

THE DETERMINANTS OF CANADIAN DEFENCE POLICY-MAKING WITHIN
NORAD: A THEORETICAL AND CASE STUDY APPROACH

By

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Abstract

Since 1958, Canada and the United States have cooperated in the air/aerospace defence of the North American continent under the terms of the North American Aerospace Defence Agreement (NORAD). This thesis examines Canadian defence policy as it pertains to NORAD and NORAD-related defence programs, and uses the findings to test the assumptions of two international relations theoretical perspectives, the realist paradigm and Immanuel Wallerstein's capitalist world-economy model. On the basis of the case study, the thesis argues that the Canadian military, in its professional cooperative association with the U.S. military, develops a defence agenda which reflects the U.S. military's defence policy preferences for Canada, an agenda that often runs counter to the Canadian government's defence policy positions and/or its expressed policy preferences. In addition, the Canadian defence production industry, organized, like the military, both within Canada and across the Canadian/U.S. border, has economic interests in the defence policy positions taken by Canada. Both actors have the means to exercise significantly their influence on the policy formulation process. In mediating the interests of these two actors, as well as its own political, strategic and economic interests, the Canadian government often finds its political/strategic interests compromised, and hence the making of "strategic miscalculations" in defence policy as it relates to NORAD. In applying the assumptions of the two theoretical perspectives to these findings, the thesis argues that the major assumptions of the realist paradigm have to be relaxed in order to explain Canada's defence policy positions in the international realm as they pertain to NORAD, while the assumptions of Wallerstein's model require two correctives in order to perform well as a theoretical guide to explaining Canada's position within the NORAD defence alliance.

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Abbreviations

ABM	Anti-Ballistic Missile
ADC	Air Defence Command (Canada)
ADCOM	Air Defence Command (U.S.)
ADI	Air Defence Initiative
ADM	Assistant Deputy Minister
ADMP	Air Defense Master Plan (U.S.)
AIA	Aerospace Industries Association of America Inc.
AIAC	Aerospace Industries Association of Canada
ALCM	Air Launched Cruise Missile
ASATS	Anti-satellite Systems
AWACS	Airborne Warning and Control Systems
BCNI	Business Council on National Issues
BMD	Ballistic Missile Defence
BMEWS	Ballistic Missile Early Warning System
C3I	Command, Control, Communication and Intelligence
CAS	Chief of the Air Staff (Canada)
CCOS	Canadian Chiefs of Staff
CDS	Chief of Defence Staff (Canadian)
CINCNORAD	Commander-in-Chief of NORAD
CONAD	Continental Air Defence (U.S.)
COS	Chiefs of Staff (Canadian)
D-CINC	Deputy Commander-in-Chief
DDIR	Directorate of Defence Industrial Resources
DDSA	Defence Development Sharing Agreement
DEA	Department of External Affairs
DEAIT	Department of External Affairs and International Trade
DEW	Distant Early Warning
DIPAC	Defence Industrial Preparedness Advisory Committee
DIPP	Defence Industry Productivity Program
DIR	Defence Industrial Research Program
DND	Department of National Defence (Canada)
DOBS	Dispersed Operating Bases
DOD	Department of Defense (U.S.)
DPSA	Defence Production Sharing Agreement
DRB	Defence Research Board (Canada)
DRIE	Department of Regional Industrial Expansion
DSS	Department of Supply and Services
FOLS	Forward Operating Locations
GATT	General Agreement on Trade and Tariffs

GCI	Government Consultants International
GDP	Gross Domestic Product
GNP	Gross national Product
ICBM	Intercontinental Ballistic Missile
IMF	International Monetary Fund
IMI	Improved Manual Interceptor
ISTC	Industry, Science and Technology Canada
JBMDS	Joint Ballistic Missile Defence Staff (Canada)
JCS	Joint Chiefs of Staff (U.S.)
JUSCADS	Joint United States-Canada Air Defence Study
MAD	Mutual Assured Destruction
MCC	Military Cooperative Committee
MND	Minister of National Defence
MOU	Memorandum of Understanding
MSG	Military Study Group
NADIB	North American Defence Industrial Base
NADO	North American Air Defence Objectives
NADOP	North American Air Defence Objectives Plan
NATO	North Atlantic Treaty Organization
NORAD	North American Aerospace Defence
NWS	North Warning System
OAS	Organization of American States
OTH-B	Over The Horizon Backscatter (radar)
PAI	Public Affairs International
PJBD	Permanent Joint Board on Defence
R&D	Research and Development
RCAF	Royal Canadian Air Force
ROCCS	Regional Operations Control Centres
SAC	Strategic Air Command
SAGE	Semi-Automatic Ground Environment
SALT	Strategic Arms Limitation Talks
SAM-D	Surface to Air Missile
SCEAND	Standing Committee on External Affairs and National Defence
SDA 2000	Strategic Defence Architecture 2000
SDI	Strategic Defence Initiative
SLBM	Submarine Launched Ballistic Missile
SLCM	Submarine Launched Cruise Missile
SSC	Supply and Services Canada
START	Strategic Arms Reduction Talks
TAC	Tactical Air Command
U.N.	United Nations
USAF	United States Air Force
USC	United Space Command (of U.S. Air Force). Also stands for Unified Space Command, another acronym for USSPACECOM.
USSPACECOM	U.S. Space Command

Chapter One

Introduction¹

The North American Air Defence Agreement, signed on May 12, 1958, established NORAD as a joint Canada/U.S. Command designed to defend the North American continent from the bombers of the Soviet Union. More specifically, it was designed to defend the U.S. strategic force, to warn of a real or impending attack in order to allow the U.S. Strategic Command to get its weapons airborne before they could be destroyed on the ground. Since Soviet bombers would have to pass through Canadian airspace on their way to U.S. targets, and since Canada could not afford to monitor its own airspace to U.S. standards, establishing a joint air defence system provided the U.S. with the quality of defence it required, and Canada with the quantity it could not afford.

In fact, largely due to the cooperative activities of the Canadian and U.S. air forces, a joint air defence

¹. The information contained in this introductory chapter will not be referenced as it is substantiated in the body of the thesis.

system for the continent was already in place at the time of the signing of the NORAD Agreement. The Agreement formalized the defence systems in place, and established a joint Command which essentially united Canadian and U.S. air defence policy, placing Canadian resources, military personnel, airspace and territory under the operational command of a U.S. Air Force General. Prime Minister John G. Diefenbaker, acting solely on the advice of his Minister of Defence, without Cabinet or Parliamentary consultation, accepted the conditions of the NORAD Command on August 1, 1957.

Acceptance of the Command, however, raised serious questions amongst political decision-makers in Canada. The Department of External Affairs questioned how defence policy, in terms of agreeing to the conditions of the Command, could have been made without the Department's studied input, while the House of Commons and the Cabinet questioned how Canadian defence policy could have been made without their input at all. Other questions were also asked. Would Canada, and Canadians, be automatically involved in U.S. strategic planning and war-fighting? The subsequent answer was 'yes.' The Canadian government was essentially not warned of U.S. intentions during the 1962 Cuban Missile Crisis, and Canadians in the NORAD Command

were automatically put on the same alert, at the same time, as their U.S. counterparts. Would the NORAD Command require that U.S. nuclear weapons be stored on Canadian territory? The subsequent answer again was 'yes.' One of the explicit assumptions of the Command was a nuclear role for Canada. Neither of these answers were the preferred choices of the Canadian government.

A question that can be asked in retrospect is: has the NORAD Command continued to compromise Canadian defence policy preferences? The long answer is the subject of this thesis, but the short answer is yes, although not consistently so.

With the advent, during the 1960s, of the Intercontinental Ballistic Missile (ICBM) as the weapon of choice for both the U.S. and the Soviet Union, Canadian territory and airspace became more or less irrelevant to the air defence of the continent. The bomber was no longer credible as the primary threat, and there was no defence against the ICBM. The 1964 White Paper on Defence recognized the change in the strategic environment and in response indicated that Canadian defence policy would focus less on alliance commitments and more on peacekeeping and disarmament roles in the U.N. The Trudeau Government's 1971 White Paper on Defence also put priorities on

national, as opposed to international, defence commitments. Further, although research was on-going in the U.S. on Ballistic Missile Defence systems (BMD), and although NORAD was responsible for the Ballistic Missile Early Warning Systems, Canada had a clause inserted into the 1968 NORAD Renewal Agreement which stated that Canada would not participate in an active BMD system. When Canadian airspace and/or territory was not required by NORAD, Canadian policy preferences were not compromised.

By the mid-1970s, however, new defence technologies were complicating the strategic environment. The air-breathing cruise missile was proving itself cost effective and strategically important because of its invulnerability, its maneuverability, and its long-range capacity. Moreover, new defence systems had been developed to detect, track and destroy the air-breathing threat, both the cruise missiles and their bomber carriers. The NORAD Command was responsible for the communications, control, command and intelligence systems (C³I) associated with these weapons, and plans were being developed to modernize NORAD accordingly.

More to the point, space surveillance systems, and space programs for both offensive and defensive weapons were eroding the distinction that could be made between air

and space in terms of both weapons and surveillance. A modern BMD system such as the Strategic Defense Initiative (SDI) would be space-based, the air-breathing threat could be tracked from space, and anti-satellite weapons were airborne. Moreover, if ballistic missiles could be defended against, then cruise missiles and bombers would become the offensive weapons of choice. These are air-breathing threats and since NORAD was an air defence command, the distinction between NORAD's defensive and offensive role was also being eroded.

Canada renewed the NORAD Agreement in 1975 with full knowledge of the weapons and defence systems that were coming on stream. Canada again renewed the Agreement in 1981, removing the clause that prevented Canadian participation in a U.S. BMD system, and agreeing to a change in the terms of the agreement to include aerospace defence. In 1981, President Reagan incorporated the U.S. Department of Defense program, the Air Defense Master Plan (ADMP), into his strategic modernization plan, and Canada accepted Phase 1 of the plan in 1982. Phase 1, subsequently known as the Air Defense Initiative (ADI), dealt with the air-breathing threat and was essentially a NORAD program. Canada signed an agreement, in 1983, to test the air launched cruise missile over Canadian

territory. In 1985, Canada signed the NORAD Modernization Agreement, an agreement which would allow the implementation of ADI. Although Canada refused the 1985 invitation to participate in SDI on a government-to-government basis, it did allow Canadian industry to contract in the program, and it implied acceptance of the program in principle in the 1987 White Paper on Defence, in terms of cooperating with the U.S. on space-related defence programs.

Until the mid-1980s, each of these decisions taken was a compromise, if not an outright refutation, of the Canadian government's defence policy positions and/or expressed policy preferences. The question which this thesis asks is, how did this process of compromise occur?

The question is approached first from a theoretical perspective, and this approach gives rise to a second question. Can the assumptions of the dominant theoretical paradigm in international relations theory, realism, and its adaptations, explain Canada's role in NORAD? Such an explanation should be possible. NORAD is an international security alliance, its premises reflecting a bi-polar international balance-of-power system of states. Realism's assumptions predict that state decision-making in the international realm is based on a rational cost/benefit

analysis vis-a-vis state security, and national interest concerns in an anarchical balance-of-power state system. Moreover, the paradigm assumes that because security concerns are born of the international environment, theorizing state security decision-making is discontinuous from theorizing state decision-making at the domestic level-of-analysis. Hence, in the international environment, the state is the dominant actor and speaks in a unitary voice for its country. Also, because security concerns are perceived to be the dominant concerns of states in the international realm, and to be isolated from other economic, political and cultural interests, state security decision-making can be studied in isolation from other political, economic and cultural variables.

There are theoretical variations on the realist theme. Neo-realism accepts the realist assumptions and suggests further that the dominant state, or states, set the parameters in an international state system, while the international system itself socializes all states to its exigencies. Hegemonic stability theory is an economic version of realism, suggesting that the dominant state in an international alliance also assumes the responsibility for assuring the economic stability of the international system. Regime analysis focuses on studying how stability

is fostered in the international realm through the norms, rules and behaviours that arise around, and within, specific issue areas. As its name implies, regime analysis is more of a methodology than a theory, as is complex interdependence which, in assuming that all issue areas are interlinked, focuses on studying the linkages. Each of realism's adaptations, with the exception of complex interdependence, assumes that security concerns remain the dominant concerns in the international realm, that these concerns are unto themselves, and that the state remains the dominant actor in the international arena, speaking with one voice for its country. The realist paradigm is explored and critiqued in Chapter Two of the thesis, "International Relations Theory."

Chapter Two also contains an analysis and critique of Wallerstein's capitalist world-economy model of international relations. The assumptions of Wallerstein's model are applied to the history of NORAD as an alternative to the assumptions of the realist paradigm, in an attempt to introduce a greater variety of actors and interests to the analysis of Canadian defence policy decision-making within NORAD.

In direct contradiction to the assumptions of realism, Wallerstein's model assumes that decision-making

in the international realm is economically determined. Hence, the state acts in the interests of its economic actors, employing the military in the pursuit of those interests. Moreover, the model assumes that because there is a continuum between domestic and international economic activity, there is also a continuum between the domestic and the international levels-of-analysis. The capitalist world-economy model also argues that semi-peripheral states, such as Canada, are constrained or facilitated in their decision-making according to whether conditions of economic expansion or contraction pertain, and that industry in the semi-periphery is dependent upon the principles of production that emanate from the core states, such as the U.S..

Chapter Three, "The Political History of NORAD," tests the assumptions of realism by examining NORAD from within the paradigm's parameters. The chapter focuses on the political history of NORAD, examining Canadian defence policy decision-making on the basis of the government's rational analysis of the costs and benefits accruing to the country from its on-going participation in a security alliance within a changing international balance-of-power state system. The chapter concludes that the assumptions of realism have considerable explanatory power in terms of

situating Canada firmly within the Western alliance, and predicting the constraints placed upon Canadian defence policy through a bilateral defence agreement with the most powerful state in that alliance. However, by assuming that international variables alone determine the Canadian decision-making process, the chapter argues that the assumptions of realism mis-specify the dynamics of the decision-making process.

Further, Chapter Three argues that there are two actors and/or interests, largely unidentified by a realist analysis, which play a determining role in Canadian defence policy decision-making within NORAD. First, in its cooperative professional relationship with the U.S. military, the Canadian military has a considerable influence upon the Canadian defence policy decision-making process. Second, economic interests of both the Canadian government itself, and of the Canadian defence production industry, appear also to be strong determinants of Canadian defence policy decision-making. Chapter Three concludes that without a domestic-level-of-analysis these interests cannot be identified, and without their identification it is not possible to understand fully the policy compromises that Canada has made within NORAD and hence the dynamics of the alliance agreement. Further, it is argued that once

these interests are identified, it becomes clear that economic considerations weigh heavily in Canadian defence policy decision-making. Moreover, although the Canadian state may appear to be an autonomous actor and speak in a unitary voice as far as Canadian policy within NORAD is concerned, the state's unitary voice represents definite interests, and state autonomy is compromised by the necessity of mediating the interests that reside within the economic, the political, and the strategic environments respectively, each of these environments having a domestic and an international context. Hence, in order to comprehensively identify the Canadian defence policy decision-making process within NORAD, and therefore, the reasons for Canada's defence policy positions, all of the assumptions of realism have to be relaxed.

Chapter Four, "The Economic History of NORAD," argues that the economic history of the alliance agreement is the history of Canadian/U.S. defence production, development, and sharing. Since the defence technology that supports NORAD is high technology in terms of aircraft, surveillance and communications systems, the real and potential economic benefits to be gained from defence production sharing has served the economic interests of the Canadian government in two ways. First, defence trade has

contributed to the alleviation of balance-of-payments and GNP concerns. Second, because the defence production industry is largely a captured industry in that the government is a major buyer of the industry's products, as well as the agent for its sales to foreign governments, the Canadian government has used its position vis-a-vis the industry to further its national industrial policy interests. Hence, the industry has been viewed as a means to alleviate regional disparities, to increase employment, and to create a high technology industrial base of international competitiveness.

The terms of the defence production and development sharing agreements with the U.S., however, established that the Canadian industry would produce not entire defence systems, but components and subsystems, built to U.S. defence systems requirements. Hence, the Canadian industry became dependent upon both the U.S. defence production market and upon U.S. Department of Defense contracts. Moreover, the terms of the defence production and development agreements, and of Canada's economic support for its industry, made it attractive for the U.S. defence production industry to establish subsidiaries in Canada.

Hence, both the government's own focus on the economic benefits to be gained from defence production and

development sharing, plus the industry's dependent nature on U.S. procurement and technology, served to establish a Canadian government interest, and a private industrial interest, in aligning Canadian defence policy with U.S. defence policy. In short, by producing for the U.S. perception of the threat, Canada acquired by degree, and by default, a similar perception of the threat. Increasingly, Canadian defence policy decision-making has come to reflect U.S. priorities.

The chapter argues that the assumptions of Wallerstein's capitalist world-economy model serve to identify the economic actors and interests with distinct Canadian defence policy preferences, the reasons for their preferences, and hence, the economic dynamics of Canada's decision-making process as it pertains to NORAD. The model allows for a domestic level of analysis and a focus on the economic interests involved in defence policy decision-making, both being required to identify the role of defence production and development sharing in the shaping of Canadian defence policy. With its assumption that the domestic and the international environments constitute a continuum, the model allows for an investigation of the national and transnational organization of economic interests. In addition, the model's assumptions concerning

the exigencies of internationalized production allows for an explanation of the dependent nature of the Canadian defence production industry.

However, Chapter Four makes two correctives to Wallerstein's model, correctives which increase its explanatory power. First it suggests that because the military has professional interests of its own based on its strategic/security agenda, and its professional relationships within alliances, the military has to be viewed as more than simply a state apparatus. It is the military's vested interest in maintaining and pursuing military professionalism that accounts for its developing an independent interest in defence policy-making. Hence, the military can have both a state-determined defence policy interest and an indigenous professional defence policy interest. On the basis of its independent agenda, the military is situated as an actor of consequence within the state decision-making process.

Second, the chapter argues that, although a continuum exists between the domestic and the international environment, the state is necessarily situated at the intersection of the two environments. In this position, the state is constrained to mediate its own economic, political and strategic interests, and the interests of the

actors in each of these areas, including the military. Hence, rather than being economically determined, the state acquires a degree of situation-dependent autonomy through the process of mediation.

Having identified the two major actors with distinct defence policy preferences vis-a-vis Canadian defence policy-making, the military and the defence production industry, Chapters Five and Six, respectively, examine the organization of these actors, both within Canada and across the Canada/U.S. border; the effects of this organization upon their defence policy preferences; and the influence which they exert on the Canadian defence policy decision-making process.

Chapter Five, "The Military and NORAD Decision-Making," argues that although the Canadian government does, in fact, set broad defence policy parameters, it is the Canadian military that largely controls the flow of information to, and sets the agenda for, the political decision-makers. The chapter argues that the Canadian military is responsible for designing the defence programs to fulfil Canadian defence policy priorities, and that within NORAD, the flexibility of the command is such as to allow for a great deal of Canadian/U.S. cooperative activity in designing defence programs to reflect NORAD's

mandate of air/aerospace defence of the continent. Moreover, the intimate relationship between the NORAD command in the U.S., and other U.S. commands dealing with both defensive and offensive programs, allows for a considerable degree of Canadian military involvement in on-going extra-NORAD U.S. defence planning and activities, including involvement in U.S. BMD and space defence programs. Because most of this cooperative defence program planning and activity takes place outside of the sphere of Canadian political surveillance or control, two consequences for Canadian defence policy decision-making evolve.

First, it is largely the military that controls the flow of information to, and sets the agenda for, the Canadian defence policy decision-makers vis-a-vis NORAD defence program planning. Since cooperation within the two militaries is enhanced by Canadian acceptance of U.S. defence programs, the Canadian military has a professional interest in having Canadian defence policy reflect U.S. preferences. Hence, the information upon which the Canadian government bases its decision-making has a vested-interest bias.

Second, since cooperative NORAD defence program planning takes place in the U.S., is designed for U.S.

defence policy priorities, and is closely monitored by the U.S. political system, by the time NORAD defence programs reach the Canadian political system for consideration, they have generally already been approved by the U.S. political decision-makers. Given that the Canadian military controls the flow of information to the Canadian political system, through the military personnel of the Department of National Defence (DND), these programs have generally been thoroughly reviewed and accepted by the Canadian military at the Chief of Staff level. Hence, not only are Canadian political decision-makers making their decisions on the basis of vested-interest information, but also they are generally considering programs that are a virtual fait accompli in the U.S. and in the DND. At this point it is difficult for the Canadian political system to introduce alternatives for serious consideration.

Once defence programs are accepted, they have a way of influencing defence policy. Each of the NORAD renewals since 1973 reflects acceptance of prior defence programs, and each renewal has progressively drawn Canada into offensive as well as defensive defence planning, and into space-based defence systems as well as atmosphere-based systems. Until the mid-1980s, increased involvement in these defence systems had been a compromise of the

expressed defence policy preferences of the Canadian political decision-makers. By the mid-1980s, however, the process of assimilation was complete, and without disclaimers, Canadian defence policy came to reflect U.S. defence priorities and perceptions of the threat. The chapter argues that this process of compromise in Canadian defence policy decision-making can be traced directly to Canadian/U.S. military cooperation in joint air/aerospace defence program planning for the continent.

However, the military is not the only major influence on Canadian defence policy decision-making within NORAD. The economic interests of the government and of the defence production industry also play a determining role. Building on the argument of Chapter Three, that the Canadian defence production industry has a vested interest in having Canadian defence policy reflect U.S. defence policy preferences, Chapter Six, "The Defence Production Industry and NORAD Decision-Making," expands the argument, and examines the process whereby the defence policy preferences of private industry are brought to bear on the political decision-making milieu and reflected in Canadian defence policy.

The chapter argues that there are several reasons why the Canadian defence production industry has an

interest in having Canadian defence policy comply with U.S. defence policy. Because the Canadian defence production industry is heavily dependent upon the U.S. procurement and defence contracting market, access to this market is facilitated by the Canadian government's acceptance of the U.S. defence programs which U.S. procurement supports. Further, the Canadian industry's integration into the North American defence industrial base establishes a U.S. defence industry voice in the formulation of Canadian industry defence policy preferences. In addition, the industry argues that, to a considerable degree, civilian high technology industrial production is dependent upon high technology defence production, research and development.

Having reasons to influence the Canadian defence policy-making process, the industry exerts its influence through various formal and informal channels. One of its key resources for formulating policy preferences and exerting influence is the presence of retired military personnel within the corporate structure of individual defence production firms, in industry associations, and in lobby and consultant groups. These retired Canadian military personnel maintain, for the most part, the professional relationships that they developed with their U.S. counterparts while in active duty, and through them

remain current on U.S. defence programming within NORAD. Hence, they have knowledge of long-range U.S. defence program planning, the technology required to support the programs, and the procurement process in both Canada and the U.S.

With this knowledge, the industry is often able to lead the defence policy decision-making process. By contracting in U.S. defence programs not yet agreed to by the Canadian government, the industry establishes a fledgling expertise in the area. When the defence program then comes up for consideration by the government, the industry can argue that it has the expertise to contract in the program, and government acceptance of the program would allow that expertise to fully mature. Given the government's own interest in the industry for trade, GNP and national industrial policy purposes, the argument is hard to resist. Hence, over time, Canadian defence policy-making within NORAD tends to reflect the defence policy preferences of the Canadian defence production industry.

Chapter Seven, "Conclusions," brings the arguments of the previous chapters together, and suggests where further research is required to both expand the study and test the conclusions formulated on the basis of research to date.

Included at the end of the thesis is an Appendix which describes the methodology of the case study in terms of the resources upon which the thesis is based.

Chapter Two

International Relations Theory

Realism and Its Adaptations

In 1651, three years after the Treaty of Westphalia signalled the end of the Thirty Years' War and introduced what was to become the modern world system of sovereign states, Thomas Hobbes published Leviathan: Or The Matter, Forme And Power Of A Commonwealth Ecclesiasticall And Civil. In this book, Hobbes claimed that the greatest need was for peace and security and that in the anarchical state of nature, one could only ensure one's own peace and security through the pursuit of power relative to others. It's not, as Hobbes writes, "...that a man hopes for a more intensive delight, than he has already attained to; or that he cannot be content with a moderate power: but because he cannot assure the power and means to live well, which he hath present, without the acquisition of more."¹

Within civil society, however, as opposed to the state of nature, Hobbes maintained that the state assumes

the responsibility for providing peace and security for its citizens by "...assuring it at home by laws, or abroad by wars."² Hence, anarchy is removed from the domestic environment by the rule of law but prevails in the international environment of sovereign states where each state becomes the individual writ large, engaged in the pursuit of power to ensure its own peace and security, brute force being the ultimate expression of that power. Hence, the international environment is characterized as a war of each against all.

In 1948, three years after the end of the Second World War, Hans Morgenthau published Politics Among Nations: The Struggle For Power And Peace. This book, revised in 1973 and 1985, is firmly grounded in Hobbesian assumptions, and as a primary text in the study of international relations, has informed the assumptions of the realist theory of international relations.³

Like Hobbes, Morgenthau reifies the state as the individual writ large, attributing to the state in its international role what he believes to be the primary characteristic of human nature, the need to dominate. Hence, the international realm, in the absence of an overriding authority, is characterized by insecurity, making it necessary for each state to engage in the pursuit of power

in order to secure its territory, its sovereignty, and its national interests both at home and abroad. While each state's power resources, its population, its natural and industrial wealth, are brought to bear on this concern, military might, its use and the threat of its use, is the ultimate and most important power resource. Through the exercise of prudence, diplomacy, and the forming of alliances, the international realm realizes a precarious stability in a balance-of-power system that tends to equilibrium with the most stable system, according to Morgenthau, being one of multi-polarity.

Morgenthau's view of international relations, then, maintains that state actions in the international realm can be understood in terms of the power resources brought to bear on security interests within an anarchical balance-of-power system. Defining the area of study in this way has two important consequences for his theorizing. First, a distinction is made between a state's security concerns and activities in the international realm, and a state's involvement in all other international activities including both cultural and economic processes. The former are considered to be a state's dominant concerns and therefore areas of high priority politics, while the latter are relegated to the status of low priority politics. Second,

because the primary concerns of states in the international realm are power and security, concerns that are deemed to differ qualitatively from the domestic concerns of states, theorizing at the international level of analysis is understood to be discontinuous from theorizing at the domestic level.

In the light of the foregoing, there are five major assumptions which inform Morgenthau's realist perspective. First, because there is no over-riding international authority to ensure law and order amongst states, the international environment is anarchical. Second, because the primary concern of states is security in an international environment characterized by insecurity, the primary focus of study is the power, and the power relations, of states. Hence, the conditions of war and peace are a major consideration, with peace being defined as the absence of war. Third, the state is understood to be the dominant actor in the international realm, setting the parameters for the activities of all other actors. Fourth, the state is viewed as a unitary actor, meaning, in Peter Gourevitch's words, that "...the state, emanating from the public or some other sovereign, formulates policy which is an articulation of collective interests. The state speaks on behalf of goals broader than those of any

particular group. Its unitary structure allows it to impose that policy over the objections of particularistic interests."4 Taken together, these four assumptions situate the state as an autonomous actor in the international realm. Fifth, the state is seen to be a rational actor in the international sphere, calculating its power resources and making its policy decisions on a cost/benefit basis with respect to its security/power interests.

With respect to alliances between states, Morgenthau maintains that they represent a status-quo arrangement, a commonality of interests as opposed to relations of political imperialism in which one state seeks to increase its power to the detriment of the other within the alliance. At the same time, however, it is deemed to be in a state's national security interest to seek control of power resources that do not reside within its borders. Hence, the unequal power positions of states within alliances are reflected in the unequal distribution of alliance benefits. In addition, attempts by a weaker state to change the power relationship within an alliance are viewed as a threat by the stronger state.

As stated earlier, many of Morgenthau's assumptions inform more contemporary versions of realism which will be

examined in more detail later in this chapter. However, to the extent that these later versions adopt Morgenthauian assumptions, they are subject to the same general criticism. Accordingly, the major criticism of Morgenthau's interpretation of alliance formations is the major criticism that can be made of the realist perspective in general. If the independence of a weaker state is constrained by its alliance with a stronger state, and if the benefits of the alliance are unequally distributed, then despite the commonality of interests that may exist with respect to the international balance-of-power system, tensions may be produced within the weaker state at the domestic level of political and economic activity. These tensions are not static and may themselves become forces for change within the international balance-of-power system irrespective of balance-of-power considerations, the dissolution of the Warsaw Treaty alliance being a case in point. In this instance, the assumption of the commonality of interests amongst alliance partners obscures the study of the dynamics of alliances established by coercion. More generally, however, the focus on security concerns within an international balance-of-power system, and the discontinuity in theorizing between the domestic and the international level of analyses, forecloses a comprehensive

analysis of the dynamics of change. In particular, an examination of the domestic sources of change is missing from the analysis.

In fact, without a domestic level of analysis, the realist perspective cannot always explain even the status-quo organization of states in the international realm. For example, although a realist analysis can situate China, after the fact, in the global balance-of-power system, it cannot explain how it got there. Without a domestic level of analysis, realism can explain neither China's appearance in the world order as a communist state in 1949, nor its subsequent breaking of ties with the Soviet Union during the 1960s and '70s.⁵

The analytical problems inherent in prioritizing high and low political objectives and qualitatively differentiating between the domestic and international levels of analyses, are aggravated by each of realism's five assumptions. While it is true that there is no comprehensive world authority to ensure global law and order by imposing penalties for disorderly conduct, the assumption of anarchy ignores the effects of the plethora of cultural and economic international and transnational organizations and institutions which both constrain and facilitate the realization of state objectives.⁶ What the

assumption of anarchy allows, to its credit, is the recognition of the 'might is right' phenomenon in the international environment. What it does not allow, however, is a comprehensive analysis of what constitutes 'might' and how it is made 'right' without recourse to armed conflict. However, the assumption of anarchy, together with the assumptions that various power resources can be added up to equal one entity called 'power,' and that state interests are then pursued in terms of this aggregated phenomenon,⁷ obscures the analysis of how various power resources apply to various issues and how structural power operates within these issue areas.⁸

The assumption that all state interests are pursued in terms of power, and that therefore power, and the power relations of states, are the explanatory variables for international relations theory, allows only a descriptive analysis of the global state security system at any one point in time. It cannot capture the origins of a particular configuration of states, nor can it predict future configurations from the present. International power relations alone, for example, cannot explain why the Soviet Union invaded Afghanistan to replace a recognized communist regime with its own communist alternative,⁹ why the State of Israel was created for a people with no state,

or why the British Commonwealth of Nations was established.¹⁰ Domestic forces, moral values, and the pursuit of wealth were major forces, respectively, in each of these international events.

The assumption that the state is a unitary and autonomous actor in the international environment has, again, descriptive powers as far as appearances are concerned. Once foreign policies are formulated, the state appears to be speaking in a unitary and autonomous voice. Without a domestic analysis, however, there is no way of identifying the contending interests involved in a particular foreign policy decision, the type of compromise that might have been reached by state and non-state actors, and the potential for policy change based on the continued dynamics of the compromise.

To suggest, for example, that the U.S. withdrawal from the Vietnam War represented a unitary, autonomous state decision, is to reflect a very limited analysis of the event, and an incorrect one at that. The withdrawal was due, in part, to domestic opposition to the War, suggesting that the state's unitary voice in pursuit of the war was not reflecting well the collective interests of its people.¹¹ Further, the U.S. bombing of Cambodia after the War was ostensibly ended suggests that the U.S. objectives

in the area had not been met upon withdrawal, and that the withdrawal itself represented a considerable compromise of state autonomy. In addition, the withdrawal was also due, in part, to the cost of the war at a time when the financial position of the U.S. was already jeopardized by a growing trade deficit and an outflow of dollars to the Eurocurrency markets, markets which were controlled by private financial institutions.¹² Hence, the U.S. withdrawal from Vietnam was due, in part, to global economic processes and the activities of non-state economic actors, both compromising the autonomy of the U.S. state.

Positing the state as the dominant actor in the international realm and reducing such powerful entities as transnational industrial and financial corporations to the status of second string players is also a questionable assumption. The Vietnam example demonstrates that it is not always reliably accurate even when security/power concerns, the foci of realism, are the issue. In other instances too, however, the relative strengths of the states in the international environment, and the economic actors involved in a particular issue area, have some bearing upon whether the state is indeed the dominant actor. For example, when the Chilean government under Salvador Allende finalized the nationalization of copper mining and refining, the U.S.

government was instrumental in bringing both economic and political pressure to bear adversely on the domestic stability of the country. The military coup which resulted in the overthrow of Allende's government and the death of Allende, worked very much in favour of U.S. political and private economic interests, and it was aided and abetted by the U.S. government and ITT.¹³ In this instance it is very difficult to conclude that the Chilean state was able to dominate the activities of private economic actors.

The assumption that the state is the dominant actor in the international realm, together with the distinction between high and low political objectives, introduces the main problem with realist interpretations of international relations, the relationship between the world political and economic systems. The debate continues as to whether states have the ultimate control over the world production, distribution and marketing systems, the realist perspective,¹⁴ or whether the global economy is shaped by the dialectically interactive relationship of both state and non-state actors, in which no one actor has ultimate control.¹⁵ Moreover, because the pursuit of national security includes the securing of national interests that do not necessarily reside within national borders, and because those national interests that lie beyond national

borders are often economic interests, it is most difficult to make the realist distinction between economic and security concerns, or between high and low political objectives.¹⁶

Finally, the assumption of the state as a rational actor making its decisions on a cost/benefit basis with respect to its security/power interests, if rigorously applied in analysis, effectively destroys the realist distinction between domestic and international decision-making, and between economic and political decision-making. A cost/benefit analysis calculates the costs and benefits to the domestic environment in relation to the costs and benefits incurred by state actions in the international environment. A continuum exists. Similarly, estimating security and power interests involves considerations of both economic and political factors. The two are interrelated as the U.S. response to Iraq's invasion of Kuwait in 1990 demonstrates. Sending U.S. security forces to the Middle East was not only in defence of the principle of territorial sovereignty, it was also in defence of U.S. economic interests in the oil production of Kuwait and throughout the Middle East.

In total, realism is a power politics model of international relations in the grand theory fashion. It

assumes that parsimony is a strength of theorizing and, accordingly, limits the study of international relations to states and their power relationships, creating a theory that operates at a very high level of abstraction.

Realism's strength is in its insistence on considering the role that power plays in determining outcomes in an anarchical environment, but its weaknesses are inherent in its parsimoniousness and high level of abstraction. By removing the domestic state environment from the analysis, by relegating non-state actors to positions of, at best, secondary influence in the international realm, and by bracketing the constraining and facilitating effects of international and transnational institutions and organizations on the relationships amongst states, and between state and non-state actors, realism can comprehensively analyze neither the dynamics of international relations nor the dynamics of change.

Consequently, Morgenthau's realism is a static theory of the status-quo. It is capable of explaining specific configurations of states at specific times. Its predictive value is limited, largely because it can only define a national interest by its pursuit, after the fact of its establishment. It can really only predict, then, that states will act to protect their territory and their

sovereignty and beyond that, that power will prevail. As Robert Keohane suggests, realism may be useful as a framework for establishing initial questions and hypotheses, but it does not provide a set of plausible, and testable, hypotheses about state behaviour under specific conditions.¹⁷

The main challenge to Morgenthau's realist assumptions has come from world events. In the post World War II years when the proliferation of nuclear weapons, and strategic issues, were central concerns of states, realism reflected these concerns.¹⁸ Most foreign policies could be explained under the rubric of national cold-war security interests.¹⁹ The NATO, NORAD, and Warsaw Treaty alliances, U.S. foreign aid to Third World countries, to Japan and to Europe in the form of the Marshall Plan, participation in the U.N., and military involvement in Korea and Vietnam were all explained as pursuits of national security interests. At the same time, however, economic cooperation between states was becoming a prominent feature of international relations. Bretton Woods established the IMF, the World Bank and the basis for the convertibility of national currencies in international transactions, while GATT laboured towards more open, free-market trade relations.

Morgenthau's realism as a state-centric, power-oriented paradigm was ill-equipped to explain the nature and the dynamics of growing economic interdependence.²⁰ The degree of openness and stability that existed amongst the industrialized states ran counter to realism's assumptions about the antagonistic nature of state relations within an anarchical international environment. Given too that economic considerations were deemed to be of secondary significance, realism had difficulty explaining the moderating effects that international markets and economic processes had upon inter-state relations, the part that economics played in prosperity and peace. Nor could realism adequately explain the effects of the increasing activity of private transnational industrialists and financiers on international economic and political processes. For example, realism was hard pressed to explain how the policies of the IMF and the World Bank, together with the U.S. foreign aid policy to the Third World, all designed to bring the Third World countries into the free-market system of the industrialized states, worked to strengthen and emphasize private enterprise financing of Third World development, and contributed to the Third World's pursuit of a New Economic Order in 1974 rather than allegiance to the established one.²¹ It was not within

the Morgenthauvian frame of reference to deal with the part that economic actors played in the structuring of international relations.

The criticisms of realism were countered by revising the theory. In 1979, with the publication of Theory Of International Politics, Kenneth Waltz attempted to systematize the perspectives assumptions.²² Waltz's structural realism, or neo-realism, holds to the realist power-politics assumptions of states as autonomous, unitary actors pursuing power within an anarchical balance-of-power international system. Waltz also suggested that because all states have similar interests within the international system of states, that is, the pursuit and/or the maintenance of power, they can be viewed as like units. Hence, their domestic environments are irrelevant to international relations theorizing. The uniqueness of Waltz's theory resides in its focus on the determining nature of the international political system itself, and its primary revisions to realism are two-fold. First, neo-realism claims that the international balance-of-power state system is structured, or defined, by the dominant state, or states, in the system, and second, that the system socializes states to the rigours of balance-of-power considerations, constraining self-interest and limiting

cooperation.

In his book, War and Change in World Politics, published in 1981, Robert Gilpin expands Waltz's analysis by arguing that state interests in the international realm are a product of a process of mediation. The state, defined as "...those particular individuals who hold authority...",²³ has interests of its own in the international environment, as do individuals and groups that reside within the state. Through a process of liberal pluralist bargaining, the state's own interests may be compromised, or changed, by the more powerful of the private actors. If so, the new state agenda brought to the international realm may be a force for change within that realm, particularly if the state occupies a powerful position within the international system. Although state interests may be compromised at the domestic level of bargaining, the state remains sovereign in the international realm as it need answer to no higher authority.²⁴

The problem with this argument is that in assuming a liberal pluralist bargaining process in the domestic environment, Gilpin risks missing the structure of power that may exist within the domestic economic and political milieu, and consequently, the extent to which state

interests might necessarily reflect the interests of powerful private entities. The extent to which state interests do reflect the interests of powerful private entities, is the extent to which the international realm facilitates those interests, contributing, overtime, to the formation of an international political and economic environment that is shaped by both the interests of powerful private enterprises and the interests of states. When, and if, this happens, the state in the international realm may not have to answer to a higher authority, but it may have to answer to a higher power, that of the private interests who have been successful in shaping the international system to their liking. By missing this aspect of what he refers to as the "Hegelian-Marxist perspective,"²⁵ Gilpin, like Waltz, and like the complex-interdependence theorists, misses an important determinant of the shape of international relations.

In general, however, where the neo-realist assumptions coincide with those of Morgenthau's realism, the former theoretical perspective is subject to the criticisms that have been levied upon the latter. However, neo-realism's revisions of realism mirrored, and to some extent were catalysts for, the emergence of two new realist-rooted theoretical perspectives; the hegemonic

stability theory and regime analysis.

Based on an analysis of two eras of relative global peace and security, the Pax Britannica in the late nineteenth century and the Pax Americana in the 25 years following World War II, realism was adapted to include the hegemonic stability theory.³⁶ The theory maintains that it is in the self-interest of the most powerful state in the balance-of-power system to take on the role of hegemonic leadership in order to ensure stability in the system. In areas of 'low' political concerns, international trade, finance, communications, etc., the hegemon demonstrates its leadership by assuming a predominant role in the management of international institutions and decision-making. As far as 'high' political issues are concerned, the hegemon's responsibility is to maintain the military power to ensure stability in the international political economy. Most realists agreed on these initial precepts of the hegemonic stability theory but there was a division in thinking on how the hegemon used its power.

Traditional realists, those who retain their primary focus on the state pursuit of power within an anarchical international realm, maintain that interdependence is a relationship amongst equals and since

state capabilities vary within the international realm, the realm as a whole is characterized by independence while relations between states on a case by case basis are characterized by independence and dependence.²⁷ Within this perspective, no distinction is made between the hegemon's benign and malign use of power. In pursuing self-interest, the hegemon simply adopts the most expedient policies. The policies are generally cooperative during periods of hegemonic growth and non-cooperative during periods of contraction, and it is the power of the hegemon that allows it to make its choices. Hence, the U.S., as hegemon, exercised a benign form of power during the early Pax Americana period, taking a leadership role in the post-war reconstruction of Europe and Japan, and in the Bretton Woods and GATT negotiations. In the early 1970s, however, burdened by a trade deficit, the expense of maintaining convertibility standards for its foreign-owned currency, and the cost and controversy of the Vietnam War, the U.S. exercised its power by unilaterally removing itself from the gold exchange standard and imposing a 10% import surcharge. As Susan Strange suggests, the 1970s did not witness the decline of U.S. hegemony as much as it witnessed the change in U.S. foreign policy decisions from the use of power to the abuse of power.²⁸

By contrast, theorists whose primary focus is on the international political economy, tend to understand the hegemonic stability theory from a liberal free-market system perspective. This 'liberal' version of the hegemonic stability theory maintains that interdependence in the international environment exists as mutual vulnerability amongst states and between state and non-state actors. The management of interdependence, accordingly, involves cooperation and the hegemon's role is to be willing and able to promote international stability by assuming the management position internationally while making self-sacrificing foreign policy decisions at home. When the hegemon is no longer able or willing to continue its role, disarray results in the international realm. The 'proof of the pudding' is the instability which led to the First World War following the demise of British hegemony, and the disarray in the post World War One years when no state assumed the position of hegemon.

During the post World War II years, the U.S., according to the liberal version of the theory, assumed the role of hegemon, contributing to stability and openness within the international realm by pursuing liberal free-market policies in the international economy, backed with the military power to deter non-compliance. By the 1970s,

largely due to 'free-riders,'²⁹ states taking advantage of the U.S. military and economic largesse, the U.S. abandoned its role by reneging on the principles of Bretton Woods and GATT. With the decline of the hegemon, the theory predicted chaos in the international political economy.

However, chaos did not ensue. As Krasner points out, East-West tensions did not increase, the international monetary system continued to function, and the liberal free-market system of the industrialized North survived the OPEC oil price increases and the attacks of the South's New Economic Order.³⁰ The call for a New Economic Order and the organization of the OPEC oil cartel, however, both potentially threatening to the liberal free-market system, indicated that the North and the South did not have the same definition as to what constitutes 'stability.' That difference in definition is one of the two main problems with the liberal version of the hegemonic stability theory. Rather than being a theory of international relations, it is a theory of the relations between the industrialized capitalist states. It does not consider the extent to which the policies of the IMF and the World Bank were a closing of ranks at the expense of the Eastern Bloc countries,³¹ nor does it take into account the instability produced in the South by the purportedly 'stabilizing'

policies of the industrialized states of the North.³² For some liberal theorists, the latter phenomenon was not viewed as an analytical problem. In their eyes, destabilization in 'developing' states is due to internal domestic state problems, a result of development itself and not of world market or political forces.³³

The second problem with the liberal version of the hegemonic stability theory was how to account for the degree of stability that remained in the global political economy after the decline of U.S. hegemony in the early 1970s. For some analysts, the answer resided in the residues of order that remained in the international institutions and organizations established by the hegemon during its years of post-W.W.II power ascendancy.³⁴

Meanwhile, other realist theorists had been re-examining the attributes of interdependence. Two years before the emergence of Waltz's neo-realism, Keohane and Nye had translated the concept of interdependence into a theory of complex interdependence in which they maintained that the international environment is populated by both state and non-state actors, and that both are directly involved in world politics in which there is no clear hierarchy of issues. The theory's realist roots are revealed in its claim that force remains an effective

instrument of state policy and that power resources are still used to exert control over others. However, because non-state actors, economic actors in particular, have control over considerable power resources, the exercise of power is no longer only a state prerogative.³⁵

The recognition of complex interdependence led theorists in one of two directions. Those who maintained that the state remained an autonomous and dominant actor in the international realm, and that the international political environment remained the primary determinant of international relations, focused their attention on regime analysis, the study of interdependence within international institutions and organizations.³⁶ Others who took more seriously the claim that non-state actors, and domestic political and economic processes, were intimately involved in the shaping of international relations began the process of dismantling the barriers between domestic and international theorizing in order to examine the domestic and international organization of both state and non-state actors and their interactive effects on the political and economic environments.³⁷

Analysts have defined regimes in various ways,³⁸ but a collective definition established at a conference on the subject defines them as "...sets of implicit or

explicit principles, norms, rules and decision-making procedures around which actors' expectations converge in a given area of international relations."³⁹ Hence, regimes do not refer to international organizations themselves, but to the forms of cooperation that exist within and around them. Because this cooperation requires compromise and negotiation, liberal regime analysis claims that regimes change the context of international decision-making, that they act as intervening variables between the policies individual states pursue and those that emerge from negotiation with other states in a particular issue area.⁴⁰ The perspective also maintains that the degree of stability that existed in the global political economy post-1970 is evidence that states have high priority interests, such as the management of the international economy, that cannot be reducible to processes of power politics in the realist sense. These interests indicate that states have values other than the pursuit of power, such as the pursuit of cooperation, and that these values can be pursued in the absence of a hegemon.⁴¹

More power-oriented realists insist that regimes, rather than changing the context of international decision-making, simply reflect the preferences of power interests. In this view, regimes are established by egoistic, self-

interested state actors as one of the channels through which power is exercised. Others, such as Robert Keohane, however, insist that regime analysis is both a critique and a modification of realism, that regimes put decisions based on power and self-interest into a context that endures.⁴²

There are strengths to both versions of regime analysis. The realist insistence that power prevails in spite of regimes was borne out by the unilateral decision of the U.S. to renege on the principles of Bretton Woods and GATT. It is also true that regimes institutionalize power relations, and put decisions based on power and self-interest into an enduring context. The weighted voting in favour of the U.S., established in the IMF in 1957 at the height of U.S. political and economic power, is a case in point. The U.S. veto power endures and whereas its original 35% of the vote had dropped to 20% by 1983, the change was made to accommodate the growing European and Japanese economies.⁴³

As Susan Strange maintains, however, the poverty of regime theory resides in its focus on states as the dominant actors in the international realm. This focus distorts analysis by obscuring the dynamics of policy-making at the international level, the interaction of state and non-state actors, primarily economic actors, in the

formulation of state policy preferences for international policy-making, and the rebound effect of international policies on both state and non-state actors. Moreover, as Strange also insists, regime analysis is the analysis of the status-quo. It studies only the international regimes which exist, and only what is on their agendas. By ignoring the issue areas that do not have regimes and the concerns that do not get on the agendas of existing regimes, regime analysis again misses the dynamics of change. It accepts and studies the existing dimensions of structural power, the ability of powerful states to select, set and control the international agenda, without studying the ramifications of that power. Finally, because the most powerful states in the international arena are the states of the industrialized North, the terms of reference for the regime theorists are both ethno-centric and value-laden. Political stability is defined in terms of what is stabilizing for the industrialized states, and the health of the world economy is understood to be predicated upon liberal free-market assumptions."

Theoretical fallout from the various limitations of realism and its adaptations, neo-realism, complex interdependence, the hegemonic stability theory and regime analysis produced another group of theorists who began to

dismantle the barriers between the domestic and international levels of theorizing. Rather than assuming the autonomy and dominant actor status of the state, these theorists examined the dialectic nature of the interactions among state and non-state actors as they pursued their interests both nationally and internationally. The case studies that emerged from these theorists reveal that there is no parsimonious way to capture the dynamics of international relations. In his 1978 article, "The Second Image Reversed: The International Sources of Domestic Politics," Peter Gourevitch lists a number of these case studies and concludes that foreign policy making can depend, variously, on a number of considerations: the bureaucratic character of the state, the pressure of the masses on policy making, the strength and autonomy of the state in its domestic environment, the interests of the advanced capitalist states, the logic of industrial development, the character of domestic coalitions, and the relative weight of transnational actors vis-a-vis state actors in the international environment.⁴³

The case studies undertaken since then continue to challenge the assumptions of realism and its adaptations. For example, in a 1987 study of French and U.S. trade policy, Helen Milner demonstrates that the policies adopted

by each of the two countries during the 1970s depended more upon the international activities, and the domestic organization, of the industrial interests involved than upon whether the state was, by definition, strong or weak.⁴⁶ A study by Peter Gourevitch of the relationship between the trade tariffs imposed by European states on iron and wheat, and the domestic coalitions within each state, demonstrates the same lack of correlation between trade policy and state characteristics for the depression of 1873-1896, with the organization of domestic coalitions being the determining factor in state trade policy decision-making.⁴⁷

Both studies reveal that trade policies, low political priorities in the realist perspective, had ramifications in the international political environment. Milner suggests that it was the implementation of industrial trade preferences which accounted for the degree of openness and stability that characterized the relationship between industrialized capitalist states during the 1970s, while Gourevitch claims that it was the outcome of the tariff controversy between Republican France, Imperial Germany, Britain and the U.S. which served to strengthen each regime type vis-a-vis the other in the international realm.

Together the two studies demonstrate that in these instances, contrary to realist assumptions, non-state actors and domestic processes had considerable influence on the shape of the international realm and on international relations. Moreover, the coincidence of state interests and industrial interests means that although the state appears formally autonomous in finally declaring the particular policy to be adopted, behind that declaration is a history of political manoeuvring amongst state and non-state actors which compromises the autonomy of the state.

The case study approach to the study of international relations demonstrates that each of the realist assumptions are compromised by, and within, specific situations, that each is situation dependent.⁴⁸ The mix of results and observations achieved in these studies suggest that there may not be, in fact, overarching ordering principles to international relations. Hence, one is led to entertain the notion that the international environment is, and always has been, involved in an evolutionary process and as such is characterized by neither disorder nor grand designs, but rather by the waxing and waning of historically specific interacting interests and actors. The evolution of realist theory itself, adapting as it attempts to explain changing global

relations, suggests the existence of just such a process.

Further, if we are looking at process rather than design in the international environment, then, as the case studies reveal, it is important to include, as variables, the effects of global economic processes on the relationships, security and otherwise, amongst states, and vice versa. Immanuel Wallerstein's capitalist world economy model of international relations is just such a theory of process.

Wallerstein's Capitalist World Economy Model"

Wallerstein's model posits that the capitalist world economy is the dominant force in international relations and therefore is the appropriate unit of analysis in international relations theory. Further, because the world economy is a historical process, rather than a finite, or bounded, structure, it is constantly changing and therefore international relations are not governed by universal or ahistorical laws, as is the case within Morgenthau's realist perspective.

According to Wallerstein, the capitalist world economy is composed of three interacting elements. The first element is the global market which operates on a calculation of maximum profits and therefore determines the

amount of productive activity, the degree of specialization, the levels of payment for labour, goods and services, and the use of technological invention. The second element consists of a series of state structures, the primary function of these structures being to distort the market to the advantage of specific economic actors. The over-riding concern of dominant, or core, states within these structures is the pursuit of global economic hegemony. The third element of the global economy is the international division of labour which constitutes a process of appropriation of surplus product via the capital-labour relation. This process creates three tiers to the exploitative process: the core, the periphery and the semi-periphery.

Taken together, these three elements produce three interrelated antinomies. First, the economy/polity antinomy resides in the ability of economic actors to range the globe in pursuit of profits, and the attendant need for states to act in the interests of these economic actors by instituting favourable domestic welfare programs and international aid, trade and financial policies. It is the dialectical nature of the relationship between the state and economic actors which accounts for the continuing pressure towards state formation for, in seeking to channel

the division of the world surplus, states have formed, developed and militarized in relation to others. It is also this process which accounts for the creation of an international state system in that the world market forces have accentuated state differences, institutionalized them, and made them difficult to surmount.

Second, the supply/demand antinomy, the locus of the evolution of the international division of labour, resides in the anarchical nature of global economic production, of supply, while demand requires state management. Hence, states lock in demand parameters in terms of welfare policies and wage levels, and as profits subsequently decline in these areas, capital moves to areas where lower cost parameters exist, and the process repeats itself. The first two processes combine to create the third, the capital/labour antinomy which resolves itself into a three-tiered structure of exploitation, the core, the periphery and the semi-periphery.

Core areas are defined by high profits, high technology, high wages and diversified production, the establishment of these characteristics being responsible for strong state formation. Peripheral areas are the reverse image and are locked into processes of underdevelopment by differential state strengths in the

state system. Hence there exists a domestic class struggle between labour and capital which cannot be understood apart from its international context, and an international division of labour in which core labour interests work against the interests of peripheral area labour.

In Wallerstein's model, the semi-periphery is both exploiter and exploited, acting in a 'core' capacity for some periphery areas, and as the periphery for specific core areas. As such, it performs a specific economic role in the world system which is, in fact, more political than economic in that it is the stabilizing element in a polarized global environment. It is the continuum between the two poles which the core seeks to maintain, in a supportive role, while the periphery seeks its demise.

As well as joining in alliances with core areas to counter mutual military threats, the semi-periphery provides markets for core goods and investments, especially when the core is squeezed by high wages and production costs. However, because the semi-periphery occupies a middle ground with respect to wages and profit levels, making it more vulnerable to market fluctuations, its ability to maximize profits is insecure and its primary concern is to control market forces by adopting mercantilistic trade policies.

Wallerstein maintains that in times of economic expansion, semi-peripheral states engage in mutual support relations with the core states, aiding core expansion. In times of economic contraction, the semi-periphery is in a better position to bargain with the core states for a realization of its own interests. However, in order to maximize its advantage during times of economic contraction, the semi-peripheral states need to act collectively.

Further, Wallerstein suggests that within non-socialist semi-peripheral countries, the indigenous bourgeoisie is smaller and weaker than in core countries, is more linked to foreign corporations, and, as with the bourgeoisie in all areas, is nationalistic only when it is in its own interests to be so.

Finally, the model maintains that the locus of change within the global system resides in the semi-periphery. Because of its mix of economic activities, its vulnerability to market forces, and the importance of its role as stabilizer in the global system, its state activities are more consciously directed towards affecting change, change being in the direction of socialist, or social democratic, planning. Accordingly, the transnational alignment of socialist forces which will seek

to undermine the capitalist world economy has its roots in the semi-peripheral states.

In a later work, Wallerstein suggests that there is a fourth organizing principle within the world system, a cultural force which he describes as "...a multiplicity of interrelated (and here, often overlapping) cultural communities - language communities, religious communities, ethnic communities, races, status-groups, class communities, scientific communities, and so forth."⁵⁰ This is the extent of his definition and although he suggests that this cultural entity is a force for change, he admits that it is under-theorized in his perspective. One gathers that this is Wallerstein's nod to post-marxist concerns and the roles that social movements and civil society play in affecting change.

According to Wallerstein, there are contradictions within the capitalist world economy which predict its demise and create the space for reform. First, while in the long run, the continued production of surplus requires a mass demand which can only be created by redistribution, in the short run, maximizing profits requires the management of the demand/supply relationship. This short-term management process, including the periodic withdrawal of surplus, gives rise to cyclical market fluctuations

which weaken the system and make the game less profitable for capitalistic activity. Second, the price of each co-optation for compliance increases the price of subsequent co-optations, making, again, the game increasingly less profitable. Third, unequal distribution can only be maintained through repression, the cost of which grows increasingly, and fourth, expansion is finite.

Compared to the realist theory of international relations, and its adaptations, Wallerstein's perspective is a model of processes rather than a theory of systems and structures and as such it allows for an exploration of the on-going dynamics of change. It recognizes the intimate interaction of political and economic factors in the international realm, and it recognizes the continuum that exists between domestic and international political and economic activities, demanding, therefore, the incorporation of a domestic level of analysis in international relations theory. It is also more able to account for the types of states that are formed in the peripheral areas than are traditional theories of international relations.

The main weakness of Wallerstein's model is in its conception of the nature of the state. At times the state appears to be a structuralist state in the Marxist sense⁵¹

with the economy/polity antinomy predicting a degree of relative autonomy for the state by situating it in the contradictory position of having to secure both the interests of capital and the interests of labour. When Wallerstein suggests, however, that the primary function of the state is to manipulate the market to the advantage of its economic actors, the state appears to be simply an instrument of capital, its autonomy wholly compromised by the interests of economic actors. Wallerstein avoids the inherent ambiguity in these two versions of the state by assuming, one suspects, that because domestic welfare policies serve the interests of capital, then from either point of view, structurally or instrumentally, the state is directed by economic actors. The state's agenda, however, even its economic agenda is not precisely identical to the agenda of its economic actors and, as structural Marxists point out, it is precisely because of its contradictory position that it gains a degree of autonomy which is situation dependent.⁵²

The problem of defining the state's role is complicated by Wallerstein's insistence that the military is used by the state to defend and pursue economic hegemony within the global economic system. Although the realist insistence that security concerns are the ultimate

determinant of the international state system is highly questionable, its assumption that states have security concerns independent of economic concerns is valid. The military, as an institution of the state, assumes the security concerns of the state, and hence, reflects the state's security agenda. However, as C. Wright Mills has argued, the military also has an independent security agenda which is rooted in the maintenance and pursuit of military professionalism: "...a vested interest - personal, institutional, ideological - in the enlargement of all things military."⁵³ Hence, balancing the interests of both its economic actors and its security actors is a source of state autonomy which Wallerstein ignores.

The tendency to reduce the globe to a single economic system, and to make no distinction between the domestic and the international level of analysis, exaggerates the problem of defining the state within Wallerstein's model. The contradictory position which the state occupies in the domestic environment, with respect to the interests of capital and labour, is magnified by the same contradictions in the international environment, with respect to the interests of the core and the periphery. As Skocpol writes, "States necessarily stand at the intersections between domestic sociopolitical orders and

the transnational relations within which they must manoeuvre for survival and advantage in relation to other states."⁴ Such a position provides yet another source of situation dependent autonomy for the state.

By not identifying these three sources of relative state autonomy, Wallerstein's own empirical analysis of the sixteenth century world-economy suffers.⁵⁵ As Theda Skocpol points out, by reducing socio-economic structure to determination by world market opportunities and technological production possibilities, and by reducing state structures and policies to determination by dominant class interests, Wallerstein misses identifying the effect that the institutionalization of class relations has upon state decision-making in the domestic realm, and the effect that "...historically preexisting institutional patterns, threats of rebellion from below, and geopolitical pressures and constraints," have upon shaping the state that takes its place in the international environment.⁵⁶

In addition, by not specifying the dialectic nature of state and non-state actor interaction, Wallerstein misses capturing the consequences, especially the unintended ones, of this process. For example, the Third World debt was an unintended consequence of a process of action and reaction amongst state actors, domestic and

transnational economic actors, and international economic institutions. The agenda of these three entities do not always coincide. As Terence Hopkins and Wallerstein suggest in a 1982 article, the pursuit of integrated productivity on a global scale and the formation of strong nation states are often contradictory processes and what the state seeks to unify, the economy often seeks to tear asunder.³⁷ For example, the United Motor Manufacturing Company was created in the U.S. in 1983 by an alliance of General Motors and Toyota in an effort to circumvent the effects of the U.S. non-tariff barriers erected to protect the U.S. auto industry.³⁸ What the state was seeking to protect, economic actors tore asunder. By not specifying the dialectic nature of domestic and international policy making and of state and non-state actor interaction, Wallerstein cannot identify the unintended consequences of the pursuit of wealth, consequences which may, in Robert Cox's view, lead to an increase in power for the transnational economic actors and result in global caesarism rather than the demise of the world capitalist system as Wallerstein predicts.³⁹

The problem of mis-identification of the dynamics of processes and actor interactions, is compounded by Wallerstein's assumption of unity amongst core, periphery

and semi-peripheral states, his insistence that these be viewed as economic areas rather than as economic areas comprised of states. As Gourevitch suggests, states are more than precipitates of the global economy. They are also formed by the dynamics and history of domestic sociopolitical forces.⁶⁰ Accordingly, Katzenstein argues that although the U.K., the U.S., Japan and Germany are all core states, each has its own history, interests, policies, and economic actors and it is the competition amongst, and the coordination of, these factors that largely determine the world economic structure rather than a generic pursuit of economic hegemony.⁶¹

Nor, given the vast differences, for example, between the OPEC countries and the Central American states, both occupying peripheral status within Wallerstein's model, is it possible to assume peripheral state similarities. In addition, Wallerstein's assumption that peripheral states are weak states is highly suspect. As Evans points out, the exploitation of labour and resources in peripheral states is facilitated precisely because the state is strong, centralized and repressive, and the processes of international production, distribution and finance contribute to the strengthening of these states.⁶²

Similarly, it is difficult to posit unity or

sameness amongst semi-peripheral states. Austria and Switzerland, for example, are both semi-peripheral states within Wallerstein's model, yet Austria is a democratic socialist state with strong labour interests while Switzerland is a liberal capitalist state with strong business interests. The difference between the two has been attributed more to domestic factors during the historical formation of each state than to global economic forces.⁶³ In addition, Peter Evans argues in his book, Dependent Development: The Alliance Of Multinational, State, And Local Capital In Brazil, that industrializing countries such as Brazil have achieved the status of semi-peripheral states.⁶⁴ This would suggest that Canada and Brazil, two semi-peripheral countries, have similar positions within the global economy, an argument which Leo Panitch successfully refutes, primarily on the basis of the differences in the institutionalization of class interests in Canada and Third World states.⁶⁵

Further, the assumption that semi-peripheral state policy-making is directly related to contractions and expansions of the world economy is a difficult assumption to sustain. The European states, some of them of semi-peripheral status, acted collectively to form the EEC in the late 1950s as the world economy was expanding, when

according to Wallerstein, semi-peripheral states tend to act collectively in their own interest during periods of global economic contraction. Moreover, Canada, as a semi-peripheral country, entered into a free-trade agreement with the U.S. in 1987 during what was seen to be a period of recovery from the recession of the early 1980s. The recession of the 1990s, having developed into one of sizeable proportions, has its roots in the mid-1980s at least, when according to Wallerstein's model, Canada should have been pursuing protectionist trade policies. Although there was a slight recovery during the period when the agreement was being negotiated, the point is that when states themselves do not know whether they are enjoying long-term or short-term periods of contraction or expansion, it is difficult to theorize that they make their decisions with such knowledge.

There are also problems with Wallerstein's assertion that the forces for change within the world economy are located in the semi-periphery. The on-going pursuit of political unity amongst the EEC states, in concordance with their economic unity, suggests that these states, some of which being of semi-peripheral status, may form a core area with all the attributes of such, rather than becoming a locus for socialist change. Similarly, it

is difficult to argue that Canada is a locus for socialist change, given its history of weak social democratic parties at the federal level of politics."

Wallerstein's assumptions about the nature of the bourgeoisie in semi-peripheral states also fails as far as generalizability is concerned. Given the fervour with which the Canadian business class pursued the free trade policy, it is possible to agree with Wallerstein that the indigenous bourgeoisie is not nationalistically oriented at heart, unless it is accepted that the free trade policy was in Canada's interest, in which case Wallerstein's assumption about semi-peripheral countries adopting mercantilistic policies is wrong in this instance. However, the hypothesis that the semi-peripheral indigenous bourgeoisie is smaller and weaker than those in the core areas is questionable in Canada's case. In terms of absolute numbers this may be so, but in terms of effects on domestic economic and political activity, the assumption is suspect. For example, Trudeau's North/South initiative and his attempts to increase Canadian trade with the EEC countries and the Pacific Rim were good Wallerstein-model, semi-peripheral moves. According to Thomas Axworthy, however, the Canadian business class was powerful enough to counter them, and hence, the implementation of the free

trade legislation with the U.S. instead of the Trudeau policies.⁶⁷

As Evans points out, the assumption of the relative weakness of the indigenous bourgeoisie is also most difficult to sustain for countries such as Brazil. The domestic bourgeoisie may not be as strong as the transnational economic actors within the international networks of capital. Yet within the domestic context, to a large extent, multinational corporations depend upon the strength of the domestic bourgeoisie for the implementation of policies that favour multinational resource extraction, industrialization and finance.⁶⁸

Finally, Wallerstein would be accused of heresy by those Marxists who defend with emotional fervour the privileging of the working classes as agents of change.⁶⁹ In fact, on the global scale of analysis, Wallerstein digs his hole even deeper by suggesting that change resides in the middle class of world powers, the semi-periphery. Wallerstein's arguments, however, are in accordance with post-marxist theorizing at the domestic level of analysis. Post-Marxism retains the Marxist perception of the determining effects of the economy on social organization but understands that working class consciousness is fractured, variously, by gender and race conflicts, by the

division of work within the class, by co-optation within the political party system, and by having acquired at least minimum levels of comfort and security through labour legislation and domestic welfare programs. Because of this fracturing, post-marxists suggest that change is located within civil society in general, in social movements and alliances of interests, including the interests of labour.⁷⁰

Globally, Wallerstein maintains that the working class is divided against itself with the interests of the working classes in the core areas working against the interests of the same classes in the periphery. The semi-periphery, as both exploiter and exploited, contains the alliances of interests that will bring about global change. In his book, Production, Power, And World Order, which is essentially a Gramscian reworking of Wallerstein's model, although there is no reference to Wallerstein within the volume, Robert Cox appears to disagree with Wallerstein as far as global class consciousness is concerned. Cox suggests that classes identify globally, at least during periods of hegemonic world order.⁷¹ However, although Cox presents ample evidence of the capitalist classes identifying common interests across state borders, there is no indication of similar identification of interests

amongst labour classes. Hence, Cox appears to be describing elite identification, rather than class identification.

