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THE FUTURE OF CANADIAN-AMERICAN DEFENCE RELATIONS: TRENDS IN U.S. STRATEGY AND THE CANADIAN DEFENCE POSTURE

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INTRODUCTION

The government of Canada is now in the process of formally examining its defence policy with the intention of producing a white paper sometime in the fall of 1986. Undertaken by the Progressive Conservative cabinet of Prime Minister Brian Mulroney, this will be the first white paper since the one produced by the Trudeau government in 1971.[1] As it considers the proper policy and posture for the Canadian armed forces, the government will have to take into account the changes in the international strategic environment over the past decade and a half. But most importantly, it will have to confront the one thing that has not changed, the roles and commitments of the armed forces. Indeed, these have remained basically unaltered since the cold war when Canada joined with the United States and other western allies in rebuilding its forces to meet the demands of nuclear and conventional deterrence in North America and especially in Europe.

Since the early 1950s, the American nuclear superiority upon which Canada and other allies based their defence policies has vanished. The conventional superiority of the Soviet Union has remained, but the European powers, although never attempting to match the USSR's ground and air forces, now deploy substantial forces of their own, backed up by greater economic strength. These shifts were already clear by 1971, and the defence policy adopted by the Trudeau government responded by dramatically reducing the size and funding of the Canadian armed forces. In cutting back on the amount of resources dedicated to defence the Trudeau government did not, however, cut down on the scope of Canadian commitments. The strategic environment may have changed, but it was considered politically important to continue to support

collective security through standing military contributions which symbolized Canada's commitment to its allies.

During the decade of the seventies the price of this symbolism increased as détente waned and the allies, pressed by the United States, undertook a rebuilding and modernization of conventional forces. With no reduction in the range of commitments, but with substantial real reductions in spending, it was evident by the end of the decade that the Canadian armed forces were confronting a commitment-capability gap which the modest rebuilding of the mid-seventies had not prevented from widening.

In their election campaign during the summer of 1984, the Progressive Conservatives had pledged to restore the military effectiveness, and honour, of the armed forces, calling for major increases in defence spending to bring the level up from the then 2% of Gross National Product--the second lowest amongst the NATO (North Atlantic Treaty Organization) countries.[2] The elections that September gave the Tories the largest parliamentary majority in Canadian history and a mandate for major policy change. The new government soon recognized that its options were limited. It was caught between a deficit, which in proportions was twice as large as that of the United States, and a public still demanding large expenditures on social welfare programmes and direct government intervention into the economy.

Although the Department of National Defence (DND) fared better than other agencies in the government's first deficit-cutting budgets, real increases in defence expenditure were held to just over 2%, not enough to close the commitment-capability gap. In its first two years in office, the Mulroney government did take several steps to restore confidence in the armed forces, moving ahead with several long-delayed projects and increasing the number of

troops stationed in Germany. The Prime Minister also reaffirmed Canada's support for collective security as part of his government's efforts to improve the tone of relations with the Reagan administration. Nevertheless, the range of defence commitments was not questioned.

The white paper review process may well undertake a critical examination of the range of those obligations, especially in view of the fact that the money for major increases is not going to be available. Yet even as the process gets underway, the assumptions upon which the posture of the armed forces must rest appear to be shifting again. Specifically, trends in the American approach to global security and collective defence may make a thorough re-examination of Canadian defence policy at once more necessary and more difficult.

This essay looks at several of those trends, with a view to analyzing how they might affect Canada's defence posture. The list is by no means exhaustive and relates mainly to American conventional forces, because it is the conventional posture of the U.S. and NATO allies that Canada has sought to support. The trends are grouped together according to Canada's two formal alliance commitments, NATO and the North American Aerospace Defence Command (NORAD), although as is shown in the case of U.S. maritime strategy, certain trends could affect both European and North American defence roles. In general, those trends relating to NATO point to a movement of the "front" away from Canada, while those relating to North America appear to be moving the front closer to the American homeland, and therefore, closer to Canada.

The trends to be examined are as follows:

NATO-Related:

(i) tensions within the Alliance over the division of labour between in and "out of area" responsibilities.

(ii) the United States Navy's "maritime strategy".

(iii) new conventional strategies for the Central Front, especially Forward Follow-on Forces Attack (FOFA).

North American-NORAD Related:

(i) new interest in the Arctic as a strategic arena.

(ii) new emphasis on strategic defence against air-breathing threats, i.e. bombers and cruise missiles.(3)

In seeking to meet the Soviets both more forwardly abroad and more closely in the North American periphery, these trends reflect a growing emphasis in U.S. doctrine upon war-fighting. The objective of a more developed war-fighting posture may well remain to deter all war with the USSR, but such an approach to deterrence generates greater demands upon defence resources because it relies less upon the threat of strategic nuclear retaliation to ensure political and military stability. A war-fighting approach that includes a large element of conventional forces also generates demands and changes in the nature of allied contributions to collective security. For this reason, the trends outlined above may pose particular problems for Canada, which has postured its armed forces almost exclusively to meet collective security obligations.

