Nations sanctions;
- whether the country participates in the United Nations arms register;
- whether the country is involved in, or under imminent threat of hostilities;
- the country's contribution to increased security in its region;
- whether the country is engaged in an excessive arms buildup;
- the country's human rights record;
- the nature of goods likely to be exported.

**11. The Committee further recommends that the provisions for establishing the MCCL, for adding to and subtracting from it, and the minimum issues to be addressed when considering adding to or subtracting from the list, be established in legislation.**

Official definitions of concepts such as "human rights" or "excessive arms buildup" would be valuable.

One committee member strongly believes that recommendations related to establishing a Munitions Country Control List will produce undesirable results.

The member argues that, to merge the items on the Export Control List Group 2 with the rules to establish a country on the Automatic Firearms Country Control List will not produce a stable and transparent public policy environment and will place Canadian business at a competitive disadvantage. The proposed Munitions Country Control List would initially consist of only 10 countries, since only Belgium, Denmark, France, Germany, Italy, the Netherlands, Norway, Sweden, the United Kingdom and the United States have concluded intergovernmental defence, research, development and production arrangements with Canada.

The proposed MCCL process would establish a process that tells Canadian companies to expect a permit to be issued without delay to sell bombs, torpedoes, rockets and missiles to Denmark, but could deny the sale of transport aircraft spare parts to Kenya. This could have meant that, in 1990, exports to Brazil of underwater detection devices, to India of electronic generators, to Kuwait of bomb disposal suits, to Morocco of aircraft flight simulators and to Singapore of fire control systems, might not have been possible. It could also have meant that in 1991, exports of military goods to Australia, Japan, the Republic of Korea, New Zealand, Portugal, Saudi Arabia, Spain and Switzerland, which represented 30% of controlled Canadian sales from ECL Group 2 might not have taken place.

The member further argues that a formula process cannot be used, as each case must consider the present climate in the country of destination, the goods to be exported and the potential end-use. The current export control system already addresses every application as having a possible unique circumstance.

In addition, the proposed MCCL process would place Canadian firms in a difficult position. No foreign purchaser would place any order until its country is placed on the MCCL. Therefore, the MCCL would prevent Canadian firms from obtaining the opportunity to even bid on contracts. Foreign purchasers would, instead, buy their legitimate military requirements from our allied partners.

The member does not believe that Canadians want to see the denial of military equipment to friendly countries for their legitimate security purposes.

## THE PROPOSED NEW SYSTEM

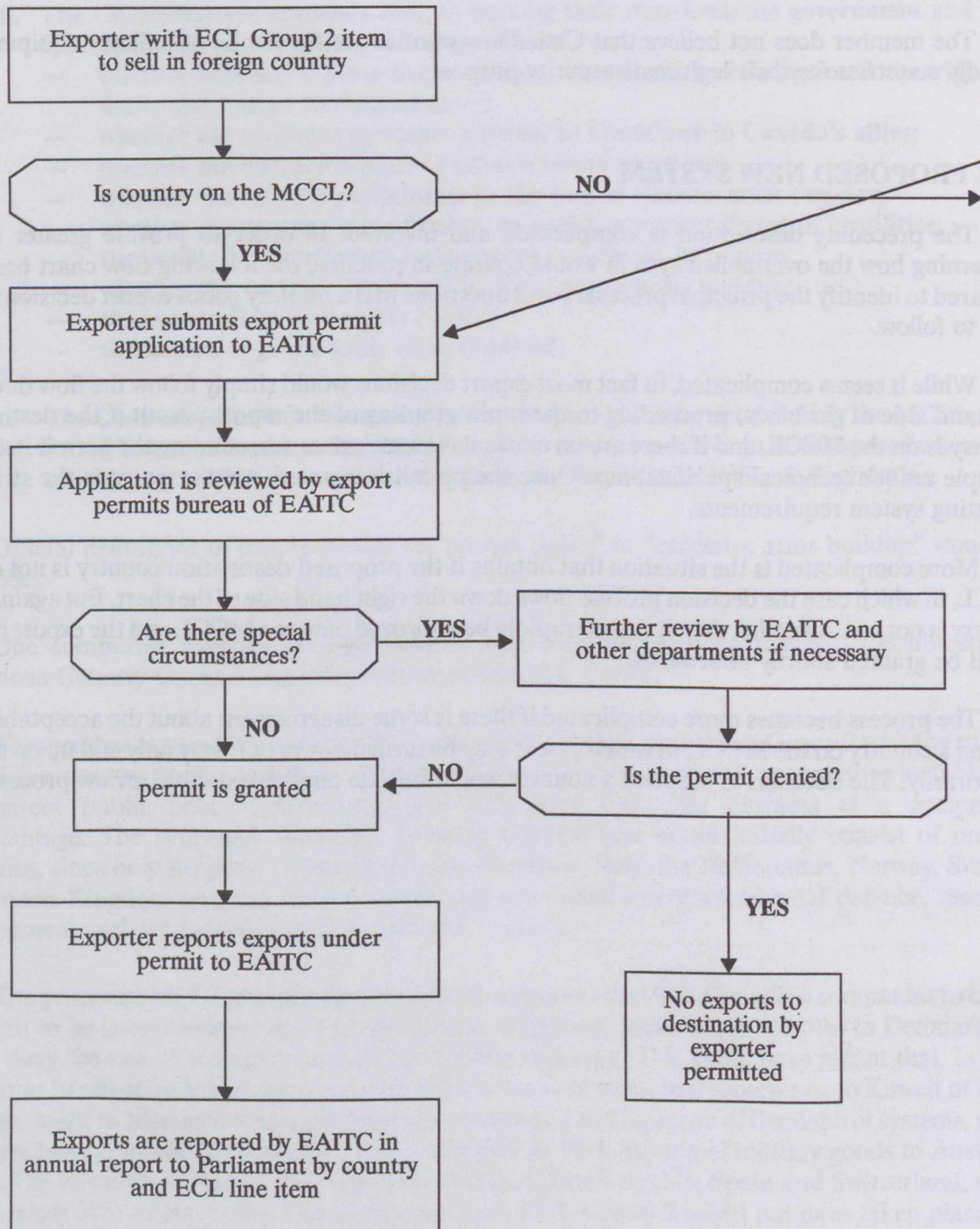
The preceding description is complicated and involved. In order to provide greater clarity concerning how the overhauled system would operate in practice, the following flow chart has been prepared to identify the principal processes and questions that a military goods export decision would have to follow.

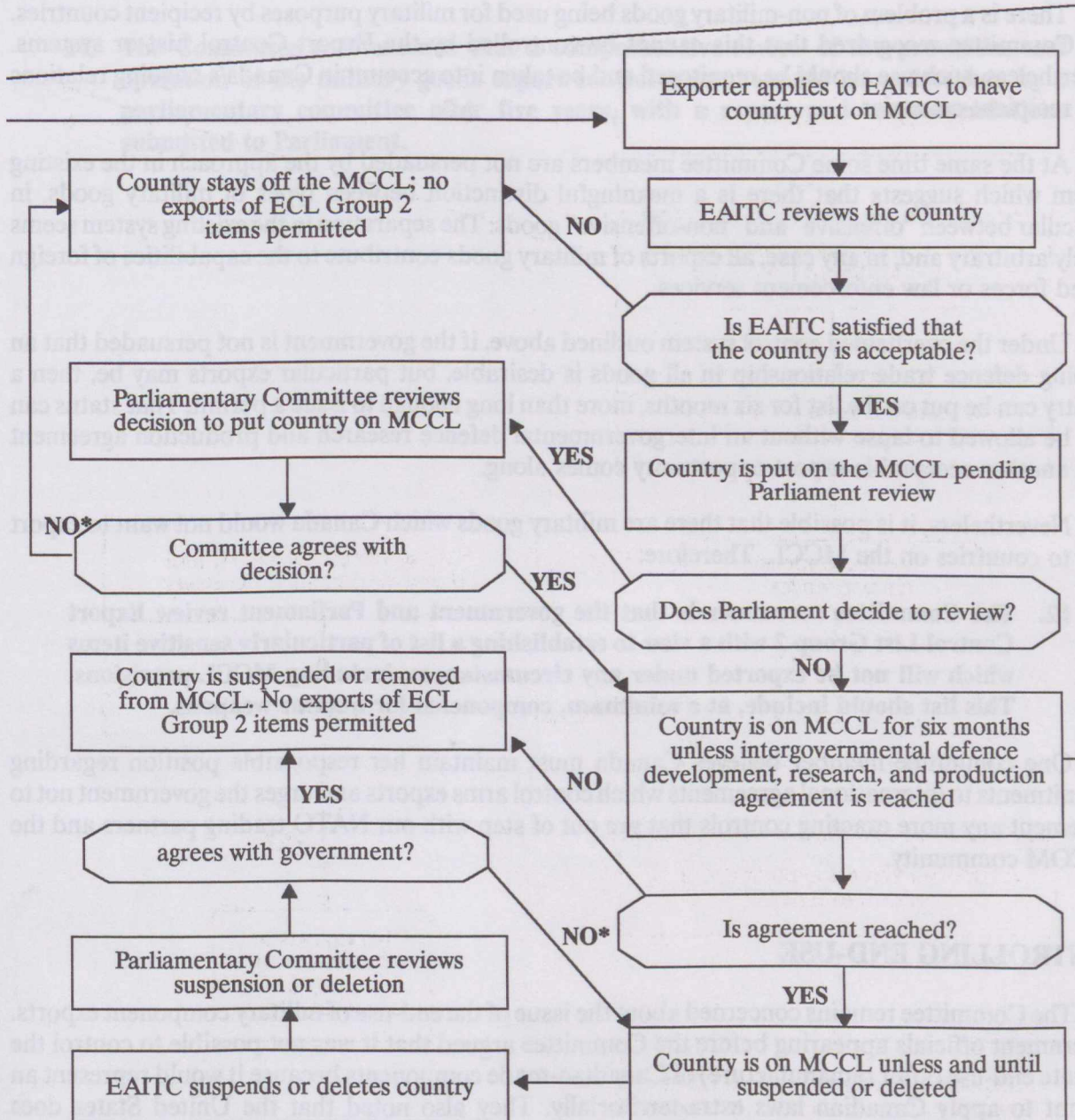
While it seems complicated, in fact most export decisions would simply follow the flow down the left hand side of the chart, proceeding to the rapid granting of the export permit if the destination country is on the MCCL, and if there are no unusual circumstances surrounding the permit itself, for example unique technical specifications. Once the permit is granted, what remains is the stringent reporting system requirements.

More complicated is the situation that obtains if the proposed destination country is not on the MCCL, in which case the decision process flows down the right hand side of the chart. But again, if the country is not controversial, then it should rapidly be approved onto the MCCL and the export permit would be granted shortly afterwards.

The process becomes more complicated if there is some disagreement about the acceptability of putting a country on the MCCL, in which case it may be turned down, or it may only end up on the list temporarily. The decision to suspend a country would initiate another possible review process.

## PROPOSED CANADIAN EXPORT CONTROL PROCESS





\* Under recommendation 9, since Parliament would not ratify the government's decision, a negative parliamentary opinion would not necessarily result in overturning the government's decision unless the government changes its position as a result of the parliamentary opinion.

## CONTROLLING PRODUCTS

The above procedures determine destinations which are acceptable for military goods. There is also the question of which products should be controlled. The existing definition of military goods is provided, as has been explained, by Group 2 (munitions) of the Export Control List. This group is largely defined on the basis of definitions established by COCOM and other international undertakings.

There is a problem of non-military goods being used for military purposes by recipient countries. The Committee recognized that this cannot be controlled by the Export Control List or systems. Nevertheless, such use should be monitored and be taken into account in Canada's ongoing relations with recipient countries.

At the same time some Committee members are not persuaded by the approach in the existing system which suggests that there is a meaningful distinction between types of military goods, in particular between "offensive" and "non-offensive" goods. The separation in the existing system seems largely arbitrary and, in any case, all exports of military goods contribute to the capabilities of foreign armed forces or law enforcement services.