Cox's analysis of the global economy does supply two important correctives for Wallerstein's model. First he makes a distinction between the domestic and the international environment, understanding them to be interacting in a dialectical fashion. Secondly, Cox situates the state between the domestic and the international environment, and in so doing understands that the state gains a degree of situation dependent autonomy through its role as mediator between domestic and international actor interests.

Accordingly, Cox argues that class is an agent of change but that the dynamics of change is situation dependent, subject to the type of state that labour inhabits and the political party organization of production interests within that state.⁷² Class effects on global change, therefore, work through the state.

At this point, Cox's analysis gets murky. He maintains that class conflict, rooted in specific modes of production, predicts specific state structures which are themselves shaped by having to adjust their national economics to the dynamics of the world economy.⁷³ States

then form historically specific configurations of international state systems based on the organization of the world economy, the shape of the international state system changing as priorities change in the world economy. Because, according to Cox, the modern world economy is dominated by processes of finance which have the ability to shape production and its relations, finance is an autonomous force for change in the global environment.⁷⁴

But so is class, according to Cox, with class being the social or political form of the conflict inherent in production relations while finance is the economic form.⁷⁵ However, Cox maintains that labour class consciousness has been prevented from developing in industrialized states due to relative comfort in times of global economic expansion and fear during times of recession.⁷⁶ Moreover, it has also been prevented from developing in distributive and Third World states by various forms of oppression and repression.⁷⁷ Further, he argues that subordinate domestic groups are plagued by lack of cohesion as evidenced by the incoherence of opposition politics, while even the dominant domestic group interests are fractured by classical liberal views of the national and world economies versus state-interventionist national capitalism.⁷⁸ Hence, the only class consciousness that seems to be

operating is that of the transnational capitalist class. Under the guise of class consciousness, then, Cox is in fact describing elite consciousness on a global scale. Hence, class and finance, as two autonomous forces for change, appear to be the same force for change and it is perhaps for this reason that he can suggest that the present global environment is ripe for caesarism without a caesar, a freezing of global contradictions by the activities and demands of finance.⁷⁹

In spite of his arguments to the contrary then, Cox essentially agrees with Wallerstein in terms of the limited role which class conflict plays in global change. In making the distinction between the domestic and the international level of analysis, however, Cox is more specific about the dynamics of Wallerstein's supply/demand antimony. By situating the state at the juncture of the contractions inherent in both domestic and international production relations, Cox specifies at least a potential for the role of domestic class conflict in bringing about change. Further, he posits a relatively autonomous, situation dependent, sphere for the state, this sphere being the second corrective to Wallerstein's model.

The main difference between the two authors is that while Wallerstein is concerned with creating a grand theory

of international relations that reflects global economic processes, Cox is attempting to apply such a theory. Consequently, Cox specifies what Wallerstein implies. In doing so, Cox's global case study demonstrates that Wallerstein's economically oriented model of international relations, like the realist model, requires case studies for the understanding of specifics. The question to be asked within case studies of international relations then, is which model provides the better explanatory assumptions for the situation under investigation?

The two paradigms could hardly be more dissimilar. Whereas realism assumes the existence of certain generic ordering principles in the international environment, Wallerstein's model assumes process on an ad hoc basis. Where realism assumes that the power relations of states constitute the primary focus of study for international relations, Wallerstein assumes that it is the world economy. Within realism, the anarchical nature of the international environment predicts state insecurity and the pursuit of state power, while the world economy model maintains that anarchy is the permissive factor for production. While realism assumes an autonomous, unitary and dominant state in the international realm, Wallerstein's model assumes that the international realm is

populated by economic and state actors and that the state's autonomy is also the economic actor's autonomy in that the former supports the interests of the latter. The voice with which the state speaks is that of its economic actors. Both paradigms see the state as a rational actor but within realism the state makes its cost/benefit analysis in terms of security issues, while in Wallerstein's model the analysis is made in terms of economic interests. Finally, whereas realism understands that the domestic and the international levels of analysis are discontinuous, the world economy model understands them to be one and the same.

Since both perspectives theorize in the grand theory tradition, both are designed to capture the large overview of international relations, the big picture. As such, each orients the student to an identification of what are assumed to be the most pertinent, or most relevant, determinants of international relations. The object of the following chapters is to attempt to identify which assumptions best reflect the determinants and the dynamics of Canada's role within NORAD. The study includes an examination of Canada's defence policy decision-making process as it applies to NORAD. This is an exercise in micro-analysis as it requires a domestic level of analysis

in order to determine the actors and interests involved in the decision-making process. Such an exercise is warranted within the assumptions of Wallerstein's capitalist world economy model because the model assumes a continuum exists between the domestic and the international levels of analysis. However, the realist paradigm does not make that assumption. Further, the paradigm is not designed for micro-analysis. However, in order to test the viability of the realist assumptions, one must necessarily go to the domestic level of analysis in order to investigate if in fact the state complies with realist assumptions. The point, therefore, is not to apply realist assumptions to a micro-level analysis, but rather to undertake a micro-level of analysis to test the assumptions of realism. In terms of both perspectives, then, a domestic level of analysis is being pursued in order to test the conclusions about the state and its interests as they are represented by theories at the international level of analysis.

Accordingly, the next chapter will examine the history of NORAD from within the parameters set out by the assumptions of the realist perspective, focusing on the political and strategic factors that have shaped the Canadian decision-making process.

NOTES

1. Thomas Hobbes, Leviathan: Or The Matter, Forme And Power Of A Commonwealth Ecclesiasticall And Civil, ed. Michael Oakeshott (London: Collier Books, Collier-Macmillan Ltd., 1962), 80
2. Ibid.
3. This precis of realism is taken from Hans J. Morgenthau, Politics Among Nations: The Struggle For Power And Peace, revised by Kenneth Thompson (New York: Alfred A. Knopf, 1985). Morgenthau's realist assumptions inform the assumptions of contemporary realism. See, for example, Paul R. Viotti & Mark V. Kauppi. International Relations Theory: Realism, Pluralism, Globalism (London: Collier Macmillan Publishers, 1987), 32-77, but specifically, 32-34.
4. Peter Gourevitch, "The Second Image Reversed: The International Sources of Domestic Politics," International Organization 32 (Autumn 1978): 901-902.
5. For an analysis of the domestic factors involved including the historical character of Chinese social and economic organization, the dynamics of the conflict between the Kuomintang and the Chinese Communists, and the type of Communist regime established in China as compared to that in the Soviet Union, see:
Barrington Moore Jr., Social Origins Of Dictatorship And Democracy: Lord And Peasant In The Making Of The Modern World (Boston: Beacon Press, 1966), 162-228. Theda Skocpol, States And Social Revolutions: A Comparative Analysis Of France, Russia And China (Cambridge London New York: Cambridge University Press, 1979). Daniel Chirot, Social Change In The Modern Era (New York: Harcourt Brace Jovanovitch, 1986), 262-291.
6. Regime analysis, a corollary to realism, addresses this issue and will be discussed later in the chapter.
7. The problem of 'measurement' as described by Viotti & Kauppi, International Relations Theory, 44-47.
8. Robert Keohane, "Realism, Neorealism and the Study of World Politics," in Neorealism And Its Critics, ed. Robert Keohane (New York: Columbia University Press, 1986), 1-27.

Susan Strange, States And Markets: An Introduction To International Political Economy (New York: Basil Blackwell, 1988), chapters 1 & 2.

9. This is explained by Fred Halliday, The Making Of The Second Cold War (London: Verso, 1983), 151-158.

10. Jacob Viner, "Power Versus Plenty as Objectives of Foreign Policy in the Seventeenth and Eighteenth Centuries," World Politics 1 (October 1948), 1-29, discusses the interaction of state drives for both power and wealth in England with the pursuit of wealth often being the primary drive, a pursuit which affected the direction which state aggression took. Ernst Mandel, Late Capitalism (London: Verso, 1978) describes the role that state competition for resources, markets and land played in the establishment of the British Empire.

11. Richard J. Barnet, The Rocket's Red Glare: When America Goes To War, The Presidents & The People (New York: Simon and Schuster, 1990), 308-352, discusses the non-popularity of the Vietnam War in the U.S.

12. Robert Warren Stevens, Vain Hopes, Grim Realities: The Economic Consequences Of The Vietnam War (New York London: New Viewpoints, A Division of Franklin Watts, 1976), 103-121, and chapters 9 & 10.

13. James F. Petras & Morris H. Morley, How Allende Fell: A Study In U.S.-Chilean Relations (Bristol: Spokesman Books, 1974). Paul E. Sigmund, The Overthrow Of Allende And The Politics Of Chile, 1964-1976 (Pittsburgh: University Of Pittsburgh Press, 1977). A more liberal view of events downplays the direct involvement of the U.S. and multinational corporation in the downfall of the Allende government, suggesting instead that such are the casualties of 'development,' as in Theodore H. Moran, Multinational Corporations And The Politics Of Dependence: Copper In Chile (Princeton: Princeton University Press, 1974), and Robert Gilpin, The Political Economy Of International Relations (Princeton: Princeton University Press, 1987), 250.

14. Proponents of this view include Gilpin, The Political Economy Of International Relations, and Joan Edelman Spero, The Politics Of International Economic Relations (New York: St. Martin's Press, 1985).

15. Proponents include Peter J. Katzenstein, "Introduction: Domestic And International Forces and Strategies of Foreign Economic Policy," in Between Power And Plenty: Foreign Economic Policies Of Advanced Industrial States, ed. Peter Katzenstein (Wisconsin: The University of Wisconsin Press, 1978), 3-23. Peter Evans, Dietrich Rueschemeyer, & Evelyne Huber Stephens, "Introduction," in States Versus Markets In The World System, ed. Evans et al (Beverly Hills London New Delhi: Sage Publications, 1985), 11-33. Robert W. Cox, Production, Power, And World Order: Social Forces In The Making Of History (New York: Columbia University Press, 1987).

16. Robert O. Keohane & Joseph S. Nye, Power And Interdependence: World Politics In Transition (Boston Toronto: Little Brown and Co., 1977), 6-8.

17. Robert Keohane, "Theory of World Politics: Structural Realism and Beyond," in Neorealism And Its Critics, 159.

18. Stephan D. Krasner, "Preface," in Krasner, Ed., International Regimes, ed. Stephan Krasner (Ithaca London: Cornell University Press, 1983), VII.

19. Keohane & Nye, Power And Interdependence, 6-7.

20. Gourevitch, "The Second Image Reversed." Krasner, "Regimes and the Limits of Realism: Regimes as Autonomous Variables," in International Regimes. Keohane & Nye, Power And Interdependence, chapter 2. Stephan Haggard & Beth Simmons, "Theories Of International Regimes," International Organization 41 (Summer 1987).

21. The process is described in Spero, The Politics Of International Economic Relations, 179-221, and in Jill Torrie, ed., Banking On Poverty: The Global Impact Of The IMF And World Bank (Toronto: Between The Lines, 1983).

22. Kenneth Waltz, Theory Of International Politics (New York: Random House, 1979).

23. Robert Gilpin, War and Change in World Politics (Cambridge: Cambridge University Press, 1981), 16.

24. Ibid., 17

25. Ibid., 45.

26. The hegemonic stability theory was introduced by Charles P. Kindleberger, The World In Depression, 1929-1939 (Berkeley: University of California Press, 1973). It is also described in Robert O. Keohane, After Hegemony: Cooperation And Discord In The World Political Economy (Princeton: Princeton University Press, 1984), 31-49. Katzenstein, Between Power And Plenty, 7-12. Viotti & Kauppi, International Relations Theory, 57-58. The liberal version of the theory is most thoroughly discussed in Gilpin, The Political Economy Of International Relations, 72-80.

27. Kenneth N. Waltz, Theory Of International Politics, 144-145, and in "The Myth of National Interdependence," in Globalism Versus Realism: International Relations' Third Debate, ed. Ray Maghroor & Bennett Ramberg (Boulder: Westview Press, 1982).

28. Susan Strange, "Cave! Hic Dragones: A Critique of Regime Analysis," in International Regimes, 340-341.

29. Haggard & Simmons, "Theories Of International Regimes," 503. Gilpin, The Political Economy Of International Relations, 74.

30. Krasner, International Regimes, VIII.

31. Haggard & Simmons, "Theories of International Regimes," 503-504.

32. Strange, "Cave! Hic Dragones," 340.

33. Gilpin, The Political Economy Of International Relations, 248.

34. Keohane, After Hegemony, 5-17.

35. Keohane & Nye, Power And Interdependence, chapter 2.

36. The introduction to the study of regimes was made by John Gerard Ruggie, "International Responses to Technology: Concepts and Trends," International Organization 29 (Summer, 1975):557-584. Regime analysis is described in Krasner, ed., International Regimes, and Keohane, After Hegemony.

37. Among those who recognize the need to dismantle the barriers are, Katzenstein in "Introduction," Between Power And Plenty, Gourevitch, "The Second Image Reversed," Haggard & Simmons, "Theories Of International Regimes," and Keohane, "Theory of World Politics," 190-197.
38. See Krasner, International Regimes, 2, for definitions used by Keohane & Nye, Ernst Haas and Hedley Bull.
39. Keohane, After Hegemony, 57.
40. Krasner, International Regimes, 21, and Keohane, After Hegemony, 64.
41. Keohane, After Hegemony, chapter 4.
42. Ibid., 5-17.
43. Cranford Pratt, "Introduction: International Bankers and the Crisis of Debt," Banking On Poverty, 20-21. John Ruggie, "International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order," International Regimes, 226.
44. Strange, "Cave! Hic Dragones," 337-354.
45. Peter Gourevitch, "The Second Image Reversed," 901.
46. Helen Milner, "Resisting the Protectionist Temptation: Industry and the Making of Trade Policy in France and the United States during the 1970's," International Organization 41 (Autumn, 1987): 639-665.
47. Peter Gourevitch, "International Trade, Domestic Coalitions, and Liberty: Comparative Responses to the Crisis of 1873-1896," Journal Of Interdisciplinary History VIII (Autumn, 1977): 281-313.
48. Theda Skocpol, "Bringing the State Back In: Strategies of Analysis in Current Research," in Bringing The State Back In, ed. Peter Evans, Dietrich Rueschemeyer & Theda Skocpol (Cambridge London New York: Cambridge University Press, 1985).
49. This analysis is from Immanuel Wallerstein, The Capitalist World-Economy (Cambridge London New York: Cambridge University Press, 1979).

50. Terence Hopkins & Immanuel Wallerstein, "Patterns of Development of the Modern World System" in World-Systems analysis: Theory And Methodology, Hopkins and Wallerstein (Beverly Hills London New Delhi: Sage Publications, 1982), 43-44.
51. The basics of a Marxist structuralist perspective appear in Louis Althusser & C. Balibar, Reading Capital (London: New Left Books, 1970). Nicos Poulantzas, Classes In Contemporary Capitalism (London: New Left Books, 1975). These are summarized in Martin Carnoy, The State And Political Theory (Princeton: Princeton University Press, 1984), chapter 4.
52. The situation dependent nature of state autonomy is argued by Katzenstein, Between Power And Plenty, 3-22, particularly, p.20.
53. C. Wright Mills, The Power Elite (New York: Oxford University Press, 1956), 200.
54. Theda Skocpol, "Bringing the State Back In," 8.
55. Immanuel Wallerstein, The Modern World System: Capitalist Agriculture And The Origins Of The European World-Economy In The Sixteenth Century (New York London: Academic Press, 1974).
56. Theda Skocpol, "Wallerstein's World Capitalist System: A Theoretical and Historical Critique," American Journal Of Sociology 82 (March 1977): 1075-1090, specifically 1078-1081 with the quotation appearing on 1080.
57. Terence K. Hopkins & Immanuel Wallerstein, "Patterns of Development of the Modern World System," World-Systems Analysis: Theory And Methodology, 43.
58. Gilpin, The Political Economy Of International Relations, 252-260, specifically 255.
59. Robert Cox, Production, Power And World Order: Social Forces In The Making Of History (New York: Columbia University Press, 1987), 279-285.
60. Gourevitch, "The Second Image Reversed," 888-891.

61. Katzenstein, "Conclusion: Domestic Structures and Strategies of Foreign Economic Policy," Between Power And Plenty, 295-336.
62. Peter Evans, "Transnational Linkages and the economic Role of the State: An Analysis of Developing and Industrialized Nations in the Post-World War II Period," Bringing The State Back In, 192-227.
63. Peter Katzenstein, "Small Nations in an Open International Economy: The Converging Balance of State and Society in Switzerland and Austria," Ibid., 227-257.
64. Peter Evans, Dependent Development: The Alliance Of Multinational, State And Local Capital In Brazil (Princeton: Princeton University Press, 1979), 9.
65. Leo Panitch, "Dependency and Class in Canadian Political Economy," Studies In Political Economy 6 (Autumn 1981): 7-34. Evans, Dependent Development, supports Panitch's argument about the difference in class organization between Canada and Third World states by describing the lack of institutionalization of working class interests in Brazil.
66. Robert J. Brym, "Anglo-Canadian Sociology," Current Sociology 34 (Spring 1986): 1-152, argues on pages 43-66 that the reason for this is due to Canada's inherited liberalism and regional politics.
67. Thomas Axworthy, "To Stand Not So High Perhaps but Always Alone: The Foreign Policy of Pierre Elliot Trudeau," in Towards A Just Society: The Trudeau Years, ed. Thomas Axworthy and Pierre Elliot Trudeau (London New York: Viking, 1990), 31-38.
68. Evans, Dependent Development, chapter. 3.
69. Norman Geras, "Post Marxism?" New Left Review 163 (May/June 1987): 40-82. Ellen Meiksins Wood, Re-reat From Class: A New True Socialism (London: Verso, 1986).
70. Described variously by Ernesto Laclau & Chantal Mouffe, Hegemony & Socialist Strategy (London New York: Verso, 1985). Jean L. Cohen, Class And Civil Society: The Limits Of Marxian Critical Theory (Amherst: The University of Massachusetts Press, 1982). Isaac Balbus, Marxism And Domination: A Neo-Hegelian, Feminist, Psychoanalytic Theory

Of Sexual, Political And Technological Liberation
(Princeton: Princeton University Press, 1982).

71. Cox, Production, Power And World Order, 1-9.

72. Ibid., 6.

73. Ibid., 217, 253-254.

74. Ibid., 267.

75. Ibid.

76. Ibid., 281-282.

77. Ibid., 218, 230-244.

78. Ibid., 285.

79. Ibid., 192, 273, 266-267, 285.

Chapter Three

The Political History of NORAD

The preceding chapter argued, in theoretical terms, that the assumptions of realism, and its adaptations, neo-realism, the hegemonic stability theory, and regime analysis, preclude a comprehensive analysis of international political decision-making. The paradigm's primary problem is its assumption that the domestic and international environments are analytically discrete. This assumption obscures the fact that the state is situated at the intersection of the two environments and that it is in the domestic environment where power resources are located, where national interests are defined, and where non-state actors with interests in both these areas reside. Once the national interests of a state are defined, through the interaction of state and non-state actors with economic, political and cultural interests, they are put to play in the international realm, at which time, a dialectic relationship is established between domestic and

international actions and reactions, the actions and reactions being those of both state and non-state actors. By assuming that the international environment is discrete, realism can only capture frozen moments of this on-going process. Hence, the theory can often accurately describe events in the international realm but it cannot always accurately reflect either the determinants or the dynamics of those events.

Other assumptions of the paradigm do little to increase realism's interpretive ability. Since the state is the only body that can make policy in the international political environment, it is a tautology to suggest that it is the dominant actor in that realm, as it is a tautology to suggest that it is an autonomous actor and speaks with a unitary voice. Moreover, these assumptions, in and of themselves, tell us very little about the process whereby the state acquires its international agenda.

The rational actor assumption helps in understanding how the state sets its international agenda in that the state is understood to make its policy decisions on a cost/benefit analysis with respect to its security/power interests. This assumption alone effectively destroys the distinction made between the domestic and international environments because a

cost/benefit analysis is in terms of the costs and benefits accruing to the domestic environment of activities pursued in the international environment. A continuum exists. However, the assumption defines neither the limits of state national security interests nor the parameters of 'rationality.' Consequently, the theory works best in retrospect when it can identify national interests by their pursuit, and 'rational' state behaviour by its having taken place. Realism's explanatory and predictive powers, therefore, are limited.

The purpose of this chapter is to test the previous chapter's theoretical critique of the realist perspective by applying the assumptions of realism to the political history of NORAD. Since NORAD is a classical defence alliance within a bipolar international state system structure, and since the thesis concern is with identifying the determinants of Canadian defence policy-making within this alliance, ideally, the assumptions of the realist perspective should be able to guide the search. As per the realist perspective, the Canadian/U.S. alliance should represent a common defence interest. The bipolar nature of the international balance-of-power system should be the primary determinant of the Canadian decision-making process. The rational actor assumption should be able to

explain why certain decisions were taken over viable alternatives, while the assumptions of the unitary and autonomous nature of the state should be able to explain how those decisions became policy. Moreover, since NORAD is purely a defence alliance, it should be possible to disregard economic factors and actors, or at least relegate them to positions of secondary importance.

In examining the political history of NORAD, however, the chapter will argue that two related questions arise which the realist perspective cannot satisfactorily answer. First, throughout the history of NORAD, the Canadian government, until the mid-1980s, has consistently made defence policy decisions pertaining to NORAD that do not reflect the government's own policy preferences. In other words, policy decisions often do not reflect policy preferences expressed by the government prior to the decision taken. These are known as "miscalculations" in strategic policy-making and have been in evidence from the inception of the NORAD Agreement. Signing the Agreement without a full understanding of what it entailed was the first 'miscalculation.' Not fully comprehending that the NORAD Agreement committed Canada to accepting nuclear weapons on its territory was the second. Renewing NORAD in the mid-1970s without an adequate knowledge of the

implications of the new weapons systems that were being designed for use in the NORAD Command was a third. Changing the terms of the Agreement in the 1981 renewal without understanding the implications for Canadian potential involvement in U.S. ballistic missile defence, and space defence programs was the fourth. The fifth was agreeing to test the U.S. cruise missile with less than a full understanding of how the cruise fit into U.S. war-fighting plans in terms of the defence of the continent, and how the cruise missile, as an air-breathing threat which was to be tracked from space, eroded the distinction between air and space defence programs.

The second question which the assumptions of realism cannot adequately answer is, given the differing positions of Canada and the United States in the international balance-of-power system, and given the differing policy preferences of the two countries based on their different positions within the international system, how can one fully account for the growing coincidence of the countries' perception of the threat, and of the appropriate response to that threat? This question is of particular relevance to the post mid-1980s period of NORAD's history when Canadian defence policy decision-making within NORAD reflected, either explicitly or

implicitly, U.S. policy preferences.

The political history of NORAD suggests two possible answers to these questions. First, the nature of the Canadian/U.S. professional military relationship within NORAD is such as to be able to develop U.S. defence programs, under broad Canadian defence policy directives, to such an extent that by the time these programs are presented to Canadian decision-makers for their consideration, they are already a virtual fait accompli. Secondly, the chapter will argue, on very limited evidence at this point, that the interests of both the Canadian government and the Canadian defence production industry in the economic benefits to be gained from joint Canadian/U.S. defence production programs have skewed the Canadian political focus from strategic concerns in its defence policy decision-making within NORAD.

Hence, the chapter will argue that there are three environments within which Canadian defence policy decision-making takes place, a strategic, an economic and a political environment. Further it is argued that each of these environments has a domestic and an international context. Consequently, realism with its focus on international balance-of-power variables, its assumption of state autonomy, and its dismissal of economic actor

interests as a viable influence on defence policy-making, cannot adequately identify the determinants of Canadian defence policy-making within NORAD.

The Political History of NORAD

The North American Air Defence Agreement, or NORAD, came into being, de facto on August 1, 1957 and de jure on May 12, 1958, as "...a system of integrated operational control for the air defenses in the continental U.S., Canada and Alaska," Its purpose was "...to have in existence in peacetime an organization, including the weapons, facilities and command structure, which could operate at the outset of hostilities in accordance with a single air-defence plan."¹ Since at the time, and within the context of air-defence, the perceived threat was of a Soviet bomber raid from the north, the Canadian NORAD facilities consisted of the radar surveillance installations of the U.S. Pinetree Line which was extended into Canada along the 50th parallel in 1954 and had warning and control of interceptor aircraft capabilities; the DEW Line at the 70th parallel which had only warning capabilities; and the Mid-Canada line at the 55th parallel which was an electronic screen for detecting but not tracking aircraft.² Of the 480 continental radar

installations, 173 were in Canada.³

To supplement the early warning installations, and to fulfil NORAD's mandate of engaging enemy forces,⁴ Canada contributed 162 of the approximately 2,000 regular force interceptor aircraft and 101 of the 3,900 augmentation aircraft for continental defence. The U.S. also maintained approximately 575 Nike and Bomarc missiles on U.S. territory.⁵ The U.S. missiles and interceptor aircraft were fitted with nuclear warheads, while Canada was expected to acquire a nuclear-capable Bomarc missile system, and to outfit its CF-100 interceptors and the Avro Arrow, which was in its pre-production stage, with nuclear warheads.⁶

The central command and control facilities of NORAD were located at Colorado Springs in the U.S., with the Commander-in-Chief of NORAD (CINCNORAD) being "...responsible to the Chiefs of Staff Committee of Canada and the Joint Chiefs of Staff of the United States, who in turn are responsible to their respective Governments."⁷ In addition, although the Agreement only stipulates that the Commander and the Deputy commander will not be from the same country, convention has established that the Commander be an American citizen and the Deputy, Canadian.⁸

Pre-NORAD Canada/U.S. Defence Cooperation

The NORAD Agreement was the culmination of a long history of Canadian/U.S. air-defence collaboration. The Ogdensburg Agreement of August 17, 1940, an agreement for the mutual defence of the continent signed by Prime Minister King and President Roosevelt, established the Canadian/U.S. Permanent Joint Board on Defence (PJBD), a Board dominated by members from the two militaries.⁹ The Board was not structured into the U.S. military hierarchy but rather was used by the U.S. Joint Chiefs of Staff to communicate to the Canadian military plans involving Canada that were relevant to U.S. security considerations. In other words, as Joseph Jockel argues in his pre-NORAD history of Canadian/U.S. military cooperation, the PJBD was used to bring Canada 'on-line' with U.S. strategic thinking before that 'thinking' actually became policy.¹⁰

Canadian/U.S. military cooperative planning was augmented in May, 1946 by the establishment of the Canada/U.S. Military Cooperative Committee (MCC) which was formed for the exchange of military information and was responsible to the Chiefs-of-Staff of the two countries. The MCC is the "...binational military agency concerned with recommendations relative to military policy and planning for the defence of North America and such other

mutual defence matters as may be referred to it."¹¹ At its first meeting, which did not include U.S. civilian representation, the MCC signed two documents, an Appreciation of the Requirements for Canadian-U.S. Security, and a Joint Canadian-United States Basic Security Plan. The latter included recommendations for: "1) a comprehensive air warning, meteorological and communications system; 2) a network of air bases with facilities and supplies for the accommodation of adequate numbers of interceptor aircraft and so located to cover all areas of approach at the maximum practicable distance from vital strategic areas; 3) adequate anti-aircraft defenses in locations of strategic importance." At the time, the MCC warned that by 1955 the Soviet Union would possess "...aircraft of supersonic speeds, atomic bombs in greater quantities, and long-range rockets and guided missiles," thus necessitating new northern interceptor bases and a combined Air Defence Headquarters with operational control over all continental air defence forces, Canadian and American.¹²

In February 1947, Canada and the U.S. also issued a Joint Statement on Defence Collaboration which indicated agreement on five principles of bilateral cooperation, including the interchange of military personnel between the

two countries; cooperation for military exercises, weapons tests and development; standardization of arms, equipment organization and methods of training; "...mutual and reciprocal availability of military and naval and air facilities in each country;" and the sovereign control of each country over activities within its boundaries.¹³

Like the other agreements, this document was vague and informal, with no treaties or executive agreements making it legally binding. Like the other agreements too, it was a part of the process whereby Canadian/U.S. military cooperation resulted in the emergence of plans which largely dictated the parameters of future air defence policies for both countries, plans that were also used by both militaries to pressure their respective governments for funds.

Since the U.S. Congress did not provide permanent funding for an air defence system until 1949, and since Canada did not possess a regular air squadron until 1948,¹⁴ planning for the air defence of the continent was necessarily at the level of bilateral cooperation between the two air forces. However, as General Charles Foulkes, the Chairman of the Canadian Chiefs-of-Staff at the time of the signing of the NORAD Agreement, notes, plans for the joint defence of the continent were established in 1946 and

not in 1958 at the time of the signing of the NORAD Agreement.¹⁵

The Berlin Blockade of 1948, the Czechoslovakia Coup of the same year, the Soviet repression of the Hungarian Revolution in 1956, and the Soviet detonation of an atomic device five to ten years before it was expected,¹⁶ served to focus defence attention on the security of the North American continent. Work began on extending the U.S. Pinetree line of radars into Canada, the extension being two thirds financed by the U.S. and originally manned by U.S. personnel. The Mid-Canada Line was built, financed and operated entirely by Canadians while the DEW Line was built, operated and manned by the U.S.¹⁷ Completed in 1957, the DEW Line provided high to medium altitude coverage and from four to six hours warning time.¹⁸ Further, it was acknowledged in the House of Commons on June 20, 1956 that the purpose of these surveillance facilities was to defend the U.S. deterrent, to give the U.S. Strategic Air Command (SAC) warning of an impending attack so that it could get its SAC bombers into the air for both preservation of the deterrent and retaliatory purposes.¹⁹

With respect to active defenses, by the mid-fifties Canada had acquired nine squadrons of CF-100s, capable of

carrying nuclear warheads but not yet so armed.²⁰ By the early 1950s, however, nuclear armed U.S. Strategic Air Command (SAC) interceptors had permission to intercept foreign aircraft in Canadian airspace.²¹ Moreover, although SAC bombers were based in Newfoundland, the U.S. had requested, in 1949, other Canadian bases for U.S. strategic bombers and permission to test and store nuclear warheads in Canada. In May of 1951, Canada rejected the U.S. request for carte blanche use of its bases but acceded to use on a consultative basis.²² In 1958, SAC overflights of Canadian airspace were also limited to a prior consultation basis.²³

In August 1953, the Soviets exploded a hydrogen device more advanced than that exploded by the U.S. in November 1952. Together with the Soviet activity in missile production, the detonation of the Soviet hydrogen bomb made it clear to strategic planners that the Soviet Union had the potential ability to attack North American warning facilities with missiles, giving their bombers a 'free-ride' to the North American Continent.²⁴ Consequently, the Air Defence Command was given priority in the Eisenhower 1955-57 budget,²⁵ and negotiations proceeded apace for the establishment of a joint Canada/U.S. Air Defence Command. The PJBD and the MCC were

more or less irrelevant to these negotiations which were conducted largely between the two militaries, and more specifically, between the two air forces.²⁶ By June, 1955, the Canadian Chiefs of Staff, without informing the Cabinet Defence Committee, had agreed on the essential aspects of the NORAD Agreement, and by February of 1957, still without Cabinet knowledge, the NORAD Agreement was accepted by both the Canadian and the U.S. militaries, and the U.S. Secretary of Defense.²⁷

Hence the NORAD Agreement was presented to P.M. Diefenbaker as a *fait accompli* in June of 1957. Diefenbaker, on the advice of his Minister of National Defence, George Pearkes, accepted the Agreement without further consultation and announced its existence in the House of Commons on August 1st, the *de facto* date of the Agreement.

The debate in the House, which followed the Aug 1st announcement of the NORAD Agreement, postponing the *de jure* date of the NORAD Agreement, was concerned not with whether the North American continent needed defending, but with the policy-making process and its ramifications. The concerns were three-fold. First, concern was expressed that Canadian defence policy had been made without either Cabinet or Cabinet Defence Committee consultation, and

without Parliamentary debate. Second, the Department of External Affairs was particularly concerned about not being involved in the formulation of an international agreement, and more specifically, that the military appeared to be responsible for the making of Canadian defence policy.²⁸ Third, although Canadian support for the U.S. policy of deterrence was already well established, and participation in the passive and active air defence surveillance systems had also established protecting the U.S. deterrent as Canadian policy, NORAD, as a joint air-defence command, raised the spectre of Canada's automatic inclusion in U.S. strategic planning and war-fighting.²⁹ The fear was that Canadian defence policy would be made by the U.S. and that Canadian troops would be subject to U.S. control. Discussion in the House, however, emphasized that NORAD was responsible to both governments and that Canada would take every precaution "...to ensure that the Canadian government is consulted concerning circumstances which could conceivably lead to this country being committed to war...."³⁰ The NORAD Agreement was then formalized on May 12th, 1958.

The role of the Canadian and U.S. militaries in the establishment of NORAD introduces a variable into the analysis to which realism does not pay adequate heed. By

assuming the state to be a unitary, autonomous entity, the paradigm does not make a distinction between the political decision makers and the military and in not doing so, it misses capturing the vested interest influence of the military on the decision-making process. The question that has to be asked of realism is whether the military is to be understood as a part of the state apparatus to be wielded as the state sees fit, or whether the military is in fact a state apparatus with interests and agendas of its own which are sufficiently well developed to be able to direct political decision-making according to its own interests.

If the military is a state apparatus over which the political decision-makers have full control, then in the context of NORAD, it is not possible to explain how the Canadian military, in its association with the U.S. military, was able to present the NORAD Agreement to the Canadian government as a *fait accompli*, with all the problems which that entailed. If the military, on the other hand, does have its own vested interests in defence policy-making, then it has to be analyzed as a source of considerable influence in the political decision-making process. In the case of NORAD again, the Canadian military, in its association with the U.S. military, had developed a history of Canadian/U.S. military cooperation

and professionalism which operated largely outside of channels of Canadian political control. On this basis, the Canadian military was able to influence, and to a large extent, define the parameters of Canadian defence policy in relation to Canada's role in the air defence of the continent. Consequently, although the Canadian political decision-makers perceived a need, based on the international balance-of-power system, to defend Canada's airspace and territory, they had very little control over the shape that the defence system should take. As John Warnock has argued, the decision should have been on "...whether a defence in the traditional sense was possible in the nuclear era."³¹ Strategic retaliation, he suggests, required intercontinental bombers and nuclear weapons but it did not require a continental defence system since a country could not be defended in the nuclear age.³² Such a debate did not take place amongst the political decision-makers, and since the shape of a defence system has ramifications for future defence policy decisions, the dynamics of future defence policy decision-making were set in motion at the time of the signing of the NORAD Agreement.

The shape of the NORAD defence system, then, did not reflect the studied interests of the Canadian political

decision-makers as much as it reflected the on-going activities of the Canadian and U.S. militaries working in close cooperation. Hence, realism, by not making a clear distinction between the interests of the political decision-makers and the interests of the military, misses an important determinant and dynamic of the decision-making process.

NORAD, 1958-1971: The Inactive Years

There was a fourth issue which arose directly out of the signing of the NORAD Agreement and that was the nuclear warheads issue.³³ R.B. Byers has suggested that there is a Canadian tradition of making defence policy without a strategic analysis.³⁴ That tradition was evident in the signing of NORAD, for as Basil Robinson and others have noted, Diefenbaker did not fully comprehend that the signing of the NORAD Agreement committed Canada to accepting nuclear weapons.³⁵ Continuing the practice of predetermining policy by laying the defence system infrastructure, however, the Canadian and U.S. militaries had cooperatively planned a continental air defence that depended upon Canada's acquisition of nuclear warheads. A Joint Chiefs of Staff Document, dated December 12th, 1958 states that although there had been no diplomatic requests

for the weapons, Canadian and U.S. military officials had agreed that maximum protection of the U.S. deterrent depended upon the arming of Canada's interceptor aircraft with nuclear warheads and the placing of similarly armed Bomarc air to air missiles on Canadian territory.³⁶ In the fall of that year, the Canadian decision to accept the Bomarc missile was announced, and Cabinet authorized negotiations with the U.S. for the acquisition and storage of nuclear warheads.³⁷ In the fall of 1959, at the Canada-United States Joint Ministerial Committee on Defense, general agreement was reached for Canada's acquisition of the warheads.³⁸

However, in spite of these decisions, P.M. Diefenbaker announced in the U.S., in 1959, that Canada would not acquire nuclear weapons,³⁹ and, in fact, Diefenbaker vacillated on the issue until his party met political defeat in 1963. The Prime Minister's stalling on the issue was due, variously, to personal antipathy between him and President John F. Kennedy, an on-going U.S./Canadian debate as to what constituted Canadian control of the warheads, a strong minority anti-nuclear voice in Canada which spoke independently and through the New Democratic Party (NDP) when it was established in 1961, the Social Credit Party in Quebec, and through Lester

Pearson as leader of the opposition. In addition, the Department of External Affairs under Howard Green feared that a nuclear role for Canada would undermine the Department's disarmament and peacekeeping stance at the U.N.,⁴⁰ while Green himself questioned if the issues which divided the East and West were of a significant magnitude to justify recourse to global nuclear war.⁴¹

Although there was a great deal of private animosity expressed between President Kennedy and Prime Minister Diefenbaker over the nuclear warheads issue, until 1962 there was very little overt U.S. political pressure for Canada to accept the warheads. President Kennedy had written a letter to P.M. Diefenbaker on August 3, 1961, during the Berlin Crisis, urging Canada to accept the warheads.⁴² This was not considered by Diefenbaker to be an intrusion on Canadian defence policy making until the letter was leaked by the U.S. to the press. The leakage compromised the request as far as Diefenbaker was concerned.⁴³ Prior to that, on May 16, 1961, the U.S. government suggested that it was willing to transfer 66 interceptors to Canada, place a 200 million dollar order for F-104Gs in Canada and would allow the RCAF to assume maintenance of 16 Pinetree Line radar installations, on the condition that Canada accept nuclear warheads. However,

such attempts at persuasion could not be seen as coercive for within a week arrangements were made to transfer the interceptors to Canada and an agreement to purchase the F-104Gs had been arranged without Diefenbaker agreeing to accept nuclear warheads.⁴⁴

By 1961 and 1962, respectively, both the Liberals and the Department of External Affairs had modified their anti-nuclear position to agreeing to accept the warheads in the event of an emergency, the Liberals accepting the position on the condition that the warheads remain under U.S. control.⁴⁵

In 1962, the emergency, in the form of the Cuban Missile Crisis, occurred, and Canada's role within NORAD became clear. Although the Agreement stipulated the "...fullest possible consultation between the two Governments on all matters affecting the joint defence of North America,"⁴⁶ the Canadian government's official prior knowledge of U.S. planning with respect to the Crisis consisted of a briefing by Livingston Merchant, a former U.S. Ambassador to Canada, a few hours before Kennedy announced his plans to the American public in a televised speech on October 22.⁴⁷ In spite of the briefing, Diefenbaker delayed putting Canadian forces on alert for three days, although his Minister of National Defence,

Douglas Harkness had put the forces on alert on October the 23rd. In fact, under the NORAD Command, the Canadian forces went on alert at the same time as the U.S. forces.⁴⁸

The Parliamentary concerns of 1957/58, that by signing the NORAD Agreement the Canadian government would automatically be involved in U.S. war-fighting, were realized. Canada's ability to make an independent assessment of the international environment during a time of crisis before being involved in the crisis had been compromised.

During the Cuban Missile Crisis, the U.S. requested permission to disperse its nuclear armed interceptors to Canadian airfields and to allow landing rights and SAC overflights of Canadian territory. These requests were denied except for eight overflights, and this, together with Diefenbaker's hesitation to announce the 'alert' status of the Canadian forces, brought charges of Canadian non-cooperation from the U.S.⁴⁹

Waffling on the nuclear warheads issue continued after the Crisis, with the Canadian government's position being, as stated by Howard Green in December 1962, "...to decline nuclear weapons until there is a deteriorating world situation or war."⁵⁰ The U.S. reaction to the four

years of Canada's indecisiveness, and its non-cooperation during the Cuban Missile Crisis, was to issue a press release in both Canada and the United States in January, 1963, denouncing Canada for its waffling on the nuclear issue and for "...not contributing effectively to North American defence."⁵¹ In the wake of the U.S. press release, Douglas Harkness resigned as Minister of National Defence, essentially because he agreed with the U.S. position. Subsequently, the Diefenbaker government was defeated in the House on a motion of no confidence on February 5th,⁵² the government's indecisiveness with regard to the nuclear weapons issue being at the root of the motion.⁵³ The Liberal government, upon taking power, capitulated to U.S. demands by reversing its stand on nuclear weapons, maintaining that since the country had acquired nuclear warhead weapons systems, it was obligated to accept the warheads, a position it had first stated on January 14th, 1963.⁵⁴

Four to five years of waffling on the subject does not demonstrate political control of the process. Moreover, as will be demonstrated in a later chapter of this thesis, throughout this period, the Canadian and U.S. air forces continued to actively make plans for the storage of nuclear warheads on Canadian territory.

By the time the nuclear warhead question had been settled in Canada, NORAD had been made all but obsolete by the advent of the U.S. and U.S.S.R. intercontinental ballistic missiles (ICBM).⁵⁵ Consequently, North American defence attention was focused on ICBMs and by 1960 the U.S. had constructed two Ballistic Missile Early Warning Systems (BMEWS), one in Alaska and the other in Greenland, each with a 3000 mile radar capacity for tracking ICBMs, and each under NORAD's jurisdiction.⁵⁶ The U.S. was also experimenting with anti-satellite ballistic missile weapons, but Canada was not officially involved in the program.⁵⁷ In addition, during the 1960s, the Mid-Canada Line was dismantled, the DEW Line installations were reduced from 78 to 31 stations, and 15 of the 39 of the Canadian Pinetree Line sites were closed. The bombers and interceptors were also being phased out and by the early 1970's, of the 659 interceptors available to NORAD, only 66 were Canadian.⁵⁸ Although the decision was taken in 1964 to retain the two squadrons of Bomarc missiles as active anti-bomber defenses,⁵⁹ they were declared obsolete in the 1971 White Paper on Defence.⁶⁰

By 1962 there was also a decrease in the number of Soviet bombers and this decrease, together with the Soviet ICBMs for which there was no defence, and the erection of

the BMEWs for missile early warnings, put NORAD into an 'information mode,' a purely passive defense role."¹¹ In keeping with this focus, Canada took part in the Autumn 1965 Special Committee of Defence Ministers chaired by Secretary of Defense Robert McNamara but only in the discussions dealing with the exchange of information, intelligence and communications during times of crisis. Canada did not get involved in the discussions concerned with the advantages and disadvantages of deploying a North American anti-ballistic missile system (ABM), although Canada was involved in aspects of ABM research."¹²

Recognizing the change in the strategic environment, the 1964 White Paper on Defence indicated that the Canadian defence policy focus was shifting from alliance strategic demands to peacekeeping and disarmament roles in the U.N. The Paper stressed Canadian independence in policy making over alliance dependence, and stipulated that minor versus major war was the conflict for which Canadian forces were to be prepared."¹³

This independence in defence policy making was further demonstrated in 1968 when Canada had a clause inserted in the NORAD renewal agreement stating that NORAD would "...not involve in any way a Canadian commitment to participate in an active ballistic missile defence."¹⁴

The clause, known as the ABM clause, was inserted in the NORAD Renewal Agreement at a time when there was "...enormous pressure building in the United States for an anti-ballistic missile defence system that might well require Canadian participation."⁶⁵ Its insertion reflected not only Canada's independence in policy making, but also the concern in Canada that ABM systems were destabilizing in that the U.S. strategic policy of mutual assured destruction, MAD, required a level of mutual USSR/U.S. vulnerability which an ABM system threatened to unbalance. In addition, in 1967, the NATO allies, including Canada, had accepted the U.S. doctrine of flexible response and first use, a doctrine which posited "...a flexible and balanced range of appropriate responses, conventional and nuclear, to all levels of aggression."⁶⁶ This doctrine signalled a shift in focus in U.S. strategic thinking from deterrence based on mutual assured destruction to deterrence that included a war fighting option. In this context, a deployed ABM system would contribute to international instability by promoting war fighting capabilities under a ballistic missile shield.⁶⁷

Although there was vigorous opposition to renewing NORAD in 1968, and suggestions that Canada withdraw from

both NATO and NORAD at the time,"⁶⁸ and although some Canadian defence planners had concluded on the basis of the U.S. treatment of Canada during the Cuban Crisis that Canada was becoming irrelevant to the defence of North America,⁶⁹ the NORAD Agreement was renewed. As Colin Gray mentioned in the early 1970's, to withdraw would both "...reduce whatever influence Canada might be able to exert in order to dissuade the United States from a course likely to lead to a general war...(and signal) an unfriendly mood in Ottawa that was not intended."⁷⁰ In addition, staying within the NORAD alliance was considered to be important in order to contribute to the maintenance of the strategic balance of the superpowers and to ensure the continuing flow of U.S. strategic intelligence to Canadian defence planners.⁷¹

In the context of Canada's diminishing relevance within NORAD, General Foulkes suggested that the renewal of NORAD might be required more by Canada than the U.S., the fear being that the U.S. commitment to the joint command was weakening and that Canada therefore needed to remain within the alliance agreement in order to maintain access to U.S. defence planning for the continent.⁷² However, NORAD was only renewed for five years instead of the expected ten, and along with the ABM clause, a second

clause was inserted stating that the agreement could be terminated by either government on a one year notice, following a requested review by either party.⁷³

In the summer of 1968, Trudeau's majority government initiated a defence policy review which was published in April of 1969. Feeling that Canada's military alliances had been unfavourably instrumental in determining Canadian foreign policy,⁷⁴ and with advisors such as Donald MacDonald, the President of the Privy Council, who were inclined to consider neutrality as an option,⁷⁵ the review, produced without DND consultation,⁷⁶ established new directions for Canadian defence policy. Canadian defence policy was to reflect Canada's national interests, the two primary ones being independence and sovereignty, and defence concerns were prioritized as being the protection of Canadian sovereignty, the defence of North America, NATO commitments and peacekeeping.

These priorities were reflected in the 1971 White Paper on Defence, the understanding supporting both the Review and the White Paper being that since strategic nuclear deterrence was stable, Canada could alter its defence focus.⁷⁷ The decline in Cold War tensions brought about by detente, recognition of China, progress at the SALT 1 negotiations and the European Security Conference,

were evidence of declining international political tension,⁷⁸ while the September, 1969 voyage of the U.S. Manhattan through the North West Passage justified Canada's concerns with sovereignty and pollution issues in the north.⁷⁹ The U.S. registered its disappointment with the new focus of Canada's defence policy,⁸⁰ appearing as it did at about the same time that the U.S. announced its Nixon Doctrine which called for an increase in alliance commitments. However, because the U.S. was preoccupied with the Vietnam War,⁸¹ and because the U.S. had also signalled the end to a special Canada/U.S. relationship in its unwillingness to exclude Canada from its 1971 unilaterally imposed 10 per cent surcharge on imports, its displeasure was neither forcefully voiced nor particularly heeded.⁸²

As far as NORAD was concerned, the White Paper stated that "There is, unfortunately, not much that Canada herself can do by way of effective direct defence that is of relevance against massive nuclear attack." Hence, the government was not prepared "...to devote substantial sums to new equipment or facilities for use only for active anti-bomber defences," and contributions to NORAD would be updated "...only to the extent that this is required for the general control of Canadian airspace."⁸³ The White

Paper announced the retirement of the two Bomarc missile squadrons, the continuing nuclear capable role of Canada's CF-101 Voodoo aircraft, and that SAC bombers could continue refuelling at Goose Bay and overflying Canada's territory.⁶⁴

If the signing of the original NORAD Agreement was the first miscalculation made in Canadian strategic defence policy-making within NORAD, the acceptance of nuclear warheads in the early 1960s was the second. Opposition to the decision was well established in all three political parties, throughout the Department of External Affairs and in a well-organized peace movement. Accepting the warheads was seen to be, variously, an inappropriate Canadian policy vis-a-vis the Soviet Union, and an undermining of Canada's disarmament interests in the U.N., and hence, another miscalculation in strategic defence policy making.⁶⁵ In essence the Liberal government agreed with these assessments for its position was that it would take the warheads and then negotiate a non-nuclear role for Canada within both NORAD and NATO.⁶⁶

As with the controversy surrounding Canada's signing of the 1958 NORAD Agreement, the source of the nuclear weapons debate resided in the fact that the Canadian and U.S. military authorities had agreed upon the

weapons systems and the nuclear weapons policy for the defence of the continent prior to Canada's official acceptance of either. It was this process of bilateral military cooperation which led, not only to the defeat of a government, but ultimately to the acceptance of a nuclear policy within an alliance agreement that had already demonstrated, during the Cuban Missile Crisis, the irrelevance of its consultation clause. The fears expressed during the 1957 NORAD Agreement debate were realized during the Cuban Missile Crisis in that it was demonstrated that Canada did not have full control over its own forces in a U.S. emergency situation, while the concerns raised about defence policy being made by the military also proved to be pertinent.

Again, the ability of the Canadian military, in its cooperative relationship with its U.S. counterparts, to establish the parameters of Canadian defence policy decision-making within NORAD challenges the assumptions of the realist perspective. What can be viewed as strategic miscalculations in Canadian defence policy making within NORAD, that is, misunderstanding the ramifications of Canadian defence policy-making within NORAD, can be traced to the insurmountable defence structures put in place by the cooperative activities of the Canadian and U.S.

militaries. In other words, there are two agendas at work: the agenda of the political decision-makers and the agenda of the Canadian military working in close cooperation with the U.S. military. Until the mid-1960s, the ability of the political decision-makers to make independent policy assessments and act upon them was compromised by the agenda of the military. When such is the case, the state cannot be understood in realist terms as a unitary, autonomous body. Further, understanding the state to be otherwise requires a domestic level of analysis which is also not forthcoming from a realist perspective.

By the mid to late 1960s, however, the political decision-makers seemed to be making headway in promoting their own assessment of the international environment and making defence policy decisions accordingly. The way, it would seem, was being paved for Canadian defence policy making that reflected a Canadian assessment of the international political and strategic environments. However, as John Anderson notes, the plans for the modernization of NORAD which were to come to fruition in 1985 were being developed in the U.S. in the late 1960s. Senior officials of both the Department of External Affairs and the DND were briefed on the developing concepts in 1969 after Prime Minister Trudeau had expressed his intention to

continue to cooperate with the U.S. in the defence of the continent.⁸⁷ These plans, and others, would lead to more miscalculations in Canadian strategic defence policy making.

NORAD in the 1970s: Interest Revived

The 1972 ABM Treaty, along with its 1974 amendment, limited the USSR and the U.S. to one anti-ballistic missile defence system each. Recognizing that it was impossible to defend against ballistic missiles, the U.S. did not erect its one allowable ABM system.⁸⁸ However, with the deterioration of the warning and interception facilities of NORAD, and the expected advent of a modernized Soviet bomber that could fly at low levels and hence escape detection by the DEW Line surveillance installations,⁸⁹ the defence community feared a surprise Soviet bomber attack on the remaining air warning facilities, thus negating the ability of NORAD to either warn the U.S. deterrent or coordinate war-fighting plans.⁹⁰ Colin Gray argued at the time that since a 'rational' Soviet first strike would be a ballistic missile attack on the U.S. deterrent, a bomber attack being a warning in and of itself, the expressed fear appeared to be a smokescreen for NORAD modernization plans that were under way and arguably

driven as much, if not more, by technological developments rather than by changes in the international political environment.⁹¹ Wary of these plans, Canada agreed to renew NORAD in 1973 but only for two years in order to "...examine the component elements of the concept for a modernized air defence system (then) under development."⁹²

In describing the NORAD modernization plans, Gray notes that by the early 1970s the U.S. was involved in research and development of a successor to the DEW Line in the form of Airborne Warning and Control Systems (AWACS), and Over The Horizon Backscatter radar systems (OTH-B). The OTH-B systems, of which three were to be built, two in the U.S. facing north-east and north-west respectively, and one in Canada's north, were designed to identify bombers and other air-breathing threats at any altitude, within a 2000 mile range. The AWACS were designed to survey airspace and territory not covered by radar surveillance and to identify the nature of intruders. Although the planes carrying the AWACS could not perform an interceptor role, they could communicate with NORAD command centre and with interceptor aircraft allowing them to assume war fighting command and control functions should the NORAD control centres be demolished in an attack.⁹³ The interceptor, also in the research and development stage in

the U.S., was to be an improved manned interceptor (IMI) which would require new bases on Canadian territory, referred to as Forward Operating Locations (FOLS). The AWACS also required dispersed operating bases (DOBS) on Canadian territory. The AWACS were to be operational by 1978, and at the time the U.S. planned to produce 42 of the systems with 29 being made available for NORAD.

Gray does not discuss the fact that research and development was also on-going at this time into cruise missile technology, with the development of the modern cruise missile announced by the U.S. in June, 1972.⁶⁴ By the mid-70s, the cruise had demonstrated its advantages. It was relatively cheap to produce, it was versatile and, because air-breathing weapons were left unconstrained by the SALT 1 negotiations, it was SALT-free.⁶⁵ However, even though NORAD had only been renewed for two years in order to consider NORAD modernization plans, as well as to take into "...account the evolving strategic situation, including developments in the Strategic Arms Limitations Talks (SALT),"⁶⁶ the 1973 Report of the Standing Committee on External Affairs and National Defence on the NORAD renewal issues does not mention the advent of cruise missiles and their possible relationship to NORAD.⁶⁷

In fact, the cruise missile was linked to NORAD in

two ways. First the modernization plans, if realized, would allow NORAD to identify Soviet cruise missiles as well as Soviet bombers. Second, if it was deemed possible that the Soviets could launch either a first or a follow-on strike against the North American continent from its Arctic region, then North American forces could do exactly the same thing against the Soviets. Moreover, the U.S. air launched cruise missile (ALCM) was suited for intercontinental strategic missions in that the Soviet Union, being 2,000 miles deep from north to south, is vulnerable to a cruise missile with a 1500 mile range which was the range of the ALCMs of the 1970s." Moreover, whereas the ground and sea launched cruise missiles were designed to approach the Soviet Union from either the east or the south, the ALCM was designed to approach it from the north, thereby adding to the U.S. second strike retaliatory force."

The strategic significance of these new defence systems was that they signalled the application of the U.S. defence policy of flexible response to defence planning for North America. Under this policy, and with the deployment of NORAD's new systems, Canada's north would become a potential theatre for a protracted conventional war, or upon escalation, a limited nuclear war, both being options

of the policy of flexible response. As Colin Gray argued at the time, to renew NORAD under these conditions would be a strategic miscalculation on Canada's part.¹⁰⁰

NORAD was renewed, however, on May 12, 1975 for a five year period and the framework of the Agreement was recast to recognize "...significant changes in the character of strategic weapons and in the nature of the threat they pose to North America." NORAD's aims were changed to reflect "...the new strategic preoccupation with missiles rather than the bomber threat," the emphasis being on both "...providing capabilities for warning of attack and for defence against air attack."¹⁰¹

In spite of the NORAD renewal and its change in focus, Canada was not officially involved in the modernization research and development programs or in the land or space based missile surveillance systems. The satellite early warning systems(SEWS), which gave notice, within seconds, of ballistic missile activity, and of which two were in place by 1977, were American owned and under exclusive U.S. control. The anti-satellite ballistic missile weapons were not under NORAD command. The BMEWS were not on Canadian territory, and the AWACS, OTH-B, IMIs and SAM-Ds, an all-altitude surface-to-air missile, were all being developed by the U.S.¹⁰² Further, in 1975,

although Canada suggested to the U.S. that its NORAD radars be modernized, the U.S. refused its cooperation as it had erected the U.S. Joint Surveillance System, a civilian-military system of radars around the perimeter of the U.S.¹⁰³

It was clear that Canada was being marginalized as far as defence planning for the North American continent was concerned. Hence, for defence planners and analysts, remaining within NORAD had taken on new meanings in terms of a 'need to know' rationale with respect to sovereignty protection and defence policy making. As Gray suggests, the U.S. required Canada's continued commitment to the alliance in order to demonstrate Western solidarity, but because of the prominence of the ICBMs and the SLBMs in both the USSR and the U.S., and because of the U.S. ballistic missile surveillance systems, NORAD could be viewed as an anachronism in terms of its need for Canadian airspace and territory.¹⁰⁴ Hence, access to U.S. intelligence and defence planning information, and maintaining a forum for influencing the latter were the rationales for continued Canadian participation within NORAD. However, just as the long term implications for Canada's involvement in U.S. strategic planning with respect to nuclear arms for Canada had not been seriously

considered by Canadian policy makers when they signed the 1958 NORAD Agreement, so in the mid 1970s, some analysts argued that again Canadian defence policy was being made without a strategic analysis. The political 'need to know' rationale took precedence over strategic policy considerations.¹⁰⁵

At the same time as the changes were taking place within NORAD, the policies outlined in the 1971 White Paper on Defence were being reversed. Trudeau's Defence Structure Review of 1975 announced a gearing up of support for both NATO and NORAD, new weapons purchases, new capital acquisitions and an increase in the defence budget.¹⁰⁶ Although Canada's military equipment was in a state of obsolescence, and although there were on-going changes in the external environment in that the USSR was continuing to expand its military power and detente was beginning to erode,¹⁰⁷ it would be difficult to argue that the changes in Canada's defence policy were due to increased political tensions in the international environment alone. The U.S. troops were withdrawn from Vietnam in 1973, the USSR and the U.S. had signed and ratified the 1972 ABM Treaty and the 1974 SALT I agreement, SALT II negotiations were underway, and although detente was in decline, the international environment was more stable than it had been

during the cold war years. In fact the U.S. domestic scene seemed to reflect the easing of international political tensions with George McGovern, an anti-Vietnam War candidate running for Presidential office in 1972, and President Jimmy Carter's 1976 adoption of Nelson D. Rockefeller's Trilateral Commission which recommended that U.S. foreign policy focus on the global management of economic interdependence.¹⁰⁸

Political factors alone then, in terms of the international balance-of-power system, cannot fully account for Canada agreeing to renew NORAD in 1973 and again in 1975. Although the economic history of NORAD will be discussed in a later chapter, the renewals of NORAD and the changes in Canada's defence policy focus would appear to be due to economic as well as political considerations. By the early 1970s, the U.S. was facing serious financial problems in terms of the cost of the Vietnam War, its first trade deficit since 1893, the eroding international confidence in the U.S. dollar, and the OPEC oil price increases. In 1971, the U.S. unilaterally ended the Bretton Woods system by taking itself off the gold exchange standard and imposing an across the board 10 per cent surcharge on imports.¹⁰⁹ The U.S. began increasing its defence budget in 1976, in part as a way of solving its

employment and faltering industrial base problems.¹¹⁰ In the mid-70s, the U.S. also began to pressure Canada to increase its defence spending in the U.S. in order to correct the imbalance in defence production trade that had occurred between the two countries during the Vietnam War. In addition, with U.S. defence production procurement curtailed in Canada because of the end of the Vietnam War, there was pressure on the Canadian government to increase both its domestic defence spending, and its defence spending in the U.S. in order to maintain the Canadian defence production industry and its access to the U.S. procurement and defence contract market.¹¹¹ Hence, economic considerations in terms of pressure applied by both the U.S. and domestic Canadian economic interests were a key factor in Canada's decision to renew NORAD in 1973 and 1975.

By the late 1970s, two contradictory processes were in evidence, one which seemed to draw Canada more meaningfully into the NORAD alliance and the other which seemed to distance Canada's involvement. A Joint Canada/U.S. Air Defence study was undertaken which revealed, upon its completion in 1979, that indeed there were gaps in NORAD's bomber warning systems and plans were made for modernizing Canada's early warning system. At

about the same time, the USAF produced its Air Defense Master Plan (ADMP). Phase 1 of this plan, in which Canada participated, was a study of the continental bomber threat and the growing threat of Soviet air launched cruise missiles (ALCM) and submarine launched cruise missiles (SLCM).¹¹² Although discussions were initiated in 1978, it was in 1979 that it was first formally suggested that Canada test the U.S. ALCM. The rationale for testing the cruise missile in Canada was that Canada's northern terrain and climate were similar to the Soviet Union's which the U.S. ALCMs would have to navigate en route to Soviet targets. Testing the cruise in Canada also allowed for the testing of NORAD command, control and communications facilities.¹¹³

At the same time (1979), the U.S. began to reorganize its air force command system. The Aerospace Defence Command was eliminated as a major air force command and made a specified command under the command of CINCNORAD, meaning that as a specified command it was inaccessible to Canadian defence personnel. In addition, the reorganization assigned the interceptors, AWACS, defence radars and control centres previously managed by the Aerospace Command to the Tactical Air Command, a purely American command. The missile warning and space

surveillance sensors were assigned to the U.S. Strategic Air Command, and the communications systems were assigned to the U.S. Air Force Communications Command.¹¹⁴

Although both CINCNOAD and his Canadian deputy commander saw these moves as a degradation of air defence capabilities, David Cox argues that they represented a clear "...tendency in the United States to see air defence increasingly in national terms."¹¹⁵ In fact, as Cox also points out, Canada's role was effectively confined to aircraft warning systems, systems that had been deemed inadequate for the job, and further, that "...in an actual conflict situation,...Canada would be entirely dependent upon national American systems for whatever protection and response was available."¹¹⁶

It would appear then, that in spite of its continued support of the NORAD alliance, Canada was being put into a position of supreme defence dependence. Given that the focus of NORAD had changed to include "defence against air attack," that is, war-fighting on the North American continent, and given the change in U.S. defence policy to include a limited conventional to nuclear war-fighting capability, a change which the advent of the cruise missile helped make possible and which was clearly defined in Carter's Presidential Directive 59 in July,

1980,¹¹⁷ Canada's continued involvement in NORAD in the 1980s was bound to be contentious.

The 1970s, however, made it clear that the Canadian government was making its NORAD defence policy decisions according to the exigencies of three interrelated international environments; the political, or international balance-of-power system, the international economic system and the international strategic system. Further, each of these systems had domestic actor interests, either public or private. Within the political environment, Canadian decision-making was based upon considerations of an international realm that was showing signs of stability in detente and a domestic 'need-to-know' rationale vis-a-vis U.S. planning for the defence of the continent. Within the economic environment, Canadian decision-making was being influenced by U.S. pressure to increase defence spending and by the interests of its domestic defence production industry. Simultaneously, the momentum of the international strategic environment was being fuelled by a technologically driven arms race which was of interest to both strategic planners, the military, and the defence production industry. Hence, contrary to a realist analysis, a comprehensive understanding of the Canadian defence policy decision-making process within NORAD

requires that attention be focused on all three environments in both their international and their domestic contexts.

Without such an analysis, it is not possible to fully comprehend why the decade of the 1970s which began with a concerted attempt to nationalize Canadian defence policy, as evidenced by the Liberal's defence policy review of 1969 and the 1971 White paper on Defence, led to an increase in alliance commitments in Trudeau's Defence Structure Review of 1975 and two renewals of NORAD which were seen by some analysts as miscalculations in strategic policy-making. Nor is it possible to understand the changing shape of NORAD in the 1980s.

NORAD in the 1980s: The Decade of Compliance

Because there was an election in the offing and a continuing debate in Canada about the merits of NORAD, the NORAD Agreement was only renewed for one year in 1980.¹¹⁸ On March 11, 1981, however, NORAD was renewed for five years with some considerable changes. At the request of the United States, the name of the Agreement was changed to the North American Aerospace Defence Command in order to formally recognize space as a legitimate sphere for NORAD activities. The Agreement noted that there had been an

"...increasing use of space for strategic and tactical purposes," and that the two governments would seek to increase cooperation "...in the surveillance of space and in the exchange of information on space events." NORAD's agenda was also increased to include "aerospace surveillance, warning and characterization of aerospace attack and defence against air attack."¹¹⁹ In addition, the ABM clause which Canada had inserted in the 1968 renewal agreement, stating that it would not be involved in anti-ballistic missile defence, was removed from the new accord, and Parliament was not informed of this change in the Agreement.¹²⁰ The removal of the clause was justified on the basis that the 1972 ABM Treaty made the NORAD ABM clause redundant, especially since the U.S. had not constructed the one ABM system allowable under the terms of the Treaty. Joe Clark, Secretary of State for External Affairs, stated during the 1985 NORAD renewal hearings, that the clause was removed "...to avoid any suggestion that either Canada or the United States might take actions which would breach the ABM Treaty." At the same time, however, others suggested that the clause was removed because "...defence officials did not want to foreclose any options."¹²¹

In the light of subsequent events, not foreclosing

options would appear to be the operative explanation. In 1981, Reagan incorporated the ADMP into his strategic modernization plan and in 1982, the U.S. DOD plan was also accepted by Canada.¹²² Also in 1982, Phase II of the plan, the Strategic Defense Architecture 2000 was initiated under the auspices of the commander-in-chief of NORAD, its objective being "to develop a concept for integrated defense against bombers, cruise and ballistic missiles through the year 2000."¹²³ Canada was not officially involved in the Phase II study, but the Canadian Air Command and senior civilians at the DND were aware of U.S. concerns over Soviet BMD research, and hence the perceived need for similar research in the U.S.¹²⁴ Moreover, Canada had participated in Phase I of the study which formed the basis of both the 1985 NORAD Modernization Agreement and the Air Defense Initiative (ADI), the latter involving research into "...new technologies, especially space-based ones, for meeting the air-breathing threat."¹²⁵ Meeting the air-breathing threat entails developing "...technologies appropriate to surveillance, interception and battle management in regard to hostile bombers and cruise missiles."¹²⁶ It was expected that these technologies would be identified by the early 1990s and decisions would then be made with respect to development,

the primary prerequisite being that the systems "...remain effective through all phases of nuclear conflict."¹²⁷

The point to be made here is that Canadian participation in ADI and the Teal Ruby Project, an American research program designed to replace NORAD's long range warning systems with space-based, infra-red surveillance technology for the detection and tracking of aircraft and cruise missiles,¹²⁸ was formally announced in the 1987 White Paper on Defence.¹²⁹ However, knowledge of, and participation in, these programs had been on-going since at least 1979.