I

CANADA AND COLLECTIVE SECURITY: POSTURE AND POLITICS

In its Green Paper on foreign policy, released in March of 1985, the Progressive Conservative government set forth what have been the fundamental considerations that have guided not only Canadian defence policy for over a generation, but Canada's approach to the international environment:

> The most direct threat to our security derives from the Soviet Union's military capabilities and antipathy to our values and from the consequent distrust and competition between East and West.
>
> ...there has never been any serious question of our adopting a neutral position between East and West. We are determined to uphold and defend our ideals of freedom and democracy. The Soviet Union is a formidable conventionally armed and nuclear-armed adversary. The need to defend ourselves is real. Hence our membership in NATO and our cooperation with the United States in the defence of North America.
>
> Europe remains the most critical military region in the world. It is where the line is drawn most graphically between East and West, it is where the task of deterring aggression must start.
>
> Canadians have no history of large forces in peacetime and no tradition of universal military service. Nor are we a continental European state directly threatened from the conventional forces of the Warsaw Pact, or a superpower with global responsibilities. The principal threat to Canada has been from nuclear-armed ballistic missiles, against which the only effective defence has been strategic deterrence.(4)

The posture of the Canadian Forces (CF)[5] has been tailored since the 1950s to support these broad foreign policy considerations. The combat forces of the unified CF (AIRCOM, MARCOM, FMC, and CFE), are postured as follows:

- AIRCOM operates a small air-transport fleet and provides maritime aircraft, most notably the Aurora Long Range Patrol Aircraft (LRPA) and Sea King Helicopters, which for day-to-day operations fall under the control of

MARCOM, as well as tactical aircraft that the FMC operationally controls. AIRCOM's most important role is air defence. Its Fighter Group, headquartered in North Bay, Ontario, constitutes Canada's fighter interceptor to NORAD. It would also be responsible for deploying two squadrons of aircraft to NATO's northern flank in the event of an emergency. Three of AIRCOM's interceptor squadrons are part of CFE. AIRCOM is currently phasing out its old CF-101 and CF-5 interceptors, replacing them, for both the NORAD and NATO roles, with 138 CF-18s.

- MARCOM's major combatants include some 20 destroyers and frigates, three submarines, and the maritime air assets it gets from AIRCOM. Its responsibilities include contributing forces, mainly anti-submarine warfare (ASW) forces, to NATO's Supreme Allied Commander, Atlantic (SACLANT); cooperation with the United States in the seaward defence of North America, in particular surveillance of Soviet submarine activity; and protection of Canadian sovereignty, especially backing up the civil authority in the enforcement of fishing and environmental regulations.

- FMC has a force of some 18,000 troops in three brigades across Canada. In the event of an emergency in Europe, some of these troops would be dispatched to form part of the quick-reaction Allied Command Europe Mobile Force, Land (AMF[L]). Also drawn from the FMC would be the 4,000-man Canadian Air-Sea Transportable (CAST) Brigade Group which is earmarked for deployment to northern Norway.

- CFE, located at Baden-Soellingen and Lahr in the Federal Republic of Germany, is Canada's standing commitment to NATO Europe. It includes one mechanized brigade group (4CMBG), with about 77 tanks, and three squadrons deployed with the 1 Canadian Air Group (1CAG), which has 54 aircraft.

In addition to contributing and earmarking the majority of its combat forces for NORAD and NATO roles, the CF also supplies forces for various peacekeeping assignments, such as the United Nations forces on Cyprus and the Multinational Observer forces in the Sinai.

It is Canada's alliance commitments that drive defence spending even though, according to the 1971 White Paper, sovereignty protection is the number one priority for the armed forces. To be sure, sovereignty protection in both its military and civilian aspects has remained a task for the CF. But as DND officials told a Canadian Senate committee in 1984:

> ...this does not necessarily imply that the first role (sovereignty) need have the highest priority in terms of force structure design, readiness, manning or resource allocation. Indeed, distinction must be made between the priorities established by government for Canadian Defence policy, and the appropriate priorities which must be established to ensure the optimum allocation of limited resources to support that policy.
>
> This distinction is necessary because the more demanding roles usually subsume the capabilities for less demanding activities and commitments. It follows that for the purpose of developing an appropriate force posture, priority must be given to the roles of defending North America in conjunction with U.S. forces, and the collective defence of the NATO area. Thus, although other roles may well determine the nature of the activities in peacetime, the fundamental purpose of force structure development must be to meet the demands of collective defence and deterrence.(6)

If alliance commitments determine what forces Canada buys, they do not, though, provide an exact guide to how much is enough. To some extent this is true for all countries, including the United States. But the U.S. postures its forces based upon calculations about what the USSR has, both nuclear and conventional, as well as what would be required to provide security for allies across the globe. In Europe, the NATO nations directly confronting the Warsaw Pact can gauge, however crudely, what level of conventional armament will provide a measure of deterrence as well as what level will help maintain the American commitment to their security.

Canada, on the other hand, finds itself in a unique position. Geography has automatically made it a target for a strategic nuclear attack and therefore has also made its security synonymous with that of the U.S. homeland in Washington's view. It has no need of its own nuclear deterrent, even if it decided to deploy one. There is no conventional threat to Canada and no need, as is the case with the Europeans, to maintain conventional forces in order to secure the protective umbrella of the United States.

To a certain extent this situation explains the low levels and declining quality of the equipment in the CF. More than any other NATO ally, Canada faces a great temptation to take a free ride, and in the opinion of many observers, both in and outside the country, has done so for the last decade and a half.[7] But if the ride is so attractive, why has Canada, nevertheless, maintained armed forces whose raison d'etre is almost exclusively to contribute to collective security? For though it is one thing to believe in the fundamentals of a collective security system grounded upon nuclear and conventional deterrence, it is quite another to make a contribution to the conventional aspect of that deterrence when there is apparently no compelling need to do so.

Part of the explanation is that not only has Canada supported the goals of collective security, it has also been in agreement with how the United States and its allies have gone about achieving those goals. Since the early days of the Cold War western security has involved more than just the aggregation of strategic assets. An important objective has been political cohesion amongst the NATO nations. This, in turn