Under the overhauled control system outlined above, if the government is not persuaded that an ongoing defence trade relationship in all goods is desirable, but particular exports may be, then a country can be put on the list for six months, more than long enough to issue a permit. That status can then be allowed to lapse without an intergovernmental defence research and production agreement until another acceptable export opportunity comes along.

Nevertheless, it is possible that there are military goods which Canada would not want to export even to countries on the MCCL. Therefore:

- 12. The Committee recommends that the government and Parliament review Export Control List Group 2 with a view to establishing a list of particularly sensitive items which will not be exported under any circumstances, including MCCL provisions. This list should include, at a minimum, components for nuclear weapons.**

One committee member believes Canada must maintain her responsible position regarding commitments to international agreements which control arms exports and urges the government not to implement any more exacting controls that are out of step with our NATO trading partners and the COCOM community.

## CONTROLLING END-USE

The Committee remains concerned about the issue of the end-use of military component exports. Government officials appearing before the Committee argued that it was not possible to control the ultimate end-use (after remanufacture) of Canadian-made components because it would represent an attempt to apply Canadian laws extra-territorially. They also noted that the United States does attempt to control the re-export of items with American components, but with limited success and at considerable cost. The Committee believes that this question must be given another look. Therefore:

- 13. The Committee recommends that the government identify and implement the most cost-effective procedure possible for tracking military component exports, with a view to ensuring that they are not re-exported to destinations to which they could not be directly exported.**

Any new procedure should provide reasonable assurances that Canadian export control laws and policies will not be circumvented by the re-export of Canadian components. This may involve, among other measures, ensuring that countries which receive Canadian components have themselves an effective and restrictive military goods export control system.

Finally, the Committee recognizes that all systems and procedures must be flexible and prepared to move with the times. Therefore, following the example of the Canadian Security Intelligence Service Act:

- 14. The Committee recommends that a comprehensive review of the provisions and operation of the military goods export control system should be undertaken by a parliamentary committee after five years, with a report and recommendations submitted to Parliament.**

The changes outlined in the previous Chapter will definitely affect the market opportunities and competitive position of Canadian companies for certain goods and in some export markets. While we cannot be certain until an individual system is in operation, it is probable that a new system will reduce Canadian companies' ability to compete in third world markets for military goods. This will probably have something of a knock-on effect since, as the Committee was told by the industry, the loss of a particular market, by itself, reduces the interest of other customers.

Similarly, any new requirements to obtain permits and report export of military goods to the United States will add certain administrative and reporting costs to companies doing business with that country, even though permits will be granted as a matter of course. Finally, any system devised for tracking the end-use of military components will also add costs. On the other hand, it might result in added certainty and efficiency with regard to inter-relationships between the different departments of business.

In their presentation to the Committee, the Canadian Exporters Association suggested that a competitive impact assessment be conducted before final decisions are taken on these export control initiatives. The Committee believes that such an assessment would be a good idea because that unintended effects of the policy change are identified and mitigated by well-considered impact assessment should guide efforts by government to assist where necessary and to ensure that a new export control system be brought on in a way that minimizes the economic impact on the industry affected by the new export control system. Therefore:

- 15. The Committee recommends that the government conduct a competitive impact assessment on the implementation of any export control system.**

## CHALLENGES AND OPPORTUNITY

As has already been explained in earlier Chapters, Canada is already in a state of transition due to dramatic changes in demand, market opportunities and government policies. The Committee believes that the transition to a new export control system will add to the challenges to Canadian industry and, consequently, to Canada's ability to deal with the economic difficulties which will have to be borne by the burden of unemployment and lesser standards of living which the transition is not effectively managed. The Committee also believes that strategic investment in Canadian government, provincial and local as well as federal, can assist in reducing the economic impact.

Several witnesses before the Committee argued that, with the rapid changes and in the face of declining and changing markets, the Canadian industry must diversify and industry should be encouraged to the production of socially useful, exportable, high-technology goods. Some witnesses





## CHAPTER 6

# Conversion and Diversification: The Response to Market Transition

### COMPETITIVE IMPACT

The modified export control systems outlined in the previous Chapter will obviously alter the market opportunities and competitive position of Canadian companies for certain goods and in some export markets. While we cannot be certain until an improved system is in operation, it is probable that a new system will reduce Canadian companies' ability to compete in Third World markets for military goods. This will probably have something of a knock-on effect since, as the Committee was told by the industry, the loss of a particular sale can, by itself, reduce the interest of other customers.

Similarly, any new requirements to obtain permits and report exports of military goods to the United States will add certain administrative and reporting costs to companies doing business with that country, even though permits will be granted as a matter of course. Finally, any system devised for tracking the end-use of military components will also add costs. On the other hand, if changes result in added certainty and efficiency with regard to more established markets, this should reduce some costs of business.

In their presentation to the Committee, the Canadian Exporters Association suggested that a competitive impact assessment be conducted before final decisions are taken on these export control initiatives. The Committee believes that such an assessment would be a good idea to ensure that unintended effects of the policy change are identified and mitigated. As well, the competitive impact assessment should guide efforts by government to assist adjustment by Canadian industry to a new export control system by, amongst other things, identifying sectors and industries likely to be most affected by the new export control system. Therefore:

- 15. The Committee recommends that the government conduct a competitive impact assessment on the implementation of any modified export control system.**

### CHALLENGE AND OPPORTUNITY

As has also been explained in earlier Chapters, defence markets are already in a state of transition due to dramatic changes in demand, military requirements and public attitudes. The Committee believes that in this transition lies great opportunity as well as considerable challenge to Canadian industry and, consequently, to Canadian society and the economy, which will have to bear the burden of unemployment and losses of activity and productivity if the transition is not effectively managed. The Committee also believes that strategic support from Canadian governments, provincial and local as well as federal, can assist in realizing the opportunity.

Several witnesses before the Committee argued that, both for moral reasons and in the face of declining and changing markets, the Canadian military goods production industry should be converted to the production of socially-useful, environmentally-friendly civilian goods. Some went so

far as to suggest that companies be required, by law, to establish conversion committees composed of industry, labour and local government representatives to assess company capabilities, examine alternative markets, and develop plans for conversion.<sup>54</sup>

Representatives of military goods producing companies, on the other hand, argued that conversion as such was not very practical. They argued that restructuring ought to be left in the hands of industry, to the extent possible, with a minimum of government intervention. Industry would inevitably respond to the dictates of a declining international arms market. They suggested that what was needed was diversification into non-military production lines, rather than outright and enforced conversion. They further argued that the revenues from existing military markets and government support programs like DIPP were an essential base upon which to explore new markets. As well, as was explained in Chapter 3, there will continue to be legitimate defence markets in Canada and overseas for self-defence, verification, peacekeeping and peace enforcing; markets in which Canadian industry should continue to participate.

The Committee was presented with several sets of figures which suggested that expenditures in a variety of fields other than military production, such as nursing, teaching and hostels, would generate more employment per dollar or billion dollars spent.<sup>55</sup> The implication presented was that there would be an economic benefit from transferring expenditures from one purpose to the other. The reality is that defence production is a high-wage, high-skill, capital-intensive activity which creates export opportunities. Transferring expenditures to lower wage, service industry jobs will create more employment, but at the expense of Canada's high technology competitiveness and eventually our standard of living. What is needed is a diversification and conversion approach which finds broader opportunities in high-wage, high-skill economic activity, a process which is likely to be difficult and slow.

It was pointed out to the Committee that, by some measures, significant progress has already been made in diversification and conversion. Companies inevitably respond to market forces and are switching products as they can in response to changing markets. According to figures provided to the Committee by the Department of Industry, Science and Technology, in 1991, 70% of the aerospace and defence industry production was for civilian markets and only 30% for military markets, the reverse of the ratio obtained in 1963. The trend is expected to continue until only 20% of production is for defence markets by 1994. Canadian defence firms are, in general, much less dependent on defence contracts alone than, for example American and European defence companies, which provides a measure of built in diversification. Only 10 of the top 20 Canadian military prime contractors are more than 50% dependent on defence sales.

In spite of such progress, it remains difficult for companies to switch from military to civilian production, and even to integrate and combine military and civilian activities.

In the first place, since many Canadian defence production industries are quite dependent on exports, particularly to the United States, they face the spill-over from American barriers to diversification and conversion. In the United States, firms supplying the Department of Defense virtually segregate their civilian and military sectors in order to protect the former from regulatory and legislative rules which would render them commercially unviable. These rules include unique accounting requirements which require a separate bookkeeping system, excessively detailed military specifications and particularly high standards, loss of technical data rights and unique contract

---

<sup>54</sup> *Proceedings*, 7:10, 12:30.

<sup>55</sup> *Proceedings*, 7:10, 12:28, 12:36.

requirements. Canadian suppliers must adhere to the same rules and therefore cannot competitively apply their accounting, quality control and contract practices to the civilian sector. Also, Canadian companies which are subsidiaries of, or suppliers to major American defence firms often lack the adaptive resources of their parents and face the inclination of those parents to preserve their own resources before, and at the expense of, their Canadian suppliers and subsidiaries.

Canadian procurement policies and regulations are not as involved as their United States counterparts, but again defence supplier firms find themselves with accounting, quality control and other systems which are not optimized for civilian markets. The emphasis on regional development again down-plays the importance of normal commercial business terms for defence companies.

The focus of government research, development and industrial incentive policies towards military production also presents companies with the choice of converting and losing all such support, or remaining in the defence production field. The Committee was told by representatives of one company that they had become involved in defence production precisely to gain access to R & D and other support funds which were only available for defence-related work. In this regard, the Free Trade Agreement and the Defence Development and Defence Production Sharing Arrangements all provide defence manufacturers with special terms and access to the American market which it would be difficult and costly for firms to lose.

Ultimately, what seems to have resulted is a different culture in the defence production industry than in civilian industry, a culture which must be overcome.

It must not be forgotten as well that any firm which converts or diversifies into an existing civilian market may well threaten the continuing viability of firms already serving that market. If they are forced out of business by the new competitor, then ultimately little has been accomplished for the economy as a whole by the conversion effort.

The Committee believes that increased diversification is essential and that therefore these barriers must be overcome, and further believes that certain government actions can go a long way to help achieve this. In that context, establishing conversion or diversification committees within companies, composed of executives, labour representatives and community representatives, seems like a useful idea. The process of diversification and conversion will of course be much easier and more effective if it is carefully planned, and it is reasonable to expect that people beyond company executives may have constructive contributions to make. The Committee wishes to encourage the establishment of such committees.

Planning may also be of some benefit at the national level. In 1982, the United Nations General Assembly requested member countries to take steps nationally to follow up a UN report of a group of governmental experts on the relationship between disarmament and development. In effect, the point was to assess how national resources devoted to defence preparations could be reallocated to assist national and international development, in a word, conversion. To date only Sweden has prepared such a report, which was published in 1984 and updated in 1988. The Committee believes that Canadian efforts at diversification and conversion would benefit also from such a national assessment, though it should not take the form of a binding national plan. Therefore:

- 16. The Committee recommends that the government act upon the 1982 request of the United Nations General Assembly to prepare a national assessment of the relationship between disarmament and development in Canada.**

## A NEW APPROACH TO THE DEFENCE INDUSTRIAL BASE

Canadian defence procurement can have an impact on the future directions of the Canadian defence production industry. Although 70-80% of the output of some sectors, such as aerospace and defence electronics, is exported, the 20-30% sold in Canada is a significant quantity. Canadian sales are a much higher percentage in certain other sectors, notably defence shipbuilding (70% dependent on domestic defence expenditures).<sup>56</sup> As well, the Committee was told when it visited Canadian defence firms that the willingness of the Canadian Forces to buy a military good greatly assists efforts to export the good. Finally, since product development costs are usually absorbed by the first few units of a product line, a Canadian government purchase at that point can greatly assist the competitiveness of a good by absorbing those development costs. This adds up to substantial leverage for government on the future direction of Canadian defence industries.