As mentioned earlier, discussions concerning Canada's testing of the U.S. ALCM were first broached in 1978. These discussions produced a five year agreement to test the cruise missile, an agreement which was signed by the Trudeau government in February 1983, although the agreement's existence was made known in Canada in March, 1982, through a Pentagon leak.¹³⁰ The cruise missiles that were subsequently tested were long-range, land-attack missiles, capable of carrying nuclear warheads for a distance of 2500 kilometres.¹³¹ The cruise missile is a destabilizing weapon in that it is difficult to defend against and frustrates disarmament talks. As Adam Bromke and Kim Nossal suggest, "The government's initial

nonchalant position over cruise-missile testing stemmed from not having thought through the strategic implications of this new weapon."¹³² Hence, Canada's agreement to test the cruise missile can be seen as yet another miscalculation in strategic defence policy-making.

The decision to test the cruise was not popularly received in Canada¹³³ and was unsuccessfully challenged on constitutional grounds under the 1982 Charter of Rights and Freedoms. In fact, the decision was not consistent with the government's own position on nuclear arms issues. Trudeau was on record in his opposition to high altitude anti-satellite weapons, to test flights of nuclear capable aircraft, and had called for the suffocation of the arms race on two occasions in the U.N., in 1978 and 1982. In October 1983, he had spoken publicly, in Guelph, in favour of stabilizing both nuclear and conventional weapons at a lower level, and in a speech delivered in the U.S. in May, 1982, Trudeau also expressed his concerns about the U.S. strategy of limited nuclear war-fighting capabilities. In addition, Trudeau was on the verge of embarking on his peace initiative, in which he, as a representative of a country which he portrayed as morally equidistant between the two superpowers, would seek to ease the Cold War of words between the Soviet Union and the U.S.¹³⁴ Such a

mission would not seem to be consistent with testing a strategic weapons system designed to be launched against the Soviet Union from Canadian airspace.

Trudeau justified his decision to test the cruise, however, by suggesting, variously, that testing the cruise was in fulfilment of NATO obligations¹³⁵ and/or a way of winning "...credit with Ronald Reagan that could have its effect on other issues."¹³⁶ Neither justification bears scrutiny. As both James Schlesinger, Nixon's Secretary of Defense, and Allan Gotlieb, Canadian Ambassador to the U.S. during Trudeau's term of office, have stated, neither credit nor debit gained from defence decisions accrue to other issue areas.¹³⁷ James Eayrs, writing in 1961, also suggested that there was no such thing as diplomatic credit among nations,¹³⁸ while Annette Fox, writing in both 1973 and in 1983, reiterates the lack of linkage made between issue areas in Canada/U.S. relations.¹³⁹

If the 'other issues' for which Trudeau was seeking to accrue credit were defence issues, that is, if Trudeau was hoping to influence U.S. defence policy making in other areas by testing the cruise, then his thinking appears faulty for in agreeing to test the cruise he in fact demonstrated an ability to compromise his own principles. In other words, he demonstrated a willingness to be

influenced rather than an ability to influence. Finally, since the cruise missile was seen to be a destabilizing strategic weapon, and since the weapon needed to be proved on Canadian territory, then influence, it would seem, could have been attained by refusing the testing.

As far as Trudeau's argument about the linkage between cruise testing and NATO commitments is concerned, the ALCM is a strategic weapon designed for launch against the Soviet Union from North America and is therefore independent of NATO commitments. Moreover, the cruise testing agreement was a bilateral Canada/U.S. agreement in which NATO played no role.¹⁴⁰

Hence, to understand the decision to test the cruise missile as being a miscalculation in strategic defence policy-making is to understand that the decision did not reflect a governmental understanding of the implications of the cruise missile for Canada's expressed defence policy preferences. In other words, it would appear there were factors, or interests, which influenced government policy sufficiently to have that policy reflect other than government's declared interests. Realism's assumption that defence policy reflects the exigencies of the international balance-of-power system then, in this case, is blatantly wrong. More to the point, however, the

perspective, in eschewing a domestic level-of-analysis, in not distinguishing between the interests of the political decision-makers and the military, and in not identifying economic variables as central to the analysis, does not allow for the comprehensive identification of the influences on Canadian defence policy-making. There is simply no way of knowing from a realist analysis whether the decision to test the cruise was influenced by a process set in motion by Canadian/U.S. military cooperation or by the interests of a defence production industry which was intimately involved in producing subsystems and components for the U.S. defence market.

In March, 1983, to the surprise of his Vice President who was in Canada at the time,¹⁴¹ and largely to the surprise of his own military,¹⁴² Ronald Reagan announced his Strategic Defense Initiative (SDI). This was to be a research and development program on space-based anti-ballistic missile systems, and as such did not contravene the letter of the 1972 ABM Treaty. If deployed, however, as a means for intercepting and destroying ballistic missiles, SDI would be in violation of the Treaty.¹⁴³ More to the point, SDI signified a shift in U.S. strategic policy for NORAD. Deterrence was no longer to be based on retaliatory power but rather on the ability

to destroy in-coming weapons, a capability which both supported, and enhanced, the U.S. war-fighting option.¹⁴⁴ In addition, the link between SDI and ADI is intimate in that SDI provides the protective roof, defence against ICBMs and SLBMs, while ADI 'shuts the windows' by defending against the air-breathing threat, bombers and the cruise missiles.¹⁴⁵

The Canadian government was formally invited to participate in the SDI program in September 1985. Although Joe Clark, Secretary of State for External Affairs, announced in the House on January 21, 1985, that the government would support the research and development phase of the SDI,¹⁴⁶ Mulroney declined the formal invitation while stating that Canadian industry was free to seek SDI research and development contracts. Given Canada's 1982 acceptance of the U.S. ADMP and, hence, of ADI research, the removal of the ABM clause from the NORAD agreement, and the government's sponsorship, in December 1984, of a tour of Pentagon procurement officials seeking to inform Canadian industrialists about SDI contracting procedures,¹⁴⁷ Mulroney's rejection of the invitation was relatively empty.

In 1984, the NORAD Regions were reordered so that no region straddled the Canada/U.S. border. Two Canadian

Regional Operations Control Centres (ROCCS) were established, both at North Bay. These were to perform air surveillance, communication, identification and interceptor control functions over Canadian airspace with Canada's Anik B satellite to be the communications link between the northern radar system and the ROCCS.¹⁴⁸

The 1985 NORAD Modernization Agreement, signed in March of 1985, was designed to meet the proposals of the U.S. ADMP. The North Warning System (NWS) was to replace the DEW Line installations, with the new system to be comprised of thirteen minimally-attended long-range radar sites, 11 of those in the Canadian north, and 39 unattended short-range radar sites with 36 of them to be in Canada. The Canadian facilities will be owned and operated by Canada. Four OTH-B installations were to cover the rest of the perimeter of the continent although none were to be sited in the Canadian north as the aurora borealis interferes with their functioning. Canada was to continue operating conventionally armed interceptors, of which it had one squadron of U.S. CF-18s acquired in 1984 with a second squadron due to be operational by 1987. Eight U.S. AWACS, which Canada would help man, were designated for possible use by NORAD. Northern airfields in Canada were to be upgraded as forward operating locations (FOLs) for

interceptors, and dispersed operating bases (DOBs) for AWACS. The total cost of the modernization program was estimated to be \$ 7 billion with Canada responsible for 12 per cent of the total, although Canada's share of the costs of the FOLs and DOBs had not yet been established.¹⁴⁹ The continental defence plans that were well underway by 1972 had finally come to fruition and all of the weapons systems and support facilities were expected to be in place by 1992.

In spite of the Canada/U.S. decision, taken at the same time as the agreement for NORAD modernization, to reinvigorate the PJBD,¹⁵⁰ the United States continued to separate key aspects of its air defence programs from Canadian involvement. In 1985, the U.S. unified many of the space aspects of its three services under the U.S. Space Command, USSPACECOM. The CINCNORAD is also the commander of the USSPACECOM but the latter, as a 'specified' command, is not a NORAD command, and Canadian access is denied.¹⁵¹ The USSPACECOM has control of missile warning and space surveillance, and should SDI come to fruition, it is expected that its BMD systems will fall within the aegis of this command. The commander-in-chief of NORAD was then in charge of NORAD, USSPACECOM, the U.S. Aerospace Command, due to be phased out in 1986, and the

U.S. Air Force Space Command or USC for United Space Command. The NORAD Agreement, however, only gives Canada access to the NORAD Command.¹³²

The international balance-of-power environment had witnessed an erosion of East/West detente in the late 1970s and early 1980s with Soviet activity in the Horn of Africa, interference in Polish politics, and invasion of Afghanistan, and the U.S. involvement in the Iranian Revolution, and intervention in both Central America and Afghanistan. However, during the 1980s the Soviets and Americans were also engaged in three disarmament negotiations, the Mutual and Balanced Force Reduction talks, the Strategic Arms Reduction Talks, and the Intermediate Range Nuclear Forces negotiations. By the mid-80s these negotiations were stalled, but they were not cancelled. Further, although the 'New Cold War' of the early 1980s was a very real phenomenon, it was qualitatively different than its predecessor. Whereas, as Fred Halliday suggests, the Cold War was accompanied by "...intense suppression of opponents in east and west...Cold War II reflected the desire of both blocs to retain what they had acquired in the earlier periods of reduced antagonism, together with their determination to deploy the fear of the other as a composite ideological

device for guaranteeing unity at home."¹⁵³

With respect to the international strategic environment, while the Soviets had participated in the arms race in the 1960s and '70s, their bomber threat had not changed. As David Cox stated during the 1985 NORAD Renewal Hearings, there had been no significant increase in the number of Soviet bombers in many years, increases were unlikely, and under certain interpretations of Soviet positions within arms negotiations, decreases in the size of the fleet could be expected.¹⁵⁴ By 1984, the USSR bombers, both air and naval forces, represented only 11.5 per cent of their strategic launchers and carried only 11 per cent of their deliverable weapons.¹⁵⁵ By 1987, however, a new generation of Soviet bombers was expected to be able to deliver a 3000km range ALCM,¹⁵⁶ much the same type of advanced cruise missile (ACM) that Mulroney agreed to test for the U.S. in 1989. In fact, the U.S. and the USSR have reflected one another's developments in cruise technology and numbers,¹⁵⁷ with both countries now possessing supersonic, long-range, 'stealth' ALCMs that can travel at close to supersonic speeds and, since they can destroy hardened defence installations, have a first strike capability.¹⁵⁸

In spite of the potential for the cruise missile to

become the preferred weapon as the ICBMs and SLBMs become subject to arms controls,¹⁵⁹ the Soviet ICBM and SLBM continued to be the primary threat to the North American continent. Hence, the modernization of NORAD's weapons systems and facilities was designed to support and complement U.S. ballistic missile defence carried out within the U.S. Space Command. The potential NORAD involvement in U.S. BMD systems includes the siting of land-based BMD systems on Canadian territory, the use of Canadian airspace by U.S. planes carrying anti-satellite systems (ASAT) weaponry capable of attacking low-orbiting satellites used by the Soviets in their ballistic missile defenses,¹⁶⁰ and various surveillance systems such as Terminal Imaging Radar and airborne optical detection systems.¹⁶¹ In fact, the Baker-Nunn space surveillance camera at St. Margaret's, New Brunswick, a NORAD facility due to be phased out by 1988, was involved in ASAT testing in 1984.¹⁶²

Hence the Canadian tendency to comply with U.S. defence planning, in spite of its own expressed policy preferences, continued apace in the early 1980s with the changes in the terms of reference of the 1981 NORAD Renewal Agreement, the removal of the ABM clause from the Agreement, the testing of the cruise missile, and the

implications for BMD in the ADI and NORAD Modernization programs. These changes, together with SDI, the change in U.S. strategic policy, and the changes in the U.S. defence commands which reduced Canadian participation in common defence planning, all contributed to the highly controversial nature of the 1986 NORAD renewal.

The 1986 NORAD Renewal was preceded by two parliamentary reviews. In the summer of 1985, the Special Joint Committee of the Senate and the House of Commons on Canada's International Relations studied the issue of Canada's involvement in SDI and concluded that it had insufficient information to make a recommendation.¹⁶³ The review completed by the Standing Committee on External Affairs and National Defence, SCEAND, in February 1986, was much more comprehensive and specifically oriented to the NORAD renewal question. The opinions expressed, during the 12 briefing sessions, by the 141 Hearing witnesses, and in the 82 written submissions,¹⁶⁴ covered all possible alternatives from recommending withdrawal from NORAD to suggesting renewal for an indefinite period of time.

Those who recommended withdrawal from NORAD or a short term extension, did so on the belief that the U.S. was changing its strategic policy from deterrence to a limited nuclear war-fighting option. In this context, the

NWS was seen to be destabilizing in that it prevented the USSR from responding to a U.S. first strike and therefore guaranteed that in a crisis situation, the USSR would be forced to make a decisive first strike. Further, it was felt that Canadian territory and facilities would inevitably be incorporated into the U.S. BMD program, including an ASAT role since the most modern of the U.S. interceptors, the F-15 which will be training at Canada's FOLs, are also the U.S. ASAT launchers.¹⁶³ In fact, of the five squadrons of U.S. F-15s expected to be assigned to NORAD in 1985, two are capable of launching ASAT.¹⁶⁶

Those who recommended renewal either indefinitely or on the regular five year plan, did so for one of three reasons. First, they reasoned, the defence of the continent is indivisible and therefore NORAD is necessary for strategic purposes. Second, NORAD renewal was important for economic reasons, the rationale being that the Canadian defence production industry and hence Canadian jobs would suffer should Canada withdraw from the alliance.¹⁶⁷ Third, concerns were expressed that a withdrawal from NORAD would leave Canada in the position of knowing "...little or nothing about probes of its airspace by the Soviet Union and U.S. responses to counter them."¹⁶⁸ Hence, it was necessary for Canada to remain

within NORAD in order not to become irrelevant to its own defence and to monitor and influence U.S. activities and plans.

Concerns were also expressed about the social impact of NORAD activities in the north, about the effects on the caribou migration, and about the north becoming a potential battleground as Soviet bombers and/or cruise missiles would be engaged there in the event of an attack. Further, some parliamentarians expressed their concerns about the paucity of information available to them about NORAD activities and plans.¹⁶⁹

SCEAND recommended renewal for a five year period with no substantial changes to the Agreement.¹⁷⁰ The Report stated that the Committee did not accept that the U.S. strategic policy had changed and that even if it had, the new weapons systems had not yet been procured and, in any case, they might be subject to controls put in place by the Geneva negotiations on strategic nuclear weapons. Similarly with SDI, the Committee felt that concerns about its possible future effects, and links with NORAD, were premature. As far as Canadian participation in Phase II of SDA 2000, in which, the Hearings revealed, Canada had been invited to participate, the Committee felt that it would be better for Canada to be involved in the concept than on the

sidelines, even though critics claimed that it was a concrete step towards Canada's involvement in a continental BMD program.¹⁷¹ The modernization of NORAD, the Report stated, was in the interests of Canadian sovereignty in that the NWS would be under Canadian control, Canada would have control over all activity in its airspace from its two Regional Operational Control Centres at North Bay, and the U.S. AWACS would benefit Canada to the extent that they gathered information about events in Canadian airspace. Further, the Report claims that the ASAT program was not a NORAD program and hence ASAT missions could not be undertaken from Canadian territory without permission. Finally, the claim is made that to withdraw from NORAD would seriously jeopardize the Canada/U.S. relationship and that because protectionist pressures were strong in the U.S. at the time, such jeopardization was not wise.¹⁷²

The SCEAND Report did, however, make several recommendations. It recommended that the U.S. and Canadian governments issue a joint statement reaffirming their support for the ABM Treaty; that the Canadian government accept the invitation to participate in Phase II of the SDA 2000; that Canada examine options for performing its own AWAC-type of surveillance; and that because Canada was not involved in the U.S. space surveillance system, it launch

its own military space program.¹⁷³ Ignoring the first recommendation, the government renewed NORAD for five years. However, since the government had already signed the NORAD Modernization Agreement in 1985, the renewal was more or less a foregone conclusion in spite of the Hearings.

The 1987 White Paper on Defence indicated the frame of mind of the Canadian government when it renewed the NORAD Agreement in 1986. The document, riddled with Cold War rhetoric, suggests that "...the West is faced with an ideological, political and economic adversary whose explicit long-term aim is to mould the world in its own image."¹⁷⁴ Accordingly, it recognizes an increased strategic relevance for Canada's territory and airspace, and affirms the agreement with the U.S. to permit unarmed SAC overflights of Canada during peacetime, and nuclear armed overflights during periods of crisis. In addition, it acknowledges the presence on Canadian territory of U.S. AWACS, and the upgrading of five northern airfields as FOLS and another unspecified number for the AWACS.¹⁷⁵ The Paper also reaffirms the testing of the cruise missiles,¹⁷⁶ and continuing Canadian participation in "research on future air defence systems in conjunction with the United States Air Defense Initiative" (ADI).¹⁷⁷

Following the 1986 recommendations of SCEAND, the Paper also states that Canada will "...explore the use of space-based systems for many of its surveillance requirements," and will continue its participation in the U.S. Teal Ruby experiments on space-based, infra-red surveillance.¹⁷⁸ The claim is also made that Canada has been involved in sharing costs, experience, technology and responsibilities with the U.S. in space-based or space-related systems for thirty years within NORAD.¹⁷⁹ Since the Paper also suggests that Canada will continue participation "...in all forms of early warning and surveillance relevant to North American air defence, whether the means be ground, air or space based,"¹⁸⁰ the implication is for official involvement in SDI research, and in raising the issue of SDI, the Paper does not rule out involvement. Further, the Paper claims that participation in collective security arrangements of the type just mentioned is an affirmation of Canadian sovereignty.¹⁸¹ Moreover, although many of the White Paper programs were abandoned by the government's subsequent concerns with debt reduction, the programs dealing with NORAD Modernization remained intact.¹⁸²

Specifically, then, the 1987 White Paper on Defence officially involves Canada in ADI research and, by implication, in SDI and Phase II of the ADMP, the U.S.

Strategic Defense Architecture 2000 Plan which outlines the integrated defense plans for bombers, cruise missiles and ballistic missiles. Mulroney's 1989 agreement to test a new generation of U.S. cruise missiles strengthens the implication. The fact that the USSR and the U.S. agreed, in the May 1990 START Agreement, that ALCMs were to be subject to the 50 per cent reduction of strategic nuclear weapons stipulations does not potentially jeopardize the on-going BMD/ADI research and development programs. As Joel Sokolsky points out, the reductions simply mean that with fewer weapons the new defence systems will be able to operate more efficiently.¹⁶³ In fact, as the Canadian Commander of NORAD at North Bay, Commander J.D. O'Brien, suggested, it is highly possible that the 50 per cent reduction will be overly applied to the ICBMs in order to increase the number of cruise missiles available.¹⁶⁴

R.B. Byers has suggested that Mulroney's implicit acceptance of SDI was a miscalculation in strategic thinking,¹⁶⁵ the rationale being that Canada's participation in a potentially destabilizing defence program does not reflect Canada's off-stated position as preferring to contribute to stability within the international balance-of-power system. Given the rhetoric of the 1987 White paper on Defence, however, it is quite

possible that R.B. Byers was basing his opinion on the preferred defence policy of the preceding Liberal government. It is the policy preferences of Trudeau's peace initiative that are not reflected in Canada's continuing slide to acceptance of the U.S. SDI and BMD programs. The Cold War rhetoric of the 1987 White Paper suggests that the programs outlined in that paper do very much reflect the Mulroney government's perception of Canada's place in the international balance-of-power system. The forces that have worked this change in perception, however, remain unidentifiable from the assumptions of the realist perspective.

With respect to the 1991 renewal of the NORAD Agreement, the terms of reference for the Hearings held by the Standing Committee on External Affairs and International Trade remained much the same as those that pertained during the 1986 Hearings. The questions remained as to the links between SDI and ADI, the threat assessment of the Soviet cruise missile program and therefore the relevance of ADI participation, the possibility of being drawn into the U.S. BMD and ASAT programs through NORAD, and the extent to which Canada's sovereignty is eroded by becoming irrelevant to its own defence if it does not participate in NORAD.¹⁰⁶

The background material provided for the Hearings lists a number of changes in the NORAD strategic environment since the 1986 Hearings. The material states that BMD deployments were "well under way" in the U.S. and that upgraded U.S. F-16s and F-16As were being added to NORAD's CF-18s and F-15s,¹⁸⁷ the latter being the U.S. ASAT planes.¹⁸⁸ These aircraft have the 'look-down/shoot-down' capability for AWAC support and they were to be armed with medium-range air-to-air missiles. Ground-based defence using surface-to-air missiles was also being upgraded. Products of the SDA 2000 research program appeared to be coming on-line in that NORAD's command, control, communications and intelligence (C3I) networks were being enhanced to allow the integration of data on ballistic missile, bomber and both ALCM and SLCM threats, and the possible introduction of 'artificial intelligence to battle management systems.'¹⁸⁹ With respect to the NWS, the material suggests that the advent of the USSR long-range cruise missile had "severely degraded" the effectiveness of the NWS and that phase two of the modernization program, the 36 short-range radars would probably not be built. AWACS would provide supplementary coverage and direction for fighter aircraft.¹⁹⁰ In direct contradiction to this information, however, Commander

O'Blenis stated in Dec, 1990, that in fact 16 of the short-range radar sites had been prepared for radar installations and the radar contracts for all 36 sites had been let. In addition, he revealed that the two Canadian squadrons of CF-18s slated for NATO duty were now in the process of being put under the NORAD Command, bringing the total of Canadian CF-18s assigned to NORAD to four squadrons.¹⁹¹

The Background Material document for the 1990 NORAD renewal Hearings also states that NORAD had been given "a primary role in the surveillance of aerial drug traffic into North America," and that "Canadian personnel at NORAD are becoming more extensively involved with anti-drug activities in the U.S....It could be argued," reads the document, "that Canada, by agreeing to participate in the U.S. war against drugs, has been drawn into an American national security issue which does not concern it."¹⁹² Instead of arguing the point, however, the document expressed its acceptance of this new role for Canada within NORAD. The document also reveals that to support NORAD's new role, better information links had been established between NORAD, the F.B.I. and the RCMP. The document justifies this new NORAD role by the fact that illegal drug flights from South America do land in Canada, or carry drugs that are eventually smuggled into Canada.¹⁹³

Defining drug trafficking as a national security issue as opposed to a problem with its roots in the domestic social environment demonstrates the elasticity of the concept of 'national security.' More to the point, however, the NORAD renewal Hearings, conducted by a sub-committee of the Standing Committee, lasted only two days during which NORAD's role in the U.S. war on drugs was barely mentioned. A group of independent experts was also asked to prepare a paper on the renewal issue and a number of interested individuals and organizations were invited to make written submissions. On December 19, 1990 the Standing Committee presented its findings, a one and a half page paper stating that neither the sub-committee nor the standing committee "...was able to achieve a majority in support of a report."¹⁹⁴ In place of a report, the Standing Committee presented the report of the NORAD study group together with the various submissions which the sub-committee reviewed on November 22 and the Minutes of the Proceedings and Evidence of the two days of NORAD Hearings, October 16 and 18. The Committee suggested that because of "...the extraordinary changes in East-West relations and the ending of the cold war, the Government should carry out, in the first two years of any NORAD renewal period, a comprehensive public review of Canada-United States defense

cooperation and the future surveillance needs of Canada, the United States and their northern neighbours. As part of the review process, ...Parliament should initiate an exchange of views and information between Canadian and American legislators, with the first of the meetings for this purpose taking place before the termination of the NORAD agreement on May 12, 1991."¹⁹⁵

NORAD was renewed for five years on May 12, 1991 without any such meetings taking place. In fact, the Hearings were a non-sequitur for on August 17, 1990, one month before the Standing Committee decided to hold a review of the NORAD renewal issue, Prime Minister Mulroney and President Bush had issued a joint statement reaffirming their commitment to the joint defence of North America.¹⁹⁶

Understanding NORAD from the Realist Perspective

The vast majority of NORAD analyses approach the subject of Canadian defence policy from a realist perspective in that they focus on the international political and strategic environments within which decisions are taken, assuming, in the process, that the state is an autonomous and unitary actor in this environment, that the domestic and international levels-of-analysis are discrete, and that economic and cultural interests are relatively

uninfluential in the making of Canadian defence policy. As Middlemiss and Sokolsky note, most of these writings on Canadian defence policy fall into one of two categories, the historical/descriptive, or the prescriptive, and neither category serves well as a guide to an examination of the defence policy decision-making process itself.¹⁹⁷ However, when authors such as Middlemiss and Sokolsky, or Kim Nossal turn their attention to an examination of the domestic defence policy decision-making process they do so from a statist perspective, tracing the decision-making process through the various levels of government and its bureaucracies.¹⁹⁸

The assumption underlying these analyses is that Canada's decision-making process at the domestic level, with respect to NORAD policy, is relatively isolated from other policy areas, is relatively uninfluenced by interests that reside outside the government, and is controlled by a few key political decision-makers, primarily the Prime Minister and his Cabinet. Thus, the statist approach focuses on political and strategic variables, and on how decisions based on international balance-of-power considerations proceed through the domestic political environment.

From these two perspectives, the realist in terms

of international relations theory, and the statist in terms of domestic political theory, the history of NORAD appears relatively unproblematic. In the post World War II, pre-NORAD years, the international environment was characterized by East/West insecurity, made so by the Korean War, the Soviet Union's repression of the Hungarian Revolution, and Khrushchev's revelations at the Twentieth Congress concerning Stalin's years in power. During the same period, the U.S. established its role as hegemon of the Western world, practising its policy of containment within Bretton Woods, the Marshall Plan, and the NATO alliance.¹⁹⁹ Given the rigid bipolar structure of the world, and given Canada's geographical location, its historical linkages and its domestic political and economic structure, Canada's alliance with the West, as opposed to neutrality, appears to have been a foregone conclusion.²⁰⁰

Because it was perceived at the time that the primary military threat to the North American continent was from nuclear armed Soviet bombers, the 'rational actor' assumption of the realist perspective would have successfully predicted that the U.S. and Canada would coordinate their defence of the continent. Given the U.S. policy and weapons of deterrence which Canada fully supported, Canada could not afford to monitor and defend

its own territory and air space to U.S. standards. Hence, the NORAD Agreement was a compromise whereby the U.S. gained access to Canadian territory and air space for defensive purposes, while Canada acquired affordable defence and, according to most analysts and policy-makers of the time, access to U.S. defence planning in order to monitor and influence U.S. activities. Monitoring U.S. activities was considered central to protecting Canadian sovereignty in that it gave Canada access to U.S. intelligence about USSR activities, and knowledge of U.S. activities and plans with respect to Canadian territory and air space. Such knowledge was deemed central to Canadian independence within the alliance in that it allowed Canada to make educated policy choices.

Within the realist perspective, the fact that NORAD has been consistently renewed, reflects the continuation of the bipolar nature of the international system, while the changes that have been made to the Agreement, with respect to weapons systems and strategic policy, reflect the changing nature of the perceived threat. In each of the renewals, the Canadian state appeared to act as a unitary, autonomous actor, making security decisions on a cost/benefit analysis, often over the vociferous objections of particularistic domestic interests.

The only immediately obvious challenge to the realist assumptions is that in making its decision to accept the NORAD Agreement, and subsequently, nuclear warheads, the 'unitary' voice of the Canadian state was very much the voice of Canadian/U.S. military cooperation. However, the political history of NORAD raises one point for discussion and two questions which, taken together, challenge the realist interpretation.

The point for discussion concerns the reasons given by succeeding Canadian governments for remaining within NORAD. From the time of NORAD's inception to the present, Canadian governments have argued that Canada needs to remain within the alliance in order to address common Canadian/U.S. security concerns, to defend Canadian sovereignty against the U.S. unilateral use of Canadian territory and air space, to gain access to U.S. intelligence and defence plans, to maintain a forum for influencing U.S. defence planning, and because to withdraw would be interpreted by the U.S. as an unfriendly act on Canada's part, and responded to in kind. The point to be made is that, for the most part, although these reasons for remaining within NORAD are necessary explanations, they are not sufficient explanations. As will be argued, alternative methods of reaching the desired ends were

available, and in terms of general Canadian/U.S. relations, have often been practised.

With respect to the sovereignty issue vis a vis the U.S., the voyages of the USS Manhattan through Canada's Arctic waters in 1969, of the USS Polar sea in 1985, and U.S. nuclear submarines in 1986, were clear challenges to Canadian sovereignty in the waters of the north. Canada reacted to these challenges by establishing the Arctic Waters Pollution Prevention Act of 1970, in spite of both international law and U.S. security interests, and in acting to enclose the channels of the Arctic Archipelago in the mid-1980s, thereby gaining a U.S. concession to seek permission for further voyages.²⁰¹ In both instances, Canada demonstrated that it could act unilaterally to protect its sovereignty.²⁰²

With respect to NORAD defence issues, the supposition that the U.S. would have unilaterally used Canadian airspace and territory without Canadian consent, had NORAD not existed,²⁰³ or had Canada decided at any time to withdraw, is not necessarily a valid supposition. Being within NORAD has not prevented the U.S. from acting unilaterally with respect to defence planning for the North American continent. More to the point, Canada, no doubt, could have responded to a unilateral U.S. encroachment of

its territory and/or airspace in much the same way it responded to the invasion of its Arctic waters. Moreover, in reacting to such a unilateral encroachment, and in the resolution of the problem, Canada could have taken steps to ensure its access to information about U.S. planning, and influence with respect to those plans. Further, from a realist perspective, it would not be a 'rational' act on the part of the U.S. to use unilaterally Canadian territory and air space without Canada's permission. It would be a bad signal to send to its NATO allies. Nor could the U.S. 'rationally' act aggressively if Canada decided to withdraw from NORAD, or to refuse to be involved in particular NORAD plans, as it did formally, if weakly, in refusing SDI cooperation in 1985. As Douglas Ross writes, "Bludgeoning recalcitrant little guys in the NATO gang is hardly the way to sustain one's international image as an enlightened and far-seeing alliance leader."²⁰⁴ Therefore, with respect to sovereignty issues, the question remains as to why Canada has chosen consistently to remain within NORAD?

With respect to access to U.S. intelligence and defence planning, the history of NORAD demonstrates that being within the alliance does not necessarily mean that Canada has access to these U.S. resources. The unilateral move to create the U.S. Space Command, and the overlapping

of commands for CINCNORAD but not for his Canadian deputy-in-command, suggests that Canada has access only to the information which the U.S. wishes to share. Supposedly, such information would also be made available from outside an alliance arrangement if the U.S. were then in the position of having to request the use of Canadian territory and air space. In fact, this is the process that has gone on within NORAD anyway. The U.S. was involved in unilaterally developing NORAD modernization plans, equipment and weapons at least 15 years before Canada was officially included in the NORAD Modernization Agreement of 1985,²⁰³ and Canada was only officially included in the planning stages in 1979 when the U.S. had reached the deployment stage for its surveillance and defence equipment.

As far as remaining within NORAD in order to exercise influence on U.S. defence planning is concerned, Canada has demonstrated that in other areas of foreign policy, it has preferred to remain outside of an alliance association in order to exercise influence. For instance, in spite of the expressed wishes of the U.S., Canada remained outside the Organization of American States until recently, precisely so that it could exercise influence, the belief being that it could be more influential from

outside than from inside.²⁰⁶ Also, in 1954, the Canadian government rejected a U.S. request for a blanket use of Canadian air space and territory, proposing instead U.S. use on a case-by-case consultative basis, except in the case of an outright Soviet attack on North America. The reason given for the rejection of the proposal was that Canada could retain more influence on U.S. planning by remaining on a consultative basis.²⁰⁷

With respect to NORAD, given the minimal amount of influence that Canada had upon the U.S. during the Cuban Missile Crisis, one might suppose that a 'rational' actor would have begun to question the viability of the 'influence' assumption at the time. The question should then have appeared again during the Middle East Crisis of 1973 when Canadian personnel at NORAD were placed on the same 'alert' status as the U.S. forces without Canadian consultation.²⁰⁸ Similarly, Canada was not consulted when the U.S. invaded Grenada in October 1983.²⁰⁹ In fact, a 'rational' actor calculating its own security interests in terms of a cost/benefit analysis with respect to influence, might soon realize that in an alliance between a strong state and a weaker one, it is the weaker one that is going to be influenced more than vice versa.

The final reason given for Canada's repeated

willingness to renew NORAD and comply with its changes is that, to not renew NORAD would have been viewed by the U.S. as a threat, primarily an indication that Canada was choosing to be neutral in a bipolar world.²¹⁰ This too is an arguable point. Neutrality is not necessarily the only alternative to a NORAD alliance. The NDP's April, 1988 Report, "Canada's Stake In Common Security," demonstrates that there are alternatives to NORAD for the defence of the continent which do not include neutrality.²¹¹ The NDP paper suggests that Canada could withdraw from NORAD and still recognize its defence obligations to the U.S. through the establishment of common security defence programs with its northern neighbour states.²¹² Moreover, continued participation in the NATO alliance would adequately demonstrate non-neutrality, as does Canada's economic and political system.

Further, even if the U.S. did view a Canadian withdrawal from NORAD with displeasure, there would be very little it could do about it except make things diplomatically uncomfortable as it did during Canada's nuclear policy debate. Bludgeoning is out of the question, as mentioned earlier. The U.S. could visit economic hardship upon Canada but it did this anyway in 1971 when Canada was militarily compliant. In addition, given the

U.S. desire for the Free Trade Agreement, and its margin of dependence on Canada's market and resources,²¹³ it would not be in its own economic interests to give Canada no recourse but to attempt to establish closer trade ties with other trading partners. Finally, given the U.S. need for access to Canada's territory and airspace, it would have had to come to some mutually acceptable defence agreement.

Moreover, Canada has adequately demonstrated its willingness to risk the ire of the U.S. in other areas of foreign and defence policy. Examples include, Canada's 1971 nationally oriented defence policy, its trade relations with Cuba, its protection of the Northwest Passage, its recognition of China, its refusal, until recently, to join the OAS, its National Energy Program of the early 1980s, its stand on acid rain and the Atlantic fisheries, its verbal non-compliance with the Vietnam War, the invasion of Grenada and U.S. involvement in Nicaragua, its non-compliance in the Cuban Crisis in terms of SAC overflights and permission to use Canadian air bases, and its rhetorical disagreement with the U.S. interpretation of the ABM Treaty, the U.S. plans for the militarization of outer space and, until the mid-1980s, with SDI.²¹⁴ Given these displays of independence in policy-making, one has to suspect that fearing U.S. displeasure for not complying

with U.S. NORAD planning is a smokescreen. In other words, in the case of NORAD, the notion must be entertained that Canada wants to comply, that it is an independent policy choice to comply and that there are strong determinants for this compliance which cannot be identified under realist assumptions.

Taken together then, the reasons given by both the Canadian governments and the politically-focused defence analysts for Canada's involvement in NORAD are all relevant in that they are necessary to a comprehensive understanding of Canadian defence policy decision-making within NORAD. However, they are not sufficient to that understanding because of anomalies which cannot be explained. Besides being insufficient within themselves in that there were viable alternatives, the reasons given for Canada's history of continuing participation within NORAD do not explain how it came about that Canadian/U.S. military cooperation resulted in NORAD being presented to the Canadian government as a fait accompli; how it happened that the political debate about Canada's nuclear weapons policy followed the decision to acquire nuclear weapons systems rather than preceded it; nor do they adequately explain why Canada decided not only to accept, but also to pursue a more aggressive defence posture within NORAD

beginning in the mid-1970's. This leads one to suspect that there may be other state interests and, perhaps, non-state actor interests, influencing Canadian defence decision-making within NORAD, interests which a realist focus on political and security issues cannot identify.

As mentioned earlier, there are two questions that can be asked of the political history of NORAD which a realist perspective cannot answer. The first is; given that alternative perceptions of the Soviet threat and of the appropriate response to the threat were available and well articulated in Canada throughout NORAD's history, both within and without government, and given that apart from during the nuclear warhead debate, there has been little or no U.S. political pressure for Canadian compliance with U.S. defence policy and planning for NORAD, how can one account fully for the coincidence of the Canadian and the U.S. perceptions of both the Soviet threat and the appropriateness of the response to the threat? In other words, given the divergence of Canadian and U.S. views over much of NORAD's history, what accounts for Canadian compliance with U.S. policies? This question becomes particularly pertinent for the period from the mid-1970s through to the present, when the U.S. defence policy of flexible response made Canada's north a potential theatre

of war in a U.S./Soviet crisis situation.

Canada has never been able to threaten the Soviet Union with its own weapons systems, it has never wanted to, it could not afford to and it would not be in the U.S. interests for Canada to have an independent nuclear weapons program. Consequently, at the highly abstract theoretical level of analysis, Canadian/U.S. defence interests need not have coincided.²¹⁵ In fact, Canadian/U.S. vulnerability to attack and, more importantly, to the effects of attack have not always coincided. During the era of mutual assured destruction, MAD, both the U.S. and Canada were equally vulnerable to the effects of an intercontinental exchange of ballistic missiles. However, the U.S. adoption of a policy of limited nuclear war-fighting capabilities arguably made Canada far more vulnerable to the effects of an attack than the U.S. in that, in the event of an attack, U.S. and Canadian interceptors would destroy Soviet bombers and air launched cruise missiles over Canadian territory. Hence, since the mid 1970s, Canadian and U.S. security concerns no longer coincided. Again, the question begs to be asked: what interests account for Canadian compliance with U.S. policy.

In addition, viable alternatives to NORAD membership have always existed, and been well articulated,

in Canada. Howard Green, the Minister for External Affairs, argued persistently during Diefenbaker's term in office, for a non-nuclear role for Canada, suggesting that Canadian energies be concentrated upon diplomacy and disarmament issues within the U.N. Dalton Camp argued for withdrawal from NORAD in 1968. Donald MacDonald, as the President of the Privy Council, argued for adopting a neutralist position in Trudeau's defence policy review of the late 1960s, as did Eric Kierans, the postmaster general, when he argued that Canada should renounce its obligations to NATO.²¹⁶ The NDP has, over the years, recommended withdrawing from NORAD and has recently developed a policy of common security for Canada as an alternative.²¹⁷ In fact, the option of withdrawal from NORAD has been entertained as an alternative at each NORAD renewal hearing.

The point is that perceptions of threats are interpretations of events in the world and when several viable but contradictory interpretations exist, including the government's own, the decision makers must choose amongst them. Constrained by its assumptions, realism is not able to deal comprehensively with the reasons why one interpretation is chosen over another. Hence the perspective makes it appear that the state is speaking in a

unitary voice which is under no undue influence. By assuming that only international balance-of-power considerations are at work in the making of defence policy, and by foregoing a domestic level of analysis, the realist perspective cannot identify the dynamics of the decision making process, and therefore, cannot identify which, if any, societal interests are reflected in the choice made amongst alternatives. Therefore, a definitive answer as to the reasons for the coincidence of the Canadian and U.S. perceptions of, and response to, the Soviet threat cannot be found within the realist perspective.

The second question which needs to be asked of the political history of NORAD is how can one account for what R.B. Byers has suggested is the Canadian tradition of making defence policy without a strategic analysis. Basil Robinson argues that Diefenbaker did not fully comprehend that the signing of the original NORAD Agreement committed Canada to accepting nuclear warheads. Accepting the warheads was seen to be, variously, an inappropriate Canadian policy response vis-a-vis the Soviet Union, and/or an undermining of Canada's disarmament interests in the U.N., and hence, another miscalculation in strategic defence policy making. Further, Colin Gray argues that the strategic implications of NORAD's new weapons and

surveillance systems were not considered in the 1973 NORAD renewal. Bromke and Nossal argue that Trudeau did not understand the strategic implications of agreeing to test the cruise missile in 1983, and R.B. Byers argues that the Mulroney government did not understand the strategic implications of the U.S. strategic defense initiative (SDI).²¹⁸

The point is that these decisions are referred to as miscalculations in strategic defence policy-making precisely because no other explanations are available within the terms of reference of the realist perspective. The perspective does not allow analysts to ask if these decisions are, in fact, strategic miscalculations, or are they reflections of pressures brought to bear on Canadian defence policy-making by interests not adequately identified by the statist perspective or by realism.

In reference to this point, Joseph Jockel's book, No Boundaries Upstairs, clearly demonstrates that the Canadian government was highly influenced by the interests and the activities of the military when it accepted the original NORAD Agreement, while Middlemiss and Sokolsky argue that by the mid-70s the industrial spin-offs from defence policy making were a major consideration in policy making, and that the defence production industry had, and

has, an effective industrial lobby. Given that the military and the defence production industry both have vested interests in defence policy-making, and given that they are both organized, respectively, within and across national borders, it is highly possible that they are powerful determinants of Canadian defence policy-making.

The influence of each of these interests, the military and the defence production industry, on Canadian defence policy-making is the subject of later chapters. Briefly, however, with respect to the military, in describing how the Canadian and U.S. militaries, largely without civilian governmental direction, cooperated to establish the NORAD infrastructure in terms of its policies, command structure, facilities and weapons systems, Jockel demonstrates that in accepting the original NORAD Agreement the Canadian state acted neither autonomously nor with a unitary voice. Instead, it was speaking largely in the voice of the military, while the nuclear warhead debate which followed the acceptance of NORAD was a case of the political voice playing catch-up to the military voice. Further, although the bipolar nature of the international political environment has continued throughout NORAD's history, that environment was much more stable by the mid-1970s than it had been when NORAD came

into being. Given the technological developments in weapons and defence systems together with the force structures and postures of the arms race, the 'threat' to the North American continent was calculated not in terms of whether the Soviet Union would invade but in terms of the weapons it could use if it did invade.²¹⁹ In other words, security was defined primarily in strategic/military terms rather than political terms. Given the continuing association of the Canadian and U.S. militaries within the joint command of NORAD, it remains to be seen, in a further chapter of this thesis, the extent to which the Canadian government has continued to play catch-up to joint Canadian/U.S. military defence planning, the extent to which the 'unitary,' and 'autonomous' voice of the state was in fact a military voice.

In addition, because the erosion of detente in the late 1970s, a reason given for the build-up of arms, coincided with the continuing erosion of U.S. economic hegemony, within an East/West environment that was arguably far more politically stable in terms of actual threat of East/West invasions and on-going arms control agreements than in the 1940s, '50s and '60s, Wallerstein's assumption that the military is used by the state in its pursuit of economic hegemony bears investigation. Given that the U.S.

undoubtedly used defence spending as a means of shoring up its economy,²²⁰ whether the U.S. purposefully also set about to underwrite its hegemonic position with military power is a moot argument. The effect was there, whether it was intended or not.

The real point, however, is that U.S. and Soviet domestic defence research, development and production played a considerable role in the tenor of the international political environment by the mid-1970s. The weapons, to an extent, were predicting policy, and within these parameters, the defence production industry in the economic environment, like the military in the political environment, had its own vested interests in defence policy making. Moreover, like the military, the industry is organized within Canada and across the Canada/U.S. border. The Defence Production Sharing Agreements, defence production contracting between the two governments, and the relationship between U.S. parent companies and their subsidiaries in Canada essentially establish the defence production industry as a continental industrial phenomenon under U.S. domination.²²¹

In conclusion, it is apparent that a comprehensive understanding of the Canadian defence policy decision-making process within NORAD cannot be gleaned from a

realist perspective, that is, on the basis of the external political environment alone. A domestic level of analysis is required, and once that level of analysis is added, it becomes apparent why the realist perspective cannot answer these questions. The assumption of the state as a unitary, autonomous actor, disguises the extra-governmental voices that may be speaking through the state, while the state-as-a-rational-actor assumption obscures the extra-governmental interests involved in the cost/ benefit analysis of state security calculations. In fact, the Chairman of the 1986 NORAD Renewal SCEAND Hearings seemed to identify the key issues involved in Canada's continuing support of NORAD when he asked, "...would a missile defence enable the United States to dispense not only with Canadian geography, but with Canada's goodwill and counsel as well? And what would that do to Canada's military, industrial and technological links with the United States?"²²² The remaining chapters will examine the organization of these three 'links' in an attempt to identify their role as determinants of Canadian defence policy making within NORAD. The following chapter will begin the examination by analysing the economic history of NORAD to establish the role of economic interests and actors in the decision-making process, testing the assumptions of Wallerstein's

capitalist world economy model in the process, and further testing the assumptions of the realist paradigm.

NOTES

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3. Ibid., p.26.
4. Ibid., p.20.
5. Ibid., p.26.
6. McLin, Canada's Changing Defense Policy,pp.130-133.
7. 1958 NORAD Agreement.
8. 1986 NORAD Report, p.24.
9. Joseph T. Jockel, No Boundaries Upstairs: Canada, The United States, And The Origins Of North American Air Defence, 1945-1958 (Vancouver: University of British Columbia Press, 1987), p.12.
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11. 1986 NORAD Report, p.9.
12. Jockel, No Boundaries Upstairs, p.17-20.
13. McLin, Canada's Changing Defense Policy, p.11.
14. Jockel, No Boundaries Upstairs, pp.8-9, 14.

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16. James Eayrs, Northern Approaches: Canada And The Search For Peace (Toronto: Macmillan Co. of Canada, 1951), p.18. According to General Foulkes, "Canadian Defence Policy in a Nuclear Age", p.5, the detonation was only two years before it was expected.
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19. McLin, Canada's Changing Defense Policy, p.28. Eayrs, Northern Approaches, p.20, taken from House Of Commons Debates, (1956), vol. 5, p.5211.
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21. Ibid., p.54.
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23. McLin, Canada's Changing Defense Policy, p.128, from House of Commons Debates, (1958), vol.1, p.781.
24. Gray, Canadian Defence Priorities, pp.73-74.
25. Ibid., p.74.
26. Jockel, No Boundaries Upstairs, pp.79, 92-93.
27. Jockel, No Boundaries Upstairs, pp.98, 105, 107. H. Basil Robinson, Diefenbaker's World: A Populist In Foreign Affairs (Toronto, Buffalo, London: University of Toronto Press, 1989), p.18.
28. Robinson, Diefenbaker's World, pp.19, 108, and Jockel, No Boundaries Upstairs, pp.104-110. The Department of External Affairs' claim that it had not been adequately informed about the plans to integrate operational control of the Canadian and U.S. air defences is referred to in a

letter to J.W. Holmes, Acting Undersecretary of State for External Affairs, from General Foulkes, Chairman, Chiefs of Staff, August 7 1957, File 73/1223, #85, Raymont Collection, DND Directorate History , Ottawa.

29. McLin, Canada's Changing Defense Policy, p.53.

30. McLin, Canada's Changing Defense Policy, pp.53-54, quoting from Canada, House of Commons, Debates, 1958, Vol.I, p.999.

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33. Robinson, Diefenbaker's World, p.23.

34. R.B. Byers, "NORAD, Star Wars, and Strategic Doctrine: The Implications for Canada," Aerospace Defence: Canada's Role?, Wellesley Papers, 9/1985 (Toronto: Canadian Institute of International Affairs), p.50.

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38. McLin, Canada's Changing Defense Policy, p.137.

39. Robinson, Diefenbaker's World, p.92.

40. McLin, Canada's Changing Defense Policy, pp.140-146, 155. Robinson, Diefenbaker's World, pp.111-117, 131, 196.

41. Robinson, Diefenbaker's World, p.109. For a full account of the Canadian and Canadian/U.S. nuclear warheads controversy see Knowlton Nash, Kennedy & Diefenbaker: Fear

And Loathing Across the undefended Border (Toronto: McClelland and Stewart Inc, 1990). Unfortunately, this book does not contain references.

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43. Robinson, Diefenbaker's World, p.229.
44. Robinson, Diefenbaker's World, pp. 195, 228.
45. McLin, Canada's Changing Defense Policy, p.154.
Robinson, Diefenbaker's World, p.239.
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56. McLin, Canada's Changing Defense Policy, p.49. Eayrs, Northern Approaches, pp.17, 35.
57. McLin, Canada's Changing Defense Policy, p.202.
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59. McLin, Canadian Changing Defense Policy, p.201. The decision was declared in the 1964 White Paper on Defence.
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77. Middlemiss & Sokolsky, Canadian Defence, pp.33-34.
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79. See John Kirton & Don Munton, "The Manhattan Voyages and Their Aftermath", in Politics Of The Northwest Passage, ed. Franklyn Griffiths (Kingston, Montreal: McGill-Queen's University Press,1987), pp.67-98.
80. Granatstein & Bothwell, Pirouette, p.26.
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213. Nossal, The Politics Of Canadian Foreign Policy, p.28.
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Chapter Four

The Economic History of NORAD

The realist analysis of the political history of NORAD raised two questions which the perspective could not comprehensively answer. First, given the difference in the power positions of Canada and the U.S. within the international community, and the difference in their respective vulnerabilities to an attack on the North American continent, how did it come about that the two states' perceptions of the Soviet threat, and the appropriate response to that threat, coincided? In other words, given the available Canadian alternatives to the U.S. perception of the threat, what factors determined Canada's choice of perceptions?

Second, given the expressed reasons for Canada's participation in the NORAD alliance: - the acquisition of affordable defence against the Soviet Union; the protection of its sovereignty; the maintenance of a degree of independence in its defence policy decision-making; access to knowledge of U.S. defence plans and intelligence with

regard to the continent; and maintenance of the ability to influence those plans, - how is it that in pursuit of those goals, the Canadian government consistently made 'miscalculations' in terms of its own strategic defence policy-making within NORAD?

The two questions are, of course, related, for if the decisions to accept nuclear warheads in the early 1960s, to renew NORAD in 1975 given the strategic implications of the NORAD modernization plans, to test the air-launched cruise missile and to accept the U.S. SDI, ADI and ABM programs in the 1980s, were indeed 'miscalculations' in strategic policy, then the assumption is that these decisions ran counter to Canadian defence policy preferences. In other words, the assumption suggests that it was not Canada's preference to adopt either the U.S. perception of the Soviet threat, or the U.S. response to that perception. Since, however, Canada's perception of the threat, as far as defence policy is concerned, and the appropriate response has coincided with that of the U.S., the question remains: if the 'miscalculations' in defence policy decision-making do not reflect state political interests, then whose interests do they reflect? The alternative question is, were these 'miscalculations,' in fact, deliberate state choices, and

if so, why?

The preceding chapter suggested that the military and the defence production industry, both organized within Canada and across the Canada/U.S. border had interests in assuring that the Canadian perception of the Soviet threat, and the appropriate response to that threat coincided with the U.S. position on both counts. The chapter also suggested that realism failed to identify these sources of influence for several reasons. Its focus on international variables excludes the domestic level-of-analysis required for identification. In assuming that the military is no more than an institution of the state charged with bringing to fruition the state's security agenda, the paradigm obscures the fact that the Canadian military in its cooperative relationship with the U.S. military develops an independent interest in Canadian defence policy-making based on Canadian/U.S. military professionalism. At times, this professional agenda can be independent of state political interests. Finally, because the perspective relegates economic actors to, at best, a secondary position of influence with regards to state decision-making within the international realm, it fails to pay adequate heed to the influence exercised by the defence production industry on the Canadian defence policy decision-making environment.

The point of this chapter, then, is to examine the history of NORAD from an economic perspective in an attempt to ascertain whether economic interests and actors have been influential in determining the parameters of Canadian decision-making within NORAD. If so, the theoretical problem is to decide which theory of international relations, realism or Wallerstein's capitalist world economy model, best reflects the history of NORAD. The crux of the theoretical question resides in whether the Canadian state remains the actor of consequence within the decision-making process, as per the realist perspective, or whether in making decisions on defence policy, the state decision-making process is not so much determined by the interests of its economic actors, as per the Wallerstein model, but heavily influenced by the economic actors as per the correctives made to Wallerstein's model in Chapter Two of the thesis.

This chapter will argue that in fact, economic considerations are of primary importance within the Canadian defence policy decision-making process, and further, that it is possible to identify the existence of Wallerstein's three interacting elements of the capitalist world economy in the economic and political histories of NORAD. These systems are the global market, the

international system of states and the system of appropriation of surplus product through capital/labour relations. In addition, Wallerstein's analyses of the antimonies of these systems, the economy/polity, supply/demand and capital/labour provide some explanatory capacity within the history of NORAD, while his analysis of the characteristics of semi-peripheral states reflects Canada's position as a semi-peripheral state within NORAD.

In his introduction to the book, Canada's Defence Industrial Base, the editor, David Haglund, suggests that preparedness and procurement, the underpinnings of a defence policy, are rooted in a state's defence industrial base. "At the level of preparedness," he writes, "the defence-industrial base issue figures, with increasing frequency, in discussions of broad strategic import, ranging from considerations of war fighting to war prevention, while at the level of procurement, the contest for power and influence primarily is one between alliance members, if indeed it is not largely between societal forces within any particular country."¹ In these terms, and because the costs of NORAD have traditionally been shared on a basis which reflects the relative size of the two countries' populations and economies with Canada paying

10 per cent of the costs, the economic history of NORAD is the history of Canadian/U.S. cooperation in the areas of preparedness and procurement with respect to the policies and planning for the joint defence of the continent.

Hence, the chapter will examine the history of Canadian/U.S. economic cooperation in terms of defence production and development agreements, research and development programs, and offsets policies. The essence of the argument will be that these programs have served to focus the Canadian government's attention on the industrial economic benefits to be gained from the NORAD defence alliance, manifesting itself in an on-going attempt to manage the Canadian defence production industry for its national industrial policy purposes. In addition, joint Canadian/U.S. defence production sharing has created private defence industrial interests in Canadian defence policy-making within NORAD. Thus, both the government and industry have interests in maintaining a Canadian defence production industry that is able to produce for, and compete in, the U.S. defence procurement market. Since the U.S. procurement market is designed to serve U.S. defence policy requirements, Canadian production for that market, particularly for products for the NORAD defence system, creates a stimulus for Canadian defence policy to reflect

U.S. policy preferences and perceptions.

Finally, the chapter will examine the implications of these findings in terms of the assumptions of the realist theory of international relations versus Wallerstein's capitalist world economy model.

Pre-NORAD Canada/U.S. Economic Cooperation²

In April, 1941, approximately one year after Canada and the United States signed the Ogdensburg Agreement establishing the basis for military cooperation between the two countries, the Hyde Park Declaration was signed establishing the basis for economic cooperation in times of war. Accordingly, war economies would be meshed for efficiency and productivity, with each country supplying the other with the defence articles it was best able to produce.

In 1947, Canada and the U.S. issued a joint statement on defence cooperation, reaffirming the Ogdensburg Agreement and recognizing their common defence concerns with respect to the North American continent. As Prime Minister, Louis St. Laurent also pressed for a renewal of the Hyde Park Declaration, suggesting that Canada needed to gain access to the U.S. defence production

market because of the high costs of equipping the Canadian forces for collective defence. Being highly protectionist with its Buy American Acts, the U.S. Congress balked at this request, but the Pentagon, recognizing the strategic benefits of integrating defence planning with defence production, acted on its own to improve Canada's access to the U.S. market. For example, the U.S. air force exempted Canada from the Buy American Act in its procurement plans. The Permanent Joint Board on Defence (PJBD) made the same link between defence planning and production, and in October, 1949, it initiated a mutual procurement program designed "...to augment U.S. sources of supply; to increase the dispersal of industrial facilities; to foster industrial standardization of equipment; and to help Canada earn the foreign exchange to pay for her military purchases in the U.S."

The outbreak of the Korean War in 1950 reinforced the tendency towards economic cooperation in defence planning and in October of that year a "Statement of Principles for Economic Cooperation" was signed. This statement endorsed the principles of the Hyde Park Declaration and furthered cooperation by recommending that Canada and the U.S. "...develop a coordinated program of requirements, production and procurement...(and remove)

barriers which impede the flow between Canada and the United States of goods essential for the common defence effort."⁴ In 1951, Canada established the Department of Defence Production to coordinate the rearmament program required by its involvement in the Korean War, NATO and continental defence.

As far as the U.S. was concerned, these forms of economic cooperation were of primary significance in terms of U.S. defence policy planning. They allowed for the dispersal, and hence the protection, of defence production facilities and they gave the U.S. increased access to Canadian defence resources and alternative sources of supplies. More importantly, economic cooperation contributed to the viability of the Canadian defence industry and, in the U.S. military mind, Canadian/U.S. defence industrial integration was a means for acquiring Canadian compliance with U.S. defence policy planning. A 1958 U.S. National Security Council document stated that "Unless Canadian defence industries do remain healthy, the United States probably will not receive the same excellent cooperation in the joint defence effort that has prevailed in the past."⁵

As far as Canada was concerned, economic cooperation meant that Canada could better afford to equip

its forces for common defence roles. The benefits, however, extended beyond this into the defence production industry. Production sharing applied to the construction, labour and electronic equipment that went into the establishing of the Canadian Pinetree Radar Line and the DEW Line with \$8.8 million of electronic subcontracts being let in Canada for the DEW Line construction. In addition, the Buy American Acts were relaxed during the Korean War and U.S. procurement in Canada during the War contributed to the post World War II reconstruction of the defence industry. By the mid-1950s Canada had established a defence production industry capable of producing most of its own equipment for its own forces and able to compete on a selective basis in the U.S. market. With respect to continental defence, the Canadian aircraft industry had designed and produced the CF-100, and had produced an advanced version of the U.S.-designed F-86 Sabre and the Argus maritime reconnaissance aircraft. In the field of electronics, Canadian industry was developing a communications system for continental defence, the Canadian Ground Environmental System, or CAGE.

The differences in the U.S. and the Canadian emphases on economic cooperation was to persist throughout the years of joint defence planning, with the U.S.

continuing to focus on strategic policy benefits while Canada's concerns were to remain on economic benefits.

The Arrow, NORAD and the Defence Production Sharing Agreements

The superiority of the Soviet built MIG-17s that were used in the Korean War demonstrated a need for a supersonic jet-fighter to replace Canada's CF-100. Consequently, in May, 1953, funds were authorized for the design of an airframe for the CF-105, the Avro Arrow. By 1957, the A.V. Roe Co., a subsidiary of a British aircraft company, was also designing, developing and producing the engine and the weapon for the new plane while the fire control system was being developed in the U.S. by RCA with Canadian funds. Over the years, the cost of the aircraft fluctuated from an initial projected price of \$1.5 to \$2 million to a high of \$6.1 million. When the project was cancelled in February, 1959, the cost per unit was \$4.5 million.

Cost overruns were only one of the reasons for the Arrow's cancellation. During the years of its development, Canadian demand for the aircraft declined from an initial order for 400 to a final order for 100, largely because of the difficulty of training pilots for 400 planes. For

economies of scale, A.V. Roe needed to replace the Canadian demand on the foreign market but Britain was not interested in the plane and the U.S. had reasserted its Buy American Acts after the Korean War in order to develop its own version of the Arrow, the F-106. More significantly, the U.S. was putting its development money into the ICBM program.

The Avro Arrow project was cancelled approximately nine months after the Canadian government signed the NORAD Agreement, announcing that Canada would acquire the Bomarc missile, the Semi-Automatic Ground Environment (SAGE) communications system, and new gap-filler radars for the joint command. All of these systems were developed and produced in the U.S., and as Jon McLin notes, the joint defence of the continent was prefaced on the use of U.S. equipment.

In the space of a year, it seemed, the economic benefits of defence production sharing with the U.S. had been lost. The aircraft industry was suddenly without any major systems development projects, and A.V. Roe, the third largest corporation in Canada in 1957⁷ was forced to release 14,000 employees. An equal number of employees of supporting industries also lost their jobs. The electronics industry was dealt a blow with the decision to

use the U.S. SAGE communication system within NORAD instead of Canada's CAGE technology. Further, there was no sign of improvement. U.S. protectionism and its focus on ICBM development meant that there was a very limited U.S. market for Canadian produced defence systems. Moreover, it was felt that the Arrow had demonstrated that Canada could not afford the research, development and production costs of such systems and as the 1986 NORAD Renewal Report indicates, this has remained the popular perception in Canada.⁸ Greig Stewart's book on the history of the Arrow, however, suggests that the Arrow's failure was due to bureaucratic mismanagement, the over-confidence of both the management of A.V. Roe and the entrenched Liberal government with which it had been dealing, and the impossibility of developing four major systems for a new aircraft cost-effectively.⁹

Given this situation, some form of Canada/U.S. defence production sharing was necessary. The U.S. military relied on a healthy Canadian defence production industry, primarily as a means for gaining Canadian compliance with its defence planning,¹⁰ and Canada needed either to protect its industry or resign itself to a permanent deficit in the defence trade balance with the U.S. In fact, the rationale offered in the House of

Commons for entering into a defence production sharing agreement with the U.S. was the maintenance of a healthy defence production industry in Canada."

In 1959 the Defence Production Sharing Agreement (DPSA) was established through an exchange of notes between the U.S. Secretary of Defense and the Canadian Minister of Defence Production. The terms of the Agreement reaffirmed the 1950 Statement of Principles for Economic Cooperation stressing the increased integration of Canadian/U.S. military production; the removal of obstacles to reciprocal procurement; a greater standardization of military goods; a greater dispersal of production facilities; an increasing exchange of requirements and technological information; and a determination of Canadian capabilities to meet U.S. requirements. The essence of the Agreement, however, was the removal of obstacles which prevented Canadian firms from bidding on U.S. DOD defence contracts on an equal basis with U.S. firms.

Nearly all of the economic concessions in this Agreement were made by the U.S. The Buy American Acts were waived for U.S. purchases of military goods in Canada. U.S. import duties on most defence goods were dropped and security restrictions were relaxed to allow more open communications between Canadian defence contractors and the

U.S. military and defence firms. Canada did not give similar concessions, nor was it expected to. Canadian tariffs remained intact until 1966 so that Canadian firms would continue to subcontract in Canada, and Canada continued its 10 per cent domestic price preference in contracting for its own military products.¹²

Because of the Canadian protectionist practices, and because the U.S. maintained its duties and the Buy American Acts against Canadian products that might compete with U.S. products from small businesses, depressed industries or from areas of high unemployment, the Agreement was less than a full free trade agreement in defence production.¹³ In addition, specified areas of defence goods were exempt. Off-the-shelf purchases were not subject to the terms of the DPSA, nor were strategic raw materials and resources for highly processed categories of military commodities, although the commodities themselves were subject to the terms. Further, therefore, the terms of the DPSA established the U.S. as the producer of major defence systems and Canada as the producer of subsystems and components for the U.S. market.¹⁴

Hence, although Canada entered into the DPSA with the U.S. explicitly to ensure a viable defence industry, in fact, the terms of the Agreement served to establish the

Canadian industry as dependent upon the U.S. market, upon U.S. weapons designs and specifications, and ultimately upon U.S. defence policy which predicted the weapons systems and their specifications. Moreover, without a major systems production capability, the dependent nature of the Canadian defence industry was assured. Without the products, Canada could not compete in other foreign markets.

In spite of the terms of the DPSA, Canadian industry soon realized that it was disadvantaged in competing for U.S. defence contracts. Without either Canadian governmental support for research and development projects or without access to U.S. research and development programs, Canadian industry could not enter the bidding competition on the ground floor. Further, in terms of subcontracting, U.S. firms lacked knowledge of Canadian industrial capabilities. At the same time there were Congressional sources of opposition to the terms of the DPSA and Canada was buying heavily in the U.S. market, having purchased its CF-101s and 104s and the Bomarc missiles from the U.S. between 1959 and 1961.¹³

As a solution to these problems, Canada established the Defence Industry Production Program (DIPP) in 1959, a program designed to underwrite the partial costs of

production and re-tooling for firms competing for U.S. contracts. Specifically, it provided grants for research and development, for establishing a company as a qualified supplier of defence production goods, for modernizing plants and acquiring advanced production equipment, and for market feasibility studies. In addition, Canada increased its Department of Defence Production liaison personnel in Washington and established new offices in 11 U.S. cities located in defence-industrial areas. In 1960, Canada also asked the U.S. for a guaranteed percentage of U.S. defence production and barring that, responsibility for specified areas of continental defence spending.

The U.S. DOD responded by issuing a Directive, "Defense Economic Cooperation with Canada," which essentially reaffirmed the terms of the DPSA and suggested removal of all barriers to the implementation of the Agreement.³⁶ U.S. procurement in Canada increased but Canadian industry was not satisfied. In June, 1963, the Minister of National Defence, Bud Drury, met with his counterpart in the U.S., Robert McNamara, and a verbal agreement was reached establishing a 'rough balance' in Canadian/U.S. defence trade, with Canada keeping the accounts. At the same time, it was reconfirmed that the U.S. would retain responsibility for producing the major

defence systems for Canada/U.S. trade while Canada would produce subsystems and components.¹⁷

In December of that year, a Memorandum of Understanding, known as the Defence Development Sharing Program (DDSP), was drawn up between the U.S. DOD and the Canadian Department of Defence Production. This established the terms for joint research and development projects. Joint Canada/U.S. funding was to be established for Canadian firms meeting the requirements of U.S. forces, with the U.S. to fund 25 per cent of mutually agreed upon R&D projects. The program also offered Canadian firms the same access to U.S. DOD research and development information as U.S. firms on a selective project basis.¹⁸

Again, the U.S. had made the economic concessions, and again they were made for political reasons, to secure Canada's compliance with U.S. defence policy planning.¹⁹ For Canada, the 'rough balance' agreement and the DDSP contributed to the stability of the defence production industry as they also further entrenched its dependency upon the U.S. market, defence production specifications, and defence policy. Hence, the Canadian defence industry had become entangled in U.S. defence priorities.

Significantly, the setting of the terms for the DPSA and the DDSP was not a politicized process.

Discussions were restricted and conducted on a personal basis at low levels of bureaucratic structures within ad-hoc groups and, in fact, the U.S. negotiating teams were almost exclusively made up of military personnel. The U.S. Congress, the Canadian legislature and the defence industries on both sides of the border knew very little about the agreements until they were announced.²⁰ Hence, although more research is required to make the point definitively, based on the information available to this thesis it is possible to argue that the conditions for establishing Canadian/U.S. defence industrial cooperation, and securing a Canadian industrial interest in U.S. defence policy-making, were put in place without a concerted political focus in Canada of the long-term implications for Canadian defence policy-making.

Further, the terms of the DDSP, the DPSA, and the DIP Program, made it increasingly attractive for U.S. firms to establish subsidiaries in Canada.²¹ Having subsidiaries in Canada gave the parent companies access to strategic resources not covered by the terms of the DPSA, secured an alternative source of supply of components and subsystems, and helped secure a Canadian demand for the defence systems produced in the U.S. In addition, through its subsidiaries, the U.S. defence industry could, and did,

exercise influence upon the procurement policies of both countries. In 1959, for example, the U.S. Boeing Co. subcontracted \$5.9 million worth of work on the Bomarc missile to Canadian firms in order to have a Canadian lobby in Washington pressing for Congressional acceptance of the Bomarc versus the Nike missile.²² U.S. industry subcontracting in Canada and lobbying through affiliate companies were also sources of influence in Canada's decision to purchase new long-range patrol aircraft in the early 1970s and new fighter aircraft in the late 1970s and early 1980s.²³

U.S. firms also found it attractive to establish subsidiaries in Canada in order to take advantage of the government's funding of research and development through its DIP Program. In fact, by the 1980s when the U.S. funded up to 50 per cent of the costs of joint research and development projects undertaken in Canada, with the Canadian government supplying the balance, U.S. firms were encouraged, by the U.S. DOD, to take advantage of these arrangements.²⁴ Hence, besides ensuring a Canadian industrial interest in U.S. and Canadian defence policy-making, the Canadian/U.S. defence production sharing arrangements contributed to the establishment of a resident U.S. industrial interest in Canadian defence policy-making.

Procurement, and Offsets

Between 1964 and 1966, due to U.S. procurement during the Vietnam War, Canada's defence production sales to the U.S. doubled, giving Canada a positive defence production trade balance with the U.S. From 1969 to 1974, however, U.S. procurement in Canada was cut in half with the aerospace industry bearing the brunt of the reductions.²⁵ This was the same period in which the Trudeau government cut Canadian defence spending, especially in the area of capital expenditures.

By the mid-1970s, the Canadian defence production industry was in dire straits and room for improvement seemed non-existent. An increase in domestic procurement would help solve the problem but the Canadian military needed replacements for its long-range patrol aircraft and its fighter-interceptors, and since the DPSA had stipulated that the U.S. would produce the major defence systems for the two countries, these replacements were to be U.S. produced. In addition, the aerospace, electronics and communication equipment which was to support the NORAD modernization program was also U.S. produced.²⁶

At the same time, the U.S. was exerting pressure on Canada to redress the defence trade imbalance of the Vietnam War years. James Schlesinger, the Secretary of

Defense, addressed the Cabinet in Ottawa in 1975 on precisely this point.²⁷ However, the U.S. did not view Canada's prospective purchases of major defence systems as necessarily contributing to the satisfaction of the terms of the 'rough balance' clause in the DPSA. With its own larger balance of payments problems, and increased protectionism as evidenced by the Nixon shocks of 1971, the U.S. viewed the DPSA as part of a larger trade balance. Moreover, whereas the DPSA had previously been managed by the civilian and military personnel of the U.S. DOD, it now also came under the influence of the U.S. Department of Commerce and the Treasury. With these new Departments involved, the process of military procurement became more politicized.²⁸

The shift in U.S. defence policy from massive retaliation to flexible response, which included planning for fighting a protracted conventional war, escalation to limited nuclear war-fighting capability and a first-use of nuclear weapons option, meant that there was more to the procurement process to politicize. The new strategic policy required a viable defence industrial base to sustain a protracted war and to produce the diversity of defence material required for flexible response. The defence industry therefore had to be prepared to supply the

military with the required peacetime materials, to produce for stockpiling for both a conventional and a nuclear war, and to be prepared for rapid escalation to war-time production.²⁹

The U.S. policy of flexible response was a potential solution to the declining productivity of the Canadian defence production industry and Canada reacted by also politicizing its procurement process. To justify the re-equipping of its forces, Trudeau's 1975 Defence Structure Review expressed renewed interest in Canada's roles within NATO and NORAD.³⁰ More to the point, however, Canada decided to place new emphasis on the economic benefits of defence cooperation with the U.S. by attempting to manage the defence production industry for general industrial policy purposes. Through its support for the defence production industry, the government planned to stimulate industrial productivity, technological development and employment. Further, by restructuring certain segments of the industry, the government sought to improve Canada's balance of payments generally, and to contribute to the alleviation of regional disparities.³¹

The restructuring of the defence industry took place primarily within the aerospace industry in the form of the government's mid 1970s purchase of Canadair Ltd. and

De Havilland Aircraft of Canada from their foreign parents who were considering closing the branch plants.³² The government sold both companies in 1986 but through its funding of both military and civilian production, and its preferential procurement practices, it had established the aerospace industry as something akin to a protected industry. In 1985, a Memorandum of Understanding between the government and the Aerospace Industries Association of Canada underwrites the relationship of mutual cooperation in establishing a "secure" and "certain environment" for aerospace production.³³

The larger problem for Canada, however, was in maintaining access to the U.S. contracting and sales market, given the U.S. protectionist policies of the mid-1970s and its decision to view the DPSA as part of a larger trade policy. At best, Canada's purchase of the Aurora to replace its long-range patrol aircraft, the Argus, only helped to redress the DPSA imbalance. It did not carry a U.S. responsibility to respond in kind. For Canada, the solution to the problem was to increase its defence spending in the U.S. but to negotiate offsets from the prime contractor.³⁴

In fact, the Canadian purchase of the U.S. Aurora established the precedent.³⁵ In 1976, Canada purchased 18

Auroras from Loughheed Aircraft in the U.S. The offsets included traditional U.S. purchases in Canada in the form of components, tail assemblies for Loughheed's long-range patrol aircraft. In addition, Loughheed was obligated to purchase \$400 million worth of Canadian products in the first ten years of the contract. Two thirds of this was to be spent in the aerospace industry while the remaining third could be for any manufactured goods excluding raw materials, food or auto parts.³⁶

The practice of seeking offsets for procurement was reinforced in 1977 when Canada announced it would purchase 130 fighter/interceptors. Six companies were in competition for the contract and the McDonnell-Douglas aircraft, the F-18, was chosen for its offset package which amounted to 120 per cent of the price of the fighters. The offsets provided 60,000 to 70,000 person-years of employment over the ten year span of the contract in the aerospace industry sector, in the general defence production industry and in non-defence related sectors.³⁷

The precedents set by the purchase of the U.S. Auroras and F-18s, of using offsets for Canadian industrial policy purposes have become ingrained in Canadian policy-making. In June, 1986, the Mulroney government announced that it would take a new approach to offsets, viewing them

in terms of establishing long-range achievements in industrial and regional development. In order to do this, Mulroney had to change the definition of offsets. The U.S. defined offsets as any and all arrangements made in the course of defence contracting from U.S. industry, and objected to supporting non-related areas of the Canadian economy through defence trade. Canada capitulated to the U.S. objection by defining offsets as trade arrangements which were unrelated to the specific defence procurement project being negotiated. Trade arrangements relating to the specific defence contract in question were defined as "industrial benefits." Hence, by focusing on acquiring 'industrial benefits' in defence trade contracts, the Canadian government could assure the U.S. that it was not contributing unfairly to the health of other sectors of the Canadian economy. Moreover, by focusing on acquiring 'industrial benefits,' the Canadian government could assure that offsets would apply more rigorously to the defence production industry, thus contributing to the government's ability to express its industrial policy interests through the defence production industry.³⁸

The focus on offsets as an integral part of Canada's procurement policy was fortified by informal changes in the defence production sharing arrangements

between Canada and the U.S., changes related largely to the 'rough balance' clause. By the 1980s, due largely to Canada's purchase of the Aurora and the CF-18s, the trade balance of the DPSA had reversed. Canada now had a negative balance in defence trade but because of its overall positive trade balance with the U.S., and because of the U.S. general balance of trade problems and its protectionist trade policies, Canada was not in a position to pressure the U.S. to increase its procurement in Canada as per the 'rough balance' terms of the DPSA.³⁹ In itself, this highlights the power differentials of the two states for when the U.S. had the negative defence trade balance in the mid-1970s, it was not constrained to refrain from pressuring Canada to address the imbalance.

In the early 1980s, however, the Canadian defence industry stood to benefit from the increase in Reagan's defence budget, from Reagan's acceptance of the defence policy of flexible response which demanded a more flexible, diversified, dispersed and viable defence industrial base, and from the production activity required for the NORAD modernization program. In support of these programs, the DDSA and the DPSA (DD/DPSA) were renewed in 1981, the DIPP funds were enlarged and the number of Canadian government defence contracting liaison offices in the U.S. was

increased. The DD/DPSA were also formally reaffirmed in May of 1983, and again when the NORAD modernization program was announced in 1985. In addition, Mulroney's government pledged to rebuild the Canadian forces in 1984,⁴⁰ while his 1987 White Paper on Defence revealed that \$50 billion would be spent on capital acquisitions over the next 15 years.⁴¹

In general, the Pentagon was an ally of the Canadian defence industry in terms of contracting both production and research and development projects except where security was a concern. Seventy per cent of SDI contracting was closed to Canadian industry for security reasons while overall, 30 to 40 per cent of the U.S. procurement dollar was available for Canadian bidding.⁴² In general, too, the U.S. defence industry was also amenable to the terms of the DD/DPSA and offsets policy. The U.S. industry was able to manage its subcontracting relations with Canadian business without U.S. government intervention, its position being that it would not transfer defence production technology that would undermine its own competitive advantage and therefore it would not be acting as a security risk in its dealings with the Canadian industry. This meant, of course, that Canada would not be using state-of-the-art technology in its defence

production,⁴³ a fact that undermined the Canadian government's attempts to subsidize the defence production industry in order to develop Canada's technological expertise for the world market.

The offsets policy in Canadian procurement, however, has tended to frustrate the DD/DPSA programs. In Canada offsets created trade and industrial benefits that otherwise would not have existed, a fact that was of some concern to the protectionist views of the U.S. Congress. In 1983 alone, Congress reviewed 30 protectionist bills with direct bearing on Canadian business.⁴⁴ Moreover, offsets have made it difficult to keep the 'rough balance' accounts in that offsets to non-defence related industries are not calculated in the balance, while direct offsets often take the form of subcontracting between U.S. and Canadian firms and these subcontracts are subject only to voluntary reporting. Fifty to sixty per cent of Canadian/U.S. defence trade is through subcontracting. In addition, because some U.S. figures are not included in the calculations, at the behest of the U.S., the 'rough balance' calculations do not necessarily reflect the true defence trade figures, underestimating the amount of U.S. trade in Canada.⁴⁵

Given the economic history of NORAD, the point is

to investigate its significance in terms of the political history of NORAD, and hence in terms of the assumptions of both the realist theory of international relations and Wallerstein's capitalist world economy model.

Defence Industrial Cooperation, NORAD, and Realism

To reiterate briefly, in 1958 when the Canadian government signed the NORAD Agreement, it also announced that Canada would acquire the Bomarc missile, the Semi-Automatic Ground Environment (SAGE) communications system, and new gap-filler radars for the joint command. All of these systems were developed and produced in the U.S. At the same time, Canada announced the cancellation of the Avro Arrow project, the only major defence system with relevance to NORAD being built by Canadian industry. Consequently, as Jon McLin notes, the joint defence of the continent was prefaced on the use of U.S. equipment."

The U.S. military took the initiative in realizing that Canadian compliance with its defence and deployment policies depended upon Canada being able to sustain a healthy defence production industry in order to contribute to the defence of the continent by contributing to defence production. Hence, in the eyes and mind of the U.S.

military, some form of Canadian/U.S. defence production sharing was necessary.⁴⁷ Given the shock of the Arrow cancellation, Canada's reasons for wanting defence production sharing were, however, economic, not political. The rationale offered in the House of Commons for entering into a defence production sharing agreement with the U.S. was the maintenance of a healthy defence production industry in Canada.⁴⁸

Throughout the history of Canadian/U.S. defence production cooperation, the U.S. military has continued to view economic cooperation as a means of securing Canadian political compliance with its defence policies. Given the U.S. plans with respect to the defence of the North American continent, Canadian compliance was a necessity. As John Kirton wrote in 1974, "For the United States Government, it was not the ability to produce weaponry but the basis upon which to deploy it that had extended beyond the nation state."⁴⁹ In other words, researching, developing and producing the weapons systems for NORAD was not a problem for the U.S., and Canada's 10 per cent contribution to the costs of the NORAD Command was negligible. However, Canadian compliance with the U.S. defence policies and deployment plans were the key to NORAD's functioning and the military view of securing

compliance through defence production cooperation prevailed, over-riding Congressional protectionist policies until the mid-1970s and subsequently evading them through offset arrangements within an integrated Canadian/U.S. defence production industry.

For Canada, on the other hand, defence production cooperation with the U.S. was pursued for its economic benefits, and the strategic implications for Canada of the defence policy which defence industrial preparedness supported, were arguably lost in the process. The maintenance of its defence production industry was Canada's primary concern as it negotiated the DD/DPSA and offset arrangements. The point is that defence policy-making and economic planning became, of necessity, aspects of the same decision-making process. As Granatstein and Bothwell suggest, in the 1970s "...Trudeau regarded the military as little more than an expensive bargaining chip, to be employed in deals among ministers, in negotiations with Canada's allies, and in transactions between Ottawa and the provinces."⁵⁰

Pursuing economic benefits through military and defence production cooperation, however, resulted in the Canadian defence industry becoming increasingly dependent upon the U.S. market. The terms of the DD/DPSA established

the Canadian industry as a producer of subsystems and components built to U.S. defence specifications. The Canadian industry then was researching, developing and producing defence materiel for specific U.S. defence policies. Consequently, the support of a succession of Canadian governments for the defence industry was also, in part and by default, support of U.S. defence policy.⁵¹

Hence, the information needed to adequately answer the two questions raised but not satisfactorily answered by the realist analysis of Canada's decision-making with NORAD, can be found within the economic history of NORAD. The first question: why did succeeding Canadian governments consistently make strategic 'miscalculations' in their formulation of defence policy within NORAD?, can be answered by suggesting that with its emphasis on the economic benefits of defence production sharing, Canada's focus was skewed from the strategic issues of defence policy-making in the first place. The decision to purchase weapons systems for the Canadian Forces that required nuclear warheads was made considerably easier at a time when it was thought that a Canadian made aircraft, the Avro Arrow, would be the fighter/interceptor of choice, and the bearer of the warheads, for the NORAD Command.

Similarly, the decision to renew NORAD in 1975

under the U.S. policy of flexible response, which considerably increased Canada's vulnerability in a Soviet/U.S. war-fighting situation, was almost irresistible given the economic pressures to increase defence spending in the U.S. and to support an ailing Canadian defence industry. The research, development and production activity involved in the fledgling NORAD modernization plans were a potential partial solution to the problems, although as the 1973 SCEAND Report on the Renewal of NORAD states that in spite of the NORAD Agreement being "...one of the most important means by which a number of Canadian manufacturing industries have been able to keep abreast of advanced technology in such fields as electronics and aerospace,....the Committee believes that economic considerations alone cannot play a major role in determining the appropriate Canadian policy towards NORAD."⁵²

Moreover, the Canadian decisions to test the cruise missile, to accept the U.S. SDI, ADI, and BMD programs were taken at a time when the NORAD modernization program was in full flight and when the U.S. defence budget had been considerably enlarged in order to accommodate its defence policy of flexible response. Both the programs and the policy predicted greater contract work for the Canadian

defence industry, a factor that was taken into consideration in the establishment of the NORAD Modernization Agreement.³³ Similarly, Canada's initial involvement in the U.S. ADI program was through the Canadian military on the NORAD staff, and quite apart from the ADI contracts awarded to SPAR Aerospace and Canadian Astronautics, there is an industrial interest in Canada for the government to pursue ADI involvement so that Canadian industry can gain access to the advanced technology upon which the program is based.³⁴

With Mulroney's government, and specifically with his 1987 White Paper on Defence, however, the decisions to continue testing an advanced cruise missile and to accept the SDI, ADI and ABM programs of the U.S. can not be viewed as miscalculations in strategic policy-making. Accepting nuclear warheads in the 1960s in order to phase them out, and the rhetorical objections to U.S. defence policies which accompanied the Trudeau terms in office, despite defence decisions which complied with U.S. planning, are evidence of the Canadian government playing catch-up to political and economic processes that had been put in place with short-sightedness. Because such disclaimers were absent in the Mulroney government, it is difficult not to conclude that the government's compliance with U.S. defence

policy planning was its policy preference. In other words, throughout the history of NORAD there have been economic interests, both of the succeeding governments and of non-state actors, which have significantly shaped Canadian decision-making within NORAD, interests which realism cannot identify because of its insistence that the domestic and international levels-of-analysis are discontinuous, and because of the lack of focus on economic variables.

The relationship between Canadian defence policy making within NORAD and Canada/U.S. defence production cooperation also rounds out the answer to the second question that the realist analysis of the political history of NORAD could not completely answer. Given the viable alternatives to the perceptions of a common threat and the appropriate response to that threat available at the time of the signing of the NORAD Agreement in 1958 and persisting through to the present, and given the difference in Canadian/U.S. vulnerabilities to a Soviet attack under the U.S. policy of flexible response as it applied to the North American continent in the mid-1970s, why did the Canadian and U.S. perceptions coincide? Again, the answer comes, in part, through the defence production sharing relationship. By contributing to the production of the infrastructure of U.S. defence policy, Canada not only

adopted, by default, U.S. defence policy, but it also adopted, by default, the U.S. perception of the threat. Government support for the industry in terms of pursuing the DD/DPSA, offset arrangements, and an industrial policy rooted in the industry, could not be justified without supporting the ends to which defence production was to be applied, and hence, the support of a succession of governments for the NORAD Command, its policies and its perception of the enemy.

Consequently, whereas the realist explanations for the coincidence of the U.S. and Canadian perceptions of the Soviet threat are necessary explanations, adding the economic history of NORAD to the analysis augments the necessary with the sufficient explanations. Economic interests of both the state and non-state actors were determinants of Canadian decision-making within NORAD. Similarly, although the political reasons for remaining within NORAD were judged to be necessary but not sufficient explanations, adding the economic history of NORAD to the analysis completes the picture. Given the history of the Canadian government's focus on the economic benefits to be reaped from defence production and defence production sharing, and given the intimate link between defence production sharing and NORAD defence planning both at the

inception of the NORAD alliance and throughout its history, the Canadian government had little alternative but to remain within NORAD.

In fact, however, Canada's economic interests in defence production cooperation subverted each of Canada's professed political reasons for joining, and remaining within, NORAD. The assumption that Canada acquired affordable defence by becoming a signatory to the NORAD Agreement is only applicable if Canada and the U.S. independently arrived at common perceptions of the threat to the continent. The terms of the DD/DPSA, however, secured the coincidence of the Canada/U.S. perception of the threat by creating a Canadian defence production industry that was dependent upon U.S. procurement and the defence policies which that procurement supported. Hence, Canada gained affordable defence but on U.S. terms. The costs then, both politically and economically, of remaining within NORAD have been high, in terms of loss of independence in defence policy-making, in terms of foreign domination of the defence production industry, and in terms of creating a dependent, if not subservient, defence industry. It would be difficult to imagine the costs being higher if Canada had decided not to join NORAD.

As far as sovereignty protection is concerned,

Canada's territorial sovereignty has remained intact, but as the previous chapter argues, it is not clear that NORAD has necessarily been responsible for this. Defence production sharing has, however, considerably affected Canada's economic sovereignty in terms of foreign control of its defence industry. Moreover, the terms of the DD/DPSA have assured that the Canadian defence industry is dependent upon the U.S. market and contracts, while the U.S. practice of transferring dated technology to Canadian industry hinders Canadian competitiveness vis-a-vis the U.S. in the international market.

With regard to remaining within NORAD in order to secure some degree of independence in defence policy making, defence industrial cooperation assures that this is not so. As has been argued, producing for the U.S. market, to U.S. specifications secures Canadian compliance with U.S. defence policy. This also seriously jeopardizes the assumption that, as a partner to NORAD, Canada has some ability to influence U.S. defence policy-making. The dependent nature of the Canadian defence production industry, and the Canadian government's interest in the health of that industry, works against Canada exerting a moderating influence on U.S. defence policy-making. Instead, it works for Canadian support of U.S. defence

policy.

Finally, the argument that NORAD membership provides Canadian access to U.S. intelligence and defence policy planning is altered when defence production cooperation is taken into account. Access to U.S. security plans accrues to individual Canadian firms as they negotiate directly with the U.S. DOD for defence production contracts. With the advent of offsets policy in the mid-1970s, access to U.S. security information was enhanced by Canadian companies seeking subcontracting directly from U.S. defence production firms. Given too that a plurality of the top 30 defence contracting firms in Canada, the firms with the most defence production relevance within NORAD, are U.S. owned, between 36.6 per cent and 43.3 per cent throughout the 1980s,⁵⁵ it is quite possible that the Canadian defence industry, through its parent companies, has more access to U.S. military planning than does the Canadian government. In other words, it is possible that Canadian industrial access to U.S. security information has contributed to a U.S./Canadian military/industrial liaison that is not only more informed than the government, but in having similar policy preferences, the military and the industry together not only present a very strong lobby for their policy preferences, but also are able to establish

the infrastructure for policy decisions that makes it very difficult for the Canadian government to do other than comply. This possibility will be the subject of investigation in later chapters.

Within Canada, a military/industrial liaison has been growing in terms of an increasing coincidence between military and industry defence policy preferences, and in the Canadian government's increasing penchant for placing the responsibility for fulfilling aspects of Canada's industrial policy directly in the hands of the DND. The 1984 Auditor General's Report recommended that DND clearly specify non-military objectives in its contracting practices. These objectives included "...regional economic considerations, economic benefits, and the establishment of a Canadian manufacturing capability." The Public Accounts Committee went further "...recommending that non-military objectives be identified in Part III of the Defence Estimates, and that their attainment be monitored and reported."⁵⁶ Hence, not only does the defence production industry form a basis for the government's industrial policy interests, but the Department of National Defence plays an vital role in the implementation of that policy. Such a role predicts a close association between the DND and the defence production industry.

Moreover, in 1979 the Clark government recommended giving the military personnel of the DND a greater role in policy formulation, a recommendation that was subsequently carried out by making the commanders of the three Canadian commands members of the Defence Management Committee and the Defence Council.³⁷ In May of 1985, the Mulroney government further integrated the military into the decision-making process by reducing the civilian staff of the DND by 3,500, or 10 per cent, the reductions being made possible by increasing the responsibilities of the military personnel, and by contracting out.³⁸ Consequently, there has been an increase in the policy formulation roles of the military sector of the DND with respect to both defence and industrial policy-making, and hence, a fortification of the defence industry/military liaison.

Once the economic history of NORAD is added into the political history analysis of NORAD, the realist interpretation of the alliance relationship is found to be mis-specified in that although the realist interpretation of NORAD reflects the events in the international environment, it mis-identifies the actors, interests and political and economic processes that produced them. In other words, without a domestic level of analysis and without an equal focus on the economic actors and interests

involved, the realist perspective cannot comprehensively explain the dynamics of Canadian decision-making within NORAD. Moreover, once the assumptions of the dominance of political factors in international decision-making and the analytical discreteness of the international and domestic environments are relaxed, other realist assumptions no longer hold.

Given the interests and influence of both the military and the defence production industry, and given that each is organized both within Canada and across the Canadian/U.S. border, the question arises as to where precisely the state is situated in the defence policy decision-making process? The traditional realist perspective would suggest that since the state is ultimately the decisive actor, it therefore remains the dominant actor. However, since Canadian/U.S. defence production cooperation, a cooperation that involves a defence industry/military liaison within Canada and across the border, has contributed to subverting the Canadian government's expressed political reasons for remaining within NORAD, the Canadian state's 'unitary' voice is certainly compromised. The Canadian government has consistently acted, throughout the history of NORAD, to further its economic interests, and in so doing has acted

not in spite of the military and private economic interests, but rather, until the mid 1980s, in spite of many of its own professed political and/or strategic interests. Hence, the 'unitary' voice that the state has been speaking in has been that of its own economic interests, augmented by the voices of the military and defence production industry actors.

The traditional realist assumption that the state acts as a 'rational' actor, calculating its security concerns on a cost/benefit basis with respect to the international power relations of states is also found not to accurately reflect the history of Canada's decision-making within NORAD once the history of Canadian.U.S. defence production cooperation is factored into the analysis. A major cost/benefit analysis that Canada continually made with respect to its involvement in NORAD was an economic analysis. It was neither the political/military power of the U.S. nor the balance-of-power system in the international realm that were solely responsible for Canada's continued participation within NORAD. Instead, a determining factor was the maintenance of Canada's continuing access to the U.S. defence production market in terms of both sales and contracts.

Applying the realist perspectives that include

considerations of economic forces, complex interdependence and the hegemonic stability theory, does not substantially improve the understanding of the combined political and economic histories of NORAD. Although both of these perspectives pay heed to the influence brought to bear on the policy formulation process in the international realm by non-state economic actors, both perspectives retain the traditional realist assumptions of the state's 'unitary' voice and the dominance of political over economic factors where international policy-making is concerned. Further, the hegemonic stability theory, as expressed by Robert Gilpin, asserts that in times of relative international economic stability, the hegemon makes sacrifices to maintain the status-quo. The history of NORAD, however, demonstrates that in this case, the U.S., as hegemon, made economic concessions to Canada, not sacrifices. The concessions did not, in any way, compromise the industrial or political interests of the U.S. In fact, the concessions furthered the political interests of the U.S. within NORAD and destabilized Canada's ability to make independent defence-policy choices. Further, these U.S. concessions were made constantly throughout the history of NORAD regardless of whether the hegemon was experiencing periods of economic stability or instability.

In conclusion, the realist perspective seems to explain the NORAD alliance at one very limited level of abstraction in that the military alliance can be seen as a rational response of common allies within a bipolar international power-system. A focus on these factors, however, obscures analysis of the economic interests of the state and non-state actors involved, and hence the dynamics of the history of NORAD. By not considering the role of non-state actors and the centrality of economic factors in Canada's defence policy decision-making, the realist perspective cannot identify the fact that it was not security calculations based on the bipolar nature of the international system alone that brought Canada to align its political perspective with its defence policy actions in 1987. Also determining the alignment was Canada's economic interests in defence production sharing with the U.S. By focusing on securing its defence production industry and its domestic industrial policy interests, Canada, by default, secured its own compliance with U.S. defence policy and the U.S. perception of the threat, with both becoming unquestioned and overt in the 1987 White Paper on Defence.

NORAD and Wallerstein's Capitalist World Economy Model

The history of Canadian/U.S. economic cooperation

within NORAD and the role that this cooperation played for both Canada and the U.S. in defence policy-making, suggests that three of the main assumptions of Wallerstein's model apply to the analysis of NORAD. These are the dialectical nature of the interaction of political and economic forces in state policy-making, the centrality of private economic interests in the formulation of state policy, and the impossibility of separating the domestic from the international level-of-analysis.

What began as a joint Canadian/U.S. military alliance in 1958 for the defence of the North American continent became also, within months, a vehicle for Canadian/U.S. defence production cooperation. The U.S. used defence production cooperation as a means of securing Canada's political compliance with U.S. defence policy planning, while Canada saw its political involvement in NORAD as a means to secure economic benefits for its defence production industry. As Canada's focus on the economic benefits to be gained from the alliance expanded to include a focus on the defence production industry as a factor in its domestic industrial policy interests, the political and the economic factors involved in state decision-making became even more intimately associated with

one another.

The Canadian government's pursuit of its domestic economic interests, in terms of the DD/DPSA, offsets policies, and governmental funding of the industry, fortified the defence production industry as an interested actor in Canadian defence policy-making. In addition, these programs made it attractive for U.S. firms to establish subsidiaries in Canada, thus assuring that the economic actor influence on Canadian policy-making had both national and transnational characteristics.

In addition, the U.S. defence-policy emphasis upon flexible response in the early 1970s, had defence industry ramifications. The policy required the industry to produce weapons for stockpiling, to diversify and disperse its production facilities, to be in a state of readiness for rapid escalation to war-time production, and to be able to sustain production for a protracted war. Since Canadian defence production was progressively designed to produce for U.S. defence policy needs, intimate links were established between Canadian political and economic policy-making at both the international and domestic levels. As per Wallerstein's assumptions, the economic and political histories of NORAD demonstrate the intimate interaction of domestic and international, political and economic, state

and non-state actor, concerns and interests. Simply by allowing these factors to be introduced into the analysis of NORAD, Wallerstein's model provides the basis for a more comprehensive analysis than does the realist perspective.

The questions that remain to be asked are whether the political and economic histories of NORAD reflect Wallerstein's assumptions about the three interacting elements of the global economy, the antimonies they produce, the role of the military, and the characteristics of semi-peripheral states.

The three interacting elements of the global economy are the global market, the system of states, and the system of appropriation of surplus product via capital/labour relations. With respect to the global market, Wallerstein argues that core states play a determining role in establishing the parameters for global production activity, degrees of specialization and the use of technological invention. This assumption certainly applies to the Canadian/U.S. defence production relationship in which the U.S. has played a determining role, via its defence policy needs, in establishing the nature of defence production activity for both Canada and the U.S. with Canada ultimately being relegated to producing subsystems and components for the U.S. market,

using technology that has, largely, been transferred from the U.S.

As far as the system of states is concerned, Wallerstein suggests that the formative force in the shape of this system is the individual state's attempts to manipulate the global market to the advantage of its economic actors. It is in the pursuit of this endeavour that states form and militarize in relation to one another. In terms of defence production sharing within NORAD, both the U.S. and Canada did manipulate the defence production market to the advantage of their own economic actors. The division of production capabilities whereby the U.S. produced major defence systems, controlled research and development and the transfer of technology gave the U.S. defence production industry control of the process, while within its dependent defence production parameters, Canada manipulated the market in terms of acquiring the 'rough balance' clause in the DPSA, access to U.S. research and development contracts, and U.S. compliance in seeking offset benefits. More generally, both Marxists and liberal economists have argued that the U.S. has tended to use its production industry as a basis for a state planned capitalist economy.⁵⁹ In keeping with these analyses it can be argued that Canada has used its defence industry as

a factor in its industrial policy-planning. Both exercises represent efforts to manipulate the market in the interests of the defence industry actors.

There are some problems, however, with regards to Wallerstein's assumption that states militarize in relation to one another in their pursuit of distorting the global market to the advantage of their economic actors. This assumption implies that not only is the military simply a tool of the state, but also that the military is used by the state only to support its pursuit of economic advantage in the global economy. This assumption is not adequately reflective of the history of NORAD. There are security concerns which are distinct from economic concerns and the perceived threat of a Soviet invasion of the North American continent, although related to a fear of the spread of the Soviet Communist social and economic system, contained an independent fear of the loss of territorial sovereignty. Hence, territorial defence is a non-economically determined part of the military agenda.

However, to the extent that the military adopts the state's ideological justifications for foreign interventions and to the extent that these justifications are economically determined, it could be argued that the military supports, or is used by, the state in its pursuit

of economic hegemony. In the case of NORAD, it could be argued that the U.S. pursued a military alliance with Canada as an exercise of containment, as a means of securing Canadian compliance with U.S. economic and foreign policies. More appropriately, however, it can be argued that the U.S. pursued a military alliance with Canada on the basis of a perceived threat to the territorial sovereignty of the North American continent. Since defence production sharing was pursued to gain Canada's compliance with U.S. defence planning for the continent, and since Canada also pursued defence production sharing within the military alliance for its economic benefits, economic and political factors are intimately involved with one another, but they are not the same thing. The international arms trade is both a source of revenue and a source of political influence, and domestically, the defence production industry has formed the basis for capitalist economic planning in the U.S. and has been a factor in the formulating of an industrial policy in Canada. Hence, as per Wallerstein, the state does use the military to further its own economic and political interests both internationally and domestically, but contrary to Wallerstein's assumption, the military also performs a non-economically determined role of sovereignty protection.

The third interacting system of the global economy is the system of surplus appropriation through the capital/labour relation. With surplus defined as profit in terms of the defence production industry, this system is of considerable relevance in terms of the history of NORAD. It was in the interests of alleviating regional disparities, and in contributing to a favourable trade balance that the Canadian government focused its attention on the economic health of the industry. Moreover, the capital/labour antinomy which Wallerstein maintains situates the core states as the areas of high profits, high technology, high wages and diversified production, and the semi-peripheral states as partial exploiters and partially exploited has some relevance. In the Canada/U.S. defence production sharing relationship, the U.S. has the production attributes of a core state. Further, if one sees the construction of a dependent defence industry as exploitation, then Canada complies with Wallerstein's description of semi-peripheral status in that its productive capability has been exploited by the terms of the DD/DPSA. To the extent that Canada has been able to gain access to U.S. DOD contracting, research and development projects, and offset arrangements, in spite of Congressional opposition, Canada is also an exploiter,

although Wallerstein intends semi-peripheral exploitation to be in terms of periphery areas.

Wallerstein's supply/demand antinomy, however, the second of his three antinomies, is of limited relevance to an analysis of NORAD. Defence production only takes place within an anarchical supply environment to the extent that the defence industry researches, develops and produces weapons systems on speculation, which is not the rule. Generally, defence production takes place under government contract and the state is the buyer. Hence, although the state supports defence R&D, it is not required to manage the demand for speculative production.

The economy/polity antinomy, however, has some relevance. Within the milieu of Canadian/U.S defence production sharing, economic actors, specifically U.S. defence industries established subsidiaries in Canada to take advantage of Canadian funding, to assure a demand for their products and to secure Canadian interest in producing components. Given that the defence production industry in Canada was producing subsystems and components largely for the requirements of U.S. defence policy in which Canada participated in terms of the NORAD command, the Canadian state was obliged to lock in demand parameters in terms of its own procurement policies. For Canada, the antinomy

existed in the fact that in the process of acting in the interests of the defence production industry through the terms of the DD/DPSA and the offsets program, Canada consistently compromised its expressed political reasons for being within NORAD, making at the same time, strategic 'miscalculations' in its own defence policy-making.

Wallerstein's analysis of the behaviour of states within alliances is also generally reflective of the Canadian/U.S. relationship within NORAD. Canada, as a semi-peripheral country, is a market for U.S. defence goods and the pressure for Canada to increase its procurement activity did increase in the early to mid-1970s when the U.S. was in a period of economic contraction. Wallerstein's assertion that semi-peripheral states will join in mutual support relations with core states during periods of economic expansion but will bargain for a realization of their own interests during periods of economic contraction is also borne out within the NORAD relationship. The DD/DPSA were negotiated during the late 1950s and the early 1960s and the Canadian defence production industry fully supported the U.S. procurement needs in the 1960s during the Vietnam War, both events occurring during periods of economic expansion. In the 1970s, however, as the U.S. economy tightened, Canada

bargained for offset arrangements. In addition, the bargaining for offset arrangements, together with the maintenance of import duties on defence goods and preferential domestic procurement until 1966, are examples of mercantilistic defence trade policies which Wallerstein maintains are indigenous to semi-peripheral states because of their vulnerability to international market forces.

Wallerstein's model also maintains that semi-peripheral states, subject to the vagaries of the market and situated between the powerful core states and the relatively powerless periphery states in the international system of states, find it necessary to become more politically involved in the management of their position and in doing so become agents of social democratic change. Contrary to this assumption, Canada's management of its defence and defence production relations with the U.S. has resulted in an increase in Canadian dependence upon the U.S. in both areas, making it most difficult to argue that the political management of its position vis-a-vis the U.S. has created a governmental awareness of a need for social democratic change. Instead the political and economic association with the U.S. within NORAD has fostered the Canadian acceptance of U.S. defence policy and produced a dependent defence production industry and both of these

factors have contributed to a growing conservatism which has flowered under Mulroney's tutelage in the 1980s.

Finally, the theory chapter of this thesis has suggested that Wallerstein's capitalist world model needed to be modified in terms of the role of the state. The model maintains that state decisions and interests are basically determined by the interests of its economic actors. Further, it maintains that the military also acts in those same interests. However, because the military has a territorial defence role to play, as well as an interest in maintaining a professional relationship with its alliance colleagues, important aspects of its agenda are non-economically determined. The state may use the military to further its economic interests both domestically and internationally, as has been the case within NORAD, but the military's independent agenda also exists and this agenda, contrary to Wallerstein's analysis, situates the military as an actor of consequence, with interests of its own in influencing the government's defence policy-making. The theory chapter also argued that in having to mediate the interests of its military as well as the interests of its economic actors and other less influential societal interests, the state gains more situation-dependent autonomy than Wallerstein's

economically-determined state analysis allows.

The history of NORAD reflects these processes. The Canadian state has expressed political, military, and economic reasons for remaining within NORAD. These include: the defence of its territorial sovereignty; the maintenance of a degree of independence in defence policy making; the need to monitor and influence U.S. defence policy planning for the continent; and the need to maintain a healthy defence industrial base. The military also has its agenda which includes territorial protection and access to U.S. defence planning and activities, not so much to influence planning as to participate. The defence industry's reasons for wanting to remain within NORAD include maintaining access to U.S. defence technology, research and development, and contracting markets. Because the Canadian government's political agenda has been compromised by its economic interests at least until the mid-1980s when its political and economic interests coincided, Wallerstein's assumption concerning the state as economically determined would appear to be relevant. However, at all times there was nothing formally preventing the Canadian government from making decisions that did not reflect either economic or military interests. Hence, state decisions were neither solely economically

determined, as per Wallerstein's model, nor was the state autonomous in its ability to realize its own political goals, as per the realist assumption. In other words, the state reflected its position at the intersection of international and domestic environments, subject to the political and economic forces that reside in both.

In summary, Wallerstein's capitalist world economy model allows the analysis of NORAD to be enlarged to include considerations of the state and non-state, national and trans-national, economic and political interests involved. Such an analysis provides vital information for answering the questions that realism could not adequately answer, and supplies the necessary and sufficient explanations for Canada's defence policy decision-making within NORAD.

However, the Wallerstein model needs to be amended in order to adequately understand the history of NORAD. By amending Wallerstein's assumption concerning the role of the military to include the fact that the military has a territorial defence agenda which involves it in professional relationships with its alliance colleagues, the state is both situated at the intersection of the domestic and the international environments and given strategic/military and relevant political interests, as

well as economic interests, to mediate. Hence, the state is no longer Wallerstein's economically determined state. Nor is it realism's politically determined state. Instead, the state emerges in a position of situation-dependent autonomy, mediating its own economic and political interests, and those of its non-state actors, in both the domestic and international environments.

In order to reach this analysis of the state from the realist perspective, however, all of its assumptions have to be relaxed including the discontinuity between domestic and international levels of analysis, the relegation of economic actors and processes to positions of secondary importance, the dominance of political over economic state concerns, the autonomy of the state and the assumption about rational actors making decisions on the basis of security calculations alone. Since so many of the realist assumptions have to be relaxed in order to accommodate the variables that affect decision-making in the international realm, it seems theoretically preferable to select a perspective, such as Wallerstein's capitalist world economy model, which already accommodates these variables, making the necessary adaptations to the model for including the realist agenda of state territorial security concerns.

In order to analyze the defence policy decision making process of the Canadian state in its position of situation dependent autonomy at the intersection of the domestic and international environments, the following chapters will examine the national and transnational organization and integration of the Canadian military and defence production industry, the two most influential interests with respect to Canadian defence policy-making, and their effects on Canadian defence policy-making within NORAD.

NOTES

1. David G. Haglund, "Introduction", in Canada's Defence Industrial Base, ed., David Haglund (Kingston: Ronald P. Frye & Co., 1988), p.2.
2. Unless otherwise referenced, all information in this section is taken from Jon B. McLin Canada's Changing Defense Policy, 1957-1963: The Problems Of A Middle Power In Alliance, (Baltimore: John Hopkins Press, 1967), Chapter III, "The North American Air Defense Command," pp.37-60, and Chapter VII, "Defense Development and Production Sharing," pp.171-193. Ernie Regehr, Arms Canada: The Deadly Business Of Military Exports (Toronto: James Lorimer & Co., 1987), Chapter II, "Canadian Military Production from the Great War to the Permanent War", pp.28-46.
3. McLin, Canada's Changing Defense Policy, p.174.
4. Ibid., p. 175.
5. U.S. National Security Council Document #5822, December 12 1958, quoted by David Cox, Canada And NORAD, 1958-1978: A Cautionary Retrospective, Aurora Papers 1 (Ottawa: Canadian Centre for Arms Control and Disarmament, 1958), p.27.
6. Unless otherwise referenced, the information for this section is taken from McLin, Canada's Changing Defense Policy, Chapter IV, "Hardware for North American Defence", pp.60-106, and Chapter VII, "Defense Development and Production Sharing", pp.171-193. Regehr, Arms Canada, Chapter III, "From the Arrow to Offsets: The Perils of Production Sharing", pp.46-67.
7. Greig Stewart, Shutting Down The National Dream: A.V.Roe And The Tragedy Of The Avro Arrow (Toronto Montreal: McGraw-Hill Ryerson Ltd., 1988), p.2.
8. 1986 NORAD Renewal Hearings Report, p.52
9. Stewart, Shutting Down The National Dream, throughout, but summarized pp.1-5.

10. Cox, Canada And Norad, p. 27. John J. Kirton, "The Consequences of Integration: The Case of the Defence Production Sharing Agreements", in Continental Community? Independence and Integration in North America, eds., W. Andrew Axline, et al (Toronto: McClelland and Stewart, 1974), p.124.
11. Kirton, "The Consequences of Integration", p. 123. Robert Van Steenburg, "An Analysis of Canadian-American Defence Economic Cooperation: The History and Current Issues", in Haglund, Canada's Defence Industrial Base, p.196.
12. Kirton, "The Consequences of Integration", p. 122.
13. Ibid.
14. Ibid., p. 123. Middlemiss and Sokolsky, Canadian Defence: Decisions And Determinants (Toronto Orlando San Diego London Sydney: Harcourt Brace Jovanovich, Canada, 1989), pp. 22-23.
15. Von Steenburg, "An Analysis of Canadian-American Defence Economic Cooperation", p.197.
16. Ibid.
17. Ibid., pp.202, 207.
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19. Kirton, "The Consequences of Integration", p.124.
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Chapter Five

The Military and NORAD Decision-Making

The theory chapter of this thesis suggested that the assumptions of the realist theory of international relations are insufficient to identify the matrix of actors and interests involved in the decision-making process in the international realm. In relegating economic actors to positions of secondary importance, in discounting the effects of domestic political and economic influences, in assuming that the state is both the dominant actor and the actor of consequence in the international realm, and in failing to make a strong distinction between the interests of political and strategic actors, the perspective, at best, mis-specifies the decision-making process.

By contrast, the chapter argued that Wallerstein's capitalist world-economy model of international relations, in allowing for the identification of the major actors and interests involved in international decision-making and by including both domestic and international forces in the analysis, provides a more comprehensive guide to the

analysis of the international decision-making process. However, whereas realism assumes too much autonomy for the state, Wallerstein's model assumes too little. The political, the economic and the military affairs of the state are all seen to be economically determined, with the state acting in the interests of its economic actors, employing the military in support of those interests.

In comparing the two perspectives it was argued that whereas the theoretical assumptions of realism have to be relaxed in order to make an adequate assessment of the forces at work in international decision-making, Wallerstein's model only requires two correctives. First, like realism, it needs to make a clearer distinction between the political and the strategic environments. Second, the state needs to be theoretically situated at the intersection of the international and the domestic environments. With these changes, the model presents an international realm which is composed of three environments, the economic, the political and the strategic. Each has a domestic and an international context and each has actors who are organized to greater or lesser degrees both within and across international boundaries. The state, situated at the intersection of the international and domestic realms, mediates the interests

of economic, political and strategic actors, the degree of its autonomy being situation dependent.

The chapters containing the political and economic histories of NORAD were designed to test these theoretical arguments. The political history chapter argued that it is not possible to gain a comprehensive understanding of Canada's role in NORAD on the basis of realist assumptions alone. An analysis that focuses only on political variables cannot fully explain why, given Canada's power position in the international balance-of-power system, its perceptions of the Soviet threat, and the appropriate response to that threat, have consistently coincided with U.S. perceptions. Nor is it possible to account for why, in the making of defence policy pertaining to NORAD, Canadian governments have consistently made "miscalculations" in strategic policy, have consistently, until the mid 1980s, made defence policy decisions that have run counter to their expressed policy preferences. Based on Joseph Jockel's account of the determining effects of the cooperative relationship between the Canadian and U.S. militaries in the establishment of NORAD, the chapter suggested that further study was required to determine whether, and the extent to which, this cooperative military relationship has continued to have a determining effect on

Canadian defence policy-making.

The chapter on the economic history of NORAD argued that once the assumptions of the realist perspective are relaxed to allow a concerted analysis of the economic influences on Canadian defence policy-making within NORAD, it is possible to argue that the economic interests of the succeeding Canadian governments, and of the defence production industry, have played a major role in aligning Canadian and U.S. defence interests and in diverting the Canadian focus from strategic to economic considerations in defence policy-making. Since the Canadian defence production industry, like the Canadian military, is organized both within Canada and across the Canada/U.S. border, it was suggested that further study was required to investigate how the influence of the defence production industry is organized and brought to bear on the Canadian defence policy decision-making process.

The purpose of this chapter is to examine the organization of Canadian and U.S. military interests and to analyze the effects that this organization has upon Canadian defence policy decision-making as it pertains to NORAD. The chapter will also examine the implications of these findings in terms of the assumptions of the realist theory of international relations and Wallerstein's

capitalist world-economy model, and in terms of theorizing defence policy-making at the domestic level of analysis.

Although further research is required, particularly with regard to the involvement of the Department of External Affairs, the evidence would suggest, and this chapter will argue, that although the Canadian government is formally responsible for making defence policy, its range of defence policy decision choices are severely restricted by Canadian/U.S. military defence program planning. Throughout the history of NORAD, the Canadian government's White Papers on Defence have defined broad policy objectives. In terms of NORAD-related policy, these objectives include protecting Canadian sovereignty and contributing to the mutual air/aerospace defence of the continent. Within these broad policy parameters, the Canadian military is responsible for developing defence programs to fulfil the objectives. Because NORAD is a bilateral Command, defence programming is a bilateral activity which generally begins with joint Canadian/U.S. military studies. Because the U.S. has been the dominant Western state in the East/West balance-of-power system, it placed a high political priority on the design of strategic policy. Because the U.S. is the dominant partner in the NORAD alliance in terms of size, budgets, and access to

defence intelligence and technologies, Canadian/U.S. defence studies are tailored to U.S. perceptions of the threat and the appropriate response to it. Joint Canadian/U.S. military studies, therefore, are not only tailored to U.S. needs, but are also closely monitored by the U.S. political system, especially as the studies reach the stage of defence program planning.

Since, however, the Canadian military involvement in joint defence studies and program planning generally takes place within the NORAD Command structure or in ad hoc study groups, Canadian political input into the process at this stage is exceedingly limited if not relatively non-existent. Although aspects of proposed defence programs may be referred to the Minister of National Defence and from there to the Department of External Affairs and/or to Cabinet, these are referred on a discretionary basis, discretion first being exercised by the Canadian Chief of the Defence Staff (CDS). Hence, by the time defence programs are presented to the Canadian government for a final decision, they have generally received the approval of the Canadian CDS, the U.S. Joint Chiefs of Staff (JCS), and the U.S. government. It then becomes very difficult for the Canadian government to either consider alternatives or make drastic changes to the programs. The formal

ability to do so remains but in reality it is difficult to do other than concur.

To the extent that the Canadian political decision-makers are aware of developing NORAD defence planning, their reaction is generally one of non-decision making, of waiting to see how the programs develop. Hence, the Canadian military is left free to continue its cooperative relationship with the U.S. in these areas, and the process continues. Joint defence programs, then, reflect changing U.S. perceptions of the threat, and Canadian defence policy decision-making becomes geared to U.S. perceptions. For this reason, Canadian defence policy does not always reflect an assessment of the international environment consistent with either its foreign policy interpretations or its own expressed defence policy preferences, and hence, the origins of the charge that Canada makes 'strategic miscalculations' in its defence policy decision-making.

For this reason also, it is difficult to suggest that the Canadian government is the actor of consequence in the making of Canadian defence policy. It is the dominant actor in the sense that it signs defence agreements and formally makes decisions on whether to accept or reject specific defence programs, but the agenda upon which these decisions are made, and the flow of defence information, is

largely controlled by the Canadian military through its relationship with the U.S. military. The infrastructure for defence programs is so well established by the Canadian and U.S. militaries, working through both formal and informal channels of communication and cooperation, that, to a large extent, these programs predict policy. This was the pattern that was established for Canadian defence policy decision-making at the time of the inception of NORAD and it has remained consistently predictive throughout the history of NORAD. Canadian defence policy decision-making with respect to the nuclear weapons program for NORAD forces and the downgrading of bomber defences in the 1960s; the U.S. anti-ballistic missile and space programs, including the Air Defense Initiative (ADI) and the initially rejected Strategic Defense Initiative (SDI), in the 1960s, '70s and '80s; cruise missile testing and the NORAD Modernization program in the 1980s; and NORAD's role in the U.S. War on Drugs program in the 1990s, has been largely predicted by Canadian/U.S. military cooperation.

The Establishment of the NORAD Command

Joseph Jockel's book, No Boundaries Upstairs, is an exhaustive account of how the history of RCAF and USAF cooperation in air defence programs for the continent

produced the NORAD Agreement.¹ In essence the account maintains that by the 1950s the two air forces had established a direct and permanent working relationship which by-passed the formal Canadian/U.S. channels of communication and coordination such as the Permanent Joint Board on Defence (PJBD) and the Military Cooperative Committee (MCC). Working within this relationship the RCAF and the USAF, with the support of the U.S. Joint Chiefs of Staff (JCS) and the Canadian Chiefs of Staff (COS), had researched, throughout the early to mid 1950s, ways to establish a joint air defence command for the continent.

The subject was politically sensitive on both sides of the border. The U.S. Secretary of Defense feared that Canada might attempt to link a joint command to the NATO alliance structure, thus necessitating a broader exchange of information than the U.S. wished to make, while complicating the Canadian/U.S. decision-making process with European voices. The civilians in Ottawa, on the other hand, feared that a joint command would erode the government's ability to control its own forces and to make independent defence policy decisions.

By January, 1956, however, the JCS had acquired permission from the Secretary of Defense to suggest to the Canadian COS that a joint study on integrated air defence

of the continent be undertaken. The COS agreed to the study and suggested that it be undertaken in secrecy, by an ad hoc group of RCAF and USAF members under the auspices of the Canada-United States Military Study Group (MSG), a group that had been established in 1953, at Canada's request, to consider mutual air defence programs, particularly U.S. testing of the DEW Line.² The outcome of the ad hoc study was a foregone conclusion in that a similar study had already been completed by a joint RCAF and USAF planning group attached to the U.S. Continental Air Defense (CONAD) Headquarters, and had been approved in principle by both the JCS and the COS. The ad hoc study group, however, was charged with finding a way of making a joint command politically acceptable in Canada. Accordingly, the study group recommended that the command be designated an operational command only, meaning that its commander-in-chief would only exercise operational control over those forces assigned to the command from other established commands, including the RCAF. Hence the RCAF would retain ownership of its forces, relinquishing only operational control of those forces it assigned to the joint command.³

The ad hoc study group report was completed in December 1956, approved by the MSG in the same month and by

both Chiefs of Staff the following February. The Secretary of Defense, on behalf of the U.S. government, granted final approval in early March, 1957 and it was to be presented to a Cabinet Defence Committee meeting on March 15. This meeting was cancelled and following the change of government in June, the Minister of National Defence, George Pearkes, having previously raised the issue with Prime Minister Diefenbaker during a flight to a Commonwealth Prime Minister's Meeting in June, 1957,⁴ submitted the document to Diefenbaker in a private meeting on July 24th. Diefenbaker approved the arrangements as per the study without consulting either the Cabinet or the Department of External Affairs. Cabinet considered the document on July 31 and at that time it appointed Air Marshal Roy Slemon as the Deputy Commander of the joint command. The following day the Secretary of Defense and the Minister of National Defence announced the agreement to establish an integrated air defence for the continent, the NORAD Command.

Although the Department of External Affairs claimed not to have been consulted or included in the proceedings that led to the creation of NORAD,⁵ this claim was not entirely true. A representative from the Department was present at a Chiefs of Staff meeting on February 1, 1957

when the MSG ad hoc study was discussed, and again on February 15th when a draft paper on the study was prepared for the Cabinet meeting which was to take place on March, 15. In fact at that meeting, the representative from External suggested an amendment to the draft cabinet document. Papers prepared for Cabinet meetings to be held on April 15 and on June 13, were also circulated to the Department, although neither of the meetings took place."

The point, however, is that the Department of External Affairs had not been involved in the decisive aspects of the pre-planning for NORAD. The Canadian/U.S. planning for the joint command was handled almost exclusively by the two militaries within an informal ad hoc study group environment. The agenda upon which the Canadian government had to base its decision, then, was a joint Canadian/U.S. military agenda which was established with very little input or control having been exercised by Canadian decision-makers outside the DND. Moreover, because the project was handled in Canada by the Office of the Chiefs of Staff and not by the office of the civilian branch of DND,⁷ the Canadian military controlled the flow of information to the Canadian political system. Further, because the plans for the joint command had received the approval of the U.S. JCS and the Canadian COS, as well as

the approval of the U.S. Secretary of Defense, before they were presented to the Canadian government for its decision, it would have been most difficult for the Canadian government to either reject, or make changes in the plans at that time. Hence, the political debate concerning sovereignty and defence policy issues pertinent to NORAD occurred after the fact and not before.

Department of National Defence documents that have been released since Jockel wrote his book substantiate and enlarge upon Jockel's assessment of the role of the military in establishing the NORAD Command. During the eight month period between Diefenbaker's acceptance of NORAD and the exchange of notes which constituted the NORAD Agreement on May 12, 1958, the Canadian military continued to maintain control of the nature and flow of information to the government.

In terms of the nature of the information passed to the Canadian political system, the military often deliberately confused the issues in order to avoid having the integrated command involved in political controversy. As Jockel notes, one of the issues that was easily confused was the distinction between command and operational control. Since maintaining command of its own forces and resources was a key sovereignty issue to the Canadian

government, understanding the distinction was of primary importance.

The MSG report defined 'command' as having control over "...logistic support, administration, discipline, internal organization and unit training..."⁸ of a command's forces. By comparison, 'operational control' was defined as "...the power of directing, coordinating and controlling the operational activities of deployed units which may, or may not, be under the command of the authority exercising operational control."⁹ The report also stated that the authority exercising "...operational control over all continental elements of the air defence forces made available for the air defence of Canada, the Continental United States and Alaska..." should be the Commander-in-Chief of the new integrated command.¹⁰ The Commander-in-Chief was then to be directly responsible to the Canadian Chiefs of Staff Committee and the U.S. JCS. Hence, the document made it quite clear that the Commander-in-Chief of the new command, who was assumed to be an American,¹¹ would exercise 'operational control' of the RCAF's Air Defence Command (ADC) forces that were to be assigned to the command, while the commander of the Canadian ADC would retain 'command' of those forces, meaning that it would retain, basically, administrative

control of its forces.

In a memorandum prepared for the Cabinet by the COS office, outlining the advantages to Canada of the integrated air defence arrangements, the COS did not make the distinction between 'command' and 'operational control.' Instead it stated simply that the integrated command would leave "...with the Canadian Air Defence Commander complete command and administration over Canadian troops and equipment."¹² Both the memo and the MSG Report were given to Diefenbaker by the MND at the July 24th meeting when Diefenbaker accepted the joint command, but, given the subsequent confusion over the issue, it is highly unlikely that Diefenbaker was aware of the distinction as it was made in the MSG Report.

The subsequent confusion centered upon whether the ADC was, in fact, required to commit forces to the NORAD command, and under what conditions. In referring to the second principle of the NORAD Agreement which states that the Commander-in-Chief of NORAD will assume operational control of those forces specifically allocated to the command by the two governments, the MND, speaking in the House on June 10, 1958, stated that no Canadian forces had been allocated for operational control to NORAD and that it did not seem likely that such forces would be allocated for

such control.¹³ The Canadian Embassy in Washington, on the other hand, interpreted the second principle as meaning that Canadian forces would only be assigned to the NORAD command in the event of an emergency.¹⁴

The Canadian military, however, had a clear understanding of the second principle, and of the meaning of 'operational control.' By August 15, 1957, CINCNORAD, the Canadian Joint Staff in Washington, the U.S. JCS and General Charles Foulkes, the Chairman of the Canadian COS, had agreed to delegate operational control of the Canadian Air Defence Command to the U.S. Continental Air Defense (CONAD) Headquarters which was serving as the headquarters for the integrated defence command until the NORAD command was operative. At the same time, the commander of the Canadian Air Defence command, Air Vice Marshal Wray, on orders issued from CONAD, was to become responsible to "...the Commander-in-Chief of operational control of all Canadian and U.S. forces in Canada," that is to CINCNORAD. This classified message sent from General Foulkes to the Chairman of the Canadian Joint Staff in Washington, verifying these arrangements, stated that, "There is to be no publicity whatsoever in regard to this matter."¹⁵ Further, the MSG Report made it quite clear that these arrangements were to apply in times of peace as well as in

war.¹⁶

Subsequently, the terms of the NORAD Agreement coincided with the MSG Report definitions of 'command' versus 'operational control.' The Canadian ADC has retained administrative responsibility for the forces it assigns to NORAD and has relinquished operational control in both peace and war times.¹⁷

The Canadian government was also confused about NORAD's relationship to the NATO alliance. Diefenbaker wished to establish that the two military alliances were linked, thinking that such a link would make the existence of NORAD more palatable to the Canadian public. The Canadian military, however, fully understood that the two alliances were not structurally related. Nevertheless, General Foulkes tended to play on the confusion in order to gain Canadian political acceptance for the NORAD Agreement. The COS memo that accompanied the MSG Report to the July 24th meeting between Pearkes and Diefenbaker stated that the integrated command "...will bring the Air Defence Command in North America in line with the other Commands in NATO."¹⁸ Further in a November, 1957 letter to Jules Leger, the undersecretary of state for External Affairs, Foulkes stated that "NORAD is actually a NATO command set up within the Canada-United States region...."¹⁹ On

December 27, 1957, however, Foulkes wrote the Chairman of the Canadian Joint Staff in Washington, asking him to inform the U.S. JCS that, for political reasons, it had been necessary to maintain that NORAD and NATO were intimately related but that it was Foulkes' understanding that, "It is not intended that NORAD should report direct to anyone but the Canadian and United States Chiefs of Staff. This is in accordance with the established procedure which has been followed over the past years."²⁰

Further, in a letter to the Secretary of the Canadian Section of the PJBD, dated December 30, 1957, Foulkes suggested that the terms of the notes that were to be exchanged between the two countries constituting the NORAD Agreement should not be discussed, as per the agenda, at the January, 1958 meeting of the PJBD. His reason was that if the terms were discussed at the PJBD, NORAD would be seen as a bilateral defence agreement instead of as an integral part of the NATO alliance. Discussions on the terms of the notes, he suggested should take place informally between members of the Canadian and U.S. air forces and between members of the State Department and the Department of External Affairs.²¹ Since Foulkes had indicated three days earlier to the U.S. JCS that his understanding was that NORAD was a bilateral defence

arrangement, the attempt to remove the subject from the PJBD's agenda was a deliberate attempt to maintain the myth that NORAD and NATO were intimately connected. Further, because the PJBD reports directly to the Prime Minister and the President, removing discussion of the terms of the agreement from the PJBD agenda was a way of avoiding involving the Canadian government directly in the agenda setting process.

In fact, given that the Canadian military controlled the flow of information to the Canadian political system in that the lines of communication for setting up the integrated command were through the Chiefs of Staff Committee, to the MND and thence to Cabinet,²² getting political control of the process was difficult. The Department of External Affairs felt, however, that it was necessary. An External document entitled, "NORAD-Political Control," dated February 22, 1958, states that, "The importance of NORAD...to Canada demands that political control of the Command's activities by the Canadian Government be real and apparent. It is perhaps worth considering whether additional Ministers might be given an active role in the exercise of the political control which the Government must exert in this field."²³ To this end, the Canadian government was instrumental in establishing

the Canadian/U.S. Ministerial Committee on Joint Defence in 1958, a committee whose terms of reference would allow the members "...to consider all defence matters of common concern to Canada and the United States."²⁴

In considering the creation of such a committee, the MND suggested, in a letter to Sidney Smith, the Secretary of State for External Affairs, dated February 25, 1958, that the committee should be informal and flexible and that its "...main purpose should be, of course, to facilitate the solution of defence problems which cannot be resolved on the military level." He was also adamant in suggesting that in order to "...get on with the exchange of notes on the establishment of NORAD with the least possible delay," the establishment of a ministerial committee should not be dependent upon the negotiations concerning the exchange of NORAD notes.²⁵ In other words, the Minister's preference was for the military to retain primary control of "the solution of defence problems," and for the negotiations on the terms of the NORAD agreement to not necessarily be exposed to ministerial input.

In fact, the committee was not established until after the exchange of notes took place, its first meeting being in December 1958. Since the committee only met 4 times, the last time in 1964,²⁶ it did not serve to make

the Canadian government's control of NORAD's activities "real and apparent" for very long.

Nor did the terms of reference contained in the principles outlined in the exchange of notes establishing the NORAD Command constitute Canadian political control of NORAD's activities, as the Department of External Affairs had anticipated. Once the agreement to establish an integrated air defence command had been announced on August 1, 1957, the Department of External Affairs, concerned about the need for close Canadian/U.S. consultation given that a "foreign representative" was to assume "operational control of an element of Canadian security forces in Canada,"²⁷ began pressing for a formal exchange of notes which would support the announcement and outline NORAD's terms of reference.²⁸ General Foulkes felt, however, that the joint Canadian/U.S. announcement of the integrated command, and Cabinet's order-in-council appointment of Air Marshal Slemon to the position of Deputy Commander of NORAD, should be "sufficient authority" for the establishment of the command. Hence he saw no need for a diplomatic exchange of notes.²⁹ External was not persuaded by this reasoning and continued to press for the exchange.³⁰ By way of capitulation, Foulkes suggested to Jules Leger, Under Secretary of State for External Affairs,

in a letter dated October 28, that if an exchange of notes was necessary, "...the contents of the notes should only be made in the broadest possible terms in order that changes in the terms of reference could be made in the future without the necessity of another exchange of notes."³¹

In fact, it was not only possible changes in the terms of reference that concerned Foulkes, but the terms themselves. The reasons for requesting that the terms be 'broad' are evident in an informal exchange of letters between May 14 and July 30, 1957, among General Earl Partridge, Commander-in-Chief of the USAF who was to become CINCNORAD, Air Marshal Slemon who was to become Deputy CINCNORAD, the U.S.JCS and General Foulkes, the Chairman of the Canadian COS.

Partridge's May 14th letter, addressed "confidentially" to the U.S. JCS with a copy sent to Slemon, suggested that before any Canadian/U.S. agreement on an integrated command structure be formalized, the two governments should agree "...that the air defense of Canada and the United States is one problem and that both countries will react automatically and in unison against any attack on the North American continent." To this end, the letter suggested that the two governments should also formally agree that, in the event of an attack, exchange

and liaison military personnel would not be returned to their respective countries, but would continue, instead, to serve in their exchange and liaison positions."²²

In a "top secret" letter to Foulkes dated May 29, Slemon outlined Partridge's interests and expressed his concurrence."²³ Foulkes letter to Slemon, dated July 30, and designated "secret, no circulation," also indicates his concurrence but suggests that he is "very doubtful" that the Canadian government would agree that both countries should react automatically and in unison to an attack, but that "...the press release which will be issued by the Secretary of Defense and the Minister of National Defence this week (announcing the NORAD Command) will serve this purpose....one would hope that the step which is being taken this week for further integration will go a long way to meeting this purpose."²⁴

With regard to not withdrawing officers on exchange or liaison duties, Foulkes states that, "It appears to me that as and when this further integration step is agreed to, (the NORAD Command), the air defence forces under command of the integrated Air Defence Headquarters, will be international and not national and, therefore, not subject to the policy directive concerning the status of the exchange of liaison officers in the event of war." Foulkes

ends the letter by suggesting that once integration has been approved and announced, it would be appropriate to modify the policy pertaining to exchange officers, associating the modifications with the integration program, but that "...no action be taken pending the announcement of the acceptance of the integrated control of air defence forces in North America."³

Although the U.S. military wished for government to government approval for these plans, indicating the tighter relationship between the military and the government in the U.S., the Canadian military preferred to assume that these decisions had been made under the umbrella of broad terms of reference. Such broad terms gave the military flexibility in its interpretation of the terms, and allowed for confusing the issues such as suggesting that NORAD forces would in fact be international forces under the integrated command structure and, therefore, not subject to previous bilateral policy arrangements. Hence, broad terms of reference both facilitated the changing of the terms without requiring new agreements, and gave the Canadian military flexibility in its interpretation of the terms. Consequently, defence programs that had not been approved by the Canadian government, nor thought by the Canadian military to be capable of acquiring Canadian

governmental approval, could be, and were, agreed to by the Canadian military in its informal communications with the U.S. military. The fact that the Canadian and U.S. forces did subsequently act automatically and in unison during the Cuban Missile crisis in that the Canadian forces within NORAD were put on alert at the same time as the U.S. forces, and further, that Canadian exchange and liaison personnel have remained in their U.S. positions during the Vietnam and the Gulf Wars,³⁶ suggests that informal Canadian military agreement to these programs included an active working towards their realization.