In its procurement decisions, the Department of National Defence, through the Department of Supply and Services, generally aims to acquire the best value possible for the money spent. In fact, though, this approach is subject to two very important caveats which were explained in Chapter 4. First, the government's defence industrial preparedness policy results in a willingness to pay a premium to source goods in Canada. Second, the government makes use of government procurement to support regional development, which also manifests itself as a willingness to pay more for products sourced in disadvantaged or multiple regions.

The Committee recognizes that it is difficult to fault the government for taking the progression of decisions under the rubric of those policies which led, for example, to the establishment of defence industrial capabilities in small arms, ammunition and frigates, to which could be added low level air defence, in the context of the time the decisions were taken. Defence budgets were rising, defence exports were booming, defence industrial preparedness was perceived as a real need, and regional development is an ongoing Canadian requirement. Each activity seemed to have a future. Nevertheless, it is also obvious that each of these examples was definitely a weapon and therefore both likely to be more difficult to export under the Canadian export system, and, perhaps more importantly, of limited civilian applicability.

Furthermore, the Committee also believes that it is reasonable to pay a small premium to source equipment for the Canadian Forces in Canada, and to attempt a certain degree of regional equity in such acquisitions. However, 25-30% or more seems like a high premium.

The essential problem with the above examples is that the procurement and industrial support decisions were too narrow. The Committee believes that the changing nature of defence needs, in particular the shift towards verification, peacekeeping and sovereignty protection capabilities, offers an opportunity to concentrate Canadian defence industrial efforts towards less lethal products. Canada has developed a well-deserved international reputation for its efforts and research in the fields of verification and peacekeeping and is also at the leading edge of developments in relevant technologies, such as remote sensing, helicopters and militarized vehicles. These technologies are not directly lethal and have obvious civilian application. If military orders dry up, continuing sales can still be sought in the civilian marketplace. Canadian defence procurement can play a role in encouraging a shift towards a Canadian defence industry geared to supply those kinds of requirements. Therefore:

---

<sup>56</sup> Industry, Science and Technology Canada, *Aerospace Industry Profile 1990-91*, p. 2; Industry, Science and Technology Canada, *Defence Electronics Industry Profile 1990-91*, p. 2; and P. H. Wall, *The Economic Impact of Canadian Defence Expenditures FY 1989-90 Update*, National Defence College Centre for Studies in Defence Resources Management, Fall 1991, p. 13.

- 17. The Committee recommends that Canadian defence procurement policy aim to foster a leading edge and innovative industrial capability in civilian as well as military high-technology products in areas such as surveillance and monitoring, verification, sovereignty protection and peacekeeping, which represent the military requirements of the future and reflect Canadian values.**

In other words, if the government is faced with a choice of, for example, paying a premium to buy a state-of-the-art radar system in Canada rather than offshore, or paying a premium to buy an anti-tank system in Canada rather than offshore, the government should look more favourably on buying the radar system in Canada. To the extent that the decision to produce the radar in Canada could be used to assist regional development, again without an enormous premium, and through civilian spin-offs reduce regional dependence on defence spending and defence production, then it should do so.

The Committee believes that a significant factor in the future of the Canadian military goods industry will be dual-use technology, in other words the development of technologies and products which have civilian applications and markets to complement their military ones. Indeed, it now seems to be increasingly true that much leading-edge technology is developed in the civilian sphere and transferred to the military, rather than the other way round as was conventionally believed to be the case. In view of this, the Committee commissioned a study of areas in which military and civilian research and development, products and services are closely related and could therefore provide opportunities for diversification or integrated production. The results of this preliminary study were a startling variety of possibilities which are outlined in Appendix C.

An integrated civilian-military defence industrial base seems to be the way of the future, especially in countries like Canada which cannot afford to maintain a significant domestic defence industrial base for strategic purposes. Ernie Regehr observed that, "what we have to do is develop the competence to convert civilian production into military when the need arises."<sup>57</sup>

At the same time, reductions in the defence market and consolidations of defence production firms are making it increasingly difficult for any country or group of countries, even the United States and the European Community, to be self-sufficient in defence production. A future of strategic alliances between countries and companies on defence production and preservation of defence industrial bases is already emerging. This should lead to a recognition that a certain amount of specialization is inevitable, a recognition that should suit the Canadian industry well with its focus on niche markets. Canadian government and industry efforts should seek to promote greater integration among the defence industrial capabilities of our allies and attempt to overcome nationalistic inclinations to preserve a full range of defence industrial capabilities at home, under the guise of strategic necessity, at any cost.

## **PRESERVING TECHNOLOGY**

It is in this context that the Committee believes the future of the Defence Industry Productivity Program administered by the Department of Industry, Science and Technology, should be considered. DIPP has played a significant role in promoting technology development in Canada. While focused on the military sphere, it has also contributed to the development of civilian technology. Witnesses from industry argued that it should be retained and even increased back to the level of a few years ago

---

<sup>57</sup> *Proceedings*, 3:24.

(current disbursements are approximately 60% of their level in 1989-90). They also pointed out that the level of research and development support provided by government is much lower in Canada than in other countries, particularly in aerospace, and therefore the existing level of funding is inadequate to maintain Canadian competitiveness.

Critics of the program argued that DIPP supports the wrong sort of economic activity and should therefore be eliminated or transformed wholesale into a conversion and diversification program to provide necessary incentives and support for the conversion process.<sup>58</sup>

The Committee believes that DIPP remains an important source of funds for technology development and that future technology development in Canada is important both in the military as well as the civilian sector. The Committee further notes that the United States is going to considerable efforts to maintain its research and development expenditures as other components of the American defence budget are drawn down. As a result, the Committee believes that the purpose of DIPP should not be completely changed, but that it should be broadened and refocused. Therefore:

- 18. The Committee recommends that the mandate of the Defence Industry Productivity Program be expanded to assist conversion and diversification, and that it focus primarily on technologies with significant civilian spin-off potential or which assist the integration of military and civilian production.**
- 19. Where contracted DIPP funds are required to be refunded to the Receiver General as a result of a recipient defence industry closure, the Committee recommends that the government provide equivalent funds to convert associated capital and human resources in consultation with the affected community.**

Through this approach, the DIP Program could be another mechanism for the government to assist and encourage diversification and conversion, without interfering unduly with the operation of market forces. Projects chosen for assistance through the broadened DIP Program should demonstrate a reasonable ability to generate an ongoing return to the seed-money investment made by the government, as is required by the existing DIPP approach.

It is worth noting, however, that dual-use technology is a problem area for arms export control. There is no ultimate solution to the problem short of requiring export permits for all goods, since any good could be put to military use. The problem is currently controlled by the fact that military goods, even when derived from or closely related to civilian goods, often are specially redesigned or modified for military purposes. The ECL Group 2 is designed to catch such modifications. Constant review of the ECL Group 2 will help to limit the unwanted export of militarized dual-use goods. Placing more of the focus of the export control system on the destination, would also help.

---

<sup>58</sup> *Proceedings*, 7:9, 12:30, 12:37.

## SUPPORTING CONVERSION AND DIVERSIFICATION

The Committee was struck by the fact that little or no thought or planning is being given to diversification and conversion by the Canadian government. This contrasts markedly with the United States where several reports have recently been completed.<sup>59</sup> Similarly, while corporations are being forced by market conditions to adjust, their focus tends to be narrow and short-term. Furthermore, as has been noted above, diversification and conversion are not necessarily easy and straightforward.

Several witnesses suggested that a centre should be established to focus efforts to assist defence industrial diversification and conversion. The Committee saw this idea as another valuable tool:

- 20. The Committee recommends that the government support the establishment of a Canadian Diversification and Conversion Resource Centre. The Centre should gather and disseminate data on diversification and conversion efforts in Canada and overseas, on federal, provincial and municipal programs which might assist diversification and conversion efforts, and on new products and markets. The Centre should also monitor Canadian and international defence production, defence industry support and military goods export control policies, and encourage the establishment of conversion committees.**

Some members of the Committee saw merit in establishing the centre within a government department, perhaps in Industry, Science and Technology Canada in conjunction with the modified DIP Program, to ensure that the issues remained on the government agenda. Others felt that an arms-length approach might be more appropriate since it would then be easier for a variety of groups to contribute to the centre's work on a broader range of issues.

It was evident to the Committee that developing a capability and expertise in Canada in reducing the reliance of companies and even economies on military goods production had a marketability of its own. Eastern Europe and in particular the countries of the former Soviet Union all have economies highly distorted by the production of military goods. Proportionally smaller but nonetheless significant transformations are also required in the United States and among Canada's European allies as defence budgets are reduced in the post-Cold War era.

---

<sup>59</sup> See for example the Report of the Structure of the U.S. Defense Industrial Base Panel of the House Armed Service Committee, *Future of the Defense Industrial Base*, April 1992; Report of the CSIS Steering Committee on Security and Technology, *Integrating Commercial and Military Technologies for National Strength*, Washington Center for Strategic and International Studies, March 1991; and Congress of the United States Office of Technology Assessment, *Redesigning Defense: Planning the Transition to the Future US Defense Industrial Base*, July 1991.





## SUMMARY AND CONCLUSIONS

Arms export policy is an unusually difficult arms control issue for Canadians. Most Canadians do not think of their country as heavily militarized. Direct military threats are remote. Our armed forces are small in number and often stationed away from the general population, which, as a result, rarely sees a military uniform or vehicle. We do not usually have any difficulty taking the high ground and pushing our allies and others towards increasingly bold arms control steps.

We are also very aware of the problems caused by militarization through our involvements in the Third World. We are constantly confronted with the results of armed conflict, the dead and wounded, and the cycle of poverty brought on by the destruction caused by warfare and by overspending on arms.

It therefore seemed appropriate to Canadians for their government to try to take the initiative to control weapons proliferation after the Gulf War had highlighted the problems of unrestrained global arms exports. And following that initiative, it was an uncomfortable surprise to Canadians to be confronted, during the Bill C-6 process, with the reality that military production is of some importance to the Canadian economy. And further to realize that our military production industries contribute significantly to necessary and important national economic goals such as regional economic development and high technology competitiveness.

Canada is the seventh or eighth largest military producer in the world, and exports a considerable proportion of its military production. This is not because Canada is particularly bent on being a global arms marketer but because, in large part, of our limited domestic market coupled with a close relationship with the United States. At times, the Canadian government has focused defence procurement efforts, regional development policies and defence industrial preparedness policies on the Canadian defence production industry which has helped to sustain it and to develop new capabilities. United States procurement has further helped sustain it during some of the leaner periods. Over the years since the cancellation of the Avro Arrow project in 1959, the products of the Canadian industry have changed as well, moving away from producing weapon systems and platforms towards producing components and "non-lethal" defence equipment, such as electronic systems, often at the leading edge of technology.

It is essentially the relationship with the United States which makes Canada the fourteenth largest military exporter in the world, and partly the structure of the international arms market which heavily concentrates production in the top five countries and imports in the top 10. It is, however, natural for companies to seek opportunities in other markets, and as a result, exports of Canadian defence goods made their way to over 60 countries in 1991. Equally natural have been the efforts of the Canadian government to exercise control over this type of trade because military products are not the same as all other goods.

The controls put in place by the government through the Export and Import Permits Act and refined over the years, most recently by the 1986 policy review and the provisions of Bill C-6, are recognized as among the most restrictive in the world, as Canadians would expect. However, they seem to please few Canadians. Industry feels that the controls are too restrictive and arbitrary, which places them at an unfair disadvantage compared to their principal competitors, which tend to be Canada's allies. They argue that it takes too long to get an export permit, and that decisions are often inconsistent. The industry is clearly prepared to fulfil the requirements of any system established by the Canadian government, but believes that it should be rapid, efficient, clear and consistent. They warn that if the system does not give Canadian companies reasonably comparable access to markets with their competitors, then they will go out of business and Canada will lose jobs, economic opportunities and industrial capabilities.