In fact, since NORAD was established on May 12, 1958, informal channels of communication are the ones most commonly used for the development of joint defence programs. The command structure of NORAD, established on October 8, 1957, facilitates informal interpersonal communication.³⁷ CINCNORAD, a U.S. General, was to be directly responsible to the chairmen of both Chiefs of Staff, and while formal procedures were established for communication in emergency situations, general communication took the form of exchanges of letters between CINCNORAD and the two Chiefs of Staff, letters which, as General Partridge wrote in the first of these letters sent on July 3, 1958, were not "...intended for general

governmental consumption."³⁸ The Deputy commander of NORAD was to be a Canadian and the facilities at NORAD Headquarters in Colorado Springs were to be 'co-manned' by both Canadian and U.S. military personnel. Moreover, each of the NORAD regions which crossed the Canadian/U.S. border had either a Canadian or a U.S. Commander and his opposite as its Deputy Commander, while military personnel of both nationalities were appointed to all regional headquarters. In addition, NORAD included four component commands, the U.S.A.F. Air Defense Command (ADCOM), the U.S. Army Air Defense Command, the U.S. Naval Forces, and the Canadian Air Defence Command.³⁹ Under the Exchange and Liaison programs, Canadian officers were assigned to each of the U.S. component commands except ADCOM, which as a specified command was closed to these programs. U.S. officers were also assigned to the Canadian command. Professional relationships were also cemented in the ad hoc study groups that developed between the two militaries, in the MCC, and in the PJBD.

Hence the structures were in place for on-going Canadian/U.S. military cooperation in the planning and institution of NORAD's defence programs, the cooperative environment being largely inaccessible to monitoring by the Canadian political system. The establishment of Canada's

nuclear weapons policy for its NORAD commitments was very much a product of this cooperative process.

Nuclear weapons for NORAD

Built into the NORAD Command was the assumption that Canada's contribution to the air defence of the continent would include the arming of its interceptors with nuclear warheads, and the establishment of a limited BOMARC missile point defence system, also armed with nuclear warheads. The December, 1956 MSG Report, prepared by an ad hoc committee of the USAF and RCAF, made this assumption,⁴⁰ which was supported by the Report's acceptance by the U.S. JCS and the Canadian COS in February, 1957. In approving the document in early March of that year, the U.S. Secretary of Defense added U.S. governmental support to the assumption. NORAD's "family of weapons" concept, which included both conventional and nuclear weapons, also assumed that Canadian interceptors and BOMARC missiles would be equipped with U.S. nuclear warheads.⁴¹ Hence, in spite of his waffling on the issue until his party lost office in 1963, P.M. Diefenbaker's acceptance of the NORAD plans in August of 1957, after Pearkes had presented him with the MSG Report on July 24, and the exchange of notes establishing the NORAD command in

May, 1958, were both tacit acceptances by the Canadian government of a nuclear role for its NORAD forces.

The Department of External Affairs, however, was not committed to a nuclear weapons role for Canadian forces. Its concerns were twofold. First, the Department realized that defence policy decisions needed to be made within three international environments, the economic, the political and the strategic. In its view, the Soviet Union presented an economic challenge to the West that was at least as threatening as the strategic threat. Consequently, policy-making in each of these areas needed to be compatible so that policy, and its supporting budget, in one area would not foreclose options in another.⁴² Second, as with the establishment of the NORAD Command, the Department felt that it had lost political control of the nuclear weapons issue. Accordingly, the Department felt that the creation of a Canada/U.S. Ministerial Committee on Joint Defence would allow Ministers "...an active role in the exercise of the political control which the government must exert..." in major defence problem areas, including "...the storage of nuclear weapons on Canadian territory."⁴³

The government's five years of indecisiveness on the nuclear warheads issue, did not, however, represent a

political capacity for the control of the nuclear weapons issue in terms of deciding whether Canada would or would not acquire the warheads. That decision had been made with the acceptance of the NORAD command. The only real political control that was being exercised was over the terms under which Canada would accept the warheads, and in spite of the waffling, these negotiations were on-going from 1958 until the nuclear warheads were accepted by the Pearson government in 1963. On October 15, 1958, having discussed the issue earlier on September 8, the Cabinet authorized senior military officers to begin negotiations with the U.S. on the conditions to apply to Canada's acquisition and storage of nuclear warheads. Subsequent Cabinet discussion on the issue, meetings of the Canada/U.S. Ministerial Committee on Joint Defence in 1959 and 1960, and a PJBD meeting in 1962, dealt with the terms of the Agreement for Canada's acquiring nuclear warheads."

On the basis of the Canadian military's negotiations with its U.S. counterparts, Cabinet agreed on September 22, 1959 to begin drafting an agreement concerning the storage of U.S. anti-submarine nuclear warheads at Goose Bay and Harmon Field.⁴³ At the November, 1959 meeting of the Ministerial Committee,

although approval was given for the storage of these warheads, no agreement was reached for the terms of storage.⁴⁶ On December 6, 1960, Cabinet gave its approval for the military to begin discussions with the U.S. on the terms under which Canadian forces within NORAD and NATO would acquire U.S. nuclear warheads.⁴⁷

While the military negotiated the terms of the Canadian forces acquisition of the warheads, the Department of External Affairs was largely responsible for setting these terms within a draft Nuclear Arms Agreement which was to include both a general agreement and individual agreements for each weapon system that would be armed with the warheads, the BOMARCS, the Honest John battery for the NATO forces, and Canada's CF 104 aircraft.⁴⁸ By October, the Cabinet had reviewed several drafts of the document,⁴⁹ each recommending that the U.S. retain ownership of the warheads, that joint responsibility should govern the release of the weapons, and that the use of the weapons by the Canadian forces after their authorized release be determined by the Canadian government.⁵⁰

In spite of drafting the agreement, the Department of External Affairs was still not convinced that a nuclear role was appropriate for Canada. The Department's main concern was that in accepting nuclear weapons, Canada

would compromise its support of the U.N.'s disarmament policies, including the 1960 Irish Resolution for the non-proliferation of nuclear weapons.³¹ Prime Minister Diefenbaker tended to agree, and in an election speech made in Brockville in May of 1962 he stated that his government had no intention of acquiring nuclear arms for Canada as long as there was a chance of achieving disarmament.³²

Given its own indecisiveness over the issue, an adverse Soviet reaction to Canada's nuclear plans,³³ and Diefenbaker's announcement of a non-nuclear role for Canada, the Department of External Affairs undertook its own brand of waffling on the issue, by assuring the U.N., in early 1962, that its commitment to disarmament was without question and that the Canadian government, "...although maintaining a state of preparedness in its armed forces, including the possession of modern delivery systems and the training of Canadian forces in their use," has "refrained from otherwise acquiring them."³⁴ In spite of the on-going negotiations to acquire the nuclear warheads for Canadian forces, the Department could take this position for it had included escape clauses in the draft General Agreement on the Stockpiling of Nuclear Weapons for Canadian Forces. The draft states that, "The United States authorities should be informed at the

commencement of the negotiations that the decision of the Canadian government to enter into negotiations should not be interpreted to mean that Canada has decided to acquire nuclear warheads but rather that it wishes to put itself in a position to do so rapidly if at any time in the future such action should be deemed necessary." Hence, "...the conclusion of the agreement does not, of itself, lead to implementation of its provisions. For this purpose a further exchange of Notes would be required."⁵⁵

The Canadian COS anticipated three problems with the draft general agreement. In a letter to the MND, dated August 8, 1961,⁵⁶ Air Marshal F.R. Miller, Chairman of the COS, objected, first, to the vague description of the "...process by which weapons are released from U.S. custody for Canadian use." In clarifying his position on this issue, Miller appears to deliberately mislead the MND. His understanding, he suggests in this letter, is that the U.S. retains ownership, accountability and actual possession of the warheads designated for Canadian use but that once the U.S. President has released operational control to a Canadian Commander, the U.S. has no further control over the use of the weapon. "This control over both the operational use of the weapon and the release of the weapon for operational use is exercised by the Canadian

Government...." In fact, however, operational control of U.S. nuclear weapons stored in Canada for air defensive purposes was the responsibility of CINCNORAD as per NORAD's Mission and Terms of Reference document of October, 1957.⁵⁷ The draft agreement governing the use of nuclear air-to-air weapons for Canada's F101 air defence interceptors also makes this quite explicit. The Canadian government would authorize the Canadian use of nuclear weapons, but once the authorization was given, CINCNORAD was to assume operational control.⁵⁸ Since the COS had approved the NORAD's Mission and Terms of Reference document, and since Miller had received a copy of the draft schedule governing the use of nuclear weapons for Canada's F101s on December 6, 1961 from the Canadian Chief of the Air Staff,⁵⁹ it is difficult to understand his different interpretations as other than attempts to mislead.

Second, Miller objected to the fact that the draft general agreement suggested that "...the supplemental technical agreements to cover the various weapons systems should be negotiated before we have more than an understanding, not defined, on the General Agreement." In his view, the general agreement should be explicit enough to allow the U.S. practice of negotiating supplemental agreements on a "command to command" basis. Third, Miller

objected to the draft proposing "...that the U.S. authorities be informed at the commencement of negotiations that the Canadian government does not necessarily intend to acquire nuclear warheads." In Miller's mind, Cabinet declared its intentions of acquiring nuclear weapons when it authorized negotiations to begin with the U.S. on October 15, 1958.⁶⁰

In fact, while the Prime Minister and the Department of External Affairs were waffling on the issue, the Canadian and U.S. militaries, through the RCAF and the USAF, were cooperating on pressuring the Canadian government to accept the nuclear warheads. Twice, from February, 1961 to July, 1962, CINCNORAD had "pleaded" with the RCAF to "...attempt to get approval for air defence (nuclear) weapons even if for no others."⁶¹ Moreover, the two air forces believed that the warheads had to be stored on site, rather than in the U.S. for transfer to Canada when the situation required it, an alternative that was being considered by the Canadian government. The RCAF informed both the Canadian COS and the MND of CINCNORAD's concerns and of the terms of storage considered acceptable by both air forces.⁶²

On the assumption that Canada would accept nuclear warheads under the terms acceptable to both air forces, the

RCAF and the USAF were also cooperating on establishing the physical infrastructure for on-site storage of the warheads. The USAF had "...provided a detachment of specially trained personnel to be stationed at North Bay to work with the RCAF crews" in conducting a formal Initial Capability Inspection of the Canadian BOMARC squadron, complete with its nuclear warheads, to be stationed there. In the absence of a government-to-government agreement on nuclear warheads for Canadian forces, the USAF crew was withdrawn from North Bay in May, 1962 and similar USAF plans for the Quebec La Macaza BOMARC site were cancelled in September, 1962. In pressuring both the MND and the COS to seek governmental approval of a nuclear weapons role for Canadian forces within NORAD, the RCAF suggested that the withdrawal of the USAF crew from North Bay, and the cancellation of its plans for the Quebec BOMARC site, would not allow the two BOMARC sites to acquire even the "operational state of 'operational less warheads.'"⁶³

On May 11, 1963, shortly after taking office, Prime Minister Lester B. Pearson announced his intention to begin negotiating Canada's nuclear role with the U.S. in "...fulfilment of Canada's existing defence commitments in North America and Europe...." On August 16, Canada agreed to stockpile U.S. nuclear warheads in Canada for the use of

the Canadian forces. The U.S. was to retain custody of the warheads while their release was to be governed by joint control." Hence, the USAF/RCAF preference for on-site stockpiling of the warheads was realized, while although Canada gained joint control over the release of the weapons, operational control over their use for air defence was the prerogative of CINCNORAD, as per the original Mission and Terms of Reference document,⁴³ which reflected the recommendations of the MSG Report.

The preceding evidence indicates that years of indecision represented attempts to grasp at the threads of political control rather than any real exercise of Canadian political control over whether Canada would accept nuclear warheads, or over the terms of the acceptance. In fact, the waffling tended to obscure the continuance of the pattern of NORAD-related Canadian defence policy making that began with NORAD's inception. The Canadian government, in mandating the Canadian military to take part in joint Canada/U.S. military studies, set the wheels in motion for the evolution of Canadian/U.S. defence programs, including a nuclear weapons role for Canada. The program was accepted by the Chairmen of both Chiefs of Staff and by the U.S. government before it was presented to the Canadian government for its decision, making it difficult for the

Canadian government not to accept the program. In addition, by delegating the negotiating of the terms of reference for accepting nuclear weapons to the Canadian military, the Canadian government, again, lost effective political control of the process. The Department of External Affairs did draw up the documents stipulating the terms of the Canadian acceptance of the warheads, but it was the military that was given the mandate to negotiate those terms.

In both cases, the nuclear weapons program for Canada, and the design of the terms under which they would be accepted, the Canadian military, through its association with the U.S. military, was able to set the agenda and control the flow of information upon which the government based its decisions. With regard to the former case, the nuclear weapons program for Canada was an integral aspect of NORAD.

Hence, without an understanding of how joint defence studies become joint defence plans, the Canadian government, thinking that it could apply political controls later rather than earlier, was compelled to accept as policy, plans that evolved in Canadian/U.S. military cooperative channels. This pattern of policy-making was to continue for both the institution of new NORAD defence

programs and the demise of old ones.

NADO, NADOP, and The Decline of NORAD's Air Defences

The terms of the NORAD Agreement, as set out in the May, 1958 Exchange of Notes, were very general. Basically, NORAD was simply charged with the air defence of the North American continent. Once the NORAD Command was created, it was the responsibility of CINCNORAD, in conjunction with the Deputy CINC, to create a detailed air defence plan,⁶⁶ a defence program to fulfil NORAD's mandate. On Dec 15, 1958, General Partridge, CINCNORAD, produced two planning documents for the approval of the Canadian and U.S. Chairmen of the respective Chiefs of Staff. The first, entitled North American Air Defence Objectives, 1959-1969 (NADO), was a long-range planning document based on present and estimated future strategic threat assessments. It recognized the growing threat of the Soviet ICBMs and SLBMs and prioritized NORAD's air defence objectives as: first, warning of both bomber and ballistic missile activity; second, the establishment of anti-ballistic missile defence; third, the establishment of a control and communication capability in order to be able to utilize all available weapons systems; and fourth, to improve the anti-bomber defence.⁶⁷

The second document, entitled NADOP 1959-1963, was a mid-term version of NADO. Whereas NADO focused on air defence in its broad conceptual terms, NADOP, based on available resources and budgets, outlined the specific force and defence systems required for the period when the ICBM was expected to become the dominant threat."

At the January 1959 meeting of the PJBD, the MSG was dissolved and the MCC was designated as "...the accepted study agency for considering NORAD matters." The MCC, the official study group for the PJBD, was, and is, composed entirely of military representatives from both countries. Designating it the study agency for NORAD matters did not mean that the MCC was to be involved in the creation of NORAD plans. Formally, plans were to be created at the NORAD Headquarters and referred first to the Canadian and U.S. Chiefs of Staff. Because the RCAF was the service "...primarily concerned with the Canadian implementation of NORAD plans," NORAD plans were initially to be reviewed and commented upon in Canada by the Chief of the Air Staff (CAS) as the designated executive agency for the Canadian COS. The CAS comments were to be reviewed by the COS Committee for approval with contentious points being referred to the Vice Chiefs of Staff Committee. Once approval had been given to the CAS comments by the COS

Committee, the Canadian section of the MCC was to be briefed on "the Canadian" position and discussions opened with the U.S. section of the MCC. Major points of contention between the two sections of the MCC were then to be referred back to the COS. The Canadian COS then advised CINCNOAD when Canadian agreement to the plans had been achieved in the MCC.⁷⁰

Such was the formal procedure to be followed and it allowed for a high degree of development of NORAD planning before representatives of the Canadian political system, the MND, the Department of External Affairs, the Cabinet or the P.M., became officially involved. In short it allowed the military to set the defence programming agenda, and to control the flow of information to the Canadian political system.

Both NADO and NADOP essentially followed this design while in their consultative stages of formulation. However, it was quite clear that the U.S. military was more actively involved in the formulation of NORAD defence planning than were their Canadian counterparts. The first draft of NADOP was reviewed by the U.S. JCS and returned to CINCNOAD for redrafting without it having been presented to the Canadian COS.⁷¹ It was the third draft of the documents that passed, in detail, through the review

process in Canada described above.

In reviewing the third draft of the documents, the CAS noted on June 19, 1958, that "This plan represents for Canada a major change in the approach to the question of the level of air defence forces required in North America." The plan called for air defenses "...as close as possible to 100 per cent effectiveness," and although the CAS thought such a system was technically feasible, it was too expensive for Canada to share in the costing. The CAS also suggested that the U.S. intelligence estimates of the threat to North America were significantly greater than Canada's, requiring weapons systems that the Canadian military either did not accept as necessary, or did not have the relevant information to assess. With respect to ballistic missile defenses (BMD), the CAS suggested that the Canadian COS preferred systems of area defence to point defence and hence the CAS could not accept NORAD's plan to situate short range missile weapons on Canadian target areas. In short, the CAS thought the plans were too ambitious and that they should be revised to reflect what was "...reasonably within the economic capability of both countries..."⁷²

When the final NADO and NADOP plans were presented, in December 1958, for the approval of the U.S. JCS and the

Canadian COS, the CAS noted that although it concurred with the concepts, philosophy, and defence priorities of the plans, the threat assessment had not changed. The CAS recommended that NORAD's plans for BOMARC deployment in Canada be accepted, and that NORAD's plans for the development and deployment of long range, high speed manned interceptors be supported. The CAS recommended, however, that no Canadian position be taken on NORAD's BMD requirements and that Canadian participation be limited to providing communications for the U.S. BMEWS and to participating fully with the U.S. in planning for future BMD systems.⁷³

The Canadian COS essentially agreed with the CAS assessment, noting that "CINCNORAD's concept of two systems of air defence, one against the missile threat and the other against the air supported threat, is supported."⁷⁴ NADO was subsequently accepted by both Chiefs of Staff and by the MCC,⁷⁵ but NADOP was again revised before it was accepted at the MCC. The revision contained a new threat assessment based on joint Canadian/U.S. intelligence but the CAS still felt that "... CINCNORAD has placed greater emphasis on the manned bomber threat than the RCAF considers to be justified."⁷⁶

At the same time as these formal channels for

coordinating Canadian and U.S. military program planning within NORAD were being exercised, the informal channels of communication were also at work. While the RCAF, through the CAS, was formally voicing its objections to NORAD's emphasis on the manned bomber threat, it was also carrying on detailed informal discussions with the USAF on North American air defence programs. These discussions resulted in the USAF recommending to the U.S.JCS, in mid-March, 1960, that, "...because of the rapidly shifting emphasis toward ballistic missiles in the composition of the overall threat, and the time required to bring the sophisticated air defence system we have previously planned to full operational status...the super combat centre program be cancelled and the BOMARC program be reduced."⁷⁷

These changes, representing "a significant modification" of the current air defence program, were accepted by the JCS, and were to be presented, for approval, to the U.S. Congress on March 24th.⁷⁸ CINCNORAD was informed of these changes by the U.S.JCS on March 13th, and of further downgrading of the air defence system on March 30th. At the same time, Curtis LeMay, a General of the USAF and a Vice Chief of Staff, informed CINCNORAD that the U.S. JCS required a new air defence plan by April 18, one that took the downgrading of the air defence systems

into account. In the same letter, Lemay informed CINCNORAD that the RCAF desired to work directly with CINCNORAD on those portions of the plan that related to Canada.⁷⁹

There is no evidence to suggest that the MND or the Canadian political apparatus had instigated the RCAF request.

The MND, George Pearkes was officially informed of the down-grading of NORAD's air defence system by the U.S. Secretary of Defense on March 22, two days before the plans were to go to Congress for U.S. approval.⁸⁰ In a telegram sent by Foulkes to the Chairman of the Canadian Joint Staff in Washington on March 23, Foulkes indicated that Pearkes concurred with the changes in NORAD's air defence posture.⁸¹

In a letter dated April 20, 1960 from CINCNORAD to the CAS and the U.S. JCS, Partridge acknowledged NORAD's reduced commitment to air defence, the elimination of hardened SAGE combat centers, reductions in the interceptor and Bomarc programs and the elimination of Prime radars. The reductions, he stated, were due to budgetary restraints as U.S. resources were being taken from air defence and applied to missile development.⁸²

The point is, that in spite of the formal channels that existed within NORAD's command structure for

coordinating Canadian and U.S. air defence programs, the informal channels were at least as, if not more, effective in reaching mutually desirable ends. The RCAF was able not only to have its perception of the appropriate response to the manned bomber threat realized through ad hoc discussions with the USAF but it was also able to gain direct planning access to CINCNORAD through the USAF. Moreover, the modification of NORAD's air defence planning documents then took place under the direction of the U.S.JCS, backed by Congressional approval. By the time the Canadian political system was asked for its advice on the downgrading of the continent's air defences, the deed was a virtual fait accompli. There was very little, if any, Canadian political involvement in, or control over, the process.

As the ICBM and the SLBM became the principal strategic weapons of both the USSR and the U.S. in the 1960s, the U.S. began to place more emphasis on research and development projects involving BMD systems, and related offensive and defensive space systems. As the original NORAD air defence plans, NADO and NADOP, indicated, anti-ballistic missile defenses (BMD) had, from the time of NORAD's inception, been higher on NORAD's list of priorities than bomber defenses, and although the Canadian

COS and the CAS supported BMD systems in concept, they had withheld their approval of these aspects of the NORAD plans largely because of the projected costs involved. The extent of both Canadian and NORAD participation in U.S. BMD systems, and related space programs, was to be a perpetual source of conflict for all parties concerned.

U.S. Ballistic Missile Defences, Space Programs, and NORAD

By the time the exchange of notes took place establishing NORAD as an integrated air defence command, the Canadian Defence Research Board (DRB) and the USAF had been "...collaborating...for the past few years...in research problems concerning the ballistic missile defence of North America."⁶³ From the time of its inception, NORAD too was involved in BMD. In a letter, not "...intended for general government consumption," from CINCNORAD to the chairmen of the U.S. JCS and the Canadian COS, dated July 3, 1958,⁶⁴ General Partridge wrote that the JCS had requested him to recommend locations for the first 16 NIKE Zeus (BMD) point defence firing batteries along with their 5 forward acquisition radars. These batteries were to be placed around the 16 "...most important cities of Canada and the United States." By informing the Canadian COS of the JCS request, Partridge

hoped to avoid the mistakes made in the U.S. BOMARC program when Canada was not involved in the decision-making process early enough to press for some of the U.S. northwest BOMARC sites to be placed in Canada where they could protect both Canadian and U.S. populated areas. Since NORAD was to be, in Partridge's opinion, the "focal point" of the ballistic missile defence system for North America, it was necessary, he felt, to include "the best Canadian thinking" on the subject during the early planning stages."

Further, in identifying the ballistic missile threat as the predominant threat by 1963, NORAD's air defence plan, NADO 1959-1969, suggested that "...the active defence system against the ballistic missile should be composed of a variety of weapons." Since the only weapons then available were the NIKE Zeus point defence missiles, the report suggested that more weapons would be needed to engage enemy missiles further from their targets. In terms of surveillance, BMD was to include the BMEWS, forward acquisition radars supporting the NIKE Zeus sites and space based radars on satellites. The data from these radars were to be fed into the NORAD communication system."

Hence, NORAD, from its inception, was an integral part of the U.S. BMD planning system. It was also an integral part of the U.S. BMD operational system in that

the radar warning and communication systems from the USAF's BMEWS were to be located at NORAD's headquarters.⁸⁷ It is also apparent from CINCNORAD's letter of July 3, 1958 to the Canadian COS, and from the fact that only the U.S. JCS reviewed the first draft of NADOP, that from its inception, CINCNORAD was receiving unilateral instructions, with respect to BMD programs, from the U.S. JCS.⁸⁸ Therefore, through the joint Canadian/U.S. command, Canada was automatically involved in U.S. BMD planning.

Automatic inclusion, however, was not necessarily the understanding of the Canadian political system. In a letter dated March 7, 1958 sent from the Under Secretary of State for External Affairs to the Canadian Embassy in Washington in response to a NORAD press release which linked DEW line activities to the U.S. BMD program, the undersecretary stated that "No decisions have been taken as yet by the Canadian government with respect to Canadian participation in the development of a ballistic missile early warning system."⁸⁹ In fact, one of the reasons that the Department of External Affairs was pressing for the establishment of the Canada/U.S. Ministerial Committee on Joint Defence was to have political, or ministerial, access to, and control over, planning that might involve Canada in the U.S. BMD program.⁹⁰

Similarly, the Canadian military did not consider that its involvement in the U.S. BMD plans was a foregone conclusion. In its February, 1959, review of NORAD's air defence plans, NADO and NADOP, the CAS agreed that "...defence against the ICBM threat should be given a high priority," but it recommended that "...no Canadian position be taken on NORAD's AICBM requirements and deployment at this time and (that) Canadian military participation in defence against the ICBM threat be limited, in the early systems stage, to the following: i) participation in providing rearward communications for the BMEWS; ii) full participation with the US in planning for the future anti-AICBM defenses; (and) iii) limited participation by DRB in appropriate research projects." The CAS suggested that "no Canadian position be taken," not because the Canadian government had not yet taken a decision on the issue, but because "...operational analyses of the ballistic missile defence problem have not yet been completed."²¹

In the same document, the CAS recommended the creation of a Canadian military anti-ICBM staff to "...undertake a full analysis of Canadian requirements immediately." Accordingly, the Joint Ballistic Missile Defence Staff (JBMDs) was established on May 19, 1959.²² The Staff was responsible for maintaining "...cognizance of

current knowledge of the broad field of ballistic missile defence and military satellites," and recommending both Canadian military policy relating to ballistic missile defence and military satellites and, within approved Canadian policy, the Canadian requirements related to BMD and military satellites. The JBMDS was to report to the COS Committee."

In its study of BMD," accepted by the COS on January 12, 1960," and presented to the MND on February 10, 1960, the JBMDS suggested that defence against the ICBM was next to impossible, with the best hope being the establishment of a satellite interceptor system in conjunction with ground based lasers. Further, "the use of satellites for military purposes," the report reads, "is giving rise to the need for a system to track and identify such satellites and later it may be necessary to intercept and neutralize them." The report suggests that in the 1965-1970 period satellites will be used for "warning, reconnaissance, navigation, communications and possibly as offensive and defensive weapons." Although "The single development which would disturb the (strategic) balance is the achievement by one side of an effective defence against the ballistic missile," the report suggests that "Research and development leading to an effective active defence,

while not promising, offers a rich prize to the first successful nation and cannot therefore be neglected." To this end, the report states, Canada is working with both the U.S. and the U.K. on BMD research. Further, the report states that because Canada does not have a retaliatory force, the ICBM threat to Canada is incidental, a by-product of the USSR threat to the U.S. Moreover, with the introduction of U.S. BMD "...warning, retaliatory and active defence systems now contemplated, Canadian geography and air space will become of decreasing importance to the U.S. defence posture." NORAD's ballistic missile warning system, however, will allow Canadians to "...take maximum advantage of incidental shelter" in the case of an attack.

Throughout the 1960s the Canadian military remained non-committal to the U.S. BMD programs for two reasons. First, it was concerned about the funds that might be required of the Canadian military in support of the program should the U.S. decide to introduce BMD systems.⁹⁴ Secondly, the U.S. plans were vague and questionable as to the technological feasibility of being able to create a workable BMD system.⁹⁷ In essence, the Canadian military recognized that Canadian BMD plans depended entirely upon U.S. planning.⁹⁸ In remaining non-committal to the program, the Canadian military was able to keep its options

open in terms of future cooperation with the U.S. military.

In fact, the research, development and/or deployment of BMD systems was not a high U.S. priority in the 1960s. U.S. funding for its NIKE Zeus point BMD defence system was stopped as of 1961,⁹⁹ and it was not until September of 1967 that, in spite of the U.S./USSR ABM Treaty negotiations that had begun in 1966,¹⁰⁰ the U.S. announced it was going to proceed with a limited BMD program in the form of the siting of new long and short range BMD missiles, the Spartan and the Sprint respectively. A Sprint missile with its attendant radar was to be situated at the North Bay NORAD Regional Headquarters. The U.S. assumed that this BMD program would come under the responsibility of NORAD.¹⁰¹

However, by the late 1960s, the Canadian government had taken a position on the U.S. BMD program. In spite of NORAD's intentions to site a Sprint missile at North Bay, the Pearson government repeatedly insisted that the U.S. BMD system would be entirely separate from NORAD, and on September 22, 1967, Pearson announced that Canada had no intention of taking part in a BMD program at that time.¹⁰² To this end, Canada had a clause written into the 1968 NORAD renewal agreement stating that the agreement did "...not involve in any way a Canadian commitment to

participate in an active ballistic missile defence."¹⁰³

In inserting the ABM Clause into the NORAD Agreement, the Canadian government was in concurrence with the assessment of the U.S. Secretary of Defense, Robert McNamara, that an effective BMD system would upset the U.S./USSR strategic balance and would therefore be destabilizing in the international environment.¹⁰⁴ There was also a fear, expressed by the Department of External Affairs, that NORAD would become an offensive command if it were involved in the U.S. BMD program, as the program would inevitably involve space based weaponry.¹⁰⁵ Moreover, both the government and the military were wary of the economic obligations Canada might incur if it became involved in a U.S. BMD program with its space program implications. Hence, Canada's involvement in the U.S. BMD and space programs was officially limited to participating in joint research projects, and maintaining the BMEWS radar communication channels as they crossed Canadian territory, as well as the Baker-Nunn space surveillance cameras which were installed at Cold Lake, Alberta, by 1964, and at St. Margarets, New Brunswick, by 1977.¹⁰⁶

Since the U.S./USSR ABM Treaty negotiations were on-going at the time, and since Canadian territory was not needed for BMD radars, Canada's decision to insert the ABM

Clause into the 1968 NORAD Agreement was not considered politically contentious by the U.S.¹⁰⁷ Nor did the insertion of the clause place new restrictions upon the Canadian military for officially it had not been involved in U.S. BMD or space programs through the NORAD command.

Throughout the 1970s, the USAF Aerospace Command (ADCOM) was responsible for surveillance, warning and defence of the continental U.S.A. against aerospace attack.¹⁰⁸ ADCOM was the major component command of NORAD and as such it was responsible for organizing, training and equipping U.S. forces for air defence, aerospace surveillance and early warning for the NORAD command. The Commander in Chief of NORAD was also the CINC of ADCOM. However, ADCOM was a specified command, meaning that it was a unilateral war-fighting command, and hence, was not accessible to Canadian military personnel. The deputy commander of NORAD, a Canadian, was not the deputy of ADCOM and no Canadians were posted to ADCOM. For the Americans, specifying a command allowed the U.S. to protect its plans for the unilateral defence of the U.S. from foreign involvement, while for the Canadians, the specified command allowed the Canadian military to participate in NORAD while maintaining the Canadian policy of not being involved in U.S. BMD or Space programs.

In fact, however, the informal lines of communication that existed both within the NORAD command structure and at the NORAD Headquarters tended to erode the distinction between the NORAD command and ADCOM. ADCOM was responsible for the ground-based BMEWS system, a sea-launched ballistic missile and warning system of radars along the U.S. coasts, a satellite early warning system and the spacetrack system which is a network of space watching sensors located in various parts of the world to monitor earth-orbiting satellites. The data from these various space sensor systems were received in NORAD's underground Space Defence Center near Colorado Springs, the same centre that received NORAD's air defence surveillance and warning data. The NORAD facilities, including ADCOM's space surveillance and warning systems, were co-manned by both U.S. and Canadian military personnel. According to General MacKenzie, the Canadian Deputy Commander of NORAD from 1983 to 1986, the NORAD and ADCOM jobs were co-mingled and personnel were double-hatted.¹⁰⁹ As General Ken Lewis, Deputy Commander of NORAD from 1978 to 1980, said, Canadian and U.S. military personnel could not work side by side at the NORAD Headquarters without developing a sense of trust and mutual respect, and in practice, the Canadian Deputy Commander exercised a great deal of authority over U.S.

resources and commands, authority which was, in fact, out of all proportion to Canada's financial contribution to the command.¹¹⁰ Moreover, Canadian authority over U.S. resources was not limited to air surveillance and warning. The D-CINC was authorized to speak directly to the U.S. President about ballistic missile threat assessment, and exercised that prerogative.¹¹¹ The double-hatting of Canadian military personnel gave them access to U.S. intelligence and defence planning that otherwise would not have been forthcoming,¹¹² and this, according to General Paul Manson, was one of the benefits of NORAD to the Canadian military.¹¹³ Canadians were only excluded from those aspects of U.S. defence planning that dealt with scenarios of unilateral U.S. retaliation.¹¹⁴

In addition to the close working relationship that existed at NORAD Headquarters, the 8 NORAD regional Headquarters that were established in 1969 were manned with both U.S. and Canadian military personnel, with the North Bay Region being commanded by a Canadian and 4 of the other regions having a Canadian Deputy Commander.¹¹⁵ Moreover, Canadian military officers were, and are, posted through liaison and exchange programs to U.S. commands, including the component commands of ADCOM, the Alaskan Air Command, the Air National Guard, the Tactical Air Command, and the

USAF Space Command.¹¹⁶ Hence, although the Canadian military was not officially involved in the U.S. BMD and Space programs, many at the officer rank level were unofficially involved with these programs through the NORAD command structure, through the co-manning of both NORAD and ADCOM's surveillance systems, and through the component commands of ADCOM.

As the U.S. emphasis on BMD systems and space based defensive and offensive systems increased throughout the 1970s, Canada's official non-involvement in these programs, in terms of both policy and funding, became a bone of contention for both the U.S. and the Canadian militaries, for different reasons.

The U.S. military, particularly CINCNORAD, felt that NORAD would work more efficiently if Canada were involved in its associated space and air defence programs.¹¹⁷ The new air defence equipment, including the OTH-B, AWACS and new interceptors, as well as the increasing inability to make a distinction between the roles of space-based and land-based surveillance and warning systems with respect to the bomber, the cruise missile and the ballistic missile, meant that Canadian territory and airspace were becoming increasingly important to the U.S. BMD and space-based defensive systems.¹¹⁸ As

John Anderson said, Canadian airspace and territory were becoming again, as in the 1950s, a necessary component of U.S. defence planning.¹¹⁹ Hence, the Canadian defence policy of non-involvement in BMD and space programs was becoming a source of aggravation to the U.S. military. According to General Lewis, the feeling of the U.S. military at NORAD Headquarters was one of discouragement in that Canada was being offered opportunities through NORAD which were being rebuffed by the Canadian politicians through Canada's policy positions of non-involvement in the U.S. BMD and space systems programs.¹²⁰

The U.S. military reacted to the Canadian policy positions in two ways. First, the U.S. formally excluded Canadian military personnel from U.S. BMD and space program-planning at NORAD Headquarters. Canadians were excluded from participating in Phase II of the Strategic Defense Architecture 2000 studies which began in the fall of 1982 under the auspices of CINCNORAD in his position as commander-in-chief of ADCOM.¹²¹ The studies were concerned with the future of integrated defences against ballistic missiles, the cruise missile and bombers, and Phase II dealt primarily with ballistic missile defences. Canadians were involved in Phase I which dealt primarily with air defences.¹²² As the studies progressed and laid

the foundation for what was to become known as the Air Defense Initiative (ADI), it became clear that just as the dividing line between air and space is thin, so is the dividing line between air and space defence policy. The Canadian government's rejection of the U.S. invitation to participate in the SDI program led to U.S. hesitancy about including Canada in the ADI program as well.¹²³

In addition, when the U.S. reorganized its command structure in the early 1980s in order to "...consolidate assets affecting U.S. activities in space,"¹²⁴ the Canadian military was excluded from the command that was to take responsibility for the U.S. BMD and Space programs. This command, the U.S. Space Command (USSPACECOM or USC for Unified Space Command), was designed to "...put the infrastructure in place that allows the Department of Defense to consolidate and integrate Department of Defense space forces into a single, joint military organization."¹²⁵ The USSPACECOM became operational in September 1985 as a specified command, meaning that Canadian military personnel could not serve within it in exchange or liaison positions.

The USSPACECOM is responsible for both U.S. space operations and aerospace defence. With respect to space operations, the command's role is to "...assure access to

space for our (U.S.) forces and be capable of denying access to space to potential adversaries when and if required," to operate satellites in support of other commands and national agencies, and "...to provide the means through which...the attributes of space (are brought) to bear on the problems of other commanders." As far as aerospace defence is concerned, the USSPACECOM is responsible for the "...planning and requirements development for Ballistic Missile Defence....(and) for providing integrated warning and assessment of attacks on the continental United States mounted by ballistic missiles, bombers and cruise missiles and space related threats." In addition, the command "...will provide the North American Aerospace Defence Command (NORAD) the capability for warning and assessment of aerospace attacks on North America." The Commander-in-chief of the USSPACECOM is also the CINCNORAD.¹²⁶

USSPACECOM's mandate had the potential to virtually reduce NORAD to little more than a formality.¹²⁷ NORAD's mandate as of the 1981 renewal agreement was to "...provide surveillance and control of the airspace of Canada and the United States, provide appropriate response against air attack, and provide warning and assessment of aerospace attack."¹²⁸ In essence, however, the USSPACECOM, through

its component command, the USAF Space Command, fulfils these functions for NORAD.¹²⁹ In fact, General McNaughton, the Deputy CINC for NORAD from 1986 to 1989, suggested that USSPACECOM's monitoring of the world for bomber, cruise and ballistic missile activity, made NORAD redundant,¹³⁰ and there was even talk at the time of moving NORAD to the U.S. Tactical Air Command (TAC) and double-hatting the CINC of TAC. Both the CINC of NORAD and the D-CINC lobbied successfully against this option.¹³¹

Hence, NORAD remained intact and enjoyed equal status with the USSPACECOM at the combined headquarters in Colorado,¹³² with Canadian military participation in ballistic missile warning activities continuing,¹³³ and in fact, increasing. Lt. General MacKenzie, feeling that Canada needed to make "a concrete additional contribution to NORAD," encouraged General Herres, the CINC, to add 80 or 90 Canadians to operational areas, such as OTH-B, where Canadians had not served before.¹³⁴ This introduces the second way that the U.S. managed its frustration over the Canadian government's policy of non-involvement in U.S. BMD and space programs. While officially excluding Canada from U.S. BMD and space programs, the U.S. military unofficially integrated Canadian military personnel into both programs. The major component command of USSPACECOM is the USAF Space

Command and it shares the same headquarters as USSPACECOM and NORAD. CINCNORAD is the Commander-in-chief of all three commands. The other component commands are the Naval Space Command and the U.S. Army Space Planning Group. None of the USSPACECOM component commands are specified, and by design, Canadian military personnel are posted to each of these component commands in order to give the Canadian military as much access to U.S. BMD and space programs as possible. As Lt. General MacKenzie has said, General Herres bent over backwards to accommodate the Canadian military personnel, and as a result, the Canadians were not marginalized at NORAD Headquarters by the U.S. restructuring of their command system.¹³⁵ Canadians are only excluded from plans that involve the unilateral defence of the U.S. Canadian military personnel at the rank level of Captains and Majors occupy crucial positions within the USAF Space Command and Canadian/U.S. co-manning of the NORAD, USAF Space Command and USSPACECOM surveillance and warning facilities in the Cheyenne Mountain Complex is the rule.¹³⁶

Given the U.S. penchant for including the Canadian military as much as possible in its BMD and space programs, the Canadian policy of non-involvement in these programs, and the Canadian attempts to limit its military's

activities in these programs through non-funding of them, hampers Canadian military involvement very little. To the extent that the U.S. BMD and space programs are operational, the Canadian military is involved through co-manning of the NORAD facilities and through the USSPACECOM's component commands. To the extent that programs are in the planning stages, the close working relationships at the NORAD Headquarters allows Canadian military access to the supporting studies, including those portions which are strictly related to U.S. national defence programs.¹³⁷

Therefore, although the Canadian government takes definite policy positions which officially limit Canadian involvement in specific U.S. defence programs, such as BMD and space defence activities, the cooperative Canadian/U.S. military relationship is such as to allow Canadian military active participation in those programs. As will be demonstrated, it is this unofficial Canadian military involvement, outside the fora where the Canadian political system could exercise controls or some form of monitoring, that contributes significantly to the Canadian government eventually reversing its policy positions.

Given that the Canadian and U.S. militaries are dedicated to a common purpose within NORAD, the Canadian

policy of non-involvement in the U.S. BMD and space programs, as well as Canada's limited defence budget, has been a source of professional frustration and embarrassment to the Canadian military both at NORAD Headquarters and at the Chief of the Defence Staff (CDS) office in Ottawa.¹³⁸ Consequently, the Canadian military has often felt it necessary "to smooth over the rifts" caused by the government's policy and defence budget positions by concentrating on the quality of its contribution to Canadian/U.S. joint military programs, rather than the quantity. General Ramsey Withers, the CDS from 1980 to 1983, referred to this as the exercise of Canadian military 'professionalism.'¹³⁹

The Canadian military's sense of embarrassment, coupled with the U.S. restructuring of its command system which officially excluded the Canadian military from the U.S. BMD and space programs, were directly responsible for the removal of the ABM Clause from the 1981 NORAD Renewal Agreement.¹⁴⁰ General K.J. Thorneycroft, D-CINC of NORAD at the time, was concerned that the NORAD Renewal not confine Canadian participation in continental defence to atmospheric defence.¹⁴¹ Further, General G.C. Theriault, the Vice CDS at the time the clause was removed, suggested, the clause was "gratuitously insulting to the U.S."¹⁴²

Not only did the Canadian military agree with the U.S. position that USSR BMD and space programs warranted a concentrated North American effort in these areas,¹⁴³ but it was felt that the clause sent a message to the U.S. that Canada felt it was somehow morally superior to the U.S. in not being involved in these programs.¹⁴⁴

In fact, the terms of the 1981 NORAD Renewal Agreement officially introduced missile and space surveillance and warning to NORAD's agenda. The Agreement, which changed NORAD's name from Air Defence to Aerospace Defence, was a complete rewrite of, and superseded, the original NORAD Agreement which had been renewed in 1968, 1973, 1975 and 1980.¹⁴⁵ The terms of the new Agreement, like the old one, are general and therefore permit flexibility in interpretation. Therefore, although they do not formally commit Canada to participation in the U.S. BMD and space programs, they can be interpreted to sanction the co-manning of USSPACECOM and NORAD's air and space surveillance and warning systems at the Colorado Headquarters. Canadian military participation in these programs, however, remains unofficial through assignment to the component commands of the USSPACECOM.

Hence, the general terms of the 1981 NORAD Renewal Agreement, and the relaxed NORAD and USSPACECOM command

structures, have allowed the Canadian and U.S. militaries to continue to cooperate in BMD and space program planning, largely unmonitored by the Canadian political system. This is not to suggest that the Canadian political system is totally unaware of U.S. defence planning within NORAD, or that its only access to such information is through the Canadian military personnel in the NORAD Command structure. The Assistant Deputy Minister for Policy in DND and his counterpart in the Department of External Affairs work closely with their counterparts in the U.S., and have access to much the same information as is available to the Canadian D-CINC in NORAD.¹⁴⁶ Having access to the information, however, does not constitute an ability to monitor the cooperative activities of the Canadian and U.S. militaries.

The point is not that the Canadian military makes Canadian defence policy. The point is rather that in developing defence programs within the NORAD command to fulfil very general Canadian defence policy priorities, the Canadian and U.S. militaries cooperate in developing those programs to a high level of sophistication before they come under the scrutiny of the Canadian political system. The proposed programs constitute a major part of the agenda upon which the Canadian government makes its decisions and

Canadian and U.S. military cooperation largely controls the flow of information upon which the agenda is based. Moreover, as part of the mandate of their respective U.S. Commands, these defence programs have received the support of the U.S. government before they reach the level of Canadian decision-making.¹⁴⁷ Hence, the Canadian government is forced to make its policy decisions with respect to defence programs at a very late stage in the development of those programs making it most difficult for the government to do anything but concur.

As mentioned earlier, the Department of External Affairs has its own access to developing U.S. defence policy, and although further research is required to ascertain the precise point at which the Department enters the process, on the basis of the evidence it would appear that the Canadian military, in participating in the design and functioning of NORAD and NORAD-related defence programs, would have the more intimate knowledge.

To the extent that NORAD defence programming enters the Canadian political system for consideration at an earlier stage of development, the Canadian reaction is generally one of non-decision-making, of waiting to see how these programs develop. In 1973, NORAD was renewed, but only for two years, in order to assess the new defence

systems that were being considered for air defence purposes. These were the systems that were eventually to support the NORAD Modernization program of 1985. In the early 1980s, as the U.S. was beginning the restructuring of its command system, the U.S. invited Canada to become full partners in the USSPACECOM programs. The invitation was extended informally through the D-CINC of NORAD, and was discussed at the PJBD. Canada was not interested at the time because of the cost involved.¹⁴⁸ Without a formal invitation, there was no need for a formal decision in the negative on Canada's part. The non-decision then allowed for the continuance of Canadian/U.S. military cooperation. In 1986, SCEAND recommended that Canada formally accept the U.S. invitation to participate in Phase II of the SDA 2000 program,¹⁴⁹ the part that had been relegated to the auspices of the USSPACECOM. Similarly, the fears that Canada would be involved in the U.S. SDI, BMD, and space defence programs through NORAD were dismissed as ungrounded in the SCEAND 1986 NORAD Renewal Report precisely because, "No one can say with certainty what systems it may become possible to deploy, and it is by no means a foregone conclusion that Canadian territory would be required....NORAD is the here and now; for the foreseeable future SDI will be nothing more than a research

program."¹³⁰ By making non-decisions, the Canadian military involvement in these programs can continue apace, with the result that the programs then are well developed, and Canadian military involvement well entrenched, by the time the full-blown programs are presented to the Canadian government for consideration.

Hence, military programs within NORAD have a way of becoming policy, and in so doing, have a way of changing Canada's defence policy focus. Three other defence programs demonstrate this process at work. The NORAD Modernization program and NORAD's role in the U.S. War on Drugs program are both specific NORAD programs, while the third program, the Canadian testing of the cruise missile is NORAD related.

Canada's Testing of the Cruise Missile¹³¹

In the mid 1970s, U.S. research and development personnel at the Pentagon conducted a survey of U.S. allies to discover how and where the U.S. could operationally test and evaluate various U.S. weapons systems. One of those systems was the air launched cruise missile (ALCM), and when approached, defence scientists at DND suggested that Canadian territory provided an ideal testing ground for the ALCM. The original proposals to test the weapon were dealt

with at the level of DND defence scientists and the Assistant Deputy Minister of Materiel,¹⁵² with Admiral Falls, the CDS at the time, being unaware that these discussions were taking place.¹⁵³ In fact, Admiral Falls has said that he was against Canada's testing of the cruise, believing that the missile was a destabilizing weapon and that Canada's attention should therefore be focused on getting the cruise missile into the SALT negotiations instead of on testing it.¹⁵⁴

Both the U.S. and the Canadian military understood the testing of the cruise missile to be justifiable within various Canadian/U.S. weapons testing agreements, especially the agreements that had allowed SAC low-level flight testing in Canada for years. In addition, because the Canadian military made ample use of U.S. test ranges, testing the cruise in Canada was thought to be a rendering of services in kind.¹⁵⁵

According to General Withers, the CDS from 1980 to 1983, the period during which the agreement to test the cruise was being negotiated and finally announced, the negotiations for the agreement began informally at the Canadian/U.S. Chief of Staff level.¹⁵⁶ The formal agreement was also worked out at this level, approved by the CDS, then by the MND, and then presented to Cabinet and

the PJBD for approval.¹⁵⁷

Throughout this negotiating period, NORAD's involvement was intimate. CINCNORAD wanted the cruise tested in Canada in order to simultaneously test NORAD's cruise missile surveillance, warning, communication and interception systems. As the Agreement moved into the Canadian political arena for consideration, NORAD personnel lobbied the Canadian politicians for acceptance of the agreement.¹⁵⁸ At the same time, U.S. diplomatic pressure was applied through the Canadian Embassy in Washington.¹⁵⁹ The proposed agreement was also informally discussed in the early 1980s, before a Canadian political position had been taken on the issue, at a meeting of the NATO Nuclear Planning Group in Colorado Springs where formal discussions on NATO's use of the GLCM were taking place.¹⁶⁰

Although Generals Lewis and Theriault, D-CINC of NORAD and Canadian CDS, respectively, at the time, have said that the Canadian military did not expect the testing of the cruise to be politically contentious nor did it see the testing to be of any major significance with respect to Canadian defence policy,¹⁶¹ DND developed a program to influence public opinion on, and defuse opposition to, cruise missile testing.¹⁶²

It could be argued that Canada's testing of the

cruise missile had far-reaching implications in that testing the cruise allowed for the simultaneous testing of the NORAD surveillance, warning, communication and interception systems,¹⁶³ the same systems that were used in the Gulf War. In fact, General Withers suggested that the Gulf War systems could not have worked without the testings of similar systems which have taken place within NORAD.¹⁶⁴

As Howard Peter Langille has suggested, "As the lead department in the negotiating process, DND was able to refine and pursue the American proposal prior to political consultation."¹⁶⁵ The point, again, is not that the military was making policy with respect to testing the cruise missile but rather that informal Canadian/U.S. military planning first at low levels of military involvement, then at the Chiefs of Staff level, and within NORAD produced the plans for testing the cruise. This, coupled with the fact that these plans were accepted by the U.S. political system¹⁶⁶ and discussed within the NATO command structure before being formally presented to the Canadian government, would have made it, not impossible, but very difficult for the Canadian government not to comply. Given Trudeau's antipathy to the test flights of nuclear capable aircraft, expressed at the U.N. in 1978 and

again in 1982, his acceptance of the cruise missile testing agreement has to be seen as a reversal of Canadian defence policy preferences.

NORAD Modernization

General Withers has commented that whereas the ICBM deactivated NORAD, the cruise missile reactivated it.¹⁶⁷ This reactivation began in Canada early in the 1970s when, following the publication of the 1971 White Paper on Defence, an Air Defence Policy Review in Canada revealed that the Canadian NORAD defence systems, the interceptors, the radars and the communication systems, were obsolete.¹⁶⁸ The cost of replacing these systems was high and, in the hopes of including the U.S. in a cost-sharing plan, the Canadian military, through informal communications with the Pentagon in 1976 suggested that a joint Canada/U.S. study of North American air defences be undertaken. The idea was launched at a PJBD meeting and an ad hoc committee of the PJBD was created to undertake the study. When the initial meetings resulted in little more than haggling over cost sharing, the Canadian military suggested that the study be conducted outside the auspices of the PJBD by an ad hoc committee of the Canadian and U.S. Air Forces. Both the MND and the U.S. Secretary of Defense

concurrent, the committee was established and the study, the Joint U.S. Canadian Air Defence Study, JUSCADS, was undertaken. In 1979, when the study was completed to the satisfaction of both militaries, it was presented to the PJBD for approval.

Meanwhile, the U.S. Congress had turned its attention to the USSR bomber and cruise missile threat. Upon deciding that a surprise precursor strike against U.S. targets, especially against the U.S. communication, command and control systems, was a possibility,¹⁶⁹ Congress requested the USAF to undertake an independent study of ways to improve the continental air defenses. Relevant material was taken from the JUSCADS Study, and although the Air Defence Master Plan (ADMP) as it was known, was a national plan, Canadian staff officers participated in the study and it was presented to both Chiefs of Staff for their approval. The ADMP became a part of Reagan's strategic modernization program in 1981, while in 1982, Canada accepted the ADMP as the blueprint for modernizing Canada's NORAD systems.¹⁷⁰

The point is that the plans which Canada accepted for the modernization of Canada's NORAD facilities were U.S. plans rather than those established by JUSCADS. Although based on the JUSCADS study, the ADMP study was

undertaken by the two militaries, under Congressional directives, and therefore largely outside of channels of Canadian political influence. Again, although further research is required to ascertain the precise point at which the Canadian political decision-makers entered the process, the evidence would suggest that it was the Canadian military that had the most intimate knowledge of these plans. Moreover, being involved at the planning stages meant that the Canadian military was involved in the agenda setting process, the agenda upon which the Canadian political system was to make its decisions. Similarly, the Canadian military was involved in managing the flow of information relevant to Canadian decision-making. Again, the planning for the modernization of the North American system had been conducted under U.S. Congressional approval and the plans had been accepted by the U.S. political system before they were formally presented to the Canadian political system for its decision.

From 1980 to 1985, when the signing of the NORAD Modernization Agreement was announced, negotiations were on-going concerning the implementation of those aspects of the ADMP with Canadian relevance.¹⁷¹ Since modernizing the air defenses included replacing the DEW Line with the new North Warning System (NWS), upgrading NORAD's C3I

systems in Canada, and the stationing of U.S. AWACS and interceptors in Canada's north, the negotiations included an enormous number of issues. These negotiations were conducted largely through informal discussions between the Air Staffs in Washington and Ottawa. By the time the NORAD Modernization Agreement reached the drafting stage, the two air staffs had a preferential knowledge of how the system would work and only the contentious points went to the Cabinet for political decisions.¹⁷² Hence, Canadian/U.S. military cooperation in defence program planning for NORAD modernization, was largely able to set the agenda for, and manage the flow of information to, the Canadian political arena.

In addition, the U.S. Strategic Defense Architecture 2000 studies, that were on-going under the auspices of CINCNORAD as of the fall of 1982, were also an impetus for NORAD modernization in that they focused on the integration of bomber, cruise missile and ballistic missile defence systems. Given that the Canadian military was involved in Phase I of these studies dealing with space-based technologies for meeting the air-breathing threat, and given, as previously discussed, the integration of Canadian military personnel into these programs through the NORAD and USSPACECOM structures, the infrastructure for

integrating Canadian involvement into the U.S. ADI and SDI programs was also being prepared at this time.¹⁷³

It could be reasonably argued then that the NORAD Modernization Agreement, like the rewritten 1981 NORAD Renewal Agreement before it, became a vehicle for the further integration of the Canadian military into those U.S. programs which included BMD and both defensive and offensive space systems. In fact, further integration was the outcome. The 1987 White Paper on defence announced Canada's acceptance of the U.S. ADI program, and an implied acceptance of the SDI program,¹⁷⁴ while the 1986 SCEAND NORAD Renewal Report recommended accepting the U.S. invitation to participate in Phase II of the SDA 2000 studies.¹⁷⁵

Hence, the military may not make Canadian policy, but military programs developed in conjunction with the U.S. military have a way of becoming policy through an initial Canadian commitment to joint defence studies, and subsequently, to cooperative defence program planning. Since the defence program planning process is dominated by the U.S. perceptions of the threat, Canada's relative inability to reject joint defence programs once they have reached a high stage of development and been granted U.S. Congressional approval, means that Canada is constrained to

accept as its own, the U.S. perceptions of the threat, and the appropriate reaction to it.

The 1991 NORAD Renewal and the U.S. War on DRUGS

Prior to the 1991 NORAD Agreement renewal, the Standing Committee on External Affairs and International Trade struck a sub-committee of the External Affairs and National Defence committees to review the renewal issue. The sub-committee held two days of Hearings on October 16 and 18, 1990, commissioned a study of the renewal issue by an independent panel of experts, and invited submissions from interested organizations and individuals. At the end of the review process, neither the sub-committee nor the Standing Committee was "...able to achieve a majority in support of a report. Unresolvable differences arose over the period and terms of a 1991 renewal of the Agreement." The Standing Committee's statement recommended that, "Given the extraordinary changes in East-West relations and the ending of the cold war, the Government should carry out, in the first two years of any NORAD renewal period, a comprehensive public review of Canada-United States defence cooperation and the future surveillance needs of Canada, the United States and their northern neighbours." The statement also recommended that an exchange of views and

information on the subject between Canadian and American legislators should take place, with the first such exchange taking place before NORAD is renewed in 1991.¹⁷⁶

The NORAD Agreement was renewed for five years on May 12, 1991 without any such meetings taking place and without plans for public hearings in the first two years of the NORAD renewal period. It was also renewed with no acknowledgement of the fact that the U.S. was then, and is now, in the process of another restructuring of its USAF Command system.¹⁷⁷ The U.S. plans call for a merging of the Tactical Air Command (TAC) and the Strategic Air Command (SAC). The implications of the merger for the NORAD Command are considerable, but speculative. For example, there has been mention made of making the CINC of NORAD a Canadian. Does this mean that NORAD would be reduced to an atmospheric defence role, isolated from the other related U.S. commands? Or does this mean that with a Canadian as CINC of NORAD, the Canadian presence within the U.S. command structure would be strengthened? These are questions which Lt. General MacKenzie, the source of this information, could not answer.¹⁷⁸ The point is, however, that a retired member of the Canadian military had access to this information through his former U.S. military colleagues whereas the Canadian political system did not

have access to the information when considering renewing the NORAD Agreement.

There was another issue area that received very little attention during the Hearings. In 1989, NORAD became an integral part of the U.S. War on Drugs program.¹⁷⁹ Initially, the U.S. Congress requested the USAF to perform an interdiction function in the drug smuggling trade. The RCAF suggested that NORAD, with its interceptors, and warning and surveillance systems would be the most appropriate command to fulfil the role. With the decline in the Cold War climate, and seeing a role for NORAD in the U.S. War on Drugs program as a *raison d'être* for NORAD in the 1990s, CINCNORAD agreed with this assessment.¹⁸⁰

Initially NORAD's drug interdiction role was a U.S. national program from which Canadian participation was excluded. CINCNORAD, however, suggested to General McNaughton, the Canadian Deputy Commander that, for the sake of efficiency, Canada be involved. General McNaughton concurred and while CINCNORAD recommended to the U.S. JCS that Canada be involved, McNaughton made the same recommendation to the Canadian CDS, General Manson.¹⁸¹ Both Chiefs of Staff concurred and Manson notified the MND of NORAD's new mandate.¹⁸² The Department of External

Affairs was informed that a formal request for a change in NORAD's terms of reference would be forthcoming from the U.S. and the Department gave its approval within 24 hours of receiving the request. The decision did not go to Cabinet.¹⁸³

As far as the U.S. was concerned, NORAD could justifiably assume an interdiction role in the U.S. War on Drugs program because the drug problem was defined as a U.S. national security issue. Canada's inclusion in the program was justified by the argument that some of the drugs destined for the U.S. are routed through landing strips and airports in Canada, while some of the drugs that are smuggled into the U.S. find their way to Canada.¹⁸⁴ In pursuit of this U.S. national security program, then, new computers for the tracking of suspected aerial drug traffic have been installed in the regional NORAD Headquarters, including the North Bay Headquarters. Communication systems have also been installed which allow for instant and direct communication between NORAD personnel and all the relevant law enforcement agencies of Canada and the U.S. In addition, military liaison personnel are now located at the RCMP Headquarters in Canada.¹⁸⁵

Hence, another level of informal and instantaneous

communication and cooperation has been added to the Canadian/U.S. military relationship, that of the Canadian/U.S. law enforcement agencies. This has been accomplished by defining the U.S. drug problem as a national security issue, and bringing Canada into the program through NORAD, and these plans were made by the Canadian and U.S. military with full Congressional support before the Canadian political system was involved. When the plan did reach the stage of requiring a political decision, that decision was made without Cabinet involvement. As NORAD began, so it continues.

Implications for Canadian Defence Policy Making.

In the 1964 and 1971 White Papers on Defence, the Canadian government prioritized its defence interests within very broad parameters. In terms of NORAD, the Papers generally affirmed that the defence of North America, and of Canadian sovereignty, were high priorities in Canadian defence policy. Given the generality of the White Papers, it was the military's role to design the defence programs to meet these commitments.¹⁸⁶ In terms of NORAD, the 1987 White Paper was much more specific in its outlines of force postures, equipment and programs for meeting the country's NORAD commitments but these programs

had been established as policy through the NORAD Modernization Agreement of 1985. The same was true for the Paper's announcement that Canada would be involved in NORAD-related programs such as the ADI, aspects of SDI and its attendant space programs. In fact, the NORAD and NORAD-related defence programs were the only White Paper programs not affected by the changes in the international environment and in the Canadian economy, both changes contributing to Canada's subsequent inability to bring the majority of defence programs described in the White Paper to fruition.¹⁶⁷ In other words, the 1987 White Paper on Defence was specific in describing the results of Canadian/U.S. military defence policy programming which had taken place under the auspices of the general defence policy priorities of the 1971 White Paper. It was not, however, specific in detailing future NORAD or NORAD-related programs, and therefore, like the earlier papers, it relegated, by default, the design of future defence programs, based on Canadian defence policy priorities, to the military.

Ideally, the establishment of defence policy priorities within broad policy parameters leaves room for the articulation of political and strategic perceptions of the international environment and hence, for the making of

mutually supportive foreign and defence policies. However, given the Canada/U.S. power differential within the NORAD alliance, and its expression within the Canadian/U.S. military cooperative defence program planning process, the balance between foreign and defence policy-making, between political and strategic perceptions of the international environment, tends to be upset in Canada. In other words, it is U.S. political and strategic perceptions of the international environment which tend to direct the defence program planning process making it difficult for Canada to design defence policy that reflects its own policy preferences with respect to the international state system.

This has been the case throughout the history of NORAD. The establishment of the NORAD Command raised grave concerns in the Canadian political environment with respect to NORAD's potential for compromising Canadian independence in defence policy-making, its control over the activities of its military forces, and its ability to resist being drawn into U.S. conflicts. By the time these issues were raised in the Canadian political arena, however, NORAD was a fait accompli. Defence program planning within NORAD was also responsible for Canada's decision to accept nuclear weapons for its NORAD forces, in spite of the contrary views of the Department of External Affairs, Diefenbaker,

and Pearson's less than whole-hearted commitment. Again, the political debate took place after the fact, rather than before. Similarly, throughout the late 1960s and the 1970s, the Canadian government's expressed intentions were not to be involved in the U.S. BMD and Space programs because both programs were perceived, by the Canadian political system, to be destabilizing in terms of the international political and strategic environments. Yet Canada has become increasingly involved in these U.S. defence programs, largely through Canadian/U.S. military cooperative defence program planning. For largely the same reason, Canada agreed to test the cruise missile even though Prime Minister Pierre Elliot Trudeau had repeatedly expressed his concerns over the arms race and the testing of nuclear weapons systems. Finally, although the Canadian government was in full agreement with NORAD's role in the U.S. War on Drugs program, and with the NORAD modernization plans, including the ADI, the process whereby these programs became Canadian defence policy was similar to the way in which previous NORAD defence programming came to be accepted in Canada.

That the Canadian and U.S. militaries share a common perception of the international strategic environment is not surprising. Both have been formally

charged, since the establishment of the NORAD Agreement, with the air/aerospace defence of the continent. Being charged with the same responsibility, the two militaries, particularly the two air forces, are of the same professional mind-set, and this is constantly being reinforced, at all officer rank levels, through the formal and informal channels that exist for coordinating interests and defence program planning.¹⁸⁸ The formal channels include the Command structure of NORAD, including NORAD's component U.S. commands to which Canadian officers are posted, exchange and liaison programs, the PJBD, the MCC, ad hoc study groups, and a plethora of agencies and committees that are formed to deal with various aspects of each defence program.¹⁸⁹ These formal structures are supported by informal forms of communication, including the matrix of personal relationships that has developed between Canadian and U.S. military personnel throughout NORAD's thirty-four year history of professional cooperation.¹⁹⁰

Within this environment of cooperation, the Canadian and U.S. militaries work out defence programs to fulfil NORAD's mandate of the aerospace defence of North America. Planning often begins at a low rank level of military involvement and by the time the plans have cleared higher ranking levels, they are highly developed, and

alternatives have been discarded.¹⁹¹ Because defence issues are high priority issues within the U.S. government, the structures for the political monitoring of military planning are well developed. Hence, by the time NORAD defence programs have reached a high level of development, they have generally also been exposed to U.S. political review. By the time these programs are formally presented to the Canadian government, they have generally received Congressional approval.¹⁹²

The channels that exist for the Canadian political system to exercise some control of this process are limited. Although the PJBD, with its civilian representation, was designed to fulfil a monitoring and control function for the Canadian government, its main function has become the ratification of plans, programs and agreements that have already been accepted at the Chief of Staff level in both countries, and generally also by the U.S. Congress.¹⁹³ The NORAD Modernization Agreement, the Cruise Missile Testing Agreement, ADI, and the NORAD Renewal Agreements, all went through the PJBD on this basis.¹⁹⁴

Because there are no rules governing which issues should consistently be referred to the PJBD, issues are generally referred on an ad hoc, and discretionary,

basis,¹⁹³ either for informal resolution of contentious points or for the introduction of new defence ideas to be referred elsewhere for study, as in the case of JUSCADS.¹⁹⁴ In essence, because most of the work of the PJBD is conducted informally, in the social setting outside the formal meetings,¹⁹⁷ the PJBD serves as one of the many informal forums that exist for Canadian/U.S. military communication, cooperation and defence program-planning.

As far as the MCC is concerned, this is purely a military Committee, and hence, not a body for exercising political control. It is officially the PJBD's study group and is staffed on an ad hoc basis by assistants to the PJBD military members.¹⁹⁸ It tends to deal primarily with technical issues such as the cross border movement of troops and air craft¹⁹⁹ and only those issues that cannot be resolved or those that become political are referred to the PJBD.²⁰⁰

Hence, Canadian political control of the NORAD defence-program planning process must come primarily from within the Canadian political system. Although further research into the role played by the Department of External Affairs and the civilian branch of the DND is required, the evidence would suggest that because NORAD defence programs have reached a high level of development by the time they

are formally presented to the Canadian government, alternatives in terms of military options are non-existent. In addition, because these defence programs have generally received the approval of the Canadian and U.S. Chiefs of Staff, and of the U.S. government, alternatives, based on Canadian political perceptions of the appropriate policies with respect to the international environment, are very hard to introduce at this stage. Hence, the defence agenda is set for the Canadian political decision-making process, making it most difficult for the Canadian government to make defence policy decisions which reflect a distinctive Canadian alignment of its own political and strategic perceptions of the international environment.²⁰¹

Since the flow of joint defence-planning information to the Canadian political system is largely controlled by the Canadian military, it is also difficult for the Canadian government to introduce its own distinctive policy concerns at an earlier stage in the planning process. It is the Canadian military that has direct access to the informal communication channels between the two militaries, and first access to the formal channels of communication that exist within the NORAD Command structure, and within the exchange and liaison programs. It is also the Canadian military in conjunction

with the U.S. military that controls the MCC, and controls the flow of military information to the PJBD.

Within Canada, there are organizational structures which are designed to govern the flow of defence information from the military to the political system,²⁰² but these structures do not determine the content, or the timing, of information transfers. Hence, military information generally enters the political system at the discretion of the CDS. The MND is informed of aspects of Canadian/U.S. defence program planning when they are judged by the CDS to be politically contentious, or when political decisions are required. As Admiral Falls suggested, much of the defence programs are "cut and dried" before they enter the political arena.²⁰³

Hence, not only is the flow of information controlled by the military, but political decisions and compromises that might be made by the Canadian political system, are made on the basis of a set military agenda, rather than on the basis of a range of military strategic alternatives. Given this situation, it is not surprising that the Canadian military tends to feel that the government is very poorly informed about defence issues, and that, in fact, defence policy is made from the bottom up rather than from the top down.²⁰⁴

Canadian/U.S. military defence-program planning has ramifications for the Canadian government's expressed reasons for remaining within the NORAD alliance. Throughout the history of NORAD, access to U.S. defence planning and intelligence has been touted by the Canadian government as one of the reasons for remaining within the alliance. However, because the government generally receives this information second hand, through the Canadian military, on a discretionary basis, and generally after Canadian/U.S. defence program planning has reached a high level of development, Canada is not in the position to use the information creatively in terms of aligning its strategic defence policy decision-making with its political perceptions of the international environment. Hence, the government is prone to making "strategic miscalculations" in its defence policy decisions. The decisions to accept a nuclear role for Canada in the 1960s, to test the cruise missile and to accept the ADI and aspects of SDI in the 1980s, all considered to be 'strategic miscalculations' by major defence policy analysts, were all outcomes of the Canadian/U.S. military defence-program planning process.

The Canadian/U.S. military relationship also mitigates against the Canadian government's belief that membership in the NORAD alliance allows Canada to

influence, in the sense of moderating, U.S. defence planning for the continent. The U.S. military, in its need for access to Canadian territory, airspace and goodwill for its own defence planning purposes, is extremely accommodating of the interests of the Canadian military.³⁰⁵ Given, however, that professionally, the Canadian and U.S. militaries have the same interests with respect to the defence of the continent, it is not the Canadian military that exercises a moderating role within the joint defence program planning process. In fact, with respect to the U.S. BMD and Space programs, rather than exercising a moderating influence as per the Canadian defence policy of non-involvement, the Canadian military reserved its opinion on the programs in the late 1950s and early 1960s, and subsequently found ways to become involved in the programs through the NORAD command structure and the exchange and liaison programs. When the U.S. restructured its command system, the Canadian D-CINC at NORAD worked closely with the CINC to ensure as much Canadian involvement in the activities of the USSPACECOM as possible.³⁰⁶ In addition, in being the force behind the removal of the ABM Clause from the 1981 NORAD Agreement, and the testing of the cruise missile, the Canadian military actively worked for changes in Canadian defence

policy which would allow Canadian military participation in U.S. defence programs.

Given, again, that common defence programs are highly developed and generally have received Congressional approval by the time they are presented to the Canadian government for its decision, the Canadian government also has very little ability to exercise a moderating influence upon Canadian/U.S. defence program planning. In addition, because Canada contributes very little to the production of defence systems, Canada's bargaining chips in terms of the choice of defence systems to support programs are minimal. Hence, to the extent that defence technologies predict defence programs, and to the extent that programs predict policy, Canada's ability to influence U.S. defence planning is again minimal.

The differences that exist between the Canadian and the U.S. militaries are the differences that are predicted by each country's differing economic status and perception of the international political environment based on the differing positions of the two countries within that environment. Both of these factors are believed, by the government, and by some defence analysts alike, to be constraints upon the Canadian military in terms of its ability to initiate, or participate, in sophisticated

defence postures.²⁰⁷ The Canadian military can neither afford defence systems similar to those of the U.S., nor does Canada's position in the international political environment warrant the level of defence perceived to be required by the U.S. However, apart from being sources of professional embarrassment, neither budgets nor policy constraints greatly hamper the Canadian military's ability to be involved in expensive and sophisticated defence programs through its association with the U.S. military.

The U.S. military accommodates the Canadian military in its defence program planning in spite of Canada's limited defence budget and in spite of Canada's defence policies. Until the 1987 Defence White Paper, Canadian defence policy has been explicitly against Canadian involvement in the U.S. BMD and Space programs. Both of these programs have been understood, by successive Canadian governments, to be destabilizing systems in terms of the East/West strategic balance. Yet the Canadian military has been actively involved in these U.S. programs since the inception of NORAD, through the NORAD Command structure and its component U.S. commands. This involvement occurs, in part, because the generality of Canadian defence policy parameters allows for a wide range of military interpretation of those parameters. In fact,

General Foulkes recommended keeping the terms of the original NORAD Agreement broad precisely to give the military leeway in interpretation and in developing defence programs. When the original NORAD terms of reference in the NADO and NADOP plans placed a higher priority on BMD defenses than on bomber defenses, the Canadian military was able to concur with the philosophy but only felt bound by Canada's anti-BMD policy, to "reserve its position" on, not disassociate itself from, NORAD's BMD role. Similarly, the terms of the new NORAD Agreement established in 1981 were sufficiently vague to allow Canadian participation in U.S. BMD and Space programs through NORAD and its component commands.

The involvement of the Canadian military in U.S. defence programs is also encouraged by the U.S. military. Out of self-interest and a recognition of mutual professional interests, the U.S. military includes the Canadian military in its national BMD and Space program research and development and operational activities as much as is formally possible through co-manning within the NORAD command structure and the posting of Canadians to component commands of the USSPACECOM. The informal channels of professional communication that exist within these structures, within joint study groups, and between the

Chiefs of Staff Offices, all supported by a matrix of social ties, increase the extent of the Canadian military's involvement in U.S. BMD and Space Programs.

Further, the military exchange and liaison programs offer opportunities for the Canadian military to participate in U.S. defence programs. Exchange and liaison personnel serve in U.S. commands on the same basis as U.S. military personnel. In these capacities, Canadian military officers served as U.S. officers in both the Korean and the recent Gulf War, and as U.S. flight instructors during the Vietnam War. U.S. defence personnel are also posted to Canadian commands on the same basis.

Canadian policy restrictions and defence budget constraints, therefore, do not necessarily greatly limit the Canadian military's active involvement in U.S. defence programs. The pattern that was established with the inception of NORAD, of Canada agreeing to participate in joint Canadian/U.S. military planning in order to monitor U.S. activities and planning, believing, erroneously, that planning does not involve an eventual commitment to those plans, has continued throughout the history of NORAD. Joint defence studies produce joint program planning, and program planning sets the agenda for future defence policy decisions. In addition, the Canadian military in its

associations, both formal and informal, with the U.S. military, controls the flow of strategic and military planning information to the Canadian government. Since most of the joint Canada/U.S. planning is with regards to U.S. national defence planning, the plans that are presented to the Canadian government have already been approved by the U.S. government. Alternatives, apart from non-participation, are not available, and in fact, even non-participation is not always a viable option, for within the Canadian/U.S. military relationship, the means can be found to include the Canadian military, as has been the case with the U.S BMD and Space programs.

Hence, the Canadian military does not make defence policy in terms of unilaterally producing White Papers on Defence or making final, formal, decisions on defence programs to fulfil policy. Canadian military defence-program planning, in conjunction with the U.S. military, however, has a way of predicting Canadian defence policy.

Implications of the Canadian/U.S. Military Relationship for Theorizing Defence Policy at the Domestic Level of Analysis

The statist approach to foreign and defence policy making assumes that both forms of policy are made within three environments, the domestic, the governmental and the

international.²⁰⁸ With respect to defence policy-making, this perspective is, in effect, a domestic version of the realist perspective, to the extent that it assumes that the government makes its defence policy decisions primarily on the basis of realist assumptions about the international environment, on the basis of power relations between states in the international realm. Having made its cost/benefit analysis in terms of its power/security interests, the perspective assumes that the government then sets defence policy in relative isolation from the various legislative bodies. The major decision-makers are the Prime Minister and the Minister of National Defence working within the Cabinet and the Cabinet Defence Committee. Standing Committees of both the Senate and the House of Commons, are advisory, not policy-making, bodies. Being a parliamentary system, the House of Commons is rarely involved in the decision-making process. Policies are presented for discussion and ratification, rather than issues being presented for policy formulation. Parliamentary involvement in those defence policies that are discussed in the House, however, is severely limited by the security-sensitive nature of defence policy issues, and by the fact that defence policy-making is not a high government priority issue and is not therefore heavily politicized.

Further, because defence issues are not politicized, and because much of the information involved in the decision-making process is not publicly accessible, the perspective assumes that the domestic environment is relatively uninfluential with respect to defence policy-making. The general population has neither the information nor the desire to be actively involved in the setting of defence policy.

Hence, the statist perspective assumes that within the Canadian governmental environment, defence policy is made from the top down. The Prime Minister, in consultation with the Cabinet, sets the broad parameters of defence policy based on the exigencies of the international balance-of-power system and tempered by budgetary constraints. It is then the role of the military to implement the policy with governmental control of the Department of National Defence budget being a major form of control exercised by the government over the implementation process.

This perspective pays very little heed to where the government acquires the information upon which it bases its decisions. The bureaucratic politics model²⁰⁹ for analysing governmental decision-making addresses this question by suggesting that the bureaucracies of the

relevant departments in any issue area, being permanent fixtures of the state, have both the expertise to advise the decision-makers and a vested interest in policy outcomes. Hence governments make their decisions on the basis of bureaucratic advice. Since the advice rendered by a particular bureaucracy may reflect the interests of the bureaucracy more than the interests of the government, the bureaucratic politics model assumes that the working out of conflicts by various bureaucracies involved in an issue area serves to minimize the chances that governments will make policy decisions that do not reflect the range of relevant considerations.

With respect to defence policy making, the bureaucratic politics model would suggest that the government makes its defence policy decisions largely on the basis of information provided to it by the military. Since the military's interests are primarily strategic, involving strategic threat assessments, and calculations of force postures, weapons and defence systems needed to counter the threat, the information which it provides to the government is heavily weighted in this direction. Further, the model would suggest that the military's strategic bias would be minimized as the military's interests come into conflict with the economic and/or the

political interests of other departments with defence policy interests. This includes the Department of External Affairs, the Department of Finance, the Department of Supply and Services, the Department of Regional Industrial Expansion, as well as the civilian branch of DND.²¹⁰

According to Ken Lewis, this process is very much in evidence in the Canadian decision-making process. Defence issues or proposals which emanate from the military, he suggests, sometimes emerge from the bureaucracy "pummelled" out of shape. The politicians then make their decisions on the basis of an eroded proposal, considering issues that may even have become obsolete due to the time it has taken for the proposal to pass through its relevant departments.²¹¹ However, the bureaucratic politics model does not take into account the advanced stage of planning which many of the major defence programs have reached by the time they enter the bureaucratic process. When these 'pummelled' defence programs emerge from the bureaucratic process as policy, they do so as 'pummelled' originals, not as original alternatives. Hence, there are dangers in accepting the assumptions of either the statist perspective or the bureaucratic politics model as definitive guides to the defence policy decision-making process in Canada. Neither of the approaches, for

instance, adequately distinguishes between the domestic political and strategic decision-making environments. The political environment is the realm of the government and it is political precisely because it involves the government of the day in the mediation of the political, the economic and the strategic issues involved in defence policy-making. Within these issues areas, the government is faced with mediating both its own interests and those of relevant actors whether they be private, bureaucratic or state affiliated as in the case of the military.

The strategic environment is the realm of international power politics in terms of the military force postures, including the weapons and defence systems, of the states in the international realm. In terms of threat assessments, the political assessment is based on a calculation of the probability of any one state initiating a military attack on another state given the general nature of the balance-of-power system in the international realm, and the specific political and economic relations between states. The strategic assessment of threat, on the other hand, is based on the damage that one state could inflict upon a rival state, calculated solely on the basis of its force posture.

The dominant actors in these two environments, the

political and the strategic, are the government and the military respectively. Because the government is the mediating body with respect to actors that have defence policy interests, and because the military is one of those actors, having strategic issues as its main interest, the government is, formally, the dominant actor in the relationship. However, given the effects on Canadian defence policy making of the Canadian/U.S. military defence program planning process, the military is the actor of consequence in terms of NORAD defence policy-making.

The distinction between dominant actor, and actor of consequence, status is rooted in the distinction between formal and de facto power in the domestic defence policy decision-making milieu. The government White Papers on Defence contain broad policy outlines with the defence of North America and Canadian sovereignty being high on the list of priorities in each of the three White Papers that have been produced since the Second World War. Defence policy reviews that have taken place periodically in between the publication of the White Papers have not altered the priorities. The military's responsibility is to establish the programs for carrying out the policies. The military staff in the Department of National Defence delegates the responsibility for the various programs to

the appropriate Canadian Forces Command with the Air Command being primarily responsible for the defence of Canadian air and territorial sovereignty, and Canada's role in the air/aerospace defence of the continent.

The Canadian Air Command, as a component command of NORAD, works very closely with the USAF in coordinating plans for the defence of the continent while the military staff at DND, particularly the Chief of the Defence Staff works very closely with its U.S. counterpart, and in fact, the CDS is reported to by the Commander-in-Chief of NORAD. Such coordination with U.S. planning in defence programs serves Canadian interests both in the defence of the continent vis-a-vis enemy invasion and in the defence of Canadian sovereignty vis-a-vis U.S. unilateral use of Canadian airspace and territory. However, the initial working out of defence programs to fulfil both Canadian and U.S. air/aerospace defence policies takes place outside the forums where Canadian political control of the process could be exercised, at the level of Canadian/U.S. air force cooperation, between the U.S. and Canadian military staffs at the NORAD Headquarters in Colorado Springs, and through informal channels of communication among the U.S. Joint Chiefs of Staff, the Canadian Chiefs of the Defence Staff and the NORAD command structure.

Hence, defence programs designed to fulfil Canadian defence policies are very highly developed by the time they enter the political arena. The Minister of National Defence is generally the first on the political side of the decision-making process to be informed of developing military programs but the point at which the Minister is brought into the planning process is arbitrary. Generally, the Chief of the Defence Staff(CDS) informs the Minister when programming has reached the stage where political decisions are needed, or when the CDS decides that some aspect of the program may be politically contentious. Some of these issues may be settled by the Minister and some may go to Cabinet, and again, the decision is based on the personal discretion of the Minister. The Department of External Affairs is also informed of military program planning on a discretionary basis, the discretion being exercised on an ad hoc basis primarily by the CDS, the MND and/or the Assistant Deputy Minister of Policy(ADMPol).

The joint binational organizations that are designed for coordinating Canada/U.S. military plans and/or exercising political control over the military planning process are relatively ineffective on both counts. The Canada/U.S. Ministerial Committee on Joint Defence was established in 1958, largely at the insistence of the

Department of External Affairs. It was designed specifically to introduce an element of political control to the military planning process within NORAD. However, it has only met four times, the last time being in 1964. The Permanent Joint Board on Defence (PJBD), which has both civilian and military representation, was established in 1940 and was active throughout the war years. It is not a policy-making body but rather a forum which is used primarily for ratifying plans and programs that have been developed by the Canadian and U.S. military, either within the Military Cooperative Committee (MCC), in ad hoc study groups or within the NORAD command structure. Contentious issues that may arise are generally settled informally at the PJBD meetings with only the decisions being entered into the minutes.²¹² Because the co-chairmen report directly to the Prime Minister and the President, the PJBD serves as an alternate route through the bureaucracy, but the issues which it addresses are arbitrary. As John Anderson suggested, generally the military looks for, and uses, the channel through the political system that will best serve its interests.²¹³

Consequently, the Canadian military is able to design defence programs in cooperation with the U.S. military largely in isolation from civilian political

control. In the process it is able to control the flow of information to the political system meaning that bureaucratic conflict does not enter the programming process until the programs are relatively well developed. Further, because the U.S. commits more funds and political interest to defence policy issues, defence programs are more closely scrutinized within the U.S. political system than they are in Canada. Hence, by the time joint Canadian/U.S. military programs reach the level of requiring a political decision in Canada they have generally been accepted by both the Canadian and the U.S. Chiefs of Staff, and by the U.S. Congress. Hence government defence policy decision-making as it relates to NORAD is on the basis of an agenda that is set by joint Canadian/U.S. military cooperation. The Canadian government's ability to make independent policy assessments is compromised by the degree of planning that has already taken place, by the military's ability to control the flow of information and by U.S. governmental acceptance of the plans.

Within this situation, the assumption of the statist perspective on defence policy-making within Canada, that the activities of the Canadian military can be effectively controlled by budgetary exigencies, is

questionable, as is the bureaucratic politics model's assumption that bureaucratic conflict tends to remove the vested interest bias from military proposals. With regard to the statist assumption, while it is true that the Canadian financial contribution to the defence systems of NORAD is small, 10 per cent of the costs, this figure in no way reflects the joint Canadian/U.S. military professional commitment to the defence of North America. Quite apart from the joint staffing of the NORAD Headquarters in Colorado Springs, and of the regional NORAD headquarters in each of the NORAD districts, between 150 and 300 Canadian military officers serve in exchange and liaison positions in all but the specified U.S. component commands of NORAD. As virtually all of the military personnel interviewed said, the U.S. military takes the interests of the Canadian military into consideration out of all proportion to Canada's contributions to NORAD.

Moreover, where Canadian defence policy states that Canada will not be involved in specific U.S. defence programs, Canadian/U.S. military cooperation is able to work around the constraints. For example, the U.S. Space Command is a specified command in charge of U.S. BMD and both offensive and defensive space programs. Partly because Canadian defence policy does not support Canadian

involvement in these programs, Canadians are denied access to the Command. However, the USSPACECOM and NORAD share the same Commander, the same facilities, and Canadians are posted to the Space Command's component commands including the USAF Space Command. These postings were designed specifically by the Canadian and U.S. militaries to allow Canadian military personnel as much access as possible, within the broadest interpretation of Canadian policy constraints, to U.S. BMD and Space program planning and activities. Canadians are only excluded from the aspects of the USSPACECOM that have to do with U.S. unilateral plans for the defence of its own territory.²¹⁴

Hence, restricting the Canadian military through budgetary and policy constraints does not necessarily restrict Canadian/U.S. military cooperation and the development of common defence plans based on that cooperation. In the same way, restrictive Canadian procurement policies do not hamper Canadian/U.S. military cooperation. In fact, both restrictions serve to strengthen the Canadian/U.S. military professional relationship. The Canadian military tends to feel both embarrassed and apologetic over its government's budgetary and policy positions and hence seeks to redress the government's deficiencies through dedicated professionalism

to the joint defence cause, while the U.S. military is willing to include Canadian military interests in disproportion to its policy and financial commitment in order to maintain good relations and hence a Canadian military lobby for U.S. access to Canadian territory and airspace.

In addition, the assumption of the bureaucratic politics model, that bureaucratic conflict tends to moderate the vested interests of the military in their procurement policies and hence the vested interests of the military in defence policy-making, is only partially correct. This assumption is based on the perception that weapons dictate policy which is a viable assumption to the extent that new technological capabilities predict new defence orientations, as was/is the case with the SDI, for example. Bureaucratic conflict would serve to modify vested interests if it were about whether or not to adopt the policy which required the weapon procurement in question. Within NORAD, however, that policy decision is often taken elsewhere and the bureaucratic conflict is over which weapon in a class of weapons to purchase and under which offset conditions. For example, bureaucratic conflict did play a role in the 1980 decision as to which one of six possible interceptor aircraft would be purchased

to fulfil Canada's roles within both NORAD and NATO.²¹⁹ This process, however, had nothing to do with the programs that dictated the need for interceptors in the first place. As far as NORAD was concerned, the interceptors were needed to support the NORAD Modernization Program which had its roots in a joint Canadian/U.S. ad hoc military study undertaken in the mid 1970s. That study, in turn, was undertaken because of emerging technologies, specifically the cruise missile and the threat it was perceived to pose to the continent. In other words, technology created the need for a new joint Canadian/U.S. military defence program, and that program became Canadian policy after it had been fully developed by the two militaries and approved by the U.S. Congress. Therefore, the bureaucratic conflict that surrounded the purchase of the interceptor aircraft in Canada did not mediate defence policy. It simply mediated the choice of weapons to support it.

In spite of the foregoing, neither the military nor the government, nor political analysts of the statist or bureaucratic politics persuasion, would suggest that the military makes defence policy. All of them argue that not only do the inhabitants of the higher levels of political organization in the country set the broad policy outlines, but they also are responsible for making interim specific

defence policy decisions. The argument maintains that the military only establishes the programs for carrying out the government's defence policy priorities. The point is, however, that programs back into policy. NORAD, as a joint Canada/U.S. air defence command had its roots in Canadian/U.S. military cooperation, as did the nuclear weapons program for Canadian NORAD forces, the cruise missile testing program, the NORAD Modernization Program, including Canada's role in the U.S. ADI and SDI/Space programs, and NORAD's newly acquired role in the U.S. War on Drugs. All of these programs had U.S. governmental approval before they reached the stage of requiring a formal Canadian governmental decision. Hence, military programs have a way of eventually becoming policy primarily because the policy infrastructure is so well established outside of the Canadian political environment that any attempts to introduce defence policy that contains an alternative view of the international political or strategic environments are almost fruitless.

From this point of view, with respect to the two top priorities in Canadian defence policy, the defence of the continent and of Canadian sovereignty, defence policy is made from the bottom up. It originates in low levels of joint U.S./Canadian military planning, and works its way up

to the political system in such a way that it appears as a virtual fait accompli by the time it reaches the formal decision makers. In setting the agenda upon which the Canadian government makes its decisions, and in controlling the flow of military information, the Canadian military, through its cooperative association with the U.S. military, is an actor of consequence in the Canadian defence policy decision-making milieu.

It is the Canadian/U.S. cooperative military relationship that is also largely responsible for the succeeding Canadian governments having been charged with making defence policy without a strategic assessment that reflects either Canada's defence policy preferences or its place in the international system of states. This misalignment of strategic and political factors is rooted in the joint Canadian/U.S. military cooperative relationship that produces strategic planning for Canada in channels that exist largely outside of Canadian political control.

Implications of the Canadian/U.S. Military Relationship for International Relations Theory.

In terms of NORAD, the foregoing analysis has suggested that related defence policy is made from the bottom up rather than from the top down. That is, that

Canadian NORAD defence policy decision-making is essentially predicted by the Canadian military in its association with the U.S. military. This has grave implications for a realist interpretation of Canada's defence policy decision-making as it pertains to NORAD.

First, the realist assumption of discrete international and domestic theoretical environments has to be relaxed. It is not possible to identify the nature of the Canadian/U.S. military relationship or to analyze its effects on Canadian defence policy-making from a focus on international variables alone. Second, once the military is identified as a primary actor in the making of Canadian defence policy, the realist assumption of the state as a dominant actor is challenged. The Canadian state remains a dominant actor in that it retains the formal right to sign treaties and agreements, and to accept or reject various defence policy choices but it is the Canadian military, in its cooperative relationship with the U.S. military that remains the actor of consequence. It is the Canadian military that for all intents and purposes sets the defence agenda for the Canadian governments and controls the flow of information to the Canadian political system.

Third, in controlling the agenda and the flow of information to the Canadian political system, the Canadian

military reflects the preferences of the U.S. military. Hence, it is also difficult to sustain the realist assumptions that the Canadian political perceptions of the international realm predict its defence postures, or that defence policy is made on a cost/benefit analysis of Canada's power/security position within the international realm. Canadian defence policy-making, as it relates to NORAD, is based on U.S. political and strategic perceptions, and the cost/benefit analysis which is made is the same one that the U.S. makes.

Finally, it may be possible to suggest that the Canadian state is speaking in a unitary voice when it makes defence policy, but that voice is very much the voice of Canadian/U.S. military cooperation.

Because these assumptions of realism are shared by neo-realism, both perspectives prove inadequate for an analysis of Canada's defence policy-making with respect to NORAD. Complex interdependence, however, a realist derivative, has some strengths. Given the asymmetrical form of interdependence that exists between Canada and the U.S., Keohane and Nye have suggested that there exists between the two countries a more complex network of interactions than state centric views can capture. One of these networks of consequence, they suggest, consists of

the direct interactions of governmental subunits, or transgovernmental actors, acting "relatively autonomously from central governmental control."²¹⁶ In analysing the Canadian/U.S. defence issue area, Roger Frank Swanson suggests that the two militaries are transgovernmental actors, and that the effects of their interaction often leaves the Canadian government with little choice but to make militarily pre-determined defence policy decisions.²¹⁷

However, complex interdependence is more of a methodology than a theoretical paradigm. In suggesting that there are both economic and political, state and non-state actors involved in the international decision-making process, the perspective has relaxed the major Realist assumptions to the extent that it is no longer possible to rely on them to structure the perspective. Only guidelines as to which networks of interests and actors to include in an analysis remain.

Similarly, regime analysis, in its focus on the forms of cooperation that exist within and around international organizations offers a guide to the investigation of the Canadian/U.S. military relationship that exists within the NORAD command structure and within joint defence organizations such as the PJBD and the MCC.

The assumption that regimes endure and change the context in which decisions are made is valid. Again, however, the perspective offers very little in the way of theoretical assumptions that make linkages between the domestic and international interests of political, economic and strategic actors. Nor does the perspective address the effects of those interests that are left off the agenda, a particularly glaring defect of the perspective given the military's ability to manage what is put on, and left off, the agenda of such bodies as the PJBD.

Wallerstein's capitalist world-economy model, on the other hand, contains these guidelines, but within a theoretical context. Once the model has been corrected to recognize state security interests as not necessarily synonymous with state economic interests, situating the military, in the process, as a state transgovernmental actor with vested professional interests on its agenda, the state emerges at the intersection of the domestic and international environment, responsible for mediating both its own political and economic interests, and those of its non-state, and transgovernmental, actors. Given these influences on its international decision-making, the state's autonomy is situation dependent.

Hence, in terms of NORAD, Wallerstein's adjusted

model would predict that the Canadian military would have its own agenda as well as its government-directed agenda. Further, when its mandate is to cooperate with the U.S. military, the relationship between a core military and a semi-periphery military would predict that the Canadian military's agenda would be greatly influenced by that of the U.S. military. Hence, Canada's defence policy-making would take its cues from U.S. defence policy postures, perhaps out of choice, but definitely out of necessity. Canadian perceptions of the threat, and of the appropriate response to it, would therefore coincide with the U.S. perceptions. In addition, because Canadian defence policy reflects U.S. policy, while Canada and the U.S. do not occupy similar power positions within the international realm, Canadian policy will often not reflect Canada's position in the international realm, nor indeed, its own expressed policy preferences. Hence the making of strategic miscalculations in Canadian defence policy.

Because Wallerstein's capitalist world-economy model of international relations focuses on the effects of economic actors and interests on decision-making pertaining to the international realm, a thorough review of the strengths and weaknesses of the model will be postponed until the conclusion of the following chapter which focuses

on the relationship between the North American defence production industry and the Canadian defence policy decision-making process within NORAD.

NOTES

1. Unless otherwise referenced, the information on the role that Canadian/U.S. military cooperation played in the establishment of NORAD is taken from, Joseph T. Jockel, No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958 (Vancouver: University of British Columbia Press, 1987), pp.91-118.
2. Ibid., pp.70-71.
3. "The Eighth Report of the Canada-U.S. Military Study Group, 19 December, 1956," in the Raymont Collection, Department of National Defence, Directorate of History, file 73/1223, #84 (hereafter cited as The MSG Report).
4. H. Basil Robinson, Diefenbaker's World: A Populist in Foreign Affairs (Toronto Buffalo London: University of Toronto Press, 1989), p.18.
5. Statement made by Sidney Smith, Secretary of State for External Affairs to the House of Commons Standing Committee on External Affairs, "Minutes of Proceedings and Evidence," 23rd parliament, first session, #1, Tuesday, December 3, 1957, pp.19-20. Also in a letter from John Holmes, Acting Under-Secretary of State for External Affairs to R.B.Bryce, Secretary to the Cabinet, dated July 31, 1957. Holmes states that External Affairs had not known that the Canadian government had taken a decision on the joint command until this date, and that Holmes had been informed of the decision by the U.S. Ambassador to Canada. The letter is in the Raymont Collection, file 73/1223, #84.
6. Letter from General Charles Foulkes, Chairman, Chiefs of Staff, to John Holmes, Acting Under-Secretary of State for External Affairs, dated August 7, 1957, Raymont Collection, file 73/1223, #85. The letter was sent to remind Holmes that External had been kept informed in spite of the Department's claims about "...the lack of information regarding the matter of the integration of operational control."
7. Ibid. General Foulkes writes in this letter that "...the integration of operational control of Canadian and United States forces was a matter which was being dealt with by my office and not by the office of the Deputy

Minister."

8. The MSG Report, Appendix A, para.40.

9. Ibid., para.27.

10. Ibid., para. 38.

11. Letter from Jules Leger, Under-Secretary of State, to General Foulkes, dated September 10 1957, Raymont Collection, file 73/1223, #85. The latter states that, "Canadian consent to enter into an agreement with the United States to set up a single operational commander of air defence forces, who would be an American, should certainly provide us with an opportunity which should not be lost to reassert the need for close consultation...."

12. Memorandum To Cabinet: "Integration of Operational Control of Canadian and Continental United States Air Defence Forces in Peacetime," July 22, 1957, Raymont Collection, File 73/1223, #84. Although this memorandum is signed by the MND, the letter from General Foulkes to John Holmes, dated August 7, 1957, (see note #6) makes it clear that the memo was prepared by the COS office.

13. Information contained in a confidential telegram sent from the Washington Embassy to the Department of External Affairs on June 23, 1958. DND Directorate of History, Chiefs of Staff Files, #73/778

14. Ibid.

15. DND classified message from General Foulkes to Chairman of Canadian Joint Staff in Washington on August 15, 1957. Raymont Collection, file 73/1223, #85.

16. The 37th paragraph of the MSG Report reads, "The air defence organization, forces, facilities, and procedures to be used in wartime should be established and exercised in peacetime."

17. Principle 3 of the Agreement between Canada and the United States of America, Treaty Series 1958, No.9 (hereafter cited as the NORAD Agreement).

18. See note #12.

19. Jockel No Boundaries Upstairs, p.112.

20. Raymont Collection, file 73/1223, #85.
21. The Raymont collection, file 73/1223, #85.
22. Department of External Affairs document entitled "NORAD-Political Control" (February 22, 1958), Raymont Collection, file 73/1223, #86.
23. Ibid.
24. Ibid.
25. Raymont Collection, file 73/1223, #86.
26. Kal J. Holsti and Thomas Allen Levy, "Bilateral Institutions and Transgovernmental Relations Between Canada and the United States", in Canada And The United States: Transnational and Transgovernmental Relations, eds. Annette Baker Fox, et al. (New York London: Columbia University Press, 1976), p.287.
27. Letter from Jules Leger, Under Secretary of State to General Foulkes, dated September 10, 1957. Raymont Collection, file 73/1223, #85.
28. Letter from General Foulkes to Acting Under-Secretary of State, John Holmes, dated August 7, 1957, refers to an August 2nd letter from Holmes to the Deputy Minister of Defence, Miller, in which Holmes suggested that it was necessary to have "...some written governmental agreement completed through diplomatic channels" in support of the NORAD Command. Raymont Collection, file 73/1223, #85.
29. Ibid.
30. Letter from Jules Leger, Under-Secretary for State, to General Foulkes, dated September 10, 1957, states, in reference to establishing the integrated command, that "...this Department still believes that there would be advantage in an inter-governmental exchange on a matter of this importance....It is a matter of orderly practice for governments to record important decisions affecting their relations in diplomatic exchanges." Raymont Collection, file 73/1223, #85.
31. Letter referred to in DND list of the "Steps in Development of Integration of Operational Control of Canadian and Continental United States Air Defence Forces

in Peacetime," dated December 5, 1957. DND Directorate of History file no.73/778.

32. Raymont Collection, file 73/1223, #84.

33. Ibid.

34. Ibid.

35. Ibid.

36. From interviews on April 29 & 30, 1991, respectively with General Ken Lewis, Deputy Commander of Canadian Air Command, 1974, Deputy Chief of Staff, 1976-'78, Deputy Commander of NORAD, 1978-1980, Commander of Air Command, 1980-1983, and General Withers, Vice Chief of Defence Staff, 1977-1979, Chief of Defence Staff, 1980-1983. Canadian flight instructors remained on duty in the U.S. during the Vietnam War and approximately 40 Canadian officers flew U.S. AWACS during the Gulf War.

37. Document entitled, "North American Air Defence Command (NORAD), Proposed Mission and Terms of Reference as recommended by General E.E.Partridge, Commander-in-Chief, NORAD and Air Marshal C.R.Slemon, Deputy Commander-in-Chief, NORAD," dated October 8, 1957 (hereafter cited as NORAD Mission and Terms of Reference). Raymont Collection, file 73/1223/#85.

38. Raymont Collection, file 73/1223, #88.

39. NORAD Mission and Terms of Reference.

40. The MSG Report, specifically, paragraphs, 14, 17, 18, & 22.

41. The "family of weapons" concept is described in, "North American Air Defense Objectives, 1959-1969, Short Title: NADO 59-69" prepared by CINCNORAD and the Deputy CINC, and published as a top secret document on December 15, 1958 (hereafter cited as NADO). DND, Directorate of History, file,113.014(D2).

42. Memorandum to the Cabinet Defence Committee: "Continental Air Defence - Foreign Policy Implications," prepared by the Department of External Affairs, August 14,1958. Raymont Collection, file 73/1223, #10.

43. A Department of External Affairs document entitled, "NORAD - Political Control," dated February 22, 1958. Raymont Collection, file 73/1223, #86.
44. Documents entitled, "Record of Cabinet Decisions," for Cabinet meetings held September 8, 1958, October 12, 1958, November 6, 1959. Raymont Collection, file 73/1223, #309. The Ministerial Committee meeting is recorded in Jon B. McLin, Canada's Changing Defense Policy, 1957-1963 (Baltimore: The John Hopkin's Press, 1967), p.139. The PJBD meeting is recorded in "Extract from Journal of Discussions of the PJBD held 5-7 September, 1962." Raymont Collection, file 73/1223, #303.
45. Record of Cabinet Decision, September 22, 1959. Raymont Collection, file 73/1223, #309.
46. Ibid., November 6 1959 meeting.
47. Ibid., December 6 1960 meeting.
48. Letter to the MND from F.R.Miller, COS, dated August 8, 1961. Raymont Collection, file 73/1223, #303.
49. Memorandum to Cabinet: "General Agreement on Atomic Weapons," from MND, October 18, 1961. Raymont Collection, file 73/1223, #303.
50. The first draft of the General Nuclear Weapons Agreement, and a draft agreement "governing the stock-piling in Canada of nuclear warheads for BOMARCS," are contained in a Draft Memorandum to Cabinet: "Negotiations with the United States Concerning the Provision of Stockpiles of Nuclear Weapons for Canadian Forces," prepared by the Department of External Affairs for the July 31, 1961 Cabinet Meeting (hereafter cited as the Draft General Agreement). Raymont Collection, file 73/1223, #303.
51. Described in McLin, Canada's Changing Defense Policy, pp.147-151. Robinson, Diefenbaker's World, pp.106-117, 158-161.
52. From a CP press story, a copy of which is in the Raymont Collection, file 73/1223, #303.

53. A telegram, dated June 14, 1962, from the Department of External Affairs to Canada's Moscow Embassy quotes the Soviet Ambassador to Canada as saying that Canada's decision to accept nuclear warheads, and its vote against the UNGA Resolution on the prohibition of the uses of nuclear weapons, "...cannot but put the Soviet Government on alert," and that "nuclear armaments of Canada would complicate international situation and create additional difficulties on the way to solution of many international problems." Raymont Collection, file 73/1223, # 303.

54. Draft letter from Department of External Affairs to Acting Secretary-General of the U.N. The letter is not dated but is in response to a January 2, 1962 letter on the subject from the Acting Secretary-General. The draft letter was circulated to the MND. Raymont Collection, file 73/1223, #303.

55. Quotations are on p.5 & 3, respectively, of the Draft General Agreement.

56. Raymont Collection, file 73/1223, #303.

57. See note #37.

58. The "Draft Schedule Governing the Stockpiling in Canada of Nuclear Air to Air Weapons for CF101 Air defence Interceptors," prepared by December 1961, states that, "CINCNORAD will only be able to issue operational orders for the aircraft armed with nuclear weapons to take off on operational missions after the respective Heads of Government have authorized their release for use as above mentioned. RCAF units will employ the nuclear weapons only in accordance with NORAD plans and directives." Raymont Collection, file 73/1223, #303.

59. Ibid.

60. Letter, see note 54.

61. Memorandum to the MND from Chief of the Air Staff, Hugh Campbell, dated August 10, 1962. Raymont Collection, file #303.

62. A letter to the CCOS from Hugh Campbell, Chief of the Air Staff, dated September 6, 1962, reveals that Air Staff's position on on-site storage had been made known to the MND through the CCOS and that the MND had written to

the Prime Minister on August 17, of the Air Staff's preferences. Raymont Collection, file 73/1223, #303.

63. Letter to the CCOS from the Chief of Air Staff, September 6, 1962, details these arrangements and contains a letter with similar information for the CCOS to sign and forward to the MND. Raymont Collection, file 73/1223, #15.

64. McLin, Canada's Changing Defense Policy, pp.166-167.

65. Document entitled "North American Air Defence Command, proposed Mission And Terms of Reference," October 8, 1957. Raymont Collection, file 73/1223, #85.

66. A letter from H.A. Sparling, Chairman of Canadian Joint Staff in Washington to General Foulkes, CCOS, dated September 11, 1957 states that, "...the U.S. Joint Chiefs of Staff concur in the Canadian view that the Commander-in-Chief and his deputy should prepare detailed plans and terms of reference...for the operational control of the continental air defenses of Canada and the United States in peacetime, including the terms of reference for the Commander-in-Chief...and submit them to the Military Study Group for consideration by the Chiefs of Staff of both countries." Raymont Collection, file 73/1223, #85.

67. See note #39.

68. I could not locate a copy of NADOP but its contents are referred to in NADO and in various of the documents to be cited in this section of the chapter, particularly a Memorandum for the Chiefs of Staff Committee: "Air Defence Plans NADO 59-69, NADOP 59-63," dated February 9, 1959. National Archives, Ottawa, RG83-84/216, file #964-104-3, vol.3592.

69. Aide Memoire: "Consideration of NORAD Plans by the Military Cooperative Committee," June 2, 1959. Same file as note 65.

70. Ibid.

71. Memorandum: "Comments on NADOP," dated July 14, 1959, signed by R.J. Lane, Air Commodore. Same file as note 65.

72. Document entitled, "CINC NORAD, NORAD Objectives Plan, RCAF Comments." prepared by Vice Chief of the Air Staff as the RCAF ADC comments, dated June 23, 1958. Same file as

note 65.

73. Memorandum for the Chiefs of Staff Committee, see note 65.

74. COS document entitled, "Air Defence Plans NADO 59-69, NADOP 59-63," Appendix A to:S964-104 (CAS), dated April 30, 1959, Same file as note 65.

75. Acceptance of NADO is mentioned by CINCNORAD, Laurence Kuter, in a letter to U.S. JCS and the Chief of CAS, dated April 20, 1960. Raymont collection, file 73/1223, #13.

76. Draft Memorandum for the Chiefs of Staff Committee, "NORAD Objectives Plan-1961-1965, prepared by Chief CAS, dated December 30, 1959. Same file as note 65.

77. Letter from James H. Douglas, to MND, Pearkes, as a follow up to a telephone conversation between Pearkes and Secretary of Defense Thomas Gates, dated March 22, 1960. Raymont Collection, file 73/1223, #13.

78. Ibid.

79. Letter from Curtis LeMay, General USAF, Vice Chief of Staff, to CINCNORAD, March 30, 1960. Raymont Collection, file 73/1223, #13.

80. See note #74.

81. Raymont Collection, file 73/1223, #13.

82. Letters from CINCNORAD to CAS and U.S. JCS, and from CINCNORAD to Chief of Staff, USAF, both dated April 20, 1960. Raymont Collection, file 73/1223, #13.

83. Telegram from CCOS to Chairman CJS in Washington, dated October 2, 1957. Raymont Collection, file 73/1223, #367.

84. Raymont collection, file 73/1223, #88.

85. In a letter from R.B. Bryce, Secretary to the Cabinet, to MND, Pearkes, dated November 10, 1958, Bryce mentions that it was Diefenbaker's desire to have the DND "...carefully review and report upon the possibility of having some of the Northern U.S. BOMARC bases located in Canada instead of on the sites proposed by the United

States." Extract from the letter is in Raymont Collection, file 73/1223, #12. According to the letter from CINCNORAD referred to in note # 84, Diefenbaker's request was too late for it to be taken into account. Hence, this is another example of the Canadian political decision-making process playing catch-up to U.S. defence planning.

86. NADO, see note #39.

87. Information contained in CINCNORAD's letter to CCOS, dated July 3, 1958. Raymont collection, file 73/1223. #88.

88. Ibid. The letter states that, "The Joint Chiefs of Staff have asked for recommendations as to the location of the first 16 NIKE Zeus firing batteries and for the citing of 5 forward acquisition radars."

89. Raymont collection, file 73/1223, #86.

90. Department of External Affairs document entitled, "NORAD-Political Control," dated February 22, 1958. Raymont collection, file 73/1223, #86.

91. Memorandum for the Chiefs of Staff Committee: "Air Defence Plans NADO 59-69, NADOP 59-63," a CAS document, dated February 9, 1959. National Archives, RG 83-84/216, file #964-104-3, vol.3592.

92. Its creation is noted in an Aide-Memoire: "The Future of the Joint Ballistic Missile Defence Staff," addressed to CCOS from the Chief, JBMDS, dated April 25, 1961. Raymont Collection, file 73/1223, #431.

93. Document entitled, "Revised Terms of Reference for the Joint Ballistic Missile Defence Staff," dated February 26, 1960. Raymont collection, file 73/1223, #431.

94. Document entitled, "Brief for the Minister: Defence Against Ballistic Missiles," dated February 10, 1960. Raymont collection, file 73/1223, #431.

95. Acceptance date is noted in document mentioned in note 89.

96. COS document entitled, "Policy Questions - Long Range Plans," dated March 24, 1965. Raymont collection, file 73/1223, #335.

97. Document entitled, "Department of National Defence Planning Guidance," October 20, 1966, p.13. Raymont collection, file 73/1223, #338. Also mentioned in a "Briefing on Strategic and Force Planning to Defence Council," by G/C N.L. Magnusson, on November 21, 1966. Raymont collection, file 73/1223, #339.
98. The document entitled, "Policy Questions-Long Range Plans," see note 93, states that, "Although we cannot assess the probability of a successful anti-missile system in the U.S., if such is deployed we must expect to have to follow suit and at our own expense." The conclusion is reiterated in the document entitled, "Briefing on Strategic and Force Planning." It reads, "Any Canadian posture in aerospace defence will be completely dependent upon the U.S. position....In essence, no firm posture can be predicted until basic U.S. decisions have been taken with respect to aerospace defence equipments." See note 94.
99. Aide-Memoire: "The Future of The Joint Ballistic Missile Defence Staff," see note 89.
100. Robert McNamara, Secretary of Defense at the time, gave this date when interviewed on February 13, 1990.
101. John W. Warnock, Jr., "Canada, NORAD and the Anti-Ballistic Missile," September 1968. Article is in DND Directorate of History files, #74/139.
102. Ibid.
103. Canada. House of Commons. Standing Committee on External Affairs and National Defence. Fourth Report: Canada-U.S. Defence Cooperation and the 1986 Renewal of the NORAD Agreement. February 14, 1986, p.18 (hereafter cited as the 1986 NORAD Report).
104. Interviews on February 13, 1990 & April 30, 1991, respectively with Robert McNamara, former U.S. Secretary of Defense during the Kennedy Administration, and General McNaughton, Deputy Commander Air Command, 1982-85, Commander Air Command, 1985-86, Deputy Commander of NORAD, 1986-1989.
105. Interview on April 30, 1991, with General Ken Lewis, Deputy Commander Air Command, 1974-76, Deputy Chief Defence Staff, 1976-78, Deputy Commander NORAD, 1978-80, Commander Air Command, 1980-83.

106. Memorandum for the Chiefs of Staff Committee, see note 88. "Royal Canadian Air Force Air Defence Command," NORAD Headquarters Office of Information document, September 1964 and "Canadian Forces Air Command Air Defence Group, NORAD Headquarters Fact Sheet," August 15, 1977, both from DND Directorate of History files, 73/976 & 78/145 respectively.

107. Interview on February 12, 1990, with James Schlesinger, former U.S. Secretary of Defense.

108. All information on the ADCOM is from, "The U.S. Air Force Aerospace Defense Command," United States Air Force Fact Sheet, September 15, 1977, in DND Directorate of History files, #78/145.

109. Interview on December 2, 1991, with General D.C. Mackenzie, Deputy Chief of Staff for Plans for NORAD, ADCOM, the Aerospace Defense Center, and USAF Space Command, 1981-1983, and D-Cinc, NORAD, 1983-1986.

110. Interview

111. Interview with General MacKenzie

112. Ibid.

113. Interview on April 30, 1991, with General Paul Manson, Executive Assistant to Chief of Defence Staff, 1972-73; Commander Air Command, 1983-85; Chief of Defence Staff, 1986-89.

114. Interview on December 4, 1991, with Lt. General K.J. Thorneycroft, Deputy Commander of Air Command, Winnipeg, 1978-1980, and D-CINC NORAD, 1980-1983.

115. Document entitled, "Announcement by the Department of National Defence," November 17, 1969, DND Directorate files, #74/138.

116. The component commands are listed in the 1986 NORAD Report, p.23. Ascertaining the number of exchange and liaison personnel in these positions has not been possible and various of the Canadian military interviewed estimated numbers that range from 200 to 400. In addition, General McNaughton suggested that approximately 400 Canadian military personnel serve in NORAD positions in the U.S. The 1986 NORAD Report has tabled the number of Canadian personnel available to NORAD for selected years from 1960-

1985, the range being 13,845 military personnel available in 1960 to 5,042 in 1985, p.27.

117. Interviews with Generals Lewis and McNaughton, and on May 1, 1990, with John Anderson, Chief of Policy under the Assistant Deputy Minister-Policy (ADM-Pol), 1972-1978; ADM-Pol, 1978-86.

118. Interviews with General Paul Manson and, on April 29, 1991, with Admiral R.H. Falls, Vice-Chief of Defence Staff, 1974-76; Chief of Defence Staff, 1977-79.118.

119. Interview

120. Interview

121. When interviewed, General McNaughton said that Canadians were excluded from the study precisely because of the Canadian policy of non-involvement in U.S. BMD and Space programs.

122. D.W. Middlemiss and J.J.Sokolsky, Canadian Defence: Decisions and Determinants (Toronto Orlando San Diego London Sydney: Harcourt Brace Jovanovitch, Canada, 1989), p.184.

123. Interviews with Generals Manson and McNaughton

124. "United States Space Command," United States Space Command Fact Sheet, April, 1986, in DND Directorate of History files, #78/145.

125. Ibid.

126. Ibid.

127. Interviews with General McNaughton and Admiral Falls.

128. "North American Aerospace Defense Command," NORAD Fact Sheet, NORAD Headquarters, April, 1966. DND Directorate of History files, #78/145.

129. Interview with General MacKenzie

130. Interview

131. Interview with General MacKenzie, D-CINC of NORAD at the time.

132. Ibid.
133. Interview with General MacKenzie
134. From a transcript of an interview with Lt. General MacKenzie conducted by Herbert Zolot, NORAD Historian, on October 16, 1987.
135. Interview with Lt. General MacKenzie
136. Interviews with Generals McNaughton, Manson, MacKenzie, and On April 29, 1991, with General Withers, Vice Chief of Defence Staff, 1977-79; Chief of Defence Staff, 1980-83.
137. Confidential interviews with high-ranking members of the Canadian military. Two of those interviewed stated that Canadian military personnel had seen the Phase II study of the SDA 2000.
138. Interviews with Generals Withers, Thorneycroft, and Lewis and John Anderson.
139. Interview.
140. Interviews with John Anderson and, on May 1, 1991, with General Theriault, Commander of Air Command, 1976-1977; Deputy Chief of Defence Staff, 1978-80; Vice Chief of Defence Staff, 1980-83; Chief of Defence Staff, 1983-86.
141. Interview with General Thorneycroft.
142. Interview
143. Interview with General Lewis
144. Interview with General Theriault
145. The 1981 "Exchange of Notes Between the Government of Canada and the Government of the United States of America Constituting an Agreement Concerning the Organization and Operation of the North American Aerospace Defence Command (NORAD)" on March 11, 1981 states explicitly that this agreement should supersede the 1958 Agreement which was renewed in 1968, 1973, 1975, and 1980. Document is in DND Directorate of History files, #88/175.
146. Interview with Lt. General MacKenzie.

147. In the interview with General McNaughton, he said that U.S. military personnel are not as free as the Canadian military personnel to take decisions on their own initiative. General Thorneycroft concurred, stating that the Canadian personnel at NORAD Headquarters were much more free to make decisions than were their U.S. counterparts. Moreover, Thorneycroft said that the D-CINC communicated with the DND on a discretionary basis rather than a routinized one. In his interview, General Lewis stated that the U.S. exercised more political control over its military than Canada exercised over its military. He also stated that since joint Canadian/U.S. defence program plans were closely related to U.S. national defence program planning, joint plans usually cleared Congressional approval before they were presented to the Canadian government.

148. Interviews with Lt. General MacKenzie, and General Thorneycroft.

149. Canada, House of Commons, SCEAND, "Canada-U.S. Defence Cooperation and the 1986 Renewal of the NORAD Agreement," 1986, p.78.

150. Ibid., p.75.

151. In his book, Changing The Guard: Canada's Defence In A World In Transition (Toronto Buffalo London: University of Toronto Press, 1990), Howard Peter Langille has a chapter, "Cruise Missile Testing in Canada," which also describes the process whereby the cruise missile testing agreement came into being.

152. Interview with John Anderson.

153. Interview with Admiral Falls. In the interview Falls said that his not knowing about the discussions was not unusual as the initial talks on joint defence planning generally began at a low rank level of Canadian military involvement.

154. Interview

155. Interviews with Generals Theriault and Lewis

156. Interview

157. Interviews with Generals Withers and Manson. Fuller details of the establishment of the cruise missile testing program can be found in Howard Peter Langille, Changing The Guard: Canada's Defence In A World In Transition (Toronto, Buffalo, London: University of Toronto Press, 1990), pp. 38-57.
158. Interview with General McNaughton
159. Interview on February 5, 1990, with Allan Gotlieb, Canadian Ambassador to the U.S. at the time.
160. Interview with John Anderson who attended the meeting.
161. Interviews with Generals Lewis and Theriault. In an interview with James Schlesinger, he suggested that Canada's testing of the cruise only "marginally changed Canada's role in the defence of the continent."
162. Langille, Changing The Guard, p. 42.
163. Interviews with General Withers and, on May 21, 1991, with Major-General O'Blenis, Command Director at NORAD Headquarters, 1986; Vice-Director NORAD HQ Planning Staff, 1987, Deputy Commander of Fighter Group and Chief of Staff of NORAD Canadian HQ, North Bay, 1988; Commander of Fighter Group and the Canadian NORAD Region, 1989 to present.
164. Interview
165. Langille, Changing The Guard, p.42.
166. Langille, Changing The Guard, p.41, states that after discussions on the subject of cruise testing between the Canadian Defence Liaison Staff and the U.S. Office of the Director of Defence Test and Evaluation in June 1978, the Strategic Air Command of the U.S. Air Force presented the first cruise-testing proposal to DND in late 1979. In late 1980, the Carter Administration presented a formal proposal to the Canadian government.
167. Interview
168. Unless otherwise referenced, the information in this section of the chapter is taken from an interview with John Anderson.
169. Middlemiss and Sokolsky, Canadian Defence, p. 180.

170. Ibid., p.181.
171. Interview with General Thorneycroft, D-CINC 1980-83.
172. Interview with General Theriault
173. Interviews with John Anderson and Generals McNaughton, Lewis, Manson, and Admiral Falls.
174. In the interview, General Lewis said that the 1987 White Paper on Defence was the first public announcement of the government's recognition that Canada should be involved in space-based defence programs.
175. Canada, House of Commons, SCEAND, NORAD 1986, p. 78.
176. Canada, House of Commons, Standing Committee on External Affairs and International Trade, Minutes of Proceedings and Evidence, Issue #77, December 18, 19, 1990, Appendix "Exte-9", pp. 1-2.
177. This subject was not broached at any time during the sessions, the hearings, in the report of the experts, or in any of the submissions. There were no in camera meetings, and so the subject was not discussed in private either.
178. Interview with Lt. General MacKenzie
179. Unless otherwise referenced, information on NORAD's drug interdiction role is taken from Canada, House of Commons, Standing Committee on External Affairs and International Trade, "Background Material and Suggested Questions for Hearings on NORAD", October 16 & 18, 1990, pp.11-12 (hereafter cited as, Background Material: 1991 NORAD Hearings).
180. Interview with General Manson
181. Interview with General McNaughton
182. Interview with General Manson
183. Interview with General McNaughton
184. "Background Material: 1991 NORAD Hearings," and interview with Major-General O'Brien.
185. Interview with Major-General O'Brien.

186. According to General Lewis and Admiral Falls, this is how the military understands its mandate.

187. According to General Manson, another reason why the NORAD and NORAD-related programs did not suffer from Canada's economic recession was because they did not require a large infusion of capital. In a second interview with General Withers on December 4, 1991, he suggested that the NORAD programs were not affected by the government's budget cuts because the programs were already underway, contracts had been let, and money is not saved by cancelling contracts.

188. Supported by interviews with James Schlesinger, John Anderson, Admiral Falls and Generals Withers and McNaughton.

189. For instance, Canadian officers serve in the U.S. on the ADI Coordinating Committee, as technical advisors for ADI research in Boston, as members of the ADI Operations Requirement Panel, in the ADI program office near Boston, and at the Joint Space Based Radar office in Colorado Springs. In Charles M. Tutwiler, "The United States and the Future of North American Air Defence," in The U.S.-Canada Security Relationship: The Politics, Strategy, and Technology of Defence, eds. David Haglund, Joel Sokolsky (Boulder San Francisco London: Westview Press, 1989), p. 196.

190. According to General Withers, this matrix of relationships includes marriages between the offspring of Canadian and U.S. military personnel, and hence, shared grandparenthood. Lt. General MacKenzie and General Thorneycroft have both maintained post-retirement personal relationships with their respective CINCs of NORAD.

191. Admiral Falls stated that joint defence programs are "pretty well cut and dried" by the time they reach the Canadian political arena, while General Theriault stated that by the time the NORAD Modernization plans reached the drafting stage, the two militaries had "a good knowledge of what would sell."

192. Interviews with Generals McNaughton and Lewis. Lewis stated that this was especially true for those defence programs that originated in related NORAD commands. These would include the nuclear weapons program, ADI, SDI, BMD and Space programs.

193. Although Christopher Conliffe, "The Permanent Joint Board on Defence, 1940-1988," in The U.S.-Canada Security Relationship: The Politics, Strategy, and Technology of Defence, Haglund, Sokolsky, p.150, argues that the PJBD has essentially been "in limbo" since 1963, it is General Withers who, during an interview, offered the alternative view described here.

194. All of these programs were mentioned variously, by Generals Lewis, McNaughton, and Withers, as having gone through the PJBD on these terms.

195. Admiral Falls suggested that the PJBD's usefulness depends on the issues at stake while John Anderson stated that the military generally tends to use whichever channel through the bureaucracy which will bear the desired results. The PJBD is one of the channels that can, but does not have to be, used.

196. Described variously by Generals Withers, Lewis and John Anderson. General Manson said that the PJBD was often used by the military as an "escape hatch" when issues could not be resolved by the military.

197. Interview with General Lewis

198. Interview with General Withers

199. Interview with John Anderson

200. Interview with General McNaughton.

201. In an interview, General Thorneycroft, in particular, criticized the Canadian Government for not making an independent assessment of its role in North American defence during the NORAD modernization program planning. He felt that Canada should have let the U.S. build the NWS while Canada put its money into buying AWACs to patrol Canadian air space. He let his views be known to General Withers, the CDS at the time, and to the ADM Pol but to no avail. One of the reasons for this, he felt, was that he had never served in DND Headquarters and so was not "well plugged into the old boy network."

202. Described in detail in Middlemiss and Sokolsky, Canadian Defence, pp.78-84.

203. The views expressed during interviews with Admiral Falls and Generals Manson and Withers. The view was also expressed during an interview with John Anderson. Allan Gotlieb said, during an interview, that defence policy is basically worked out by the military while the government is responsible for "adding" the political view.

204. Interviews with Generals Theriault, McNaughton and Admiral Falls.

205. The opinion of John Anderson, and Generals Lewis, Withers McNaughton, Manson, Thorneycroft and of Lt. General MacKenzie.

206. Interview with General MacKenzie, D-CINC at the time.

207. In the early 1970s, Trudeau sought to curtail military activities because he felt that they no longer reflected Canada's position in the world...see Kim Richard Nossal, The Politics of Canadian Foreign Policy, 2nd ed. (Scarborough, Ontario: Prentice-Hall Canada Inc., 1989), p.167. In the same volume, Nossal talks about the constraints which budgets and societal "parameter setting" have on foreign policy-making, pp. 37-38, & 117 respectively. Middlemiss and Sokolsky, Canadian Defence, discuss these issues most specifically on pp.214-220.

208. In both Middlemiss and Sokolsky, Canadian Defence, and Nossal, The Politics of Canadian Foreign Policy.

209. A precis of the bureaucratic politics model is in Michael M. Atkinson, Kim Richard Nossal, "Bureaucratic Politics and the New Fighter Aircraft Decisions", in Canadian Public Administration Vol.24, No.4 (Winter, 1981): pp.531-533 of 531-558. For more detailed analysis of the model see Graham Allison, Essence of Decision: Explaining the Cuban Missile Crisis (Boston 1971). Kim Richard Nossal, "Allison Through the (Ottawa) Looking Glass: Bureaucratic Politics and Foreign Policy in a Parliamentary System." Canadian Public Administration 22 (Winter, 1979).

210. Langille, Changing The Guard, pp.105-107, gives a brief description of the interests of these departments in defence policy-making.

211. Interview on December 2, 1991, with General Ken Lewis.

212. In interviews, Generals Falls, Theriault, Withers and Lewis all offered variations on this theme, stating that the PJBD works best as an informal forum, that minutes are not taken during the social meetings when contentious issues are discussed, and that only the decisions are entered into the PJBD Journals.

213. Interview

214. Interviews with General McNaughton and Lt. General MacKenzie. In an interview, General Thorneycroft said that, in recognition of the Canadian defence policy on space defence systems, Canadians at NORAD did not have access to the satellite intelligence gathering systems. Canadians are actively involved in atmospheric defence systems and missile warning, but not in space surveillance.

215. Ibid.

216. Robert Keohane and Joseph Nye, "Introduction: The Complex Politics of Canadian-American Interdependence," in Canada And The United States: Transnational And Transgovernmental Relations, eds. Annette Baker Fox, et al. (New York London: Columbia University Press, 1976), p.4.

217. Roger Frank Swanson, "An Analytical Assessment of the United States-Canadian Defence Issue Area," in Canada And The United States, Fox et al., pp.188-210.

Chapter Six

The Defence Production Industry and NORAD Decision-Making

The chapter on the economic history of NORAD argued that the real and potential economic benefits accruing to Canadian industry from joint U.S./Canadian defence planning within NORAD have been major factors within the Canadian governmental decision-making process when considering NORAD renewals and the various defence programs that have been developed within the alliance arrangement. Successive Canadian governments have paid rigorous attention to the establishment and on-going maintenance of the Defence Production Sharing Arrangement (DPSA), the Defence Development Sharing Arrangement (DDSA), and the Defence Industry Productivity Program (DIPP). The negotiation of industrial offsets in Canadian/U.S. defence trade has also been of prime importance to the Canadian government.

In addition, because the defence production industry is largely a captured industry in that the government is its domestic buyer, as well as its agent for sales to foreign governments, the industry has served as

one basis upon which the government has attempted to develop a Canadian industrial policy. Employment and regional distribution of industrial benefits are factors in the negotiation of offset packages and in the granting of DIPP funds. Because the industry employs high technology and is export oriented, it is also within the government's international trade balance and GNP interests to pursue the industry's interests in international contracting and technology transfers upon which domestic development of the industry is largely dependent.

For the United States, defence production sharing arrangements have also been important but not for the same reasons. The U.S. government has been primarily concerned with the defence aspects of shared production, the securing of alternate sources of defence materiel and the dispersal of defence production establishments. Because of these interests, Congress relaxed its 'Buy American' policy on defence production. In spite of these interests, however, it has also continued to favour its own defence production industry by adopting protectionist policies, such as the 'small business set-asides.' On the other hand, the U.S. military recognized very early in NORAD's history that Canadian compliance with U.S. continental defence planning could be purchased, in part, through defence production

sharing arrangements.

Given the economic considerations of joint Canadian/U.S. defence planning, the purpose of this chapter is to attempt to situate the Canadian defence production industry within the Canadian defence policy decision-making process. Various defence policy analysts have suggested that the defence production industry is not a major determinant of defence policy decision-making in Canada. Kim Nossal, although recognizing that "...individual firms...which are affected by international developments, or by government policy, will seek to maximize their parochial economic interests through political demands made directly to the state,"¹ suggests that "In matters of high policy, (defence policy), the (governmental) tendency is to exclude societal groups from the process of policy implementation."² John Treddenick, in noting that defence production represents only about 1 per cent of Canada's GDP and employs the same percentage of the Canadian labour force,³ implies that the industry does not have economic power to wield as influence within the defence policy decision-making process. Middlemiss and Sokolsky suggest that the growth of the industry has contributed to the politicization of defence production issues, as opposed to defence policy issues, and that this politicization largely

takes the form of Members of Parliament and provincial governments seeking to gain defence production economic and employment benefits for their respective constituencies.⁴

By contrast, this chapter seeks to establish that the Canadian defence production industry is well organized both within Canada and across the Canadian/U.S. border, that defence policy decision-making has genuine economic ramifications for the industry as a part of the North American defence industrial base and that consequently, the industry has genuine defence policy preferences which it actively seeks to have realized within the Canadian defence policy decision-making process. Because there are other actors with policy preferences similar to those of the defence production industry, primarily the Canadian military and the government itself in terms of its own economic and political interests, the following analysis suggests that the Canadian defence production industry is a significant determinant, as opposed to the prime determinant, of Canadian defence policy. Also because of other actors with similar interests and therefore the difficulty of establishing direct cause and effect between industry influence and policy outcomes, the extent to which industry policy preferences are reflected in policy will be taken as an indicator of industrial success in influencing

decision-makers.

Because the aerospace and electronic sectors of the defence production industry are the two with particular NORAD relevance, and because they are the dominant sectors within the industry in terms of defence contracts and the allocation of DIPP funds, the analysis will focus on these two sectors. The aerospace industry includes firms that have "...specialized capabilities for research, development, manufacture, world-wide marketing and support of complete aircraft, propulsion-related systems and components, as well as space equipment, aircraft navigational and defence electronics and defence systems."⁵ Defence electronics firms are defined as those "...that develop, manufacture and repair radio and communications equipment, radars for surveillance and navigation (both civil and military), air traffic control systems (both civil and military), acoustic and infrared sensors, computers for navigation and fire control, signal processors and display units, special-purpose electronic components, and systems engineering and associated software."⁶ Since the two sectors tend to overlap with aerospace firms contracting in electronic production and vice versa, the two sectors will generally be treated as one.

Aerospace and Electronics Defence Production Industry
Profile
Share of the Defence Production Market

John Treddenick argues that because "Total (Canadian) defence production accounts for considerably less than 1 percent of both gross domestic product and total employment," the Canadian defence industrial base has to be understood as relatively insignificant in terms of total Canadian industrial production. As he puts it, it is difficult to see the Canadian defence industrial base "...as the mainstay of the capitalist system in Canada."⁸ The point to be made here, however, is not whether the defence production industry is a mainstay of Canada's capitalist system and hence exerts its influence on governmental policy-making from this basis, but rather whether the industry's dependency upon both Canadian and U.S. governmental defence procurement is sufficient to warrant its active participation in attempting to influence governmental defence policy decision-making.

Table I (page 402), a reproduction of Treddenick's statistics,⁹ establishes a basis for arguing the latter. Within the 'Narrow Industrial Base' category, Aircraft & Parts is basically the aerospace sector while Communication Equipment is basically the defence electronics sector. The

domestic demand for these two sectors, for the fiscal year 1984/85 is \$691.8 million (585.3 + 106.5). This represents 57 per cent of the total narrow industrial base domestic defence industry demand and 21.3 per cent of the total domestic defence production demand. In terms of export, domestic aerospace and electronics defence production account for 70.6 per cent of the narrow industrial base defence production export demand and 69.4 per cent of the total defence production export demand. As far as total domestic and export demand is concerned, the aerospace and electronics sectors together represent 65 per cent of combined domestic and export defence production demand within the narrow industrial base, and 39 per cent of the total defence production demand.

The aerospace and electronics sectors of the defence production industry, taken together, then, are the prime defence production contractors both within the domestic and the export markets. An equally important point however, is that although Treddenick argues that defence research, development and production is too specialized to contribute meaningfully to civilian spin-offs,¹⁰ the industry itself believes otherwise. Pointing out that the Canadian aerospace industry ranks fifth in the world in terms of production,¹¹ spokesmen for the industry

argue that because defence research and development are high technology endeavours, they contribute substantially to keeping the industry on the leading edge of technological development, and hence internationally competitive.¹² In other words, the defence research, development and production component of the industry is seen to form an important basis for the industry's civilian production sector.