Large numbers of other Canadians interested in the issue argue that the existing system is too loose. Military goods produced in Canada end up in destinations which they believe they should not. In particular, Canadian military goods occasionally end up in the hands of governments which violate human rights. In general, they recognize that such outcomes are quite rare in comparison with the total of Canadian military goods exports, but feel that this should not happen at all. Some accept, however, that there is a legitimate future for a limited and controlled arms trade in accordance with, for example United Nations requirements, while others feel that Canada should withdraw from the trade altogether. There is a general concern that with substantial reductions in the traditional markets for the vast majority of Canadian military goods, namely OECD countries, there will be pressures to relax Canadian arms export control policies. The result, concerned Canadians believe, will be more Canadian products going to destinations which do not respect Canadian values, especially with regard to the sanctity of human life and human rights. Finally, many interested Canadians are also concerned about the possible arbitrariness of the system; that all decisions are made behind closed doors on the basis of criteria which are deliberately designed to be flexible. This decision-making approach does not inspire confidence.

The Committee does not believe that the solution is to cut off Canadian military goods exports. Canada, its allies and friends have legitimate defence needs and Canada can participate in supplying them. Moreover, military requirements of the future, in areas such as surveillance, verification, sovereignty protection, peacekeeping and peacemaking offer opportunities for innovation and leading edge capabilities of a sort more easily reconciled with Canadian values and interests. Military production industries are an important source of economic activity, at least for the time being, and of leading edge technology. Furthermore, the defence production industry is already seeing its markets change and is responding accordingly. The Committee believes that the key is to ensure that Canada's defence production industries evolve in the right direction through, on the one hand, restrictions imposed by an efficient, transparent and fair export control system in which the public can have confidence, and on the other hand, through support and incentive programs which encourage diversification and conversion.

We believe that the proposals outlined in this report, if implemented, would be a valuable step in that direction.

## APPENDIX A

### Summary of Recommendations

1. The Committee endorses the efforts to date of the government to achieve tighter multilateral controls on weapons proliferation and recommends that those efforts be redoubled. (p. 10)
2. The Committee recommends that the government continue to support efforts to expand the United Nations arms registry, with a view to including eventually all global trade in military goods and components, and all national military goods inventories. (p. 11)
3. The Committee therefore recommends that, as long as Canada continues to produce military goods, the Government of Canada continue to operate a military goods export control system. (p. 18)
4. The Committee recommends that the nature, results and controls over exports of nuclear-related materials, systems, technology and components be the subject of a parliamentary study in the near future. (p. 24)
5. The Committee recommends that the Department of External Affairs undertake a comprehensive review of the Export Control Permit application process, with the objective of providing better turnaround times to industry when measured against turnaround times in other NATO countries. (p. 25)
6. The Committee further recommends that a two-week approval process be developed for Canadian exporters who are only seeking a temporary export permit to send a very limited number of samples of their product for demonstration or testing purposes to prospective buyers. (p. 25)
7. The Committee recommends that the Annual Report of Exports of Military Goods from Canada be expanded to report the following information already provided on the current application for permit to export goods:
  - the total value of outstanding, unused export control permits at the end of the calendar year by country of destination;
  - the total value of unused export control permits that expired during the past calendar year by country of destination.As well, the report should include all details of exports by amount, line item and country for the past four calendar years. (p. 26)
8. The Committee recommends that the government establish a Munitions Country Control List. The list would replace the Automatic Firearms Country Control List. The list would indicate countries to which exports of items on the Export Control List Group 2 (munitions) are considered approved in principle. Exports could not be made to countries not on the Munitions Country Control List. Exporters would still be required to submit an export permit application and report on exports made under the permit, for the purposes of data collection, but permits would be issued without

delay except under the most unusual circumstances. The United States would be placed on the list automatically and export permits and reports would be required for the purposes of data collection, but would be granted as a matter of course. (p. 26)

9. The Committee recommends that additions to or deletions from the Munitions Country Control List be made by the government. Such additions or deletions must then be tabled in Parliament and referred to a parliamentary committee not later than five sitting days after they are made public, for consideration within sixty sitting days. A country would be removed from the MCCL after six months, unless the government concluded an intergovernmental defence, research, development and production arrangement with the country, in which case it would remain on the list until deleted or suspended. The government would retain the right to suspend countries from the list on short notice, thereby cancelling or suspending all outstanding permits to that country, pending review by Parliament. (p. 27)
10. The Committee recommends that, in making their decisions, the government and Parliament be guided by the following criteria:
  - whether military exports to the country contribute to international security under the United Nations Charter;
  - whether the country represents a threat to Canada or to Canada's allies;
  - whether the country is under United Nations sanctions;
  - whether the country participates in the United Nations arms register;
  - whether the country is involved in, or under imminent threat of hostilities;
  - the country's contribution to increased security in its region;
  - whether the country is engaged in an excessive arms buildup;
  - the country's human rights record;
  - the nature of goods likely to be exported. (p. 28)
11. The Committee further recommends that the provisions for establishing the MCCL, for adding to and subtracting from it, and the minimum issues to be addressed when considering adding to or subtracting from the list, be established in legislation. (p. 28)
12. The Committee recommends that the government and Parliament review Export Control List Group 2 with a view to establishing a list of particularly sensitive items which will not be exported under any circumstances, including MCCL provisions. This list should include, at a minimum, components for nuclear weapons. (p. 32)
13. The Committee recommends that the government identify and implement the most cost-effective procedure possible for tracking military component exports, with a view to ensuring that they are not re-exported to destinations to which they could not be directly exported. (p. 32)
14. The Committee recommends that a comprehensive review of the provisions and operation of the military goods export control system should be undertaken by a parliamentary committee after five years, with a report and recommendations submitted to Parliament. (p. 33)
15. The Committee recommends that the government conduct a competitive impact assessment on the implementation of any modified export control system. (p. 35)
16. The Committee recommends that the government act upon the 1982 request of the United Nations General Assembly to prepare a national assessment of the relationship between disarmament and development in Canada. (p. 37)

17. The Committee recommends that Canadian defence procurement policy aim to foster a leading edge and innovative industrial capability in civilian as well as military high-technology products in areas such as surveillance and monitoring, verification, sovereignty protection and peacekeeping, which represent the military requirements of the future and reflect Canadian values. (p. 39)
18. The Committee recommends that the mandate of the Defence Industry Productivity Program be expanded to assist conversion and diversification, and that it focus primarily on technologies with significant civilian spin-off potential or which assist the integration of military and civilian production. (p. 40)
19. Where contracted DIPP funds are required to be refunded to the Receiver General as a result of a recipient defence industry closure, the Committee recommends that the government provide equivalent funds to convert associated capital and human resources in consultation with the affected community. (p. 40)
20. The Committee recommends that the government support the establishment of a Canadian Diversification and Conversion Resource Centre. The Centre should gather and disseminate data on diversification and conversion efforts in Canada and overseas, on federal, provincial and municipal programs which might assist diversification and conversion efforts, and on new products and markets. The Centre should also monitor Canadian and international defence production, defence industry support and military goods export control policies, and encourage the establishment of conversion committees. (p. 41)



## APPENDIX B

### Global Arms Trade Statistics

**Figure 1**  
**Total World Arms Transfers**  
**(\$ 1989 U.S. millions)**

1979	51,110
1980	52,800
1981	59,860
1982	61,950
1983	60,850
1984	63,900
1985	55,430
1986	56,310
1987	62,690
1988	55,430
1989	45,430

Source: United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1990*, Washington, 1991, p. 89.

**Figure 2**  
**Leading exporters of major conventional weapons 1986-90**  
**(\$ 1985 U.S. millions)**

	1986	1987	1988	1989	1990	1986-90
1 USSR	14,731	14,916	12,559	12,220	6,373	60,799
2 USA	10,304	12,596	10,503	11,669	8,738	53,811
3 France	4,096	3,011	2,300	2,577	1,799	13,783
4 UK	1,500	1,817	1,401	1,816	1,220	7,752
5 China	1,463	2,553	1,868	874	926	7,684
6 Germany, FR	1,120	676	1,270	716	963	4,745
7 Czechoslovakia	497	570	548	437	355	2,408
8 Netherlands	240	265	532	725	152	1,915
9 Sweden	324	489	575	311	115	1,813
10 Italy	457	389	471	169	96	1,582
11 Brazil	150	507	356	152	24	1,189
12 Israel	269	340	127	318	39	1,094
13 Spain	172	139	199	506	74	1,090
14 Canada	317	265	106	54	60	802
15 Egypt	159	194	216	65	33	668
Others	656	1,047	735	900	760	4,097
<b>Total</b>	<b>36,453</b>	<b>39,777</b>	<b>33,767</b>	<b>33,509</b>	<b>21,726</b>	<b>165,232</b>

**Leading importers of major conventional weapons 1986-90**  
**(\$ 1985 U.S. millions)**

	1986	1987	1988	1989	1990	1986-90
1 India	3,729	4,582	3,382	3,754	1,541	16,989
2 Japan	1,780	1,768	2,176	3,163	2,083	10,971
3 Saudi Arabia	2,413	2,400	2,046	1,427	2,553	10,838
4 Iraq	2,484	4,440	2,155	1,177	59	10,314
5 Afghanistan	692	768	1,009	2,183	1,091	5,742
6 Spain	1,039	1,513	1,580	794	639	5,565
7 Korea, North	1,019	631	1,458	1,276	516	4,900
8 Poland	1,057	1,007	1,147	1,179	330	4,719
9 Egypt	1,645	2,379	348	139	206	4,717
10 Czechoslovakia	1,077	964	1,054	1,055	422	4,571
11 Turkey	465	1,028	1,219	1,037	623	4,372
12 Syria	1,511	1,172	1,172	336	0	4,191
13 Angola	980	1,140	889	74	508	3,592
14 Korea, South	287	604	987	997	249	3,125
15 Greece	156	93	783	1,367	613	3,012
Others	16,119	15,287	12,361	13,552	10,293	67,612
<b>Total</b>	<b>36,453</b>	<b>39,777</b>	<b>33,767</b>	<b>33,509</b>	<b>21,726</b>	<b>165,232</b>

Source: Stockholm International Peace Research Institute (SIPRI), *SIPRI Yearbook 1991: World Armaments and Disarmament*, Oxford University Press, 1991, p. 198-199. (These numbers are not directly comparable to those in Figure 1 due to different counting methods used by SIPRI and the Arms Control and Disarmament Agency).



**Figure 3**  
**Canadian military exports 1959-1991**  
**(current \$ million)**

Year	US	Europe	Other *	Total
1959-69	2,418.8	439.8	207.0	3,065.6
1970	226.5	41.2	68.5	336.2
1971	216.3	67.2	53.0	336.5
1972	175.0	73.7	51.7	300.4
1973	198.8	72.8	37.6	309.2
1974	150.0	45.6	84.9	280.5
1975	188.5	58.6	33.7	280.8
1976	191.1	113.1	31.9	336.1
1977	314.1	76.0	163.9	554.0
1978	267.0	129.6	87.9	484.5
1979	367.7	145.6	55.0	568.3
1980	481.7	142.1	97.9	721.7
1981	826.6	149.4	174.8	1,150.8
1982	1,027.9	157.8	248.4	1,434.1
1983	1,207.4	128.6	145.2	1,481.2
1984	1,360.5	243.1	149.8	1,753.4
1985	1,644.2	154.0	104.5	1,902.7
1986	947.0	196.2	244.8	1,388.0
1987	1,281.0	351.0	169.0	1,801.0
	US	NATO / OECD	Third World	Total
1988	900.0	121.7	60.8	1,082.5
1989	966.0	218.2	54.9	1,239.1
1990	885.0	119.2	39.6	1,043.8
1991	726.0	131.5	57.7	915.2

\* Primarily represents sales to the Third World

Source: Dept. of External Affairs, adapted from Ernie Regehr, *Profits to Losses: The International Arms Trade and Canada's Military Export Policy*, Ploughshares Working Paper 91-4, 1991, p. 11.

**Figure 4**  
**Canadian Military Exports**  
**(To countries other than the United States)**  
**(page 1 of 2)**

Destination	1991	1990	1989	1988
Algeria	3,749,396	710	—	—
Argentina	28,532	—	—	—
Australia	7,104,620	5,268,663	3,786,481	1,907,902
Austria	268,227	189,591	5,140	17,580
Bahrain	33,955	—	—	—
Bangladesh	—	—	—	400
Belgium	855,726	676,431	1,333,910	1,838,742
Brazil	991,694	4,342,918	797,517	2,138,204
Brunei	38,902	—	—	—
Cameroon	766,603	30,489	1,845,548	429,098
Chile	371,974	148,512	—	105,000
China *	—	6,395	—	—
Cuba	—	—	—	1,050
Denmark	4,075,209	1,039,599	145,998	888,120
Ecuador	123,313	216,938	250,447	42,015
Egypt	1,004,069	488,748	1,563,424	344,865
Ethiopia	185	—	—	—
Finland	89,041	50,694	26,852	280,715
France	5,910,380	697,845	2,763,894	2,222,955
Germany	40,737,431	67,527,295	—	—
Germany (West)	—	—	95,136,708	44,163,033
Greece	845,420	420,200	540,375	2,859,252
Greenland	1,700	11,587	—	—
Guyana	—	—	500	449
Hong Kong	9,339	42,554	—	2,333
India	487,787	561,506	151,464	—
Indonesia	27,963	—	100,000	—
Ireland	1,470	—	—	—
Israel	23,457	63,959	82,056	12,900
Italy	16,398,775	5,191,780	4,009,384	8,194,441
Ivory Coast	—	1,896	250	—
Japan	2,288,227	4,575,552	1,358,920	2,108,542
Kenya	466,491	790,907	1,132,438	511,823
Kuwait	145,080	14,740	—	5,016
Luxembourg	952,072	194,095	416,798	2,378,031
Malaysia	67,443	13,495	151,122	219,025
Mali	—	—	97	—
Mauritania	23,070	1,940	8,343	332
Mexico	1,435	247,299	33,536,724	38,877

**Figure 4**  
**Canadian Military Exports**  
**(To countries other than the United States)**  
**(page 2 of 2)**

Destination	1991	1990	1989	1988
Morocco	230,629	162,584	577,906	28,604
Namibia	18,731	—	—	—
Netherlands	13,049,419	11,892,521	61,999,985	13,520,156
New Zealand	174,423	348,167	1,782,551	733,863
Norway	1,873,464	461,665	1,010,901	7,719,294
Oman	1,553,763	102,694	1,284,308	276,131
Pakistan	25,141	4,418,081	11,000	93,693
Peru	88,852	5,875	387,335	—
Philippines	2,910	115,224	5,792	—
Portugal	12,242,668	515,652	125,000	3,260,187
Saudi Arabia	18,362,069	10,069,897	850,000	32,383,418
Singapore	735,400	934,666	1,011,766	355,958
South Korea	22,667,949	11,916,129	2,082,419	11,510,144
Spain	3,354,149	1,774,092	1,112,439	1,992,389
Sri Lanka	—	152,529	600	300,000
Sudan	—	—	2,070,236	107,272
Sweden	2,368,891	979,597	771,743	6,004,088
Switzerland	7,469,351	2,930,764	2,740,399	845,519
Tanzania	681,491	2,477,517	274,030	312,241
Thailand	3,025,846	1,821,740	4,467,116	8,476,000
Togo	89,791	81,470	46,669	358,358
Trinidad	—	—	2,970	—
Tunisia	77,561	—	—	—
Turkey	2,820,739	1,880,518	4,538,273	12,320,569
United Arab Emirates	1,366,868	146,348	1,043,772	1,681,436
United Kingdom	8,634,013	12,606,749	34,637,940	8,679,417
Uruguay	27,700	60,931	—	—
Venezuela	332,059	8,225	316,845	81,000
Yugoslavia	—	9,165	—	—
Zaire	12,866	—	447	802,285
Zambia	39,038	136,751	793,406	—
Zimbabwe	484	—	—	—
<b>Totals</b>	<b>189,215,251</b>	<b>158,825,871</b>	<b>273,071,104</b>	<b>182,552,722</b>

\* The Committee was informed by Officials of the Department of External Affairs and International Trade that no sales to China occurred in 1990, and this statistic was included in the 1990 Annual Report by mistake.

Source: Dept. of External Affairs, as adopted from Ernie Regehr, *Profits to Losses: The International Arms Trade and Canada's Military Export Policy*, Ploughshares Working Paper 91-4, 1991, p. 13.

Figure 5

Estimated Public Support to the Canadian Military Industry 1990-91<sup>1</sup>

**I: Military Support Programs**

**A: DIRECT SUBSIDIES TO THE MILITARY INDUSTRY**

1. Industry, Science and Technology Canada	
(a) Defence Industry Productivity Program (DIPP)	\$ 214,354,880
2. Department of National Defence	
(a) Chief, Research and Development (CRAD)	\$ 122,730,000
(b) Defence Industrial Research Program (DIRP)	7,692,000

**B: GOVERNMENT DEPARTMENTAL SERVICE COSTS**

1. External Affairs and International Trade Canada	
(a) Aerospace and Defence Programs Division	110,000*
(b) High Technology Export Conference (HiTEC)	81,450*
2. Department of National Defence	
(a) CRAD technology transfer from DRE's	N/A
(b) International and Industry Programs Division	N/A
3. Industry, Science and Technology Canada	
(a) Capital Goods and Service Industries Sector	N/A
4. Canadian Commercial Corporation	\$ 13,100,000*

**II: General Support Programs available to Military Industry**

**A: DIRECT SUBSIDIES TO THE MILITARY INDUSTRY**

Federal Government

1. External Affairs and International Trade Canada	
(a) Program for Export Market Development (PEMD)	N/A
(b) Technology Inflow Program (TIP)	N/A
2. Industry, Science and Technology Canada	
(a) Various industrial programs including Shipbuilding Industry Assistance Program (SIAP)	\$ 24,296,394
3. Western Economic Diversification Program	8,543,983
4. Atlantic Canada Opportunities Agency	795,619
5. Revenue Canada	
(a) Scientific Research and Experimental Development (SRED)	N/A
(b) DDPSA customs duties remissions	5,505,799
6. Export Development Corporation	N/A

Provincial Government (Ontario and Quebec)

1. Ontario Technology Fund	\$ 5,358,988
2. Ontario Development Corporations	N/A
3. Quebec Industrial Development Corporation (SDI)	
(a) Assistance to Bell Helicopter Textron	13,082,999
(b) Other programs	N/A
4. Quebec Ministry of External Trade and Technology Development	563,952

<sup>1</sup> Figures quoted for the Province of Quebec are taken from the 1988-89 Public Accounts, the latest available.

## B: GOVERNMENT DEPARTMENTAL SERVICE COSTS

### Provincial (Ontario)

1. Ministry of Industry, Trade and Technology (MITT)  
Promotional materials N/A

### Municipal

1. Economic Development Corporations  
Various regional/municipal promotional programs N/A

**ESTIMATED TOTAL** **\$ 416,216,264**

N/A Not available

\* Estimated.

### Notes on Figure 5

Canadian military industry received direct subsidies and other forms of public support valued at an estimated \$416 million during FY 1990-91. The total includes Federal, as well as Ontario and Quebec, program figures and should be regarded as a low estimate (since relevant figures for several programs are unavailable, only two provinces could be surveyed and no values have been attached to municipal programs).

Public support to the military industry in Canada has been divided into two broad categories. The first, detailed in Section I of Figure 5, is programs specifically intended to support military production, and the second category (Section II) is general programs to which military producers also have access. The first category is exclusively federal programs, while the second includes all three levels of government.

Procurement by the Department of National Defence is not included, except for contracts awarded by the DND Chief of Research and Development (CRAD), see Section I.A.2. In fact, however, the premiums paid in some instances by DND in order to buy from Canadian sources (as opposed to buying cheaper imports), are a form of direct subsidy. Examples include the purchase of rifles from Diemaco Inc. in Kitchener, and patrol frigates from Saint John Shipbuilding. In an overall domestic procurement bill of over \$1 billion, these subsidies could be significant, but we have not tried to estimate their value.

Public support programs specifically directed toward military industry account for almost 90% of the total cost of public support to military industry and are provided by three Federal Departments and one Crown Corporation. Of these, the Industry, Science and Technology Department program, Defence Industry Productivity at \$214 million is the largest. Next is the Department of National Defence, whose research and development programs add another \$130 million, while the cost of External Affairs Canada's *Aerospace and Defence Programs Division* is estimated at \$190,000. (None of these department costs and estimates include salaries of personnel.) The costs of military-related services by the crown corporation, the Canadian Commercial Corporation, are estimated at about \$13 million.

General industrial support programs provided at least \$58 million in subsidies and support services to Canadian military industries in FY 1990-91. About two-thirds of this also came from the Federal Government, primarily through the Shipbuilding Industry Assistance Program. The rest came from the only two provincial governments surveyed: Ontario at just over \$5 million, and Quebec at more than \$13 million. Municipal programs are identified, but no specific figures, or even reliable estimates, of the costs of these are available.

In general, the estimates of the costs of subsidy and support must be considered conservative due to the lack of detailed data (time permitted a survey of only two provinces, the value of municipal support programs could be estimated only with much more extensive research, and the Annex describes a variety of programs which support military production but for which no figures are available). On the other hand, in some cases the total figures given may be over-estimated in the sense that the recipient military industry firms also produce for the civilian market (some DIPP funds support civilian programs, and general support for military firms, e.g. through provincial governments, may in fact support non-military production). In the case of military-specific programs like DIPP, however, it should be noted that while they may support civilian production, their basic function is to support a continuing military production capability.

*Source: Public Sector Support to the Canadian Military Industry 1990-91, Report prepared for the Sub-Committee on Arms Export by Project Ploughshares, May 1992.*

## APPENDIX C

### Dual-Use Diversification Options

#### MAJOR AREAS OF POTENTIAL DIVERSIFICATION

Areas of potential diversification exist in military research and development, production devoted to the defence market and services provided to the defence market. In each of these areas, take the form of producing alternative civilian products and services, producing dual-use technologies, or applying a military product or service to a commercial market. New products or services may also be acquired through corporate purchase specifically for the commercial market.

In a few cases, diversification may take the form of applying an existing commercial product or service to the defence market. A number of possible areas of R&D military products and military-focused services are identified for potential diversification in the accompanying table. These listings are not complete and can be expanded in scope and degree of detail as required for specific activities or studies. The following discussion of potential diversification follows a sectoral approach and is intended as an overview for policy review, assessment and development.

#### Aircraft and Aerospace

Most Canadian manufacturing in the aircraft and aerospace sector is for systems, sub-systems and components. For the majority of these companies, military business is smaller than civilian business and diversification would involve expanding the civilian side of their business. There are two possible exceptions. Bell Helicopter Textron (Textron Canada), is the only military aircraft manufacturer in Canada at the present time even though part of their business is in the civilian market. The recent contract for 100 helicopters for the Armed Forces is an example of a dual-purpose approach. These military helicopters will be modified civilian designs. The logical diversification for Bell is the increased manufacture of civilian helicopters. The degree of their diversification will depend on the helicopter market, which is presently weak, and the policies of their parent in the United States.

Canadair manufactures some unmanned military surveillance vehicles but this is a small portion of their overall business. Canadair has also manufactured some components for military aircraft, also a minor part of their present business. Repair and overhaul services for military aircraft represent a larger portion of their business and may be an area where more civilian business is possible. However, the only significant possibilities would be to provide repair and overhaul services for Air Canada and/or Canadian Airlines. It is unlikely that this would occur.