Moreover, Treddenick's interpretation can also be questioned if one views the Canadian aerospace and defence electronics industries in terms of their combined civilian and defence production. Since civilian production accounts for between 75 and 80 percent of the total Canadian aerospace and defence electronics production,¹³ the industry as a whole accounts for considerably more of the Gross Domestic Product and employment than the less than one percent which Treddenick has suggested. More to the point, however, the industry's insistence that defence research, development and production is largely responsible for maintaining the industry's international competitiveness in both defence and civilian production, means that the industry has a direct interest in securing and promoting defence production. In turn, this would predict that the industry would have a keen interest in

T A B L E I
Estimated Defence Industry Impact
FY 1984/85
(\$ million)

	Final Domestic	Demand Exports	Total	Total Output	Gross Domestic Product	Value-Added Production (person-yr)
Narrow Industrial Base						
Aircraft & Parts	185.3	688.4	1,273.7	1,340.4	730.8	15,018
Motor Vehicles	29.9	317.0	346.9	354.4	30.8	980
Shipbuilding	408.4	90.4	498.8	510.0	250.1	8,160
Communication Equipment	108.5	616.9	725.4	720.6	470.0	8,870
Other Chemical	94.2	157.6	251.8	262.2	98.0	1,755
	1,222.3	1,870.3	3,072.6	3,258.6	1,558.6	32,780
Other Industries						
Agriculture	0.1	-	0.1	25.0	14.5	600
Construction	293.0	-	293.0	331.8	149.0	4,530
All Other	1,738.2	29.6	1,767.8	4,784.3	1,828.1	51,060
	2,010.3	29.6	2,048.9	5,147.0	1,980.3	58,030
Total	3,241.6	1,870.9	5,121.5	8,397.6	3,538.1	88,810

Source: Centre for Studies in Defence Resource Management, The Economic Impact of Canadian Expenditures: FY 1984/85

Update, Report No. 11 (Kingston: RMC, Summer 1986)

T A B L E II
Aerospace, Space and Electronics Defence Production * (\$ - Millions)

Fiscal Year	Production for Domestic use	Production for Exports	Total Production domestic exports	% of total production for exports	% of exports to U.S.	Imports	% import from U.S.
1981/82	313	2484	2769	87%	80%	1323	91%
1982/83	632	2048	2580	79%	78%	1814	96%
1983/84	718	2535	3253	78%	76%	1874	85%
1984/85	1237	2841	4078	70%	73%	1138	94%
1985/86	1278	3447	4725	73%	70%	1328	83%
1986/87	1777	3852	5631	68%	N.A.	1537	N.A.
1987/88	1815	4175	5990	70%	N.A.	1820	N.A.

Source: Canada, Industry, Science & Technology Canada, "Industry Profile: Aerospace, 1990/91," Ottawa.

*Table includes production figures for aerospace firms that specialize in research, development, manufacture, world-wide marketing and support of complete aircraft, propulsion-related systems and components, as well as space equipment, aircraft navigational and defence electronics and defence systems; and for electronics defence production firms that develop, manufacture and repair radio and communications equipment, radars for surveillance and navigation (both civil and military), acoustic and infrared sensors, computers for navigation and fire control, signal processors and display units, special-purpose electronic components, and systems engineering and associated software.

Canadian defence policy-making since defence production is dependent upon the needs of specific defence programs.

Canadian/U.S. Industrial Integration

Table II (page 402) contains the combined aerospace and defence electronics domestic, import and export market production statistics for the years 1981-1988. These figures include civilian production to the extent that civilian production is included in the definition of the two industry sectors presented earlier in the chapter. The statistics indicate that the Canadian industry is export oriented with from 69 to 78 percent of the exports going to the U.S. market. Similarly, the vast majority of imports are from the U.S., between 91 and 95 percent. In other words, the Canadian aerospace and electronics industry in general is heavily integrated into the North American industrial base in terms of trade.

Table III (page 405) demonstrates that the Canadian defence production contracting component of the industry is also export oriented, and integrated into a North American market. The table contains statistics, for selected years, on the top 30 Canadian aerospace and electronic defence contracting firms. The major points to be made are that the U.S. is the major foreign defence

contractor for these Canadian firms, and that the industry is dominated by a few firms. Most of the aerospace firms contract also in the electronics area and vice versa and so one cannot simply add the figures in columns 11 and 12 to arrive at the number of contracting firms. However, from the percentage of total contracts awarded to Canadian firms in each category (columns 2, 4, 6, 8 10,), it is clear that the top 30 firms garner the vast majority of contracts both from DND and from DOD, and U.S. subcontracting firms.

The first two columns of Table IV (page 405) contain a breakdown of Canadian/U.S. ownership of the top 30 defence contracting firms for the selected years in Table III. For 1981/82 and 1984/85, a plurality of the top 30 contracting firms were U.S. owned, while for 1989/90, the figures are reversed. In conjunction with the previous tables which demonstrate the Canadian aerospace and electronics defence production firms' integration into a North American trade market, Table IV demonstrates that the firms themselves are integrated in terms of ownership, on a one-way basis. None of the Canadian owned top 30 firms for these years have U.S. subsidiaries.¹⁴

The last four columns of Table IV, displaying the dispersion of DIPP funds to the top 30 aerospace and electronics defence production contractors in Canada,

T A B L E III

Defence Contracting Profile of top 30 Canadian based
Aerospace & Electronics Defence Production Firms
Selected years (\$ = millions)

Fiscal Year	DND Prime Contracts	As % of total DND Prime Contracts to Cdn A & E* Firms	DOD Prime Contracts	As % of total DOD Prime Contracts to Cdn A & E Firms	U.S. Sub-Contracts	As % of total U.S. Sub-Contracts to Cdn A & E Firms	Other foreign Prime Contracts	As % of total foreign Prime Contracts to Cdn A & E Firms	Total	As % of total Contracts to Cdn A & E Firms	Total # of contracting FIRMS Aerospace Electronics
1981/82	335.7	81.1%	333.9	93.1%	22	100%	150.9	98%	821.4	89%	108 372
1984/85	418.4	73.8%	275.7	91.4%	19	79.8%	189.8	85.2%	902.9	82.3%	272 376
1989/90	504.1	74.7%	168.4	77.6%	276	98.5%	226.8	93.8%	1175.3	82.4%	147 445

Source: Project Ploughshares, Defence Industrial Data Base, Waterloo, Summer, 1991.

DND = Department of National Defence, Canada

DOD = Department of Defence, U.S.A.

T A B L E IV

Top 30 Canadian Aerospace & Electronics Defence Contracting Firms:
Ownership & Dispersal of DIPP Funds: Selected years

Year	(1) % of top 30 Canadian A & E* firms that are Canadian owned	(1) % of top 30 Canadian A & E firms that are U.S. owned	(2) DIPP funds to top 30 Canadian owned A & E firms (\$ = Millions)	(2) DIPP funds to top 30 U.S. owned A & E firms	(2) Total DIPP funds to top 30 A & E firms	(2) Total for top 30 as % of total DIPP funds for all defence production sectors
1981/82	38.7%	43.3%	78.4	81.3	142.2	82.5%
1984/85	36.7%	40%	36	97.5	107.4	70.1%
1989/90	43.3%	36.4%	74.3	100.8	149.9	62.1%

Sources: 1) Statistics Canada: Intercorporate Ownership, appropriate years. Guide to Canadian Aerospace Related Industries, AFSC Liaison Office, Ottawa, 1990

2) Ken Epps, "The Defence Industry Productivity Program: Contributions 1969 through 1990," Ploughshares Working Paper 91-2, Project Ploughshares, Waterloo, July, 1991

T A B L E V

Profile of Aerospace Industries Association of Canada Board Members: Selected Years

Year	# of Board Members	% representing top 30 A & E* Defence Contracting firms	% that represent Canadian owned firms in top 30	% that represent U.S. owned firms in top 30	% that represent other foreign owned firms in top 30	# Member Firms
1982	17	13 = 76.5%	7 = 41.2%	7 = 41.2%	3 = 17.7%	121
1986	22	14 = 63.6%	10 = 45.5%	8 = 36.4%	4 = 18.2%	164
1990	26	18 = 69.2%	12 = 46.2%	10 = 38.5%	4 = 15.4%	211

Source: AIAC Annual Reports. *Board Members* include honorary Board Members, Treasurers & Secretaries but not permanent staff of AIAC.

* A & E = Aerospace & Electronics

provide yet another measure of Canadian/U.S. industrial integration. Taking into consideration the fact that the dispersal of DIPP funds to Canadian owned companies in 1984/85 is unusually low, the statistics demonstrate two points. First, that the aerospace and electronics sectors of the defence production industry receive the vast majority of DIPP funds with the top 30 contracting firms receiving from 63.1 to 92.5 percent of all DIP Program support. Second, the figures suggest that, apart from the anomalous dispersion of funds to Canadian firms in 1984/85, the overall distinction between Canadian and U.S. owned firms is not great, supporting the conclusion that the Canadian industry is integrated into a North American defence industrial base in terms of both trade and ownership, and further demonstrating that the North American defence industrial base is integrated in terms of Canadian government funding.

To the extent that there is a distinction, support is provided for individual firm's and Aerospace Industries Association of Canada's (AIAC) claim that U.S. owned firms, over time, receive a relatively larger share of the funds than do Canadian owned firms.¹⁵ In fact, since 1969, 6 aerospace and/or electronics firms have received cumulative DIPP funds in the 9 figure category. Five are U.S. owned,

while the sixth, Bombardier, is Canadian owned.¹⁶ In this regard, DIPP funds are used not only to provide government support for defence production start-up costs, and research and development, but also to attract U.S. business to Canada. The disproportionate amount of funding that went to U.S. firms in 1984/85 could be attributed to the fact that 1985 was a peak year for the U.S. defence budget and the DIPP funding for that year represents an effort to attract U.S. contracting to Canada.¹⁷ In fact, Thomas McGuigan, the President of Litton Systems Canada Ltd, one of the top 30 defence production contractors, has said that Canadian DIPP funding is a major consideration to Litton's U.S. parent when it is considering production locations for new products.¹⁸ In addition, according to McGuigan, Litton Canada received the U.S. cruise missile guidance system contract, in part, because of the low start-up costs due to the availability of DIPP funds.¹⁹ In other words, DIPP funding acts as a catalyst in integrating Canadian industry into the North American defence industrial base.

Taken together, these four tables suggest that the Canadian aerospace and defence electronics industry, being the major defence contracting sector of the defence production industry, has economic reasons for taking an active interest in expressing its defence policy

preferences to the Canadian government. Further, the tables suggest that there is a considerable U.S. component involved in formulating those preferences. Table V (page 405) supports this conclusion by examining the national profiles of the Board Members of the Aerospace Industries Association of Canada, the main government/industry interface association for the Canadian aerospace and electronics industry. The years that have been selected correspond to the years used in Tables III and IV. Column two of the Table demonstrates that the Boards are heavily dominated by representatives from the top 30 defence contractors, while columns 3 and 4 demonstrate that although for the most part the Boards are dominated by representatives from Canadian owned firms, U.S. owned firms are well represented, from 36 to 41 percent of the members being representatives of U.S. owned firms.

Further, as Ken Lewis, the President of AIAC has said, there are no differences in defence policy preferences between the Board members representing Canadian owned and U.S. owned firms. There are no distinct Canadian versus U.S. points of view on the Board, and AIAC represents the industry as a whole. To the extent that AIAC recognizes a U.S. presence, it is in terms of making the Canadian production climate attractive to U.S.

firms.²⁰ This view is supported by T.S. Dudley Allen, a Canadian Rear Admiral who, upon retirement, became President of the U.S. owned Companies, Computing Devices and Control Data, Chairman of the Board of AIAC and is now a consultant with Government Consultants International, a Tier 1²¹ lobby group in Ottawa. His position is that distinguishing between Canadian owned and U.S. owned defence production firms in terms of defence policy preferences is a non-issue.²² Although interviews with personnel from each of the top 30 defence production aerospace/electronics firms would be required to make the point definitively, on the basis of the evidence it would appear that the industry's defence policy preferences are a North American phenomenon.

It would appear, then, that there are reasons for the Canadian aerospace and defence electronics industry to want to influence governmental defence policy decision-making. The industry is the major defence contracting sector of the Canadian defence production industry. It also perceives its civilian production to be largely dependent upon defence production, research and development in terms of keeping the industry technologically competitive in international trade, which accounts for about 80 per cent of its sales. For these reasons, the

industry also has interests in influencing defence-related policy areas. The government's policies on science and technology, on research and development, and on Canada's space program are also relevant to the development of the aerospace and defence electronics industry.

With respect to NORAD and/or its related defence programs including cruise missile testing, SDI, ADI, modernization, BMD and space defence programs, again the aerospace and defence electronics sectors of the defence production industry are the prime contractors in these fields, and again, because these defence programs are high technology programs, they are relevant to the industry's perception of the relationship between defence and civilian production. Hence, the Canadian aerospace and defence electronics industry has a vested interest in NORAD defence policy-making. Within this context, the integrated nature of the North American defence industrial base is not without significance. Seven of the top defence contractors in the U.S. in 1985, for example, had Canadian subsidiaries and all of these were in the aerospace and electronics sectors of the defence production industry.²³ All but one of these seven, Martin Marietta Canada Ltd., were members of AIAC, and 4 of the 7 were amongst the top 30 Canadian aerospace and/or electronics defence contractors for that

year.

Given this degree of defence industrial integration, including the plurality of U.S. owned defence production firms in Canada, and given that NORAD defence program planning has its roots in U.S. defence policy, there is a strong U.S. defence industrial voice in the Canadian voice, interested in having Canadian defence policy decision-making reflect U.S. defence interests.

The Organization and Communication of Policy Preferences

The Aerospace Industries Association of Canada (AIAC), registered as a second tier lobby group,²⁴ is the main government/industry interface association for the Canadian aerospace and electronics industries. In this role, its mandate, as Ken Lewis, the President of AIAC notes, is to keep the government informed of industry interests, capabilities, difficulties and challenges and to relay to its member companies governmental concerns, policies and future directions.²⁵ More specifically, Lewis writes that AIAC's role is "...to consolidate the activities of its various industrial committees and make representation to appropriate government departments and agencies on horizontal issues and concerns raised by member companies and committees."²⁶

In 1990, AIAC had 211 aerospace and defence electronics member companies,²⁷ representing about 90 per cent of the relevant industrial community,²⁸ and had 14 committees to consolidate and represent. The committees cover Airworthiness; Contracts and Finance; Customs and Traffic; Defence and Marketing; Electronics Systems; Human Resources; International Exhibitions; International Trade; Product Support; Productivity; Research and Development; Small Business; Space; and Technical Standards & Quality Assurance. These committees work closely with the respectively relevant governmental departments, in both the U.S. and Canada, and with both elected officials and government bureaucrats.

Looking only at the defence-related committees, in 1990 the Contracts and Finance Committee worked with Supply and Services Canada (SSC) on developing a new profit policy model, and on new and potential policies on contract terms and conditions. It also worked with Industry, Science & Technology, Canada (ISTC) on its DIPP funding policy, and with U.S. federal government agencies with respect to aerospace contracting. The Defence and Marketing Committee worked with SSC over gaining security clearance for industrial personnel in order to meet contract obligations; with DND, the Department of External Affairs, and ISTC to

produce a Task Force Report on Bilateral Research, Development and Production Agreements; and with the Department of External Affairs and ISTC to examine how member companies, especially the smaller ones, could expand their activities in the U.S. defence contracting market. This latter endeavour included a 3 day visit to two U.S. Air Force Logistics Centres. The Electronics Systems Committee, which has a Defence System sub-committee, worked with DND on its helo requirements and strategies. The International Trade Committee was largely responsible for the signing of a Memorandum of Understanding (MOU) between the AIAC and its counterpart organization in the U.S., the Aerospace Industries Association of America Inc. (AIA). The MOU provides for regular meetings between the two associations to discuss, among other things, Canada/U.S. trade irritants. The Space Committee worked with DND in formulating a MOU between DND and the USAF on wide area space based surveillance. In addition, the Canadian Space Agency has an Industrial Base Task Force which meets twice a year and is chaired by AIAC personnel.

In fact, the Canadian government and AIAC signed a MOU on the 29th of May, 1985 recognizing the mutual intention of the parties to "...involve federal departments and agencies, aerospace companies and, as appropriate,

labour organizations in the identification, coordination and implementation of economic and industrial development measures..." recognizing that the success of the Canadian aerospace industry is based upon "...a strategy of competitive credibility worldwide for competence in systems design, integration, manufacturing, service and support. This strategy is based upon specialization, market access coordinated with international marketing efforts and government/industry shared cost industry development and modernization."²⁹

Since the signing of the MOU (and before), AIAC and government cooperation has been extensive. In defence related areas, AIAC and ISTC have cooperated, since 1983, in producing an annual statistical survey of the Aerospace Industry.³⁰ AIAC and the Department of External Affairs and International Trade collaborated to produce a report entitled "1992 Implications of a Single European Market: Defence, Aerospace and Transport." AIAC, ISTC and External Affairs jointly produce an annual volume entitled "Canada's Aerospace Industry: A Capability Guide," which is used by potential contractors to identify Canadian products and producers. The Canadian government and AIAC participated jointly in a Source Development Pilot Project designed primarily "...to improve opportunities for Canadian small

and medium-size aerospace companies to supply Canadian government procurement requirements."³¹ The final report was released in November 1989. The AIAC was a major contributor to SSC's "Defence Industrial Base Review 1987," designed to "...assess the nation's industrial capacity, capability and potential to manufacture and/or service defence products under normal and emergency conditions."³² AIAC was also a major contributor to DND's Defence Industrial Preparedness Task Force of November, 1987. The object of the Task Force was to "...define the approach DND must take to ensure the industrial sustainment of the Canadian Forces in all operational tasks."³³

Other AIAC defence-related initiatives include appearing as a witness for the Standing Committee on Research, Science and Technology Hearings on Canada's Space Program in March, 1987,³⁴ and presenting a discussion paper to the June, 1986, National Science and Technology Policy Forum from which emerged Canada's Science Policy.³⁵ In June of 1985, AIAC also submitted a brief to the government outlining its conception of the future shape of Canada's Space Program.³⁶

In addition, the AIAC keeps its members informed of present governmental policy and future policy trends through its committee reports and conferences, the

publication of Aerospace News, and the distribution of its committees' specialized reports. AIAC also surveys its members for their policy positions, as it did in 1989 with regard to the government's proposed cuts in the defence budget.³⁷ In order to promote development sharing opportunities for its members, AIAC representatives also make annual visits to the major U.S. R&D establishments such as Patterson Air Force Base, the Navy Labs near Washington and to U.S. Army research establishments.³⁸

With respect to NORAD, AIAC appeared as a witness at the 1969 and 1985 SCEAND Hearings on NORAD renewals, and presented a brief to the 1991 NORAD Hearings chaired by a sub-committee of the Standing Committee for External Affairs and International Trade. AIAC did not appear at the 1973, 1975 or 1980 Hearings. It also appeared as a witness at the 1984 Special Committee of the Senate on National Defence and at the 1985 Special Joint Committee of the Senate and of the House of Commons on Canada's International Relations, specifically for the sessions dealing with Canada's participation in research on the U.S. SDI.

Quite apart from the AIAC, individual aerospace and electronics defence contracting firms have independent relationships with the Canadian government. Many of the

firms have their own MOUs with the government, including the U.S. owned Garrett Canada, Boeing Canada, and Pratt and Whitney Canada. Litton Systems Canada has a confidential MOU.³⁹ In terms of lobbying, as of 1991, 8 of the top 26 Canadian aerospace and defence electronics firms have registered Tier II lobbyists in their employ with 5 of these 8 firms being U.S. owned.⁴⁰ Further, 14 of the 26 are clients of Canadian Tier I Lobby Firms with 7 of these 14 being U.S. owned. In terms of defence issues, since 1989, all 14 client firms have had their respective Tier I Lobbyists intervene with the Canadian government for government procurement/contract purposes; 4 firms, 2 of them U.S. owned, intervened for funding and grant purposes; 8 firms, 4 of them U.S. owned, sought meetings with DND elected officials; and 7 firms, 4 of them U.S. owned, sought directly to influence Canadian defence policy making.⁴¹ In addition, several Canadian firms are members of U.S. lobby groups. Canadair and Pratt & Whitney Canada Ltd., for example, are clients of Bardshaw Associates Ltd. of Maryland, the self-styled Senior Executive Associates on Military Systems.⁴²

Other Canadian interest groups also perform a lobby function for the Canadian aerospace and defence electronics industry. The Business Council on National Issues, which

as of 1987 represented the interests of 150 major companies operating in Canada, established a Task Force on Foreign Policy and Defence in 1981. Five of the eleven executive officers on the Task Force represented major aerospace and electronics defence contracting firms.⁴³ As Howard Peter Langille demonstrates, the assets and the employment that the Council represents allows it to exert considerable influence within the Canadian policy decision-making process.⁴⁴ Further, the Conference of Defence Associations, with support funding from DND, has industrial representatives amongst its membership. The membership of the Canadian Institute of Strategic Studies, also funded by DND, and an associate member of the Conference of Defence Associations, includes retired military personnel and representatives from industry and the general public. In 1987, Litton Systems was a major financial supporter of the Institute.⁴⁵

Government/industry liaisons are also initiated by the government with government departments consulting individual firm representatives on defence and defence-related issues. DND consulted industrial representatives during its Task Force on Defence Industrial Preparedness,⁴⁶ as did Supply and Services Canada in the preparation of its Defence Industrial Base Review.⁴⁷ Firm

representatives were also consulted by the United States Systems Command Liaison Office in Ottawa and the United States Army Research, Development and Standardization Group in its preparation of the "Guide to Canadian Aerospace Related Industries," which is designed to acquaint U.S. contractors with Canadian industrial capabilities. In addition, of the original 17 members of the Industrial Preparedness Advisory Committee, established by DND in October of 1987, 8 were representatives of major Canadian aerospace and electronic defence contracting firms.⁴⁸ Of the 19 members in 1990, again 8 were representatives of such firms.⁴⁹

Individual aerospace and electronics defence contracting firms also appear before government hearings on defence and defence-related issues. No industry representatives appeared before SCEAND NORAD Hearings until 1980, when Spar Aerospace alone made a presentation. Representatives of five of the major firms appeared as witnesses to the 1985 NORAD Renewal Hearings,⁵⁰ while Canadian Marconi Company presented a brief to the 1991 NORAD Renewal Hearings. Two firms made representations to the Senate Hearings on National Defence in 1984,⁵¹ and two were witnesses at the Special Joint Committee's SDI Hearings in 1985.⁵² In addition, 5 of the major aerospace

and defence electronics firms appeared as witnesses to the Standing Committee on Research, Science and Technology in 1987,³³ a Committee which reviewed Canada's science and technology policy with special reference to Canada's space program. Nine of the top 30 defence contracting firms, along with AIAC, also made representations to Science and Technology Canada's July, 1984 Task Force on Federal Policies and Programs for Technology Development.

The Industry and the Military

Finally, communication between the government and the aerospace and defence electronics industry is facilitated by the movement of retired personnel from their defence or defence-related government appointments to positions within the AIAC and/or individual firm's corporate structures. With respect to NORAD defence policy decision-making, such movement is of particular relevance when it involves retired NORAD or Air Command personnel assuming positions within the aerospace and defence electronics industry. As demonstrated in Chapter Five, "The Military and NORAD Decision-making," the Canadian military tends to be acutely aware of long-range planning within the NORAD alliance, of how defence program-planning makes its way through both the Canadian and the U.S.

decision-making process to emerge as policy, and of the technology required to support present policy and long-range planning, that is, of the link between security and defence industrial preparedness. Hence, retired military personnel bring to their industrial corporate positions knowledge of present and potential NORAD programs, of the technology required to support them, and of the channels for pursuing both contracts and influence which exist for Canadian industry in both the Canadian and the U.S. defence decision-making milieu.⁵⁴

Lt. General MacKenzie cited an example of this process at work from his own experience. As a consultant to Public Affairs International (PAI) in 1988 and 1989, MacKenzie represented the interests of Frontec Logistics Corporation in acquiring the operations and maintenance contract for the NWS. MacKenzie's advice and representations to the government were successful and he attributes the success to the fact that he had contacts. He knew the manager of the NWS program at NORAD and had worked for him during his years as D-CINC at NORAD.⁵⁵ Whether his success was due to his contacts is a moot point. The point is that the contacts were there to be used.

Further, General McNaughton's experience as D-CINC

of NORAD is an advertised feature of Adlog, an Ottawa consulting firm which does about 50 per cent of its work in defence and defence-related areas, and of which McNaughton assumed the position of Vice President upon his retirement from the military.³⁶ As General Withers, Chief of the Defence Staff from 1980-1982, and presently President of Government Consultants International (GCI), a Tier 1 Lobby in Ottawa, has said, the expertise which the military brings to the defence production industry could not be found elsewhere. For the most part, military personnel retire at about the age of 55, bringing 30 or 40 years of military experience to their corporate positions.

Being retired from the military does not necessarily mean that the individuals are retired from being involved in on-going Canadian/U.S. military planning. When asked in interviews, all of the retired CDSs and D-CINCs of NORAD acknowledged that relationships between Canadian and U.S. military personnel survive retirement.³⁷ This survival takes two forms and the information exchanged in both forms benefits industry in liaising with the Canadian government.

First, the personal relationships developed on the basis of Canadian/U.S. military professionalism continue on both a formal and an informal basis, with the former being

realized through continued membership in such groups as the U.S. Space Foundation. William Weston was a member of this group before he retired from his position as D-CINC of the 25th NORAD Region from 1979-1981, and he continues his active membership as he pursues his civilian career as Vice-President of AIAC. Through the Foundation he stays in touch with both past and present members of the NORAD community.⁵⁴ Canadian and U.S. military personnel also maintain their past relationships through their post-military-retirement corporate positions in such formal groups as the Canadian Defence Preparedness Association which meets regularly with its U.S. counterpart, the American Defence Preparedness Association. The DPSA and the DDSA both also have formal Canadian/U.S. structures which serve the purpose of maintaining contacts.⁵⁵

Second, since many of the retired U.S. military have assumed corporate positions within the U.S. defence production industry, the informal channels of communication that existed between the Canadian and U.S. military within NORAD, are now replaced by informal channels of communication between Canadian and U.S. corporate representatives of defence production firms. In fact, as General Withers has mentioned, and others concur, the informal channels of communication are often more efficient

than the formal.⁶⁰ The problem, in Canada, according to Ken Lewis, is remaining current. After retirement, he suggests, one loses the 'need to know' aspects of the military position, the access to secure information. Moreover, in order to avoid conflict of interest charges, high-ranking retired military personnel are forbidden, for one year, to take a job with any firm that is under contract to the government.⁶¹

However, the same is not true in the U.S. High-ranking U.S. military personnel move into corporate positions with the defence production industry, or into Lobby Groups, immediately upon retirement. More to the point, these retirees are treated as a resource by the active military. They are consulted on a 'think-tank' basis⁶² and are kept current on military affairs through regular classified briefings. For instance, retired high-ranking U.S. military within NORAD have a yearly classified briefing from the CINC in Command.⁶³ Hence, by maintaining contact with their U.S. colleagues, retired Canadian military personnel can remain current with U.S. defence planning. General McNaughton, in his retirement position as Vice-President of Adlog, for example, stays current on NORAD defence planning through monthly contact with the current CINC of NORAD, he has had a classified

briefing by the CINC since his retirement, and he maintains contact, by phone and by letter with his former CINC.”

In other words, the channels of communication that existed for Canadian/U.S. military defence program-planning within NORAD remain open after retirement. Hence, retired Canadian military personnel retain their privileged access to on-going Canadian/U.S. military defence planning. In addition, in their respective corporate positions within individual defence production firms, Canadian and U.S. retired military also exchange information on the long-term technological requirements of NORAD defence program-planning, and on the contracting and marketing climate of the North American defence industrial base. Hence, Canadian industry benefits from hiring retired Canadian military personnel in that it acquires intimate knowledge of long-range defence program planning within NORAD, and of the technology required to support these programs. This knowledge, together with the retired military personnel's familiarity with the Canadian defence policy decision-making process, facilitates the industry's ability to develop self-interested policy preferences and to communicate them effectively to the governmental defence policy decision-makers.

In addition, within the Canadian aerospace and

electronics defence contracting milieu, retired military continue to exercise, in their respective corporate positions, the personal and professional relations which developed during their years in the Canadian military. Hence, there is an 'old-boys' network at work among the upper echelon personnel of the AIAC, individual aerospace and defence electronics firms, and various Tier I Lobbyists.⁶⁶ As General McNaughton, Vice-President of Adlog, has said, the advantage of having T.S. Dudley Allen and Ramsey Withers, both of GCI, on the Board of Adlog is that they can pass clients back and forth, steering them in the right directions, and take advantage of each other's expertise. The exchange of information that takes place within this network again facilitates the development and coordination of industry policy preferences and the presentation of these preferences to the defence policy decision-makers for the purposes of influencing their decisions.

To adequately demonstrate the extent of the corporate interlocks between retired military personnel and the Canadian aerospace and defence electronics industry, a study of the corporate structure of the top 30 firms and of the major Tier 1 Lobby Groups, over a substantial period of time, would need to be undertaken. Since such a study is

beyond the scope of this thesis, mention will simply be made of the interlocks in the 1980s that have come to light during the course of research for this thesis.

In terms of the AIAC, Ken Lewis who was the Deputy Commander of NORAD from 1978 to 1980, has been the President of AIAC since 1984. William Weston, the Deputy Commander of the 25th NORAD Region, Tacoma, from 1979 to 1981, has been a Vice-President of AIAC since 1988. Further, Jacques DesRoches, President of AIAC from 1979 to 1983, was, from 1975 to 1977, the President of the Canadian Commercial Corporation, the official Canadian government agency through which U.S. DOD defense production contracting takes place. For 1979 and '80, DesRoches was the Deputy Minister of Supply in the Department of Supply and Services, the department that handles DND defence contracting.

Of the remaining four Deputy Commanders of NORAD since the mid-1970s, David Adamson, Deputy CINC from 1976 to 1978, became the Vice-President of Marketing and Sales for De Havilland Aircraft, Canada, and subsequently, President and Chief Operating Officer of AvCorp Industries Inc.** James Richardson, a Minister of National Defence from 1973 to 1976 has also been on AvCorp's Board of Directors.⁶⁷ Lt. General D.C.MacKenzie, D-CINC of NORAD

from 1983-1986, was a consultant on defence issues and procurement to PAI, a Tier 1 Lobby Group in Ottawa, for 1987-1988. General D.M. McNaughton, D-CINC of NORAD from 1986-1989, is presently Vice-President of Adlog, an Ottawa consulting firm that concentrates on defence. Only General K.J. Thorneycroft, D-Cinc from 1980-83 has not entered the field of defence industry production.

Since the mid-1970s, there have been five Chiefs of Staff that have retired from the Canadian military. General J.A. Dextraze who retired in 1976 has since been a member of the Boards of Directors of Bombardier and of Thomson-CSF Systems Canada Inc.⁶⁸ General R.M. Withers who retired in 1982 is presently the President and Chief Operating Officer of one of the major Ottawa Tier I Lobby Firms, Government Consultants International Inc.(GCI). British Aerospace, Canadian Marconi Co., MBB Helicopter Can. Ltd., and Saint John Shipbuilding Ltd., all major aerospace/electronics defence contractors, are clients of GCI.⁶⁹ General Paul Manson, retired in 1989, became Head of Strategic Planning in the Defence Systems Unit of Unisys Canada Inc. in 1990 and subsequently a Senior Vice-President in Paramax Electronics Inc.⁷⁰ Of the two remaining retired Chiefs of Staff, General G.C.E. Theriault who retired in 1985, is a Vice-President of a German firm that is not involved in

defence production, while Admiral R.H. Falls, retired in 1979, became a Director of the Canadian Centre for Arms Control and Disarmament in 1983.⁷¹

In terms of the corporate structures of individual aerospace and electronics defence contracting firms, T.S.Dudley Allan retired as a Rear Admiral from the Canadian military in 1978 and was subsequently appointed President and Chief Executive Officer of E.H.Industries, became a Board Member of AIAC in 1981, and subsequently President of Computing Devices and Control Data in Canada before moving to a Senior Associate position in GCI in 1990.⁷² Herbert A. Sievert who retired from the RCAF in 1980 became Vice President of Marketing for Litton Systems Canada Ltd., in 1986,⁷³ while Major General Clifton M. Kinney became Vice-President, Business Development for Litton Systems in 1985 after 34 years in the Canadian forces.⁷⁴ Larry A. Ashley, a Commander of Canada's Air Command during his 35 year career in the armed forces became President of Loughheed Canada in 1990.⁷⁵ Frank Driscoll became President and Chief Executive Officer of Leigh Instruments in 1989 after a 24 year career in the Canadian military.⁷⁶ Frank C. Carlucci III, a former U.S. Secretary of Defense in the Reagan Administration, became a member of Northern Telecom's Board of Directors in 1989.⁷⁷

The former MND, Jean Jacques Blais was appointed as a consultant to Thomson-CSF Systems Canada Ltd., in 1987.⁷⁰

With respect to personnel movements from defence-related federal departments to aerospace and electronics defence contracting firms, Robert D. Weese, a former ADM for Corporate Policy and Planning in the Department of Supply and Services became Manager of Corporate Business development for General Electric, Canada in 1989.⁷¹ Jean-Pierre Goyer, Minister of Supply and Services from 1973 to 1978 became a Member of the Board of Canadair in 1983,⁸⁰ while William R. Teschke, a former Deputy Minister of the Department of Regional Industrial Expansion which manages the DIP Program, became a Board Member of Pratt & Whitney Canada Ltd., in 1989.⁸¹ In 1988, Gordon Osbaldeston, a former Clerk of the Privy Council and Secretary to the Cabinet, became a Member of the Board for Rockwell International of Canada Ltd.⁸²

In short, the channels of communication between the government and the individual aerospace and electronics defence contracting firms, and between the government and AIAC are open, and two-way. They are also varied and include, a flow of retired personnel from government to corporate positions within the industry, government/industry cooperative work on advisory committees

and in policy formulation meetings, the production of joint publications, industrial presentations to governmental task forces, hearings and conferences, and governmental representation at industrial conferences and on industrial committees. In addition, each of these venues presents opportunities for the development of personal relationships between government and industrial representatives, and for the ease of access that goes with such relationships. Hence, there are ample opportunities for the Canadian aerospace and electronics defence contracting industry to exercise its influence on government defence, and defence-related, policy decision-making, to help ensure that Canadian defence policy reflects U.S. interests. Since the defence policy interests of the military and the defence production industry coincide, the industry, with its contingent of retired military personnel, can support, and lobby for, the defence programs as they emerge from Canadian/U.S. military cooperation to enter the Canadian political decision-making process.

Policy Preferences of the Canadian Aerospace and
Electronics Defence Contracting Industry

NORAD

The policy preferences of AIAC and individual

aerospace and electronics defence contracting firms, whether expressed at various SCEAND NORAD Hearings or Special Committees of either the Senate or of the Senate and House of Commons, have tended, not surprisingly, to coincide. The industrial representatives have been in full support of each NORAD renewal and of each new NORAD or NORAD-related defence program, including cruise missile testing, participation in SDI research, and the NORAD Modernization Program. They have also urged Canada's participation in the U.S. BMD and Space defence programs.

At the 1969 SCEAND NORAD Hearings, David Golden, the President of AIAC's predecessor, the Air Industries Association, urged the Canadian government to continue its support of U.S. defence programs even if Canada's own assessment of the international situation did not warrant such support. He stated that, in general, the particular interests of the U.S., as the major Western power, deserved unqualified support, and more specifically, that participation in NORAD was Canada's most important defence role, allowing Canada to influence U.S. defence policy while facilitating Canadian industry's access to the U.S. defence market and technologies. If Canada should choose neutrality or non-alignment, he suggested, it would lose

important industrial advantages.⁴³

At the 1980 SCEAND NORAD Renewal Hearings, John MacNaughton, Vice-President and Assistant Group Executive, Marketing and Planning for Spar Aerospace, the only industrial representative to appear as a witness at these hearings, recommended the renewal of NORAD for both security and economic reasons.⁴⁴ Given NORAD's upgrading of its facilities and its connection to the U.S. defence space program, he argued, Canada's continued participation in NORAD would provide Canadian industry with an access to U.S. space program technology. Defence technology, he suggested, is needed to keep Canadian industry on the leading edge of competitiveness, is the impetus for technological development in general and has positive ramifications for civilian production in turns of spin-offs and employment. In addition, he argued, continued participation within NORAD would support the DPSA, providing a life-cycle product base for Canadian industry while maintaining access to the U.S. defence contracting market.

McNaughton also suggested that since the defence production sharing arrangements have tended to favour Canadian subsidiaries of U.S. parents, primarily because of the natural fit of their product lines, increased Canadian

government research and development funding was required to ensure the continued competitiveness of Canadian owned firms. With respect to Canada's activities in Space, MacNaughton suggested that Canada needed a long-term space program for both civilian and defence purposes as opposed to a series of discrete projects. Arguing that Canadian industry had the capability to produce for, and compete in, the international trade in space technology, but that, because of U.S. security restrictions, it had not as yet participated in any meaningful way in the U.S. DOD space program, MacNaughton said that, "The missing link in this scenario could very well be our own Department of National Defence through its close links with the U.S. Department of Defense through the Defence Production Sharing Arrangements. The opportunity for DND to become seriously involved in space systems through the need to upgrade our North American defence posture by the use of such systems could provide the Canadian space industry with a long term, very high technology market base."⁶⁵

AIAC's presentation to the 1985 SCEAND NORAD Renewal Hearings, as well as those of the five representatives of aerospace/electronics defence contracting firms that appeared as witnesses, were essentially a reiteration of the Spar Aerospace

presentation to the 1980 Hearings. AIAC representatives argued that Canadian firms have international competence in surveillance and communications systems and that high technology defence requirements are a driving force to the industry in keeping it at the leading edge of technology and providing civilian spin-offs. Civilian and military research, they suggested, were interchangeable. Hence, the renewal of NORAD was recommended in the interest of maintaining the Defence Development and Production Sharing Agreements and to maintain Canadian industrial participation in, and access to, the North American defence industrial base.⁶⁶

The AIAC representatives also raised a number of issues that were problematic to the industry. Offsets, which they felt were replacing the DPSA, were relatively unbeneficial to the industry as they were generally build-to-print contracts which did not involve sophisticated technology and therefore did not include high technology transfers. U.S. non-tariff barriers such as DOD's small business set-asides for defence contracting were working against Canadian access to the U.S. DOD contracting market. For these reasons, Canadian industry needed more building under licence, more technological transfers, and more government R&D funding as the Canadian share of U.S. R&D

funds was insignificant.

In terms of procurement, the representatives argued that there were too many government departments involved to allow for efficiency in the process. As Alec Bishop, Vice-President of AIAC, argued, "One (department) is responsible for industrial development. Another is responsible for external relations. Another is responsible for delivering the defence. Another is responsible for procurement."⁷

"The problem," added Harry Halton, Honorary Director of AIAC, "...is that the Department of National Defence does not have the responsibility for the establishment and maintenance of the Canadian defence industrial base."⁸ Hence, the procurement process tended to favour the cheapest option which generally meant buying off-shore and arranging off-sets with very little high technology relevance. In both cases, Canadian industry suffered.

It was also noted that the Canadian government's rejection of a government-to-government Canada/U.S. agreement on SDI research was not only a rebuff to the U.S. but also a blow to the Canadian aerospace and electronics industry in that Canadian firms do not get security clearance to contract in the U.S. SDI market without a bilateral governmental agreement. Hence, it was

recommended that NORAD be renewed to demonstrate "...our willingness, indeed our commitment, to share in NORAD's space programs."⁸⁹

The five aerospace/electronics defence contracting firms that sent witnesses to the 1985 SCEAND NORAD Hearings were MacDonald Dettwiler and Associates Ltd.,⁹⁰ SED Systems Inc.,⁹¹ Canadian Marconi Co.,⁹² IMP Group Ltd.,⁹³ and Spar Aerospace.⁹⁴ Essentially, their testimonies mirrored AIAC's, except that they generally favoured a 10 to 15 year renewal term for NORAD so that DND could embark on long-range defence planning, thus allowing the defence industry more time to produce directly for DND and/or to acquire Canadian industrial input into the systems that were to be purchased off-shore. Renewal was also recommended so that a renegotiation of industrial benefits could take place. Specifically, it was felt that the DPSA, with its focus explicitly on defence trade, had given away to the negotiation of off-sets which, because they were not necessarily specific to the defence production industry, were not always beneficial to the high technology sectors of Canadian industry. In addition, it was felt that the U.S. non-tariff barriers were unfair to Canadian contracting in the U.S.; that the DPSA and the DIP Program favoured Canadian subsidiaries of U.S. parents; and that

Canadian subsidiaries in the U.S., in particular, needed more access to U.S. classified information in order to bid competitively on DOD defense contracts.

NORAD's link with the U.S. defence space program was presented as a primary reason for pursuing renewal, the logic being that Canadian industry has expertise in both space surveillance and communication systems and that on-going Canadian participation within NORAD would help provide Canadian industry with access to the U.S. market in these systems. It was also suggested that Canada develop its own space program and increase defence research and development funding, defence spending being seen as the best support for high technology industries. In addition, it was argued that better co-ordination was needed among the federal departments that deal with defence and defence-related issues, and between the federal government and industry. All but Alex Curran, President and Chief Executive Officer of SED Systems Inc., expressed profound disagreement with the Canadian government's decision not to participate on a government-to-government basis with the U.S. SDI.⁹⁵

Representatives from Canadian Marconi Co., Garrett Manufacturing Ltd., and AIAC appeared together at the Hearings of the Special Committee of the Senate on National

Defence in March, 1984.⁶⁶ Their concerns and arguments, almost verbatim, were repeated by industrial representatives at the 1985 SCEAND NORAD Hearings and therefore will not be reviewed again except to reaffirm that a major concern was the lack of coordination between DND and the defence production industry in terms of DND's short and long-term procurement plans and funding of industrial research and development. To the latter point, the demise of the Defence Industrial Research Program (DIR) in the mid-1970s was of particular concern.⁶⁷ With the modernization of NORAD on the horizon, it was felt that DND and industry should be working closely together in order to assure Canadian industry a share of the high technology pie.

Canadian Marconi Co., Control Data Canada Ltd., and AIAC sent representatives to the hearings of the Special Joint Committee of the Senate and House of Commons on Canada's International Relations in July and August of 1985, specifically to address the interim committee on Canada's participation in research on the SDI and bilateral trade with the U.S.⁶⁸ Again the arguments and concerns were similar to those already reviewed. Both industrial representatives felt that the Canadian government should agree to participate in SDI research and that the

government, industry and universities should set up a consultative body to identify SDI technology areas within which Canada could conduct research. The technological developments flowing from SDI research were too great to miss, especially since Canadian firms were already engaged in many of the SDI technology areas.”

Ken Lewis, President of AIAC, presented 14 points summarizing the reasons why Canada should participate in SDI research. Nine of the 14 points dealt with the technological benefits to be gained for Canada's high technology industries by SDI participation. The only new point he made was that non-participation could result in a brain-drain as competent engineers and scientists left Canada to pursue opportunities abroad that would be lost to Canada.¹⁰⁰

With reference to the U.S. BMD and defence space programs, Ken Lewis, speaking at a Financial Post Conference on Defence on November 18, 1987, stated that the Canadian government's hesitancy with becoming involved in these U.S. programs should not be allowed to interfere with Canadian industrial research, development and deployment of aerospace defence systems, as it is these systems, pursued jointly with the U.S., which offer the greatest security to Canadian sovereignty protection.¹⁰¹ These words echoed

those of Larry Clarke, Chairman and Chief Executive Officer of Spar Aerospace, speaking at the April 25, 1985 meeting of the Canadian Aeronautics and Space Institute in Ottawa.¹⁰² Clarke, however, focused also on the potential benefits to Canadian industry as Canada expanded its defence interests in space.

Defence-related Policy Preferences

With respect to Canada's national space program, which has a defence component, AIAC argued in a document submitted to the Canadian government in January 1985, entitled "Space: An Opportunity for Canada," that Canada needed a long-term space program and an efficient organization to support it. Pointing out that Canada's national Space program went to Cabinet 9 times before it was approved in 1981, and that approval was then only granted for a two year period, AIAC argued for a National Space Organization to coordinate the long-term interests of both the government and the industry, to identify the industry's present and future capabilities, and to involve industry in the space policy-making process. The document suggests that such an approach would bring "...together all of the government departments at various levels with industry and university representatives to form a cohesive

organization capable of providing strong leadership in the future National Space Program."¹⁰³

As witnesses to the Standing Committee on Research, Science and Technology on the Study of Canada's Space Program in the spring of 1987, representatives from AIAC, Spar Aerospace, SED Systems Inc., Bristol Aerospace Ltd., MacDonald Dettwiler & Associates, and Canadian Astronautics Ltd.,¹⁰⁴ made essentially the same points that were contained in AIAC's document, "Space: An Opportunity for Canada."

In other defence-related policy areas, AIAC, in a discussion paper presented to the National Science and Technology Forum in June, 1986, recommended the creation of a National Policy on Science and Technology. The problems which the policy needed to address included the low proportion of the Canadian budget that goes to R&D; the need for joint university/industry R&D projects; increased communication between the industry, the universities, the Federal and Provincial governments, government laboratories, and various R&D establishments; and increased government procurement of domestically produced products. In addition, the AIAC paper argued that industry should not be constrained by political factors such as the need to take regional economic and employment factors into

consideration when making production plans.

A discussion paper entitled "Canadian Defence Industry - A Consortium Approach," prepared by the Avionic Electronics Committee of AIAC in April, 1986, makes 3 additional recommendations regarding government/industry coordination. First, "That a matrix of capability/products of Canadian Defence Industry be raised and maintained to identify consortium candidates for major upcoming programs. 2. That a Set Aside Requirement to support small business in Canadian consortia be established by Government. 3. That the Federal Government commit to the concept of Canadian consortia/teaming arrangements to Major Crown Projects."¹⁰⁹ These recommendations were designed to strengthen Canada's defence industrial base at a time when space systems were becoming increasingly important.

The Coincidence of Industry Policy Preferences and Government Policy

Across the board, industry policy preferences and government policies have explicitly or implicitly coincided with one exception. The general aerospace/electronics defence contracting industry preference to have regional considerations made secondary to industrial development considerations have not been recognized in government

policy. However, it would be difficult to argue that this general industry preference reflects the desires of those firms established outside of Ontario and Quebec where the heaviest concentration of aerospace and electronics firms occurs.

With respect to NORAD, although there were far more than industrial interests at stake, each renewal reflected industrial preferences and industrial considerations were cited in each SCEAND Report as a reason for renewing the bilateral defence arrangement. Such was also the case with the NORAD Modernization program of 1985.

In terms of NORAD-related programs, most of the industry preferences were realized implicitly in government policy. AIAC was very much in favour of cruise missile testing, as was Litton Systems Canada Ltd., the producer of the cruise guidance system. Although SDI was rejected on a government-to-government basis, the Canadian government stated explicitly that Canadian industry was free to pursue SDI contracts. However, there are implied acceptances of the U.S. SDI, BMD and Defence Space programs in the 1987 White Paper on Defence. It states that Canada would "...participate in research on future air defence systems in conjunction with the United States Air Defence Initiative."¹⁰⁶ To the extent that the line between air

and space is indeterminate, and to the extent that air surveillance systems are increasingly space-based, the move to space defence systems related to other space programs, is perceptible. Moreover, the Paper states that by the end of the century, "...space will increasingly be utilized in support of national defence aims." To this end, the Paper states that DND is working with the U.S. on its Satellite Global Positioning System for navigation; "...is conducting research on extremely high frequency satellite communications in order to send more information, more securely;" is participating "...in the United States TEAL RUBY experiments on space-based, infra-red surveillance;" and "...is working with the United States in the bilateral Aerospace Defence Advanced Technology Working Group to identify advanced technology relevant to our future defence needs." Further, "In developing space-based or space-related systems," the Paper reads, "Canada will continue to co-operate and share costs, experience, technology and responsibilities with the United States, as we have done for almost 30 years in NORAD."²⁰⁷

Given these programs, and the fact that NORAD's Commander-in-Chief is also the CINC of the USSPACECOM, the Command which is responsible for the U.S. BMD, space defence and SDI programs, and given that the previous

chapter in this thesis demonstrated how joint Canada/U.S. defence planning and research tends to lead to Canada's acceptance of the defence programs which emerge from such planning, the potential for Canada's future participation in the U.S. BMD, SDI and Space defence Programs is very real. The removal of the ABM clause from the 1981 NORAD Renewal Agreement also facilitates Canada's participation in these U.S. programs. Further, as William Weston, Vice-President of AIAC, has suggested, SDI research in Canada is in fact on-going in that most defence-related micro-processes that are now being researched, in development, or in use, can be instantly turned to SDI work when necessary.¹⁰⁸

The Canadian government also recognized the aerospace and electronics defence production industries' concerns about the lack of coordination and communication between the relevant government departments and the industry with respect to industrial preparedness. In 1985, DND constituted a Defence Industrial Preparedness Task Force to "...develop the DND plans, systems and procedures upon which defence industrial preparedness can be based."¹⁰⁹ Noting that during the 1970s Canada had increasingly relied on off-shore procurement, the Task Force recognized that efforts had to be made to ensure that

"Domestic sources of supply should...remain the cornerstone of any preparedness policy..."¹¹⁰ To this end, the Task Force recognized that DND needed to increase its investment funding in Canadian industry and indulge in long-term planning in order to give industry the necessary lead-time for product development.¹¹¹ Further, the Task Force recognized the need for more integrated planning between the relevant government departments and industry, with DND assuming the overall responsibility for industrial preparedness planning. The Task Force also recognized the need to strengthen the position of Canadian industry in the North American defence industrial base.

Acting on the recognized need to coordinate industrial preparedness policy within the relevant government Departments and industry, the DND Task Force worked closely with the Department of Supply and Services (DSS), the Department of External Affairs (DEA), and the Department of Regional Industrial Expansion (DRIE) to design an Interdepartmental Committee on Defence Industrial Preparedness, chaired by the Deputy Minister of Defence (Materiel), with membership from DSS, DEA, and DRIE.¹¹² The Task Force also proposed the creation of an Interdepartmental Working Group on Defence Industrial Preparedness, with members from each of the Departments

listed above plus The Canadian Commercial Corporation, Emergency Preparedness Canada, the Department of Energy, Mines and Resources, the Department of Employment and Immigration, the Ministry of Transport and the Ministry of State for Science and Technology.¹¹³ Both the Interdepartmental Committee and the Interdepartmental Working Group were established in 1988 with membership as per the recommendations.¹¹⁴ DND also established a permanent directorate for defence industrial preparedness planning within the ADM (Materiel) Group, the Directorate of Defence Industrial Resources (DDIR).¹¹⁵

In further interdepartmental cooperative projects, DND worked with DSS to produce The Defence Industrial Base Review, which was designed "...to assess the nation's industrial capacity, capability and potential to manufacture and/or service defence products under normal and emergency conditions."¹¹⁶

The AIAC and individual aerospace and defence electronics firms were consulted by the Task Force and also by DND and DSS in the production of the Defence Industrial Base Review, partially fulfilling another industry demand, that industry be brought into the consultative and/or policy making process. In addition, AIAC, the Department of Industry, Science and Technology and the Department of

External Affairs cooperate to produce the annual, "Canada's Aerospace Industry: A Capability Guide," a source guide identifying Canada's aerospace and defence electronics firms and their products. Further, as a result of one of the Task Force recommendations, the Defence Industrial Preparedness Advisory Committee (DIPAC) was established in the fall of 1987. Its membership includes Chief Executive Officers of major defence production firms and its role is to discuss defence preparedness policy issues with the MND.¹¹⁷

In asserting that "...the development of domestic capabilities and the pursuit of collective security are not mutually exclusive,"¹¹⁸ the Defence Industrial Preparedness Task Force also recognized the need to strengthen Canada's position within the North American defence industrial base (NADIB). Accordingly, the Task Force was "...instrumental in the development of the Charter for the North American Defence Industrial Base Organization." Since 1985, this organization, consisting of representatives from relevant Canadian government departments and defence industries and their counterparts in the U.S., has met semi-annually "...to work toward a more fully integrated and mutually beneficial North American defence industrial base."¹¹⁹

In terms of the interests of the smaller aerospace and defence electronics firms, at the urgings of the AIAC, representatives from the industry, from the Department of External Affairs and International Trade, ISTC, DND, SSC, Transport Canada and AIAC formed a steering committee for a Source Development Pilot Project which was completed in November 1989. The main accomplishment of this Project was to develop a computerized Procurement Database which allows firms to identify federal government procurement opportunities. Small business constraints within the procurement process were identified and the question of up-front government financing, in terms of changing the eligibility rules for DIPP funding, was addressed.¹²⁰

Further, in addressing industrial concerns about domestic industrial in-put into offshore procurement, and strengthening the domestic defence industrial base, the 1987 White Paper on Defence stated that, "In acquiring equipment, the government will pay greater attention to the long-term industrial implications...(and)where major equipment must be procured offshore, the government will promote teaming arrangements with Canadian industry to foster technology transfer and the creation of an indigenous support base."¹²¹

Several of the aerospace and defence electronics

firms' concerns about government financing of R&D have also been addressed in policy. The Defence Industrial Research Program (DIR), abandoned in the mid-70s was reinstated in 1988. This is a DND administered program designed "...to assist Companies seeking support for research projects oriented primarily to defence technologies and to those wishing to avail themselves of the advantages that accrue through limited assistance from, and liaison and information exchange with defence agencies."¹²²

The industry's R&D concerns were also addressed by the government. Following AIAC's suggestion that the private sector was better equipped than government research establishments to manage R&D funds,¹²³ the 1987 White Paper on Defence stated that, "The transfer of defence research and, particularly, development to the private sector is important for the application of new technologies to Western defence."¹²⁴ In addition, the Paper states that, "In cooperation with other departments, the Department of National Defence will pursue policies to increase R&D capability and expertise in Canada...(and) Canadian technology will be incorporated into National Defence operations and plans wherever possible in order to help strengthen Canada's defence industrial capability."¹²⁵

Defence-related Government Policies

In 1986 and '87, the Canadian government announced three new programs which reflected defence-related policy preferences of the aerospace and defence electronics production industry. Following its 1984 announcement of interest in cooperating with the U.S. in its Space Station program, the Canadian government, in its October 1, 1985 Speech from the Throne, announced its intention to create a National Space Agency recognizing "...high technology as a motive force in Canada's economic growth..." The speech further recognized that, "International cooperation in the peaceful use of space is essential to the development of key technologies. Working in cooperation with industry, universities and provinces, the new agency will help to ensure that the benefits of Canada's role in space will be shared by all Canadians."¹²⁶ In line with the oft expressed concerns of both AIAC and various aerospace electronics firms about the lack of coordination between the several federal departments dealing with space issues, the June, 1987 Report of the Standing Committee on Research, Science and Technology recommended, "...that the Canadian Space Agency should incorporate all personnel, budgets and facilities of the Federal Government's departments and agencies presently engaged in space

activities, including all in-house space Research and Development (R&D) capability."¹²⁷ Further, in recognition of the industry's concern over the need for long-term planning and industry in-put into that planning, the Report recommended that the Space Agency have a stable five-year budget and that an Advisory Council on Space be created comprised "...of representatives from industry, university and government...."¹²⁸ Finally, AIAC preferred that the Space Agency be independent of related government departments.¹²⁹

Subsequently, the Canadian Space Agency was formed in 1989, and officially proclaimed on December 14 of that year. It was organized under the auspices of related government departments but is now a stand-alone Federal Agency. It has a stable five-year budget as per the recommendations, and is in the process of establishing an Advisory Council to consist of approximately 20 representatives from government, academia and industry. It is also presently consulting with academics, and representatives from the industrial space sector, to formulate a long-term space program.¹³⁰ Not all of the AIAC preferences were realized, the primary one being that the association would have preferred that the Agency be located in Ottawa as opposed to its present location in St.

Hubert, Quebec.¹³¹

On March 12, 1987, the Canadian government announced a National Science and Technology Policy. The policy created a Council of Science and Technology Ministers from federal, provincial and territorial governments, "...to work in partnership with business, universities and labour to: encourage the commercialization of technology by promoting technology diffusion and strengthening applied research and industrial innovation; develop technologies strategic to the growth of manufacturing, service and natural resource-based sectors;...(and) encourage the basic and applied research and development fundamental to Canada's scientific capability."¹³² In addition, the policy established seven working groups comprised of representatives from government and "...others representing appropriate non-government sectors, to study and report on areas of concern identified by Council Members."¹³³

Rhetorically, this policy met all of the concerns, save one, expressed by AIAC in its presentation to the Canadian Forum on a National Science and Technology Policy in June, 1986. The policy does not reflect AIAC's concerns that regional distribution of industrial and employment benefits not be a prime consideration of a Canadian Science

and Technology Policy.

Finally, the creation in August, 1987, of the Department of Industry, Science and Technology (ISTC), and its mandate, reflect the policy preferences of AIAC as expressed in various forums and hearings throughout the 1980s. In describing the mandate of the new department, Robert de Cotret, Minister of Regional Industrial Expansion and Minister of State for Science and Technology, wrote that the primary goal "...is to contribute to improving Canada's scientific and technological base in order to promote a more internationally competitive industrial economy, and to act, throughout the federal government, as an effective and reasoned advocate of the science and industrial communities."³⁴ In so doing, "The Department of Industry, Science and Technology will act in full partnership with the private sector, the science community, other federal government departments, and with other levels of government to promote international competitiveness and industrial excellence in Canada..."³⁵ Again, the only AIAC preference that is not reflected in the new department's mandate, is the preference for making regional disparity issues of secondary importance when addressing industry interests. As has been mentioned however, although the AIAC membership appears united in its defence

policy preferences, it is not necessarily the case in terms of regional distribution issues. Firms located in the West are more amenable to regional distribution policies than are those in Ontario and Quebec where the heaviest concentration of aerospace and/or electronics defence production firms reside.

Implications for Canadian Defence Policy Making and Theorizing

The aerospace and defence electronics firms which operate within Canada have very definite and well defined defence policy preferences and they have access to governmental decision-makers through a vast array of industry/government channels of communication. The industry is well organized, both as an aggregate through professional associations and on an individual firm basis, in terms of formulating policy preferences and accessing channels of influence.

The industry is also integrated into a North American defence industrial base and because the industry is export oriented, producing subsystems and components mainly for U.S. markets, the integration is marked by dependency which has its defence policy preference ramifications, as well its economic exigencies. Throughout

the 1980s, the U.S. government has increasingly been focusing on the development of "...aerospace, communications, and related high technology industries over steel, autos, machinery, and other kinds of basic manufacturing," largely through R & D which is channelled through the Pentagon¹³⁶ in support of U.S. defence policy and developing defence programs. A large share of the DOD's R&D budget supports space defence programs with 15 of DOD's 23 billion procurement and R&D 1987 dollars going to support such programs, putting the DOD ahead of NASA in terms of space funding.¹³⁷ It is therefore in the interests of the Canadian owned aerospace and defence electronics firms to press the Canadian government to coordinate its defence policy with that of the U.S. in order to insure ease of access to U.S. procurement and R&D contracts.

As far as defence policy preferences are concerned, the U.S. owned firms operating in Canada are as well integrated into the Canadian defence policy decision-making process as are the Canadian firms, and their defence policy preferences are not likely to change as they cross the border. Hence, it is in the interests of both the U.S. and the Canadian controlled companies that operate in Canada to have Canadian defence policy comply with U.S. policy.

However, Canadian defence policy has not always coincided with U.S. policy. The Canadian government did not accept a government-to-government agreement on SDI, nor has it officially agreed to participate in the U.S. BMD and Space Defence programs. This could be taken as a measure of Canadian autonomy in defence policy-making, as well as a measure of the lack of influence of the defence production industry within the defence policy decision-making process. It is also possible to argue, however, that, for two reasons, industry is able to become involved in these U.S. programs, despite Canadian policy, and that largely because of this involvement, Canadian defence policy tends to play catch-up to industry preferences, eventually reflecting them. The dropping of the ABM Clause from the 1981 NORAD Agreement, the government's positive position on Canadian industry SDI contracting, and the defence programs outlined in the 1987 White Paper all demonstrate a slow slide into the acceptance of the U.S. SDI, BMD and Space Defence programs.

Industrial policy preferences are able to lead government policy primarily because of the perception, well grounded in the U.S. defence production industry and reflected in the Canadian industry, that civilian production in high technology areas is rooted in defence

production and R&D, and that high technology civilian and defence production, taken together, contribute substantially to employment, the potential alleviation of regional disparities, GNP, and international trade balance based on international competitiveness. The defence production industry has the expertise to present these arguments to governmental decision-makers who do not generally have the expertise to counter them. As the industry continues to demonstrate and argue that, because of its dependent nature, its international competitiveness is rooted in its access to contracting in U.S. high technology defence areas, the issue to the governmental decision-makers becomes one of economics rather than one of defence policy, and for economic reasons, Canadian defence policy tends, over time, to resemble U.S. policy.¹³⁸

Ken Lewis' insistence that the industry must contract in defence programs not acceptable to governmental policy¹³⁹ demonstrates the process whereby industrial preferences are able to lead governmental defence policy. Having had the case accepted by the Canadian government that the defence contracting segment of the aerospace and defence electronics industry is invaluable to the industry in general, contracting in U.S. defence programs not accepted by the government proves the point down the line.

Such contracting establishes a fledgling technological expertise in these areas by Canadian firms. With this fledgling expertise, Canadian firms can then argue that Canadian firms are ready to compete in these areas, and Canadian acceptance of the U.S. defence programs would allow the expertise to mature. Since contracting in these programs is made difficult by governmental non-acceptance of the programs, pressure can be exerted on the decision-makers to have Canadian defence policy comply with U.S. policy.

In fact, this process has been on-going. In a May, 1985 report entitled, "Canadian Industrial Participation in Strategic Defence Initiative and North American Defence System," prepared as an in-house document by MacDonald Dettwiler & Associates Ltd., Philip A.Lapp Ltd., and Spar Aerospace Ltd., the authors identify 14 SDI high technology research areas in which Canadian aerospace and electronics firms have expertise and could seek contracts. Seven of the 14 high technology areas use technology developed by the individual firms in their R&D and production contracts, while the other 7 are the result of joint industry and government ventures. The report also outlines the technological expertise of the Canadian industry in relation to potential NORAD and SDI-related programs and

hence, the type of defence contracting in which Canadian industry could compete.

As the Report mentions, some of this industrial expertise has been acquired through joint government and industry ventures and therefore industry is not leading the government in total. Much, however, is indigenous to the aerospace and electronics industry and is acquired through its own funding of R&D which in Canada accounts for 20 per cent of all manufacturing R&D.¹⁴⁰ Much of the expertise has also been acquired through direct contracting in the U.S. civilian and defence production markets with the line between civilian and defence production often being obscure. For instance, the U.S. Space Station, a civilian program in which AIAC member firms contract,¹⁴¹ and in which the Canadian government has agreed to participate has a defence component, as does Canada's Space program.¹⁴² Expertise could also be acquired through subcontracting between U.S. parent firms and their Canadian subsidiaries, but because subcontracting is only reported to the Canadian government on a voluntary basis, it is hard to track.

William Weston's acknowledgement that much of the 'civilian' research into computer programming and software designs is in fact defence research in disguise for potential U.S. defence programs in that it can be instantly

applied to defence programs upon demand, is another example of how the Canadian industry participates in defence programs not yet accepted by the Canadian government. Again, the high technology qualifications garnered in this type of research demand on-going participation which, in turn, at some point seeks defence policy compliance.

The second reason that industrial policy preferences are able to lead defence policy-making is because of the expertise that retired military personnel bring to their corporate positions within the aerospace and defence electronic contracting industry. Quite apart from knowing their way through the defence policy decision-making process, retired military personnel are aware of on-going long-term military planning and the technology required to support the plans. In the context of this thesis, this is especially true of personnel who have retired from NORAD positions such as Deputy-CINCs, or who have been intimately involved in cooperative Canadian/U.S. defence planning such as Chiefs of the Defence Staff. Not only do they bring this knowledge to their corporate positions within the industry, but they also bring their network of former Canadian and U.S. military relationships which often become new networks of collegial relationships within the Canadian and the U.S. corporate structures of

the North American defence production industry.

As argued in an earlier chapter, in controlling the flow of information to, and setting the agenda for, the governmental decision-makers, the military has expertise in defence planning, and knowledge of future defence programs, far beyond that possessed by the decision-makers. Together with their knowledge of the technology required to support these programs, retired military personnel are in a position to aid the industry in the process of leading defence policy-making as has been described.

In addition, because retired military personnel are aware of the process whereby joint Canadian/U.S. defence programs tend to become Canadian defence policy, in their corporate positions they are able to counsel industry, with some assurance, to contract in defence programs not yet accepted by the Canadian government. Again, leading the defence policy-making process is the outcome.

Therefore, although it may be possible to cite Canada's formal rejection of SDI and the U.S. BMD and Space Defence Programs as examples of the relative uninfluential nature of the defence production industry on the Canadian defence policy-making process, such a citation is shortsighted. With a corner on the market of high technology expertise, with the government's acceptance of industrial

arguments about the importance of defence production and R&D for production and international competitiveness in general, with a strong U.S. industrial voice added to the indigenous Canadian voice pressing for Canadian defence policy compliance with U.S. policy, and with the knowledge brought to the industry by retired military personnel, the aerospace and defence electronics industry is able to influence Canadian defence policy-making by gaining the high technology expertise required for potential defence programs and then demonstrating capability for indigenous industrial preparedness when the program is presented to the decision-makers. By also demonstrating the necessity of being involved for reasons of high technology industrial international competitiveness, the industry is able to lead the defence policy decision-making process towards an acceptance of the industry's policy preferences.

As Langille notes, the Canadian defence policy-making milieu is structured by links between "...the defence, industrial, bureaucratic, and political sectors,"¹⁴³ with each sector having similar goals and objectives, albeit with differing motivations. Further, Langille argues that, "The convergence of military, economic, political, and bureaucratic interests constitute(d) a power bloc strong enough to alter Canadian

defence policy."⁴⁴ Given this structure, and the ability of the industry to lead defence policy-making, it is difficult to accept that Canadian defence policy is made in a relative vacuum by the upper-echelons of government decision-makers. Although they are responsible for the final decrees, the question has to be asked as to how much choice they have. The process is so thoroughly structured over time, by many and diverse interests that, as was demonstrated in the context of the Canadian/U.S. military relationship, by the time a particular defence program reaches the upper-echelons of decision-making it is already a virtual fait accompli.

The major point to be made is that given the ability of the Canadian/U.S. military relationship to set the agenda for the Canadian governmental decision-makers, presenting them with defence programs that are more or less in place; and given that the defence production industry, also organized nationally and across the Canada/U.S. border, is able to lead the defence policy decision-making process by becoming involved in contracting to U.S. defence programs that have not yet received government approval; and given the industrial corporate positions of retired military personnel, and given the lack of military, industrial preparedness and high technology knowledge

amongst the government decision-makers, it is most difficult to sustain the main arguments of John Treddenick or Middlemiss and Sokolsky. Canadian defence policy, a high area of policy-making, is considerably influenced by domestic interests, a major influence being the defence production industry. The defence production industry, primarily the aerospace and defence electronics sectors, based on its perception of its economic significance to Canada, with which the government concurs, is able to influence defence policy-making. Further, defence preparedness, and hence defence policy, is politicized on far more fronts than regional distribution issues.

What it is possible to argue is that Canadian defence policy is made largely by default, by decision-makers overwhelmed by a process that is well structured by the interests of the military and the defence production industry, both being organized, separately and together, within Canada and across the Canada/U.S. border.

Implications for International Relations Theory

The manner in which the Canadian aerospace and defence electronics industry tends to lead Canadian defence policy-making in terms of NORAD and NORAD-related policies suggests that the realist assumption about the analytical

discreteness of the domestic and the international environments is an erroneous assumption. Canadian NORAD defence policy is not made solely on a cost/benefit calculation of Canada's position within the international power-system of states. In setting Canada's defence policy within NORAD, the government is at least as concerned with the economic benefits to be gained from its alliance association with the U.S as it is with security issues. Canada is able to promote its economic interests primarily because the U.S. assumes the responsibility for the security aspects of the alliance, but that does not change the fact that economic considerations figure large in Canada's defence policy-making within NORAD.

From a security point of view, defence industrial preparedness is an integral aspect of security considerations and so it could be argued that preparedness is also related to the power exigencies of the international system. However, defence industrial preparedness brings the interests of the defence industrialists into the defence policy-making milieu and this introduces domestic and economic interests to the analysis. The realist theory, in asserting that domestic and economic factors can be largely ignored in assessing the determinants of defence policy misses the dynamics that

these two interests bring to the policy making process.

Further, the realist assumption of the state as a rational actor has been challenged on the basis that it assumes the state has perfect knowledge with respect to the international power system of states and the intentions of each state in that environment. Concepts such as 'bounded rationality' and 'near rationality' have been used by theorists to explain how states use 'shortcuts' in their analyses of the state system to arrive at "...a satisfactory level of performance rather than an optimal one."⁴⁵ However, when one introduces defence industrial preparedness to the analysis of defence policy-making, the state's rationality has to expand to include knowledge of the high technology issues at stake. If such knowledge is not available to the decision-makers personally, they are not, strictly speaking, making rational cost/benefit calculations in that they do not have an understanding of the implications of systems that are being developed and/or produced. If the decision-makers must rely on this knowledge coming from the experts, the ones who most likely are involved in the development and production of the systems, then they are making cost/benefit calculations on the basis of vested-interest information. Since Canadian decision-makers are decidedly not qualified experts in the

high technology systems that have been and are being developed for NORAD defence programs, the cost/benefit rationality of their defence industry preparedness decision-making can be questioned. Hence, realism's assumption of the state as a rational actor can be challenged on the bases of both security and defence industry preparedness factors.

The realist assumption that the state speaks in a unified voice, as the voice of the nation, can also be challenged. The Canadian state does formally make Canadian defence policy within NORAD, but its voice resonates with the interests of the Canadian defence production industry in its national and international organization. That those interests have also become government interests in terms of trade balances, GNP, and maintaining a healthy, state-of-the-art high technology industry, does not mean that the Canadian state is speaking above and beyond the parochial interests of the industry. Rather, it means that the experts in the industry have been able to convince the non-expert decision-makers in the government of the validity of industry interests and policy preferences. Nowhere is it written by disinterested analysts that defence production necessarily underwrites technological advancement. Japan is the classic case of the opposite.

Finally, the above criticism conspires to undercut realism's assumption about the autonomous nature of the state, vis a vis private interests, in the 'high' policy area of defence policy-making. If the state does not have the indigenous expertise to make independent assessments of defence industry preparedness issues as they relate to defence policy, it can not be seen as autonomous. It can only be seen as highly susceptible to influence from vested interests.

This does not mean that the state is necessarily captured by those interests. Throughout the history of NORAD, the Canadian government has had to mediate various domestic interests in defence policy-making. Cruise missile testing in Canada met with considerable negative public reaction which included demonstrations, a Supreme Court Case and a bombing at the Litton Systems plant in Rexdale, Ontario, Litton being the firm that produced the guidance system for the cruise. Undoubtedly, the public outcry was a factor in the government's decision not to participate on a government-to-government basis with the U.S. SDI. In addition, the public reaction to Canada's testing of the cruise missile was the main reason why the defence production industry did not make public its position on SDI,¹⁴⁶ and since the Kroeger Report which

reviewed the SDI issue, and made recommendations to the government, remains confidential, one can only assume that the government's decision to reject SDI while allowing industry to seek SDI contracts, reflects, at least in part, industrial timidity in the face of public reaction. Public concern about Canada's potential involvement in the U.S. BMD and Space Defence Programs was also overwhelmingly registered at the 1985 SCEAND NORAD Renewal Hearings by representatives of peace groups, academics, Canadian churches and research institutes.

The point is that the Canadian government has had to mediate domestic interests in the making of NORAD and NORAD-related defence policy. The decision to not accept participation in SDI research on a government-to-government basis, despite its unannounced dropping of the ABM Clause from the 1981 NORAD Renewal Agreement and the perceptual slide into SDI and related BMD and space surveillance programs announced in the 1987 White Paper on Defence, represents mediation rather than autonomy.

The question that remains is whether this criticism of the realist theory of international relations as it applies to Canadian defence policy-making within NORAD applies to the theory in general. In this regard, it can be argued that realism does not take into account the fact

that security and defence industrial preparedness are symbiotic, and that the latter requires an analytical focus on domestic interests and economic issues. As argued, once these issues are brought into the analysis, the assumption of the state as autonomous, as rational and as a unitary actor are challenged. In a very broad perspective, realism, at best, allows an examination of defence policy once it has been made and as it relates to the international power-system of states but it is extremely limited in providing guides for the examination of the defence policy making process, and hence of the dynamics of change.

On the other hand, once Wallerstein's capitalist world-economy model of international relations is modified to include the military as having a professional vested interest in the making of strategic policy, and the state as situated at the intersection of the domestic and the international realms, mediating the various interests that populate both, the model allows for the inclusion of relevant influences in the analysis of defence policy decision-making. In the context of this chapter, Wallerstein's model demands that attention be paid to issues and interests of defence industrial preparedness since these issues and interests constitute the economics

of defence policy. In including defence industrial preparedness factors in the analysis, one is forced to examine the domestic and the transnational organization of the economic interests involved. Such an examination is a central prerequisite of Wallerstein's model.

As Wallerstein's model would predict, the interests of the defence production industry play a role in the making of defence policy. As it would also predict, the transnational organization of the industry is not without relevance. U.S. defence policy has been imported into Canada, in part, through the U.S. defence industry presence in Canada and through the Canadian industry's dependence both on U.S. DOD contracting and producing subsystems and components for U.S. firms. Moreover, the integration of Canadian firms into the North American defence industrial base is not on an equal-partner basis. Canadian firms are disadvantaged by the dependent nature of their production, by the U.S. control of technology transfers, by U.S. non-tariff forms of protection and by U.S. security restrictions. Thus it is in the Canadian defence production industry's interests to have the Canadian government implement defence policies that will ease Canadian industrial access to U.S. markets, contracting, technology and security planning. Although the defence

policy preferences of Canadian industry are security oriented in effect, the motivation is economic.

Wallerstein's model would also predict that the economic interests of the defence production industry and the State would coincide and this is certainly the case with respect to the role of defence industrial preparedness as it applies to NORAD and related defence programs within Canada. As argued earlier though, this is not to imply that the state has been captured by the industry. The Canadian government has not always reflected industrial preferences in its setting of formal defence policy. The industry would prefer an open acceptance of the U.S. SDI, BMD and Space Defense Programs instead of the implied acceptance in allowing industrial SDI contracting, the removal of the ABM Clause and the acceptance of related defence programs in the 1987 White Paper on Defence. However, the Canadian government has had to mediate various other domestic interests. It could agree to test the cruise and it could remove the ABM Clause, but it subsequently could not overtly accept the other publicly contentious U.S. programs in spite of the fact that it was in the defence production industry's interest to do so, and even though it was in its own expressed interests to do so, the expressed interests being the maintaining of a healthy,

internationally competitive high technology industry and the employment, GNP and trade balance factors that are dependent upon it.

As per the corrective made to Wallerstein's model then, the state's autonomy is situation dependent. In the case of NORAD defence policy-making, however, that autonomy is seriously strained because of the industry's ability to lead Canadian defence policy-making by having a corner on the market of expert advice upon which the government draws for making its decisions, and by having access to U.S. long-term defence program planning including knowledge of the technology required to support it. This access is provided through the Canadian industry's integration into the North American defence industrial base, and through the movement of retired military personnel to corporate positions within the industry. The point, however, is that although the military and the defence production industry have similar defence policy preferences with respect to NORAD, their respective motives for having those preferences are dissimilar. The military is interested in maintaining its on-going professional relationship within the North American defence community, while the defence production industry is interested in its economic health and international competitiveness. Hence, when Canadian

defence policy reflects the interests of both these actors, it is only partially economically determined. When one takes into account the fact that the government also has to mediate its own domestic and international political interests, the space for situation-dependent autonomy exists.

The advantage of Wallerstein's capitalist world-economy model of international relations, in its modified form, is that, in its theoretical and analytical tools for the type of investigation that has been undertaken with respect to NORAD. Mainly, it recognizes that the domestic and international environments form a continuum, and that, in the making of defence policy, there exist organizations, both formal and informal, of political, economic and strategic interests, inhabiting this continuum, and actively pressing for their policy preferences. Although similar to the conclusions that might be drawn from an analysis rooted in the realist-related perspective of complex interdependence, Wallerstein's assumptions differ in that they do not assume that the state is the grand player. The state's role of making policy, and representing that policy in the international arena is not confused with notions of the state as an autonomous actor.

NOTES

1. Kim Richard Nossal, The Politics Of Canadian Foreign Policy, 2nd edition (Scarborough: Prentice-Hall Canada Inc., 1989), p.95.
2. Ibid., p.108.
3. John Treddenick, "The Economic Significance of the Canadian Defence Industrial Base", in Canada's Defence Industrial Base, ed. David G. Haglund (Kingston, Canada: Ronald P. Frye & Co., 1988), p.42.
4. D.W.Middlemiss & J.J.Sokolsky, Canadian Defence: Decisions and Determinants (Toronto Orlando San Diego London Sydney: Harcourt Brace Jovanovich, Canada, 1989), pp.126-129.
5. Canada. Industry, Science and Technology, Canada, "Industrial Profile: Aerospace, 1990-91" (Ottawa).
6. Canada, Industry, Science and Technology, Canada, "Industrial Profile: Defence Electronics, 1990-91" (Ottawa).
7. Treddenick, "The Economic Significance of the Canadian Defence Industrial Base", p.42.
8. Ibid., p.43.
9. Ibid., p.37.
10. Ibid., p.43.
11. Special Committee of the Senate on National Defence, "Minutes of Proceedings and Evidence," Issue #4, March 14, 1984, p.9, the testimony of Alex Bishop, Vice President of AIAC. The countries that rank higher than Canada are the U.S., West Germany, France and the U.K.
12. See references made to Hearings later in this chapter.
13. The ISTC Aerospace Industry Profile referred to in note #5, p.1. This Profile suggests that civilian production constitutes approximately 80% of total production while Ken Lewis, President of AIAC suggested, during the 1985 NORAD Hearings (Standing Committee on External Affairs and

National Defence, "Minutes of Proceedings and Evidence," Issue #35, October 8, 1985) that it constituted 75% of total production.

14. Point established by checking the Canadian firms for U.S. subsidiaries in Statistics Canada: Intercorporate Ownership.

15. J.H.Simons, Vice-President of Canadian Marconi Co., testimony to the 1985 NORAD Renewal Hearings, SCEAND, Minutes of Proceedings and Evidence, Issue #48, November 21, 1985, p.20. Testimony of Alex Bishop, Vice-President of AIAC, to the Special Committee of the Senate on National Defence, Minutes of Proceedings, Issue #4, March 14, 1984, p.14.

16. The five U.S. owned companies are Pratt & Whitney, Canada, Bell Helicopter/Textron, Litton Systems, Canada, McDonnell Douglas, Canada and DeHavilland, Canada. Ken Epps, "The Defence Industry Productivity Program: Contributions 1969 through 1990", Ploughshares Working Paper 91-2 (Waterloo: Project Ploughshares, 1991).

17. In his testimony to the 1985 NORAD Renewal Hearings, (see reference above) Mr. Simons claimed that DIPP funds were used "...to attract new firms to locate in Canada..." p.20.

18. Globe and Mail, September 26, 1987.

19. Speech presented by McGuigan to the Financial Post Conference, "Defence Industry: Building Canadian Capability," on November 18, 1987.

20. Interview with Ken Lewis on December 2, 1991.

21. Tier 1 Lobby groups are professional lobby firms. Tier II lobbyists are those employed as full time staff by private interests.

22. Interview with T.S. Dudley Allen on December 2, 1991.

23. The contractors are listed as: Boeing Co., General Dynamics Corp., Grumman Corp., Litton Industries Ltd., Lockheed Corp., Martin Marietta Corp., McDonnell Douglas Corp., Northrop Corp., Raytheon Co., and Rockwell International Corp., as listed in a Globe and Mail article in 1985, in the Project Ploughshares Files without a date.

24. Registered as such with the Department of Consumer and Corporate Affairs, Lobbyists Registration Branch. The Register for second tier lobbyists has been active since January 1991.
25. Canadian Aviation, September 1989.
26. Letter from Ken Lewis to David Large at the University of Western Ontario, 1984.
27. Unless otherwise referenced, the information on the organization of AIAC is taken from its 1990 Annual Report.
28. Canadian Aviation, September, 1989.
29. Memorandum of Understanding for Industry Development Planning between the Minister of Regional Industrial Expansion and the Aerospace Industries Association of Canada, signed on May 29, 1985
30. The 1990 Report is entitled, Aerospace and Defence-related Industries: Statistical Survey Report 1990.
31. Final Report on the AIAC/Government of Canada Source Development Pilot Project, prepared by AIAC and presented to the Joint Steering Committee on November 15, 1989, p.i.
32. Canada. Supply and Services Canada, "Defence Industrial Base Review" (Ottawa 1987), p.iii.
33. Canada. Department of National Defence, "Executive Version of the Final Report of the Defence Industrial Preparedness Task Force" (Ottawa: November, 1987), p.i. Only the Executive Version of the Final Report was released.
34. The presentation is contained in Standing Committee on Research, Science and Technology, "Minutes of Proceedings and Evidence," Issue #16, March 4, 1987.
35. The paper is entitled, "Discussion Paper".
36. "Space-An Opportunity For Canada," prepared by AIAC and submitted to the Government of Canada in January, 1985.
37. Interview with Ken Lewis in Canadian Aviation, September, 1989, p.2.

38. SCEAND, NORAD Renewal Hearings, "Minutes of Proceedings and Evidence," Issue #35, October 8, 1985, p.31.

39. Garrett Canada, signed its MOU on April 11, 1988 as reported in the Financial Post, October 24, 1988 and the MOUs of Boeing Canada and Pratt and Whitney Canada Ltd., were reported in the Financial Post on December 15, 1985. Litton's confidential MOU was reported in the Globe and Mail, September 25, 1987.

40. The top 26 include those firms that appear in the top 30 defence contractors in at least two of the three years covered in Table III, augmented by Project Ploughshares calculations of Canada's Top Military Contractors for 1981-1985 and 1986-1988 contained in Ploughshares Monitors Vol. 8, No.2 (June, 1987), p.12, and Vol. 10, No.3 (September, 1989), p.9, respectively. The top Canadian owned firms are Canadair/Bombardier, CAE Industries, Spar Aerospace, Heroux, Hermes Electronics, Godfrey Aerospace, IMP Group, Northwest Industries, Standard Aero, Leigh Instruments, Northern Telecom and Fleet Industries. The top U.S. owned firms are Litton Systems Canada, Boeing, CGE Co., Computing Devices, Honeywell, Pratt and Whitney, Garrett, Rockwell, Sparton, McDonnell Douglas, Bell Helicopter/Textron, Benelix Avelex, Control Data and DeHavilland. The information on industrial lobbying practices is taken from the Department of Consumer and Corporate Affairs Lobbyists Register of both Tier One and Tier Two Lobbyists which is current as of October 7, 1991.

41. Ibid. The content of the advice given to industry clients, or of the interventions made to the government by Lobby Firms on behalf of their clients is not available from the Department of Consumer and Corporate Affairs.

42. From a paper in the AIAC library entitled, "The Role of BAL in the Defence Industry," Bradshaw Associates Ltd. (Maryland: 1988).

43. The five firms are CAE Industries, ITT Canada, Control Data, Honeywell and EH-Industries. From Howard Peter Langille, Changing The Guard: Canada's Defence In A World In Transition (Toronto Buffalo London: University of Toronto Press, 1990), p.108.

44. Ibid., pp.110-119.

45. Ibid., pp.108-110.

46. Department of National Defence, Executive Version, 1987, p.ii.
47. Supply and Services Canada, Defence Industrial Base Review 1987 (Ottawa: 1987), p.iii.
43. Department of National Defence, News Release, October 5, 1987. The firms that are represented are Control Data, Bombardier, Bristol Aerospace, Pratt and Whitney, MacDonald Dettwiler and Associates, Litton Systems, Invar Manufacturing and Itt Canada Ltd.
49. The 8 are Bristol Aerospace, Bombardier, Pratt and Whitney, Lavalin Inc., MacDonald Dettwiler and Associates, Litton Systems, Invar Manufacturing and ITT Canada Ltd.
50. They were MacDonald Dettwiler and Associates, SED Systems Inc., Canadian Marconi Co., IMP Group and Spar Aerospace.
51. Canadian Marconi Co., and Garrett Manufacturing Ltd.
52. Canadian Marconi Co., and Control Data Canada.
53. Canadian Astronautics Ltd., Spar Aerospace, SED Systems Ltd., Bristol Aerospace Ltd. and MacDonald Dettwiler and Associates.
54. Supported by interviews with General Ken Lewis, retired D-CINC of NORAD now President of AIAC; Lt. General D.C.Mackenzie, retired D-CINC of NORAD and consultant to Public Affairs International (PAI), a Tier 1 Lobby in Ottawa from 1987-1988; General Ramsey Withers, retired CDS and now President of Government Consultants International (GCI), a Tier 1 Lobby in Ottawa; General McNaughton, retired D-CINC of NORAD and now Vice-President of Adlog, a consulting firm in Ottawa; and T.S.Dudley Allen, a retired Rear Admiral and past President of Control Data, Computing Devices, E.H. Industries and presently a consultant at GCI.
55. Interview with Lt. General MacKenzie on December 2, 1991.
56. Telephone interview with General McNaughton on November 21, 1991. In a further interview, T.S. Dudley Allen, a Board Member of Adlog, said that about 50% of Adlog's consulting is in the area of defence.

57. Those asked include Generals Lewis, McNaughton, Withers, Lt. General MacKenzie, Rear Admiral T.S. Dudley Allen, and William Weston, the present Vice-President of AIAC and past Deputy CINC of the 25th NORAD Region from 1979-81. Weston's interview was on September 9, 1991.
58. Interview with William Weston, September 9, 1991.
59. Interview with General Withers, December 4, 1991.
60. Interviews with General Withers, Lewis, McNaughton and Lt. General MacKenzie.
61. Interview with General Withers.
62. Interview with T.S. Dudley Allen.
63. Interview with General McNaughton.
64. Ibid.
65. Interviews with Generals Withers, Lewis, McNaughton, and Rear Admiral T.S. Dudley Allen.
66. Aviation Week & Space Technology (August 22, 1988), p.114.
67. Ibid.
68. Bombardier's 1987 Annual Report and Canada's Who's Who, respectively.
69. Registered as such with the Department of Consumer and Corporate Affairs' Lobbyists Register.
70. Globe and Mail, January 31, 1990.
71. Canada's Who's Who.
72. Globe and Mail, November 26, 1987 and Globe and Mail, February 14, 1990.
73. Globe and Mail, October 9, 1986.
74. Globe and Mail, July 24, 1985.
75. Globe and Mail, March 24, 1990.

76. Globe and Mail, August 8, 1989.
77. Globe and Mail, October 20, 1989.
78. Globe and Mail, October 22, 1987.
79. Globe and Mail, December 12, 1989.
80. Globe and Mail, June 28, 1983.
81. Globe and Mail, November 14, 1989.
82. Globe and Mail, April 26, 1988.
83. Standing Committee on External Affairs and National Defence, "Minutes of Proceedings and Evidence," Issue #29, February 20, 1969.
84. Ibid., Issue #25, November 25, 1980, pp.47-60.
85. Ibid., p.52.
86. Ibid., Issue #35, October 8, 1985.
87. Ibid., p.23.
88. Ibid., p.25.
89. Ibid., p.7.
90. Ibid., Issue #40, October 24, 1985.
91. Ibid., Issue #42, November 6 & 7, 1985.
92. Ibid., Issue #48, November 21, 1985.
93. Ibid., Issue #50, November 28, 1985.
94. Ibid., Issue #53, December 10, 1985.
95. Ibid., Issue #42, November 6 & 7, 1985, p.14.
96. Special Committee of the Senate on National Defence, "Proceedings," Issue #4, March 4, 1984.
97. Ibid., p.13, 14.

98. Special Joint Committee of the Senate and of the House of Commons on Canada's International Relations, "Minutes of Proceedings and Evidence," Issues #8, July 23, 1985; # 17, August 8, 1985; #6, July 19, 1985, respectively.

99. This claim is supported by a Report entitled, "Canadian Industrial Participation in Strategic Defence Initiative and North American Defence System," prepared by MacDonald Dettwiler & Associates Ltd., Philip A. Iapp Ltd., and Spar Aerospace Ltd., dated May, 1985. In addition, as of March 31, 1989, Canadian Co.s had received four of the 67 SDI contracts awarded to foreign firms, according to a U.S. General Accounting Office Report. This information is contained in "The Guide to Canadian Policies on Arms Control, Disarmament, Defence and Conflict Resolution" (Ottawa: The Canadian Institute for International Peace and Security, October 1990), p.13.

100. Special Joint Committee of the Senate and of the House of Commons on Canada's International Relations, Issue # 18, Aug.19, 20,23, 1985, pp.156-157.

101. Address to Financial Post Conference, "The Defence Industry: Building Canadian Capability", Ottawa, November 18, 1987.

102. The title of his speech was, "The role of Space in the Defence of Our Nation."

103. AIAC, "Space-An Opportunity for Canada" (Ottawa: January, 1985), p.20.

104. Standing Committee on Research Science and Technology, "Minutes of Proceedings and Evidence," Issues #16, March 4, 1987; #17, March 9; #32, May 27; #32, #34, June 12; and #16, March 4, respectively.

105. Avionics Electronics Committee of AIAC, "Canadian Defence Industry-A Consortium Approach" (Ottawa: April 4, 1986), p.6.1.

106. Canada, Department of National Defence, "Challenge and Commitment: A Defence Policy for Canada" (Ottawa, Supply and Services Canada, 1986), p.56.

107. Ibid., all quotations from pp.58-59.

108. Interview with William Weston, September 9, 1991.

109. Department of National Defence, Executive Version, November 1987, p.i.
110. Ibid., p.2-1.
111. Ibid., pp.3-10, 3-11.
112. Ibid., pp.4-2.
113. Ibid.
114. Phone interview with John Houston of the Directorate of Defence Industrial Resources, DND, Ottawa December 16, 1991.
115. Ibid., pp.4-1.
116. Canada, Supply and Services Canada, "The Defence Industrial Base Review 1987: Industrial Support for Canada's Defence" (Ottawa: Supply and Services Canada, 1987), p.iii.
117. Department of National Defence, News Release, October 5, 1987.
118. Department of National Defence, Executive Version of the Final Report of the Defence Industrial Preparedness Task Force, pp.2-3.
119. Ibid., pp.4-5.
120. AIAC, "Final Report on the AIAC/Government of Canada Source Development Project" (Ottawa: AIAC, November 15, 1989).
121. "Challenge and Commitment", p.75.
122. Canada, Department of National Defence, "The Defence Industrial Research Program" (Ottawa: March, 1988), p.i.
123. AIAC, "Discussion Paper," presented to the Canadian Forum on A National Science and Technology Policy which took place on June 8-10 in Winnipeg, Manitoba.
124. "Challenge and Commitment", p.78.
125. Ibid.

126. The Speech from the Throne is reproduced in part in the Standing Committee on Research, Science and Technology, "Minutes of Proceedings and Evidence," Issue #35, June 18, 1987, p.25.

127. Ibid.

128. Ibid., p.26.

129. From a transcript of an interview conducted by Professor William Coleman in the late 1980s with Ken Lewis, President of Aerospace Industries Association of Canada.

130. Telephone interview on December 16, 1991, with Shoshana DePaz, Communications Officer, at the Canadian Space Agency's Montreal Headquarters.

131. From the interview mentioned in note number 129.

132. News Release from the Ministry of State for Science and Technology, Communications Branch, March 12, 1987. The Release essentially reiterates the points in The National Science and Technology Policy itself.

133. Ibid.

134. Canada, Department of Industry, Science and Technology, "Meeting the Challenge: Industry, Science and Technology in Canada," A Consultation Document on the Mission and Operations of the Department of Industry, Science and Technology, (Ottawa.) This document is undated but it appeared after August 4, 1987 since the creation of the department is announced on p.i.

135. Ibid., p.2.

136. Ann Markusen, "The Militarized Economy," World Policy Journal, #3 (Summer, 1986): pp.495-516. The quotation appears on p.496.

137. Testimony of Dr. C.A.Bishop, Vice President of AIAC to the Standing Committee on Research, Science and Technology, "Minutes of Proceedings and Evidence," Issue #16, March 4, 1987, p.17.

138. John Treddenick argues in "The Arms Race and Military Keynesianism", Canadian Public Policy XI, #1 (March, 1985), p.77-92, that by the mid-1980s "...increases in Canadian

defence expenditures have been influenced more by economic than by security considerations," p.77.

139. See note #88.

140. Testimony of Dr. Bishop, Vice President of AIAC to the Standing Committee on Research, Science and Technology, "Minutes and Proceedings," Issue #16, March 4, 1987, p.12.

141. Standing Committee on Research, Science and Technology, "Minutes of Proceedings and Evidence," Issue #16, March 4, 1987, p.14.

142. Ibid., p.21. Also, SCEAND, "Minutes of Proceedings and Evidence," Issue #53, December 10, 1985, p.8. This is the testimony of John MacNaughton, Senior Vice President, Spar Aerospace.

143. Langille, Changing The Guard, p.122.

144. Ibid., p.125.

145. Robert O. Keohane, "Realism, Neorealism and the Study of World Politics", in Neorealism And Its Critics, ed. Robert O. Keohane (New York: Columbia University Press, 1986), p.12.

146. The Financial Post canvassed 8 of Canada's largest aerospace and electronics companies and found that "...the most notable common denominator is a corporate fear of becoming associated with SDI in the same way that Litton Systems Canada Ltd. was identified with the anti-cruise missile issue." The Financial Post, June 13, 1985.

Chapter Seven

Conclusions

The study conducted for this thesis has identified two actors of significance to the Canadian defence policy decision-making process as it pertains to NORAD. These are the Canadian military in its cooperative relationship with the U.S. military, and the Canadian defence production industry which, like the military, is organized both nationally and across the Canadian/U.S. border. However, the conclusions drawn about the effects of these actors on the decision-making process, and about theorizing Canadian defence policy at both the domestic and the international levels-of-analysis, are tentative.

The conclusions concerning the effects of the Canadian/U.S. military cooperative relationship on the Canadian decision-making process are a result of extensive library research and an examination of the available and pertinent files located in the Department of National Defence Directorate of History in Ottawa, the Chiefs of Staff files in the National Archives, Washington, and

interviews with each of the Canadian Deputy Commanders of NORAD and the Chiefs of Defence Staff at DND since the mid-1970s. To complete the study, however, further research is required. In order to ascertain the precise role of the political decision-makers in the defence policy-making process, an examination of the files pertaining to NORAD and to Canadian/U.S. cooperative defence activities which reside at the Department of External Affairs and International Trade (DEAIT) needs to be undertaken. In addition, interviews need to be conducted with relevant personnel from the DEAIT, the Privy Council Office, the Secretariat to relevant Cabinet Committees, and with past Ministers of National Defence. This research, along with interviews of the relevant corporate personnel from the top thirty Canadian defence production firms, is also required to test the conclusions concerning the effects of the defence production industry on Canadian defence policy-making. However, on the basis of research to date, the following conclusions are presented.

The Canadian Defence Policy Decision-making Process within
NORAD

With regard to the Canadian military, the thesis has argued that in its cooperative relationship with the

U.S. military, the Canadian military is more than an apparatus, or institution, of the state, mandated to address itself to the security concerns of the country as defined by the Canadian political decision-makers. The Canadian military is such a body, but in having been charged with the air/aerospace defence of the continent in cooperation with the U.S. military, the Canadian military has also developed a vested interest in pursuing, and maintaining, a viable professional relationship with the U.S. military.

Since defence policy is not the high priority policy area in Canada as it is in the U.S., and because the Canadian defence budget is minuscule as compared to the U.S. defence budget, Canadian military professionalism is enhanced within the alliance relationship, it being within the alliance that the Canadian military gains access to the variety of defence equipment required to fulfil its mandate, as well as access to, and participation in, U.S. defence program planning. Moreover, there is an attempt by the Canadian military to offset Canada's asymmetrical contribution to the joint air/aerospace defence by focusing on the quality of its input to the alliance relationship rather than on the quantity, quality being perceived largely in terms of the exercise of cooperative

professionalism. Consequently, since the U.S. military has an interest in having Canadian defence policy reflect U.S. defence policy in order to maintain access to Canadian territory and airspace, and to ease the implementation of continental defence planning, the Canadian military acquires similar interests.

It is in this capacity that the Canadian military, within NORAD, has taken on the attributes of a transgovernmental organization, acting relatively autonomously from governmental control. Further, it is in the nature of the organization of the Canadian/U.S. military relationship that this relative autonomy is fostered.

With the exception of the 1968 NORAD Renewal Agreement in which the Canadian government inserted a clause stating that Canada would not be involved in active anti-ballistic missile defences, the NORAD Agreement, and each renewal document including the rewritten Agreement of 1981, sketch the Command's mandate of air/aerospace defence of the continent in very broad terms. Hence, in cooperating with the U.S. military in designing the defence programs to fulfil the Command's mandate, the Canadian military is not constrained, as per the Agreement documents, by specific Canadian defence policy preferences.

The defence programs therefore are designed very much to U.S. specifications.

Moreover, joint defence program planning takes place in both formal and informal settings largely removed from the control and monitoring of the Canadian political system. Formal defence program planning generally takes root in ad hoc Canadian/U.S. military study groups, but it is also on-going within the command structure of NORAD Headquarters, within the Military Cooperative Committee (MCC) and within the Permanent Joint Board on Defence (PJBD). The PJBD has civilian membership, but not being charged with designing defence programs, it generally considers aspects of programs in the planning stage, or in progress, on an ad hoc basis, and often at the discretion of the two militaries.

It is within these four structures, or organizations, and most specifically within the first two, ad hoc study groups and the NORAD Command structure, that the Canadian military gains first access to U.S. defence planning. Further, through the NORAD Command structure, the Canadian military is also assimilated into U.S. defence programs that do not come under NORAD's mandate. Canadian military personnel co-man the facilities of the component commands of NORAD located at the NORAD Headquarters, the

commands that are responsible for defence programs such as Ballistic Missile Defence and Space Defense programs for which the Canadian government has expressed a policy of non-involvement. In addition, Canadian exchange and liaison military personnel are also assigned to these U.S. commands. Hence, the Canadian military has both first access to defence program planning within NORAD, and access to U.S. defence program planning that resides outside NORAD's mandate.

As well as having privileged and/or first access to U.S. defence planning for NORAD and NORAD-related programs, it is the Canadian military that generally manages the introduction of these programs to the Canadian political system through the Department of National Defence. Moreover, because NORAD and NORAD-related defence programs are designed to U.S. specifications, alternatives which are unacceptable to the U.S. defence milieu have been discarded by the time programs enter the Canadian political decision-making system. Further, because defence policy-making is a high priority policy area in U.S. politics, the military decision-making process there is a more highly politicized process and by the time the plans are presented formally to the Canadian government they have acquired the approval of the U.S. government.

For all of these reasons, it is difficult for the Canadian government to make independent assessments of its defence policy preferences and hold to them through the policy-making process. The choices that the government has to make are limited by the defence programs that emerge from cooperative Canadian/U.S. defence program planning. In other words, the agenda is largely set. The government can accept or reject the programs, or attempt to modify them, but it cannot offer well developed alternatives in defence policy programs. This is due in large part to the fact that the expert military advice that the government might seek on developing alternative air/aerospace defence programs would necessarily come from the people who have been involved in formulating the programs for which alternatives might be sought. In fact, attempting to modify emerging NORAD defence programs is also hampered by the nature of the vested-interest advice the government receives from the Canadian military. Hence, the Canadian military, in its vested-interest cooperative relationship with the U.S. military, largely sets the agenda for, and controls the flow of information to, the Canadian political decision-makers.

The Canadian government, of course, has the right to reject the plans, as it did with the U.S. Strategic

Defense Initiative (SDI) in 1985, and with the ABM program in 1968. However, the removal of the ABM clause from the 1981 NORAD renewal agreement, and the 1987 White paper on Defence have paved the way for an acceptance of U.S. BMD and space defense programs, and the slide to accepting the once rejected programs cannot be traced solely, or even significantly, to changes in the international balance-of-power system. The point is that it is difficult for the Canadian government to definitively reject the defence programs that arise from Canadian/U.S. cooperative military planning within NORAD.

With the qualifications noted at the beginning of this chapter, this thesis argues, that it is this process that largely contributes to the penchant of the Canadian government to make "strategic miscalculations" in its NORAD and/or NORAD-related defence policy-making. These "miscalculations" are defined as instances where Canadian defence policy does not reflect expressed Canadian defence policy preferences based on an independent assessment of Canada's place in the international environment. Such instances include the accepting of nuclear warheads for Bomarc missiles and interceptors in 1963, the removal of the ABM clause from the 1981 NORAD Renewal Agreement, the testing of the cruise missile, and the implied acceptance

of the SDI, with its space defense program implications, in the 1987 White Paper on Defence. The first two instances and the last were reversals of previous policy positions while the testing of the cruise went against previously expressed policy preferences.

Significantly, each of these reversals was a product of the government responding to programs that had been, or were being, developed within the Canadian/U.S. military cooperative milieu. The original NORAD Agreement has a history of Canadian/U.S. cooperation supporting it and the NORAD Command, which emerged from that cooperative relationship, was predicated upon Canada accepting nuclear warheads for select weapons systems. The ABM clause was removed from the 1981 NORAD Renewal Agreement at the behest of the Canadian military that was working in close cooperation with U.S. Ballistic Missile Defence programs and Space Defense programs through the NORAD command and component command structures. The removal of the clause and the change in the terms of the 1981 Renewal Agreement were catalysts for the slide to accepting the SDI after the original rejection of it. Finally, the cruise missile testing agreement had its roots in Canadian/U.S. military cooperation.

Further, the thesis argues that the indecisiveness

that characterises much of Canadian defence policy-making within NORAD, can be attributed largely to the lack of control that the Canadian political decision-makers have over the joint defence program planning activities of the Canadian military. This indecisiveness is amply evident. When in doubt about an issue, the Canadian government may take a hedged stand and then reverse its position, as Mulroney did with the SDI decision. Alternatively, it may waffle as Diefenbaker did on the nuclear warheads issue. Or the government may also take a position on the condition that it will reverse it, as did Pearson with the nuclear warhead issue. Even when not in doubt about an issue, the government may take a stand and then reverse it, as did Trudeau with the cruise missile testing. The government also has a penchant for taking "wait and see" decisions as did the Trudeau government when it decided in 1973 to only renew NORAD for 2 years in order to evaluate the emerging NORAD technologies. Similarly, the Mulroney government accepted the SCEAND Report position that potential Canadian involvement in the SDI was not a factor that needed to be considered in the 1986 NORAD Renewal because no one yet knew the shape that SDI would take. Significantly, the decisions that eventually emerged from this indecisiveness included accepting nuclear weapons for Canadian Bomarc

missiles and interceptors, cruise missile testing, the NORAD Modernization Agreement which is predicated on the technologies that stalled a full renewal term in 1973, and an increasingly perceptible move to compliance with the U.S. SDI and Space Defense programs.

This is not the picture of a government that is in control of its defence policy-making. It is the picture, however, of a government with very few options. This thesis argues that one of the factors in the narrowing of those options is the close cooperative working relationship of the Canadian and the U.S. militaries and the opportunities that such cooperation offers the Canadian military in terms of influencing Canadian defence policy decision-making within NORAD.

The second actor of consequence to the Canadian defence policy decision-making process is the defence production industry. Since the Canadian government's demand for defence products is not large enough to sustain a Canadian defence production industry, the industry is dependent upon foreign markets and contracting. To this end, the Defence Production Sharing Agreement (DPSA) and the Defence Production Development Agreement (DDSA), both negotiated with the U.S. government shortly after the signing of the NORAD Agreement, have secured Canadian

defence industrial access to the U.S. market and to the U.S. Department of Defense contracts. However, the terms of the DD/DPSA situate the Canadian industry as a producer of components and subsystems for the U.S. industry's systems production capability. This, together with the fact that the U.S. is Canada's largest market for defence production, has created a Canadian industry that is dependent upon the U.S. production milieu. In producing to U.S. standards and specifications, the Canadian industry is producing for U.S. defence policy programs.

In addition, access to U.S. defence production contracting is eased by the Canadian government's acceptance of these U.S. defence programs. Much of the research and development that goes into new weapons systems is subject to security restrictions and without a Canadian governmental acceptance of the program for which the new technologies are being developed, Canadian industry contracting is hampered by these restrictions. Further, Canadian participation in joint defence programs is a basis for the industry, and the government, to argue against U.S. protectionism in its defence production industry.

For the above reasons, the Canadian defence production industry is interested in having Canadian defence policy decisions reflect U.S. policy. In addition,

however, the DD/DPSA, the Canadian Defence Industry Productivity Program (DIPP), the negotiation of offsets in Canada/U.S. defence trade, and the exigencies of U.S. defence production preparedness which include access to alternative sources of resources and defence products and a diversification of production sites, all contribute to making it attractive to U.S. defence production firms to establish subsidiaries in Canada. Hence, a plurality of the Canadian industry is U.S. controlled. This means that there is a significant U.S. voice in the formulation of the Canadian industry's defence policy preferences. Predictably, this voice speaks for Canadian support of U.S. defence policy.

Although there are other active lobby groups that include representatives from the defence production industry, such as the Business Council on National Issues (BCNI), in examining the organization of industrial influence within the defence policy decision-making process, this thesis has focused on the Aerospace Industries Association of Canada (AIAC). This is a major lobby group for the aerospace and electronics defence production firms, the two sectors of the industry that are most intimately involved with production for NORAD defence systems. The study revealed that the AIAC has well

developed defence policy preferences and that it is well integrated into the defence policy decision-making process in terms of joint ventures for promoting the industry and in terms of acting in an advisory capacity on a wide range of industrial preparedness and defence policy issues.

The study has demonstrated that, over time, Canadian defence policy with respect to NORAD and NORAD-related defence programs tends to reflect the defence policy preferences of the industry, and although this is not a reliable cause-and-effect measure, it is an indicator that government is attuned to industrial preferences. More to the point, however, there is an alignment of government and industry economic interests in defence industrial preparedness and defence policy issues.

The industry maintains that it is defence research, development and production that is largely responsible for keeping the industry on the leading edge of technological competitiveness in the international high technology markets of both defence and civilian production. Defence production, research and development, it is argued, are the catalysts for high technology civilian production, and provide spin-offs for the civilian production market. The government concurs, and consequently understands that support of the defence production industry is support for

maintaining a degree of high technology industrial competitiveness in the international market with its attendant GDP and balance-of-trade advantages. In addition, because the defence production industry is largely a captured industry in that the government is its major buyer and its contractor for foreign prime defence production contracts, the government has an interest in the industry for industrial policy purposes. Hence, the industry is viewed as an instrument for employment creation and for the alleviation of regional disparities.

Consequently, the Canadian government has economic reasons for supporting the Canadian defence production industry, including its defence policy preferences. In other words, the Canadian government has economic reasons for designing its defence policy to support U.S. policy.

Further, as with the defence policy preferences of the Canadian military, the Canadian government, in its defence policy-making, tends to play catch-up with the preferences of the Canadian defence production industry. There are two factors that contribute to this. First, through its U.S. DOD contracting, and its subsidiary sub-contracting relationships with its U.S. parent companies, the Canadian industry is often able to acquire a fledgling expertise in aspects of U.S. systems defence production

which are being carried out for specific U.S. defence programs. When these defence programs enter the Canadian political decision-making process for consideration, the industry is in a position to argue that the programs are essential to the development of the fledgling expertise. In this way, the industry leads the decision-making process.

Second, the movement of retired Canadian military to corporate positions within the industry and within industrial lobby groups contributes to this process of leading the decision-making. The retired military bring their knowledge of developing defence programs, and the technologies required to support them, to their corporate positions. They also bring their past associations with their counterparts in the U.S. military. In the U.S., retired military personnel also tend to move into corporate positions within the defence production industry, but in addition, they remain associated with U.S. military planning as experts. Since past Canadian/U.S. military cooperative relationships have a tendency to become present Canadian/U.S. corporate cooperative relationships, retired Canadian military bring to their corporate positions within the Canadian defence production industry an on-going knowledge of emerging U.S. defence programs and their

supporting technologies. With this knowledge, the Canadian defence production industry is in a position, again, to lead the defence policy decision-making process towards its own policy preferences.

Since the Canadian government has its own economic interests in the health of the defence production industry, and hence, in the making of industry-sustaining defence policy, it is not surprising that in the making of Canadian defence policy, industrial expertise is sought, and industrialized influence is exercised. The point to be made, however, is that a focus on the economic benefits of defence policy-making skews the focus on the strategic implications of defence policy decision-making. Hence, another contributing factor to the making of "strategic miscalculations" has been identified, as has another factor in the non-decisive character of Canadian defence policy decision-making within NORAD. In instances where "strategic miscalculations" and/or non-decisiveness occurred, the economic interests of both the government and the defence production industry were in support of the defence programs under consideration, the programs for which previous defence policy positions had expressed non-support for political and/or strategic reasons.

The conclusions drawn about the effects which these

two actors, the Canadian military and the Canadian defence production industry, both organized nationally and across the Canadian/U.S. border, have upon the Canadian defence policy decision-making process within NORAD have implications for the theorizing of Canadian defence policy decision-making at both the domestic and the international levels-of-analysis.

Theorizing Canadian Defence Policy-Making within NORAD

The Domestic Level-of-analysis

An essential element of theorizing Canadian defence policy-making is the recognition that the majority of Canadian defence programs are conducted within alliance relationships. Military professionalism alone would situate the Canadian military as an actor with independent defence policy preferences as they relate to professional integrity. Within alliance relationships, however, these independent defence policy preferences are influenced by the defence interests of alliance colleagues, and the defence policies of the alliance partners. Within NORAD, the Canadian military has relative freedom of association with the U.S. military. Hence, the Canadian military's independent defence policy preferences which are rooted in professionalism, and its ability to freely associate with

the U.S. military, through both formal and informal fora, situates the military as a transgovernmental actor with the ability to act, and develop defence policy interests, outside the channels of Canadian political control or monitoring. Hence, the Canadian military can be viewed as more than an apparatus of the state, charged with designing and implementing the defence programs required to realize the government's security interests. The Canadian military is also an actor with independent defence policy interests.

Being both a professional organization, and a part of the governmental bureaucratic structure, the Canadian military is in a preferred position for communicating its interests to the political decision-makers. Having privileged access to U.S. defence policy planning within NORAD, and a coincidence of interests with the U.S. military, the interests that are communicated to the Canadian political decision-makers are those that are developed in joint cooperation with the U.S. military. Hence, when consulted as a professional body, the defence agenda, as it pertains to NORAD, is largely set. Further, on the basis of formulating cooperative defence programs largely outside the channels of Canadian political control and/or monitoring, the Canadian military, whether being consulted by the government, or informing it, largely

controls the flow of NORAD and NORAD-related defence information to the political decision-makers. Hence, the Canadian military is able to both communicate its interests to the political decision-makers and influence the decisions taken on the basis of a largely set agenda and a significant control over the flow of information.

Consequently, while the bureaucratic politics model of decision-making maintains that the vested-interests of the various governmental departments involved in a particular issue area are removed during the policy formulation stage through compromise, the military is particularly successful in limiting the space for compromise. The military's defence policy preferences with respect to NORAD enter the bureaucratic system in a relatively well developed state, often reflecting, in fact, joint defence programs that are a virtual fait accompli in that they have already been accepted by the U.S. government. Hence, the conflicts and the compromises that emerge from the interaction of government departments with vested interests in defence agendas focus, for the most part, on procurement issues related to specific defence programs, rather than on the programs themselves. In the case of NORAD defence policy-making, bureaucratic conflict does very little to remove the vested-interest preferences

of the Canadian military.

With regard to the statist perspective, the assumption is that Canadian defence policy is made from the top down, primarily by the Prime Minister and the Cabinet, and primarily on an assessment of Canada's appropriate response to the international environment. Further, having defined broad defence policy parameters, the Canadian military is then charged with developing the programs to fulfil the policy. However, in the case of defence policy-making as it pertains to NORAD, the Canadian military is often in the position, through its cooperative relationship with the U.S. military, to present defence programs to the political decision-makers that run counter to the latter's declared policy positions, or expressed policy preferences. Hence, the Canadian political decision-makers are put in a position of having to mediate their own interests, as well as those of the military. Given the well-developed nature of the military's interests, it is difficult for the Canadian political decision-makers to offer alternatives to, or reject, the programs.

In addition, the Canadian defence production industry, in its national and transnational organization, also has specific defence policy preferences. Because the industry is dependent upon the U.S. defence production

market and contracting to U.S. defence programs, including joint Canadian/U.S. programs developed within NORAD, the industry's defence policy preferences tend to reflect U.S. defence policy preferences, and hence also those of the Canadian military. Although not a part of the bureaucratic structure of the government, the industry is well integrated into the decision-making process through a network of cooperative industrial/government fora. Consequently, as an industrial body with technological expertise, the industry, like the military, is well situated to offer vested-interest opinions and preferences, whether being consulted by the government or lobbying as individual firms, or through trade associations.

Since the Canadian government also has an interest in the health of the Canadian defence production industry for purposes of military preparedness, but also for GDP, international trade, employment creation and industrial policy purposes, it cannot ignore the interests of the industry. Hence, another source of mediation in the defence policy decision-making process is present. Taken together then, in making defence policy decisions, the political decision-makers must mediate their own political, economic and strategic interests, as well as the interests of the Canadian defence production industry, and those

interests of the Canadian military which are rooted in its professional relationship with the U.S. military.

Based on the research supporting this thesis, it can be argued that it is this need for the government to mediate its own interests as well as the interests of the military and the defence production industry, that is responsible for the indecisiveness that often characterizes Canadian defence policy-making within NORAD, and which accounts for decisions taken not always reflecting the expressed political and/or strategic preferences of the political decision-makers.

Given the need for, and the process of, mediation, it is difficult to support the statist view of defence policy-making in Canada on two counts. First, the Canadian state is not a monolith that includes the military as simply an institution of the state designed to carry out the state's security interests. The military has an independent agenda which often runs counter to the political decision-makers' defence policy preferences, and hence the interests of the military require mediation in making Canadian defence policy. Second, the decision-making process is far more complicated than the statist 'top-down' assumption would imply. The political decision-makers, primarily the Prime Minister and the Cabinet, do

have the prerogatives to set defence policy priorities, to make defence agreements in alliances, and to formally accept or reject particular defence programs. But such are the end products of a process of mediation of interests that can as readily compromise the expressed preferences of the political decision-makers. To argue that such compromises do not threaten the assumptions of the statist view of defence policy-making in Canada in that the state chooses to make the compromises, is to argue for a degree of state decision-making autonomy that does not exist.

The statist perspective understands that the political decision-makers are compromised in their defence policy decision-making by the exigencies of the international balance-of-power system, historically by the bipolar nature of the system and by alliance constraints. However, the autonomy of the Canadian political decision-makers with respect to NORAD defence policy-making is also compromised by domestic interests, primarily those of the Canadian military and the Canadian defence production industry.

The International Level-of-analysis

The assumptions of realism, when applied to the history of NORAD, would explain Canada's position within

the alliance arrangement as reflective of Canada's position within the international balance-of-power system. Being a middle power in the Western alliance, and occupying strategic territory and airspace between the two superpowers, Canadian defence policy within NORAD would predictably support U.S. defence policy. Moreover, the reversals both in Canadian support for specific defence programs and in expressed policy preferences, would be explained by the constraints of being aligned in the air/aerospace defence of the North American continent with the most powerful state in the Western alliance. In other words, the reversals would represent choices made on the basis of an on-going cost/benefit analysis of Canada's security interests with respect to changes in the U.S. defence posture towards the USSR, and Canada's position vis-a-vis the U.S.

As has been argued throughout the thesis, even at a high level of abstraction, this explanation is wrong on two counts, and in being wrong, it mis-specifies the actors and interests involved in the policy formulation process. In so doing, it fails to capture the dynamics of the Canadian decision-making process within NORAD, and hence the full explanation for Canadian defence policy as it pertains to NORAD.

First, a realist analysis ignores the determining effects of both the Canadian government's own economic interests in defence policy-making, and the interests of the Canadian defence production industry. Canadian defence policy has been made within NORAD not only on the basis of national security interests. It has also been made with an active focus on the economic benefits to be gained from defence cooperation with the U.S.

Second, Canada has not been 'constrained' by the NORAD alliance in the sense of being 'held back' from making policy or supporting specific defence programs that reflect its own priorities. In other words, the reversals in Canadian defence policy positions, and expressed defence policy preferences, have not been caused by U.S. political pressure on the Canadian decision-making process. Rather, in seeking economic benefits from the cooperative defence relationship, Canada has encouraged the process whereby Canadian defence policy and expressed preferences have often been reversed.

Further, in sanctioning the Canadian military's close and relatively unmonitored cooperative defence program-planning relationship with the U.S. military, the Canadian government has condoned an aspect of the policy formulation process that has contributed significantly to

the reversals of policy and expressed policy preferences.

Without relaxing the realist assumption concerning the discreteness of the international and domestic levels-of-analysis, neither the Canadian military nor the defence production industry can be identified as determinants of Canadian defence policy-making. Once the assumption has been relaxed, a domestic level-of-analysis presents further challenges to the perspective's assumptions.

Given the interests, influence, and integration into the decision-making process of both the military and the defence production industry, the government no longer appears as the autonomous actor realism assumes it to be. Instead, it is in a position of having to mediate these interests, along with its own. In the process, government interests can as readily be compromised as those of other actors.

Nor can it be unequivocally argued that the state speaks in a unitary voice for the country. In fact, the concept of a unitary state is itself challenged. Such a concept suggests that the military, as an institution of the state, reflects the state's defence policy preferences. Although this is formally true, it is not the whole truth. The Canadian military, in its professional alliance relationship with the U.S. military, also develops an

independent interest in defence policy-making, an agenda that reflects U.S. defence policy preferences. Hence, although the state may speak in a unitary voice when it signs defence agreements, or offers its verdict on various bilateral defence programs, it is not, in fact, a unitary body.

Finally, as mentioned, the assumptions that the government makes defence policy on the basis of a cost/benefit analysis with respect to its national security concerns is also found limiting. With respect to NORAD defence policy decision-making, an economic cost/benefit analysis is also made.

Hence, the major assumptions of the realist perspective need to be relaxed in order to identify the major interests and actors involved in Canadian defence policy-making within NORAD, and consequently, to identify both the dynamics of the decision-making process and the explanations for Canada's defence policy positions within NORAD.

The adaptations to the realist perspective do not greatly improve its theoretical shortcomings. On the basis of similar assumptions, neo-realism suffers from the same criticisms as have been made of the realist perspective. In addition, neo-realism would argue that Canada's defence

policy, over time, would come to reflect U.S. defence policy within the NORAD alliance because the international system of states socializes each state to the exigencies of the system, exigencies which are largely determined by the dominant state or states. However, in assuming that autonomous, unitary states socialize and are socialized on the basis of strategic power relationships, neo-realism mis-specifies the actors and the interests involved, and hence the dynamics of the socialization process. Without a focus on these characteristics, it is difficult to account for either change or stasis in the international balance-of-power system.

The hegemonic stability theory suffers similarly in its assumptions of the discreteness of the international and the domestic levels-of-analysis, of the autonomous nature of the state, and of the independence of national security and economic concerns.

The deficiencies of regime analysis are rooted in similar assumptions, although the perspective does allow for the coincidence of national security and economic concerns where they in fact are found to coincide. It suffers most notably, however, in that it is not prepared to consider the effects on defence policy-making of the actors who are able to keep defence items off the formal

agenda, as is the case with the Canadian military vis-a-vis the formal bodies of Canadian/U.S. defence cooperation. Nor can it identify the informal channels of cooperation and communication that exist in the policy formulation process, and therefore, the effects of informal policy-making processes.

With regard to complex interdependence, the perspective suffers, generally and in the NORAD case study, from being primarily a wide-ranging methodological guide with a limited theoretical basis. In relaxing all the major assumptions of realism, to suggest that different issue areas are linked differently at different times and are populated with a plethora of interested actors, the perspective basically recommends that the analyst examine everything of relevance to a particular area of study and draw appropriate conclusions. If realism suffers from excessive theoretical parsimoniousness, by contrast, complex interdependence suffers from theoretical gregariousness.

By comparison, once two adjustments are made to Wallerstein's capitalist world economy model of international relations, the model serves well to identify the interests involved in Canadian defence policy decision-making within NORAD, and to explain both the defence policy

positions taken by Canada, and the dynamics of the Canadian defence policy decision-making process. The first adjustment to the model is one which situates the military as an actor with both a government-defined security agenda and an independent security agenda based on its professional interests. The second adjustment situates the state at the intersection of the domestic and international environments, mediating its own interests as they interact between both environments, as well as the interests of its domestic actors who may also be organized internationally.

At times, the state may still act exclusively in the interests of its economic actors, using the military to further these interests, as per the unadjusted model. However, the adjustments allow for national security concerns which are independent of economic concerns, primarily the defence of sovereignty. The military, charged with fulfilling the national security concerns of the state, which may or may not be economically determined, has a professional interest which is focused on the strategic power relations of states. The government may have the same focus but it may not be as single-minded as the military's. Political and economic interests may also be present. Hence, the state, situated at the intersection of the domestic and the international environments, is

faced with having to mediate its own political, economic, strategic and cultural interests in both realms, as well as the interests of the relevant actors that may be organized both nationally and transnationally. Consequently, state autonomy is constrained by the interests and actors involved in the mediation process, and emerges as situation dependent.

With respect to analysing the dynamics of the Canadian defence policy decision-making process within NORAD, the adjusted Wallerstein model works very well. The model's focus on the economic aspects of decision-making allows for the identification of the Canadian government's own economic interests in the making of defence policy. The assumption that governments act in the interests of their economic actors, allows for the identification of the significance of the Canadian defence production industry interests in the decision-making process. The assumption of the continuum that exists between the international and the domestic level-of-analysis, allows for an examination of the effects of the Canadian defence production industry in both its domestic and Canadian/U.S. organizational forms, on Canadian defence policy-making. Similarly, it allows for an investigation of the effects of the Canadian military, in its national and Canadian/U.S. cooperative

contexts.

Given these interests to mediate, it is possible to explain the dynamics of Canadian defence policy-making within NORAD. A coincidence of government economic interests, defence production industry interests, and Canadian military interests, is primarily responsible for Canadian defence policy within NORAD, over time, reflecting U.S. defence policy. However, central to explaining defence policy outcomes is an examination of the process of mediation.

The Canadian government's political/strategic preferences with respect to NORAD defence policy have often been at odds with policy positions that have emerged. The government had concerns about the nature of the original NORAD Agreement and did not unequivocally support a nuclear weapons role for Canada. Agreeing to test the U.S. cruise missile was contrary to expressed Canadian policy preferences. Dropping the ABM clause from the 1981 NORAD renewal agreement, along with the slow slide into accepting the U.S. SDI and space defense programs, were all reversals of previous Canadian policy positions, unsupported by a definitive change in the international environment which alone could have predicted a Canadian acceptance of these programs. During the process of mediation, however, the

original policies and preferences ran counter to the interests of the Canadian defence production industry in maintaining access to U.S. defence production markets and Department of National Defence contracts. They also ran counter to the Canadian military's interests in maintaining a cooperative professional relationship with its counterparts in the U.S. defence milieu.

Significantly, the Canadian government also had stakes in both of these interests. The health of the Canadian defence production industry contributed to employment creation, balance of trade and GDP concerns, and industrial policy interests. As far as the military was concerned, sustaining the professional relationship of the Canadian and U.S. militaries contributed to the Canadian government's ability to maintain access to U.S. defence intelligence and defence policy planning, as well as providing a channel in which to exercise influence within the NORAD alliance arrangement.

In the process of mediating these interacting interests, actors and objectives, the government's political and strategic preferences were significantly compromised by the fact that both the Canadian military and the Canadian defence production industry, on both of which the government relied heavily for its expert advice, had

privileged and/or prior access to their respective U.S. environments. It was the process of mediation, as well as the information upon which those mediations were based that together accounted for the reversals in Canadian defence policy and expressed preferences within NORAD.

As stated earlier, in order to test these conclusions more research is required into the political decision-making process in Canada with respect to NORAD defence policy-making. However, based on the research undertaken to date, Wallerstein's adjusted capitalist world economy model of international relations fares well as an analytical tool in allowing for an extensive examination, with theoretical guidelines, of the Canadian decision-making process within NORAD. As such, it fares well in explaining the defence policy positions taken by Canada as they pertain to NORAD, and the dynamics of the Canadian/U.S. relationship within the alliance relationship.

Appendix

Resources and Methodology

Throughout, the thesis is supported by an examination of the relevant material collected through on-line computer subject searches at both McMaster University and the Pentagon Library in Washington, D.C. Chapters Two, Three and Four, "International Relations Theory," "The Political History of NORAD," and "The Economic History of NORAD," rely most heavily on this research, although the information contained in these chapters is supplemented and supported by the data collected for the case study of NORAD contained in Chapters Five and Six, "The Military and NORAD Decision-making" and "The Defence Production Industry and NORAD Decision-making."

The information contained in the chapter, "The Military and NORAD Decision-making," is the result of original research conducted amongst a variety of resources. The files pertaining to NORAD and Canadian/U.S. defence activities, located at the Department of National Defence Directorate of History in Ottawa, are the prime resource. These files cover the history of Canadian/U.S. cooperative

activities in the air/aerospace defence of the continent from the inception of cooperation through to the late 1980s. Much of the pre-1962 documentation had been declassified, either routinely or at the request of other researchers. Since the post-1962 material is still under security restrictions, the documents reviewed for this time-frame are generally of a public nature consisting of official government documents, DND and NORAD press releases, official publications of the NORAD Command, and copies of speeches made by NORAD military and DND civilian and military personnel.

However, in the Summer of 1990, the Raymont Collection, a recent acquisition, was in the final stages of being organized and reviewed for addition to the archives. The collection contains 20.8 meters of files from the office of Colonel Raymont, Executive Staff Officer, from 1944 to 1975, for the Chairman, later the Chief, of the Defence Staff in Ottawa. Access was gained to this collection, and files that were requested but had not yet been reviewed were subsequently reviewed and released. This collection had not been previously released for research purposes.

Further archival research was undertaken in the DND files located at the National Archives in Ottawa, and in

the Joint Chiefs of Staff files located at the National Archives in Washington, D.C. In both places, the files were pre-1960 files and were limited in number and relevancy.

The paucity of archival material for the period in NORAD's history from 1975 to the present necessitated a reliance on interviews to determine the nature of Canadian/U.S. military cooperation as it pertained to NORAD for that period. This search resulted in interviews with each of the four men who have been, successively, the Deputy Commanders of NORAD between 1978 and 1989. Being Deputy Commanders, they are all Canadians. In addition, interviews were conducted with each of the four men who have been, successively, the Chiefs of Staff of the Canadian military between 1977 and 1989.

Further interviews on the subject of Canadian/U.S. military cooperation were conducted on an ad hoc, rather than a methodological basis. These included interviews with three past U.S. Secretaries of Defense, Robert McNamara, James Schlesinger and Frank Carlucci; with Alan Gotlieb, a Canadian Ambassador to the U.S. during the last Trudeau, and the first Mulroney, governments; and with John Anderson, the Deputy Minister of Policy at DND from 1979 to 1985.

In addition, a day was spent touring the North Bay NORAD Regional Headquarters, a tour which included an interview with Commander O'Brien.

Without exception, access to each interview was gained by telephone request. All initial interviews were conducted in person, but in a number of cases follow-up interviews were conducted by telephone. The interviews were not taped but extensive notes taken during the interviews are available. Because the objective of the interviews was to gain specific information relevant to each subject's experience with the Canadian/U.S. military cooperative relationship, there was no formal schedule of interview questions, although questions were prepared for each interview in advance. Those questions are also available. Each interview was between one and two hours long.

Conclusions presented in this thesis concerning the nature of the Canadian/U.S. cooperative military relationship, and its effects on the Canadian defence policy decision-making process, are a product of the above research. As has been stated, the conclusions need to be tested with further research. In particular, and in order to investigate precisely where the political decision-makers enter the defence policy formulation process, and

with what agenda, interviews should be conducted with Ministers of National Defence, relevant personnel from the Department of External Affairs, from the Privy Council Office and from relevant Cabinet Committees. In addition, the files located in the archives of the Department of External Affairs pertaining to NORAD and Canadian/U.S. defence cooperation should be reviewed. In anticipation of pursuing this research, these files have been identified and requested and are now in the process of being reviewed for in-house release. A security clearance for access to the Department and to the files has also been received by the researcher.

The information contained in the chapter, "The Defence Production Industry and NORAD Decision-making," is also the result of extensive research in several resource areas. Project Ploughshares, a Disarmament and Development research organization located at Conrad Grebel College, Waterloo, was a prime resource. The information on DND and DOD contracts, and on Canadian DIPP fund dispersals to Canadian defence production firms was collected from the Project Ploughshares Canadian Military Industry Database. This information was also used to identify the top 30 Canadian defence production firms.

The Canadian Military Industry Database has been

kept current since 1982 and is based on information supplied by the Department of Supply and Services, and on contracting information released by the U.S. DOD. This information is supplemented by Project Ploughshares' extensive files on each of the Canadian defence production firms. The sources of the Database information on DIPP funding are the Public Accounts of Canada, and Industry, Science and Technology Canada.

Project Ploughshares' files on individual Canadian defence production firms cover the period from the late 1970s to the present, occupy five filing cabinet drawers, and consist mainly of newspaper clippings, magazine articles, press releases, speeches made by corporate personnel, and some Annual Reports. These files were made accessible to the researcher and were searched for references to individual firm's defence policy preferences. In addition, the Minutes of Proceedings and Evidence for each of the NORAD Renewal Hearings, as well as the Minutes of Proceedings and Evidence for the Special Committee of the Senate on National Defence 1984, and for the Special Joint Committee of the Senate and of the House of Commons on Canada's International Relations 1985, were reviewed for the defence policy preferences of individual defence production firms.

The most useful archive for identifying the defence policy interests of the Canadian aerospace/ electronics defence production firms, the firms with a primary vested interest in NORAD defence policy, was the library of the Aerospace Industries Association of Canada located in Ottawa. Four full days were spent researching the AIAC library and full access to AIAC's Xerox machine was granted.

Interviews were conducted to supplement the information gained from the above resources. Of the eight men who occupied positions as either Deputy Commander of NORAD or Chief of Staff since 1977, six of them went on to employment either in Canadian defence production firms or in Tier One Lobby Groups in Ottawa. Each of these men were interviewed for their experience with the transfer from military to corporate employment. On an ad-hoc basis, interviews were also conducted with William Weston, presently a Vice President of AIAC and a past Deputy Commander of 25th Region, NORAD, and with T.S. Dudley Allen, a former Rear Admiral in the Canadian military, a former President of E.H. Industries, of Computing Devices and of Control Data, a former board member of AIAC, and presently a Senior Associate in Government Consultants International, an Ottawa Tier One Lobby Group. These

interviews were conducted in the same manner as the interviews previously mentioned.

Again, the conclusions drawn in this chapter of the thesis are supported by the evidence but are tentative. To test the conclusions, interviews need to be conducted with relevant personnel from the government departments that deal with issues of defence policy and defence industrial preparedness. Interviews with personnel from the corporate structures of the top 30 Canadian defence production firms would also be required. In addition, access to the relevant government departments and to industry files would be most useful, but probably impossible in the case of the latter.

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