CAE Electronics produces flight simulators for both military and civilian markets. While they produce other aerospace electronic systems, such as display systems, the flight simulators are their main products. The company is one of the largest manufacturers of flight simulators in the world for both military and civilian applications. While the company has made efforts in the past to enter other product areas, the flight simulators remain the key products. Diversification for CAE would likely mean obtaining more civilian business at the expense of their competitors.

A number of firms, such as Bristol Aerospace, are subsidiaries of US or European companies. Many of these firms have been set up to serve the Canadian defence market and are heavily dependent on defence business. A key question for these firms is whether the parent company will allow the Canadian subsidiary to have world product mandates and/or diversify into civilian product or market areas.

Pratt and Whitney has substantial defence business but their civilian business is considerably greater. Pratt and Whitney already have a world product mandate for their jet engines and, with their current market share, will have to continue to market their products into global civilian markets. They could be considered to have already diversified into civilian markets.

Menasco Aerospace Ltd. (Colt Industries) produces landing gear systems and flight control actuation systems for both defence and civilian markets, mostly export. Their viability depends on obtaining contracts from aircraft manufacturers for their systems. Since they already serve both markets, there is little scope for diversification unless they add new products for the aerospace or other markets. There is a trickle-down effect in this case. Some of their landing gear component precision machining is sub-contracted to local machine shops. These companies have made substantial investments in equipment and will be impacted by Menasco's decisions. If Menasco's landing gear system sales decrease and Menasco diversifies into other products that do not require similar machining capability, the sub-contractors will suffer. Therefore, it is in the interests of the sub-contractors to plan for diversification also.

The smaller companies in this industry, both Canadian-owned and foreign-owned, tend to manufacture and supply systems or components to the larger firms. In some cases the defence market is their major market and in other cases it is a minor market. The foreign-owned companies are generally constrained by the policies of their parent companies. Some companies have attempted to diversify in the past, Fleet being an example where diversification did not work and the company divested many of its acquisitions. In many cases the Canadian-owned companies may not have the resources to diversify.

The lowest-risk diversification for firms in the aircraft and aerospace industry is to become sub-contractors and/or component suppliers to major firms already in the civilian market. Considering the competition already in this market on a global basis, it will be necessary for firms to identify niche products or market segments where they not only are price-competitive but also have other advantages over their competition.

### **Communications, Navigation and Radar**

There are a large number of companies in the defence market in this industry sector ranging from large subsidiaries of foreign companies to small Canadian companies.

Litton Systems Canada Ltd. is an example of a foreign-owned subsidiary in this sector. Litton produces navigation instruments and equipment, radar, aerospace equipment and systems and displays (cathode ray tube, LED, liquid crystal) for both defence and civilian markets. The company also has a division manufacturing metalworking tools, drills and dies for the civilian market. Further diversification is likely to occur in Canada only if the parent company decides that it is in the best interests of the overall company. Most of the new product research and development is carried out in the United States so it is unlikely that the Canadian subsidiary will receive new products to produce unless there are distinct advantages for them to do so.

Canadian Marconi is another foreign-owned company that serves both the defence and civilian markets. Their products include avionics instruments and displays, instrument landing systems, radar systems, navigation instruments and systems and telecommunications equipment. The company has a research facility in Canada. Diversification would involve the development and/or acquisition of new products for the civilian market. Again, the decision to further diversify will be made by the parent company based on their business and strategic plans.

Rockwell International's Collins Canada Division is also foreign-owned and manufactures communications systems for military and civilian markets. Rockwell's other divisions in Canada manufacture products and components for the automotive industry, meters and telecommunications



products with virtually no military sales. Therefore, Rockwell is already diversified and only the Collins Division may have potential for further diversifications. Their approach to diversification will be determined by their parent company in the United States.

Com Dev Ltd. is a Canadian company that produces microwave, radar and telecommunications equipment and components for both the military and civilian markets. However, the majority of their sales are civilian sales, minimizing their diversification needs.

The above examples are typical of the Canadian industry. Because of the small Canadian market, most firms in this area have to produce a range of products for a number of markets to attain reasonable size in the domestic market. In some cases this has been detrimental and in others favourable to expansion in the export markets.

A few relatively small firms are more dependent on the military market and, therefore, are more vulnerable to the decline. Many of these firms will not have the resources to diversify away from the military market.

## **Engineering**

There are two types of engineering firms involved in the military market. The first type is the consulting engineering firms that design and project-manage construction of a wide range of buildings (e.g. Marshall, Macklin, Monaghan Ltd.), highways (e.g. Procter & Redfern Ltd.), harbours (e.g. Fenco-Lavalin) and airports (e.g. Beauchemin Beaton Lapointe Ltd.). The military component of the sales for these firms is small. They would consider military construction projects in the same sense as civilian construction projects and no diversification would be necessary.

The second type of engineering firms is those firms that do contract engineering and, often, some research, prototype and one-off manufacture for specific military or government projects. W.R. Davis Engineering carries out these types of activities for aircraft and helicopters, specialized truck and van bodies, control systems, electro-mechanical assemblies and component manufacture for both military and civilian applications. A typical project was the design and fabrication of infra-red suppressors for the frigate funnels.

Canadian Astronautics Ltd. is a similar firm specializing in space, communications, search and rescue and radar product areas. They also carry out specific projects under government contract, including military projects, although their military business has been declining.

These companies develop expertise in specific areas and disciplines and obtain engineering contracts based on their expertise. Whether the contracts are military or civilian does not have much significance. Diversification for this group is limited by their expertise.

## **Marine**

Shipbuilding is the most visible component of the marine industry sector. The major defence-oriented shipbuilding contracts are for the construction of new frigates and the mid-life conversion and modernization of other naval vessels. There is also substantial contract repair work.

The major shipyards (e.g. Saint John Shipbuilding and MIL Davie) are the prime contractors for the major warship construction. Smaller shipyards build smaller naval vessels and boats and do sub-contract work for the large shipyards. At the present time, defence contracts represent a large portion of the sales of the larger shipyards although defence work has been very cyclical in the past several decades.

In general, the Canadian shipyards are not commercially competitive with the major international shipyards, especially in Japan and Korea, and there is no sign that this will change. However, Canadian shipyards can be competitive in some niche market areas. The construction of fishing vessels is one such market but, with the currently depressed Atlantic deep-sea fishing industry, there is little demand for new fishing vessels. The industry has the skills and expertise to be competitive in niche markets such as passenger ferries and vessels for Arctic operation. These are limited markets and limit the opportunities for diversification.

A second area in the marine industry sector is that of navigation and sonar applications. While there are some of the larger subsidiaries of foreign companies in this field, there are a number of Canadian firms who are important players. Hermes Electronics is one such firm manufacturing water traffic signals, sonar, navigation, meteorological and communications equipment. Defence sales are an important part of Hermes' overall sales. Diversification for Hermes would likely mean the acquisition or development of new products and the development of new markets.

C-Tech produces sonar equipment for both military and fishing industry markets and associated electronic components and assemblies. Diversification for C-Tech would probably have to follow the same route as for Hermes although the product ranges would differ.

## **Motor Vehicles**

There are no firms dedicated to the manufacture of military motor vehicles in Canada. Three firms have supplied military vehicles in recent years.

The Diesel Division of General Motors has produced light armoured vehicles for both the Canadian Armed Forces and for export. This plant was built to manufacture diesel and diesel-electric locomotives. General Motors acquired the design for a light armoured vehicle and won the contract to supply the Canadian Armed Forces. The production of this type of vehicle fit easily into their production facilities. This was a form of diversification to supplement the production of locomotives for the civilian market.

Bombardier followed a similar pattern in the production of the Iltis jeep for the Canadian Armed Forces. This was Bombardier's first venture into the military vehicle market and fit into their strategy to be a major company in the transportation market. With their experience in building snowmobiles and railway and subway equipment, the production of this vehicle was not a significantly different venture for Bombardier.

The third military vehicle project was the heavy military truck production by UTDC for the Canadian Armed Forces. Again, the design was acquired. UTDC manufactures buses, transit vehicles and commuter passenger cars. The manufacture of the heavy trucks fit into their manufacturing operations and added work for their facilities.

Some civilian vehicles are also provided by the car manufacturers and specialty-vehicle manufacturers but these are generally acquired on a commercial basis and are considered a dual-use application of a civilian product. Examples include passenger vehicles, buses, fire trucks and light trucks.

The balance of the military motor vehicle production in Canada for military use is concentrated in the after-market supply of repair parts, tires, batteries and similar products. With the exception of non-standard repair parts supplied by the original manufacturers, most of this production would be a dual-use application of civilian products.

A limited number of special-purpose vehicles are manufactured or modified from commercial vehicles. Most of this work is done either by engineering firms, as discussed earlier, or by commercial firms specializing in custom-built vehicles.

Since the supply of military equipment or components is a minor part of their business or has been an opportunistic sale, the majority of the firms in this sector have little or no need to consider diversification from military business.

### **Weapons, Munitions and Fire Control Equipment**

Oerlikon Aerospace Inc. is an example of a wholly-owned subsidiary of a foreign firm with complete dependence on the military market. Oerlikon is producing an advanced anti-aircraft and anti-tank guided missile system (ADATS) for the Canadian Armed Forces with a global mandate from its parent company. To date there have been no export sales. Oerlikon (Canada) is a classic example of a company with a single product in a single market. As such, diversification is virtually impossible unless the parent company transfers the world mandate for a similar product to Canada or the Canadian subsidiary acquires another product or products from another company. In this case neither option is likely. The parent company has had financial losses since 1985 and has a heavy debt load. The military division accounts for more than a third of the parent company's sales but has been losing money in recent years. The company has been unable to sell the military division and has now set the objective of shrinking the division by half. There is unlikely to be very much additional financial support for the Canadian firm by its parent, which effectively eliminates any significant diversification program.

M.E.L. Defence Systems Ltd. is another single-product, single-market company with foreign ownership. It was set up to supply the Canadian Armed Forces with some export potential. The company produces electronic warfare systems and also carries out some related research. It is difficult to identify diversification options for this company unless the parent company's strategic plan includes diversification in Canada. While there may be some compatible products that the company could produce, the company has very limited contact with and experience in the civilian market and would require a significant change in its sales and marketing organization.

Westinghouse Canada has an Information & Defence Technologies Division that has been heavily dependent on military sales. The defence-oriented electronic equipment and systems include sonar equipment and command and control systems. The defence portion of this division is not a large contributor to Westinghouse Canada sales and the company is likely to increase its emphasis on information technology, which could be considered a form of diversification.

Computing Devices Company, a subsidiary of Control Data Canada Ltd., produces weapons control systems and other electronic products for military use. The company also produces some products for the civilian market but the defence market is larger. If defence sales decline, Control Data is likely to follow the same path as Westinghouse and replace at least part of the defence business with other civilian business. Computing Devices represents only a part of Control Data Canada's sales and the non-Computing Devices sales are virtually all civilian. Again, the final decision will be made by the parent company in the United States.

Diemaco produces small arms and weapons for the military and civilian markets, the military market often exceeding the civilian market. The company also does custom machining and produces parts for weapons and other products. Although the company has a reliance on the military market, many of its products are dual-purpose and part of the military market loss can be made up from its existing civilian markets or by adding new products that are compatible with their existing product-mix.

Ingersoll Machine and Tool and its subsidiaries produce shell casings, forgings and parts for large-calibre ammunition. Since the manufacturing plant and equipment are not dedicated to these military products, the company can expand its civilian sales to make up for any loss of military sales, depending on the state of the economy and the competitiveness of the company.

Canadian Arsenals Ltd. owned by engineering giant SNC, produces explosives and propellants for large-calibre munitions and loads the munitions. This is a specialized activity that has no real counterpart in the civilian market. While Canadian Arsenals may be able to diversify into some speciality explosives production, it is unlikely that this would provide sufficient sales volume to enable the company to remain viable.

# Possible Areas of Military R&D and Potential Civilian Applications

MILITARY R&D	POTENTIAL CIVILIAN APPLICATIONS
Military research in physiology, pathology and nutrition	Nutritional problems Health hazards of climate Arctic survival techniques Occupational hazards and personal protection Readaptation processes Mental health research Environmental health monitoring
Military vehicles research	Design of vehicles adapted to the needs of developing countries Design of multi-purpose vehicles for peace-keeping and policing activities Effects on people of noise and vibration Design of special-purpose vehicles for Arctic use
Communications research	Improved communications technology for Arctic use Appropriate communications technology for the needs of developing countries Communications technology for use in remote areas or under adverse conditions (e.g. noise, vibrations, etc.)
Marine and marine engineering research	Ship design for ice conditions Offshore drilling rig and production platform design for ice conditions Design of un-sinkable, self-righting lifeboats Offshore oil exploration and production Ocean shipping and ports, especially for Arctic conditions
Food supply research	Long-term storage and preservation of food products Emergency survival rations, especially for Arctic use
Navigation research	Improved navigation technology for marine and Arctic applications Improved navigation aids and ground location transponders for search and rescue, especially for adverse conditions as in the Arctic Low-cost satellite navigation technology
Civil and engineering research	Appropriate designs for roads, railroads, airports, docks for developing countries, disaster emergencies and adverse terrain and climate conditions Research on building and construction materials especially for low-cost, prefabricated buildings for housing and commercial use
Logistics research	Logistics management for commercial and industrial applications, peace-keeping and policing actions, disaster emergencies

## MILITARY R&D

## POTENTIAL CIVILIAN APPLICATIONS

Military vehicles

Special-purpose vehicles for Arctic use  
Special-purpose, off-road vehicles for forestry, mining, construction and oilfields use in developing and industrialized countries  
Components and sub-assemblies for commercial vehicles

Marine and ship building

Specialized life boats for offshore oil and gas drilling and production facilities, especially for cold weather and ice conditions  
Patrol boats for police, fisheries enforcement, coast guard and similar agencies, especially ocean-going  
Components and equipment for boats and ships

Sonar and other underwater detection equipment

Fishing industry for location of fish  
Construction industry for identification and delineation of damage to underwater structures and monitoring of repairs  
Locating underwater obstacles and hazards to navigation

Communications equipment

Communications equipment for Arctic use  
Communications equipment for remote or inhospitable terrain in developing and industrialized countries

Navigation equipment and systems

Vehicle navigation (satellite) equipment and systems for Arctic use and for remote or inhospitable areas in developing and industrialized countries  
Light-weight, low-cost navigation (satellite) equipment and systems for small, mobile groups such as mineral exploration teams, survey teams, forestry workers and trappers

Radar, electronic warfare and similar systems

Aircraft collision warning equipment and systems  
Air traffic controller equipment and systems  
Ice collision warning equipment and systems for fishing and other commercial vessels in icy waters

Aerospace equipment, components and systems

Components, sub-assemblies and sub-systems for commercial aircraft

Logistical support services

Provide logistical support software and services to manufacturers, government organizations, distribution organizations and others  
Provide consulting services for logistical support

Command and control support services

Apply command and control software systems, management systems and support systems to civilian organizations including police, fire-fighting and emergency response

Training services

Apply training software systems to civilian applications, especially in technical retraining of adults  
Provide specialized training services to businesses and other organizations involved in training  
Development of specialized training programs

Medical services

Provide medical services in civilian groups

**MILITARY R&D****POTENTIAL CIVILIAN APPLICATIONS**

Engineering services

Provide specialized engineering services in construction, vehicle and aerospace design and other engineering areas

Maintenance and repair services

Provide maintenance and repair services for buildings, vehicles, aerospace and similar areas, especially for Arctic or inhospitable conditions

Associations and Individuals	Year	Date
Act for Disarmament Maggie Helwig Spokesperson	7	Thursday, February 4, 1992
Aerospace Industries Association of Canada William Weston Vice-President Administration	8	Thursday, February 27, 1992
Anglican Church of Canada Rev. Orth Bulmer Past-Chairperson of the Public Social Responsibility Unit David Pollock Consultant Economic, Justice and Peace Making	9	Thursday, March 12, 1992
Arms Control Centre John Lamb Executive Director	9	Thursday, March 12, 1992
British Aerospace Limited Kevin Milne President R. Campbell Blair Vice-President Acquisitions Division J.R. Chisholm Vice-President Government Relations Dad Dugan President Local 305 Canadian Auto Workers George Karvak Vice-President Local 305 Canadian Auto Workers	12	Wednesday, June 10, 1992
Canadian Exporters Association	12	Monday, January 21, 1992

Source: Diversifying Canada's Defence Industrial Base: An Alternative to the Arms Trade?, Report prepared for the Sub-Committee on Arms Export by The Arms Control Centre, June 1992.





## APPENDIX D

### List of Witnesses

Associations and Individuals	Issue	Date
<b>Act for Disarmament</b> Maggie Helwig, Spokesperson.	7	Thursday, February 6, 1992
<b>Aerospace Industries Association of Canada</b> William Weston, Vice-President, Administration.	8	Thursday, February 27, 1992
<b>Anglican Church of Canada</b> Rev. Garth Bulmar, Past Chairperson of the Public Social Responsibility Unit; David Pollock, Consultant, Economic, Justice and Peace Making.	9	Thursday, March 12, 1992
<b>Arms Control Centre</b> John Lamb, Executive Director.	6	Thursday, December 12, 1991
<b>Bristol Aerospace Limited</b> Trevor Murch, President; R. Campbell Barr, Vice-President, Aerocomponents Division; J.R. Chisholm, Vice-President, Government Relations; Dan Davies, President, Local 3005, Canadian Auto Workers; Georges Klowak, Vice-President, Local 3005, Canadian Auto Workers.	12	Wednesday, April 1st, 1992
<b>Canadian Exporters' Association</b> James Taylor, President.	8	Thursday, February 27, 1992

<b>Associations and Individuals</b>	<b>Issue</b>	<b>Date</b>
<b>Canadian Commercial Corporation</b> Obed Ivan Matthews, Executive Vice-President; Jean-Pierre Cloutier, General Counsel and Secretary.	10	Thursday, March 26, 1992
<b>Canadian Council of Churches</b> Sister Kathleen Cyr.	9	Thursday, March 12, 1992
<b>Canadian Defence Preparedness Association</b> Lt. Gen. (Ret'd) Charles Belzile, President.	5	Thursday, December 5, 1991
<b>Canadian Institute for International Peace and Security</b> Jean-François Rioux, Research Fellow.	12	Tuesday, April 7, 1992
<b>Canadian NATO Industrial Advisory Group</b> Garry Rutledge, President.	4	Thursday, November 28, 1991
<b>Canadian Peace Alliance</b> Marion Frank, Member, Steering Committee.	7	Thursday, February 6, 1992
<b>Canadian Physicians for the Prevention of Nuclear War</b> Bill Singleton, Executive Director.	9	Thursday, March 12, 1992
<b>Coalition to Oppose the Arms Trade</b> Richard Sanders, Coordinator.	7	Thursday, February 6, 1992
<b>Conference of Defence Associations Institute</b> B. Gen. W.J. Yost.	10	Thursday, March 26, 1992
<b>Department of External Affairs and International Trade</b> Brian Schumacher, Assistant Deputy Minister, Trade Development and Chief Trade Commissioner.	2	Thursday, November 7, 1991

<b>Associations and Individuals</b>	<b>Issue</b>	<b>Date</b>
<b>Department of External Affairs and International Trade</b>	3	Thursday, November 21, 1991
Tom MacDonald, Director General, Export and Import Permits Bureau;	13	Thursday, April 9, 1992
Mark Moher, Director General, International Security, Arms Control, and CSCE Affairs;	13	Thursday, April 9, 1992
Jean-Michel Roy, Director, Export Controls Division.		
<b>Department of External Affairs and International Trade</b>	13	Thursday, April 9, 1992
Donald W. Campbell, Deputy Minister.		
<b>Department of Industry, Science and Technology</b>	2	Thursday, November 7, 1991
Robert Little, Assistant Deputy Minister, Personnel, Finance and Administration.		
<b>Department of National Defence</b>	2	Thursday, November 7, 1991
R.D. Gillespie, Assistant Deputy Minister, (Materiel).	5	Thursday, December 5, 1991
<b>Department of National Defence</b>	3	Thursday, November 21, 1991
Catherine Kerr, Director General, International and Industry Programs.		
<b>Department of Supply and Services</b>	10	Thursday, March 26, 1992
Jeff Carruthers, Assistant Deputy Minister, Corporate Policy and Planning Services;		
Charles Stedman, Assistant Deputy Minister, Supply Operations Service.		
<b>End the Arms Race</b>	11	Monday, March 30, 1992
Hugh Dempster, Vice-President.		

Associations and Individuals	Issue	Date
<b>Greater Victoria Disarmament Group</b> Dr. Fred Knelman, Spokesperson; Al Rycroft, Spokesperson.	11	Monday, March 30, 1992
<b>Halifax Board of Trade</b> Alan Barkhouse, Senior Vice-Chairman; Michael J. Garvey, IMP Aerospace Limited.	12	Monday, April 6, 1992
<b>Halifax City Hall</b> Moira Ducharme, Mayor; Graham Downy, Alderman; Tom Abraham, Executive Assistant to the city manager (Resource Person).	12	Monday, April 6, 1992
<b>Halifax-Dartmouth Industries</b> Andrew McArthur, President & CEO; Vice-Admiral Porter, R.C.N. (Ret'd), Special Assistant to the President; Allan Proctor, Business Agent, Industrial Union of Marine and Shipbuilding Workers' of Canada; Les Hallway, Marine Workers' Federation.	12	Monday, April 6, 1992
<b>International Security, Arms Control and            CSCE Affairs Bureau</b> Mark J. Moher, Director General.	13	Thursday, April 9, 1992

Associations and Individuals	Issue	Date
<b>MacDonald Dettwiler and Associates Ltd.</b> Bernie Clark, Director of Sales; Dan Friedmann, Executive Vice-President; Murray MacDonald, Space and Defence; Karen Vanturenout, Director, Strategic Planning; Timothy Bult, Employee Representative.		Tuesday, March 31, 1992
<b>Mennonite Central Committee</b> Edwin Epp, Coordinator, Peace and Social Concerns.	12	Wednesday, April 1, 1992
<b>Mennonite Conference of Eastern Canada            (Peace Justice and Social Concerns            Committee)</b> Gary Leis, Member; Maurice Martin, Chair of the Theological Concern Committee; Jean Goulet, Chair of Missions.	9	Thursday, March 12, 1992
<b>Montreal Chamber of Commerce</b> Marco Genoni, Vice-President.	12	Tuesday, April 7, 1992
<b>Montreal City Hall</b> Robert Letendre, Partnership Relations Officer, Economic Development Committee; Richard Artaud, Planning Officer, Planning and Policy Division.	12	Tuesday, April 7, 1992
<b>Naval Association of Canada</b> Rear-Admiral Fred Crickard, (Ret'd); Derick McGilvry.	12	Monday, April 6, 1992
<b>Physicians for Prevention of Nuclear War</b> Dr. Earl Morris.	11	Monday, March 30, 1992

<b>Associations and Individuals</b>	<b>Issue</b>	<b>Date</b>
<b>Project Peacemakers</b> Lynn Grinke, Chair of the Board of Directors; Weldon Epp, Staff; Chad Sherman, Staff.	12	Wednesday, April 1st, 1992
<b>Project Ploughshares (Lunenburg)</b> Margery Dahn, Coordinating Secretary.	12	Monday, April 6, 1992
<b>Project Ploughshares (Montreal)</b> Irene Munt; Ed Napier; Jacques Langlais, WCRP Canada, Observer.	12	Tuesday, April 7, 1992
<b>Project Ploughshares (N.S.)</b> John Osborne; Wally Wason; Ruth Smith.	12	Monday, April 6, 1992
<b>Project Ploughshares</b> Ken Epps, Program Associate.	1	Thursday, October 31, 1991
<b>Project Ploughshares</b> Ernie Regehr.	3	Thursday, November 21, 1991
<b>Queen's University</b> Alistair Edgar, Graduate Fellow, Centre for International Relations.	4	Thursday, November 28, 1991
<b>Royal Military College of Canada</b> John Treddenick.	6	Thursday, December 12, 1991

<b>Associations and Individuals</b>	<b>Issue</b>	<b>Date</b>
<b>SNC Inc.</b> Claude Daignault, Vice-President, Human Resources and Administration; Pierre Bélanger, Vice-President and Director General; Jeremy Barry, Legal Counselor; Lorne Zakaib, Chairman, Chief Executive Officer; Lt. Gen. (ret'd) Charles Belzile; Fernand Boyer, Vice-President, Marketing.	12	Tuesday, April 7, 1992
<b>Union of Spiritual Community</b> Polly Malekow, Member of the Working Group on Disarmament and Peace; Dan Voykin, Member of the Working Group on Disarmament and Peace.	11	Monday, March 30, 1992
<b>Unitarian Church of Winnipeg</b> Cecil Muldrew.	12	Wednesday, April 1st, 1992
<b>United Church of Canada</b> Shirley Jackson, Chairperson; Ralph Arrowsmith, Member.	11	Monday, March 30, 1992
<b>University of Manitoba</b> James Fergusson, Program in Strategic Studies.	5 12	Thursday, December 5, 1991 Wednesday, April 1st, 1992
<b>Vancouver City Hall Special Advisory            Committee on Peace</b> Professor Michael Wallace, Professor of International Relations, University of British Columbia; Roger Sweeny, Commander (Rt'd), (Naval Officer), Member of Veterans Against Nuclear Arms.	12	Tuesday, March 31, 1992
<b>Vancouver Island Conversion Committee</b> Sunshine Goldstream, Spokesperson.	11	Monday, March 30, 1992

<b>Associations and Individuals</b>	<b>Issue</b>	<b>Date</b>
<b>Veterans Against Nuclear Arms</b> Tom K. Guilford, Nova Scotia Branch President; Ray Creery, Vice-Chairman.	12	Monday, April 6, 1992
<b>Veterans Against Nuclear Arms (B.C.)</b> Gladys Kennedy, Member; Rev. Michael Piddington, Member.	11	Monday, March 30, 1992
<b>Victoria Voice of Women</b> Theresa Padgham, Chair; Maria K. Abbott, Treasurer.	11	Monday, March 30, 1992
<b>Voice of Women</b> Marie Hammond, Coordinator; Barbara Taylor, Coordinator.	12	Monday, April 6, 1992
<b>Professor Michael Wallace,</b> Professor of International Relations, University of British Columbia.	11	Monday, March 30, 1992
<b>Winnipeg Chamber of Commerce</b> Dr. Ossawa Abouzied, Central Canadian Structures.	12	Wednesday, April 1st, 1992
<b>Winnipeg City Hall</b> Doreen Demare, Councillor.	12	Wednesday, April 1st, 1992
<b>Winnipeg Coordination Committee for Disarmament</b> Len Grier, Member.	12	Wednesday, April 1st, 1992
<b>Winnipeg Economic Conversion Committee</b> Doreen Plowman, Chairperson; Bruce Mackay, Committee Member, Representative from the Manitoba Federation of Labour.	12	Wednesday, April 1st, 1992
<b>World Federalists of Canada</b> Menno Klassen, Board Member.	12	Wednesday, April 1st, 1992



Associations and Individuals	Issue	Date
<b>World Federalists of Canada (B.C.)</b> Jack Drummond, Past President; Me. Caspar Davis, Treasurer.	11	Monday, March 30, 1992
<b>York University</b> Keith Krause, Deputy Director, Centre for International and Strategic Studies.	1	Thursday, October 31, 1991
<b>York University</b> Martin Shadwick, Research Associate, Centre for International and Strategic Studies.	4	Thursday, November 28, 1991



## APPENDIX E

### List of Submissions

#### Name / Organization

Act for Disarmament  
Aerospace Industries Association of Canada  
Amnesty International  
Anglican Church of Canada  
Arms Control Centre  
Canadian Commercial Corporation  
Canadian Council of Churches  
Canadian Defence Preparedness Association  
Canadian Exporters' Association  
Canadian Labour Congress  
Canadian Peace Alliance  
Canadian Peace Congress  
Canadian Institute for International Peace and Security  
Canadian NATO Industrial Advisory Group  
Canadian Physicians for the Prevention of Nuclear War (B.C.)  
Canadian Physicians for the Prevention of Nuclear War (Ontario)  
Citizens' Inquiry into Peace and Security  
Coalition to Oppose Arms Trade  
Community Forum  
Concerned Citizens of Manitoba  
Conference of Defence Associations  
Department of External Affairs and International Trade  
Department of External Affairs and International Trade  
International Security, Arms Control and CSCE Affairs Bureau  
Department of External Affairs and International Trade  
Export and Import Permit Bureau  
Department of Industry, Science and Technology  
Department of National Defence

Department of Supply and Services  
Corporate Policy and Planning Services

Alistair Edgar, Graduate Fellow  
Centre for International Relations,  
Queen's University

End The Arms Race

James Fergusson, Research Associate,  
Program in Strategic Studies,  
University of Manitoba

General Motors of Canada

Isabelle George

Greater Victoria Disarmament Group

Keith Krause, Deputy Director,  
Centre for International and Strategic Studies,  
York University

Andrew Latham, Research Associate,  
Program in Strategic Studies,  
University of Manitoba

Laurentian University

Mennonite Central Committee

Mennonite Conference of Eastern Canada

Naval Officers Association of Canada

Project Peacemakers

Project Ploughshares (Lunenburg)

Project Ploughshares (Montreal)

Project Ploughshares (N.S.)

Project Ploughshares (Vancouver)

Project Ploughshares (Waterloo)

Royal Military College of Canada

SNC Industrial Technologies Inc.

Trenton Town Council

Union of Spiritual Community

Unitarian Church of Winnipeg

United Church of Canada (B.C.)

United Church of Canada (Hamilton)

Vancouver City Hall Special Advisory Committee on Peace  
Vancouver Island Conversion Committee  
Veterans Against Nuclear Arms (B.C.)  
Veterans Against Nuclear Arms (N.S.)  
Voice of Women (Nova Scotia)  
Voice of Women (Victoria)  
Winnipeg Co-ordinating Committee for Disarmament  
Winnipeg Economic Conversion Committee  
World Federalists of Canada (B.C.)  
World Federalists of Canada (Winnipeg)

JOHN BOSLEY, P.C., M.P.

Chairman

PETER MCCREATH, M.P.

Chairman

Sub-Committee on Arms Prohibit



# Request for Government Response

THURSDAY, APRIL 24, 1992

(19)

Pursuant to Standing Order 109, your Committee requests that the Government table a comprehensive response to this Report within 150 days.

A copy of the relevant Minutes of Proceedings and Evidence of the Sub-Committee on Arms Exports (*Issues Nos. 1 to 14 and Issue No. 41 of the Standing Committee on External Affairs and International Trade which includes this report*) is tabled.

Respectfully submitted,

JOHN BOSLEY, P.C., M.P.

Chairman

THURSDAY, MAY 7, 1992

(20)

PETER MCCREATH, M.P.

Chairman

Sub-Committee on Arms Export

FRIDAY, MAY 21, 1992

(21)





## Minutes of Proceedings

THURSDAY, APRIL 30, 1992

(19)

[Text]

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:42 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* John Brewin, John Bosley, Beryl Gaffney, Jean-Guy Guilbault, Peter McCreath, Pat Sobeski.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Nicholas Swales and Katherine Baird, Research Officers.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian arms production and export.

The Sub-Committee proceeded to consider its draft report.

At 11:02 o'clock a.m., the Committee adjourned to the call of the Chair.

THURSDAY, MAY 7, 1992

(20)

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:20 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* Lloyd Axworthy, John Brewin, Beryl Gaffney, Jean-Guy Guilbault, Peter McCreath, Pat Sobeski.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Nicholas Swales and Katherine Baird, Research Officers.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian arms production and export. (*See Minutes of Proceedings and Evidence, dated Thursday, October 31, 1991, Issue No. 1.*)

The Sub-Committee resumed consideration of its draft report.

At 10:52 o'clock a.m., the Committee adjourned to the call of the Chair.

Jacques Lahaie  
Clerk of the Sub-Committee

THURSDAY, MAY 21, 1992

(21)

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:35 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* Lloyd Axworthy, John Brewin, Beryl Gaffney, Peter McCreath, Pat Sobeski.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Katherine Baird, Research Officer.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian arms production and export. (*See Minutes of Proceedings and Evidence, dated Thursday, October 31, 1991, Issue No. 1.*)

The Sub-Committee resumed consideration of its draft report.

At 11:07 o'clock a.m., the Committee adjourned to the call of the Chair.

Stephen Knowles  
Committee Clerk

THURSDAY, JUNE 11, 1992  
(22)

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:34 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* Lloyd Axworthy, John Brewin, John Bosley, Beryl Gaffney, Peter McCreath, Pat Sobeski.

*Other Members present:* Benno Friesen.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Nicholas Swales and Katherine Baird, Research Officers.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian arms production and Export. (*See Minutes of Proceeding and Evidence, dated Thursday, October 31, 1991, Issue No. 1.*)

The Sub-Committee resumed consideration of its draft report.

At 10:53 o'clock a.m., the Committee adjourned to the call of the Chair.

THURSDAY, JUNE 18, 1992  
(23)

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:40 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* Lloyd Axworthy, John Brewin, Peter McCreath, Pat Sobeski.

*Acting Members present:* Christine Stewart for Beryl Gaffney.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Researcher. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Nicholas Swales and Katherine Baird, Research Officers.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian Arms production and export (*See Minutes of Proceedings and Evidence, dated Thursday, October 31, 1991, Issue No. 1*).

The Sub-Committee resumed consideration of its draft report.

At 10:15 o'clock a.m., the Committee adjourned to the call of the Chair.

Jacques Lahaie  
*Clerk of the Sub-Committee*

THURSDAY, SEPTEMBER 10, 1992  
(24)

The Sub-Committee on Arms Exports of the Standing Committee on External Affairs and International Trade met *in camera* at 9:24 o'clock a.m. this day, in Room 536, Wellington Bldg., the Chairman, Peter McCreath, presiding.

*Members of the Sub-Committee present:* Lloyd Axworthy, John Brewin, Jean-Guy Guilbault, Peter McCreath, Pat Sobeski and Christine Stewart.

*In attendance: From the Research Branch of the Library of Parliament:* Jim Lee, Research Officer. *From the Parliamentary Centre for Foreign Affairs and Foreign Trade:* Nicholas Swales and Katherine Baird, Research Officers.

Pursuant to Standing Order 108(2), the Sub-Committee resumed consideration of Canadian arms production and export. (*See minutes of Proceedings and Evidence, dated Thursday, October 31, 1991, Issue No.1*).

The Sub-Committee resumed consideration of its draft report.

It was agreed,—That additional comments as accepted by the Sub-Committee be submitted to the staff for inclusion in the report.

It was agreed,—That the Chairman be authorized to make such typographical and editorial changes as may be necessary without changing the substance of the draft report.

It was agreed,—That the draft report, as amended, be adopted as the Committee's First Report and that the Chairman be instructed to present the report to the Standing Committee on External Affairs and International Trade.

At 11:00 o'clock a.m., the Committee adjourned to the call of the Chair.

Stephen Knowles  
*Committee Clerk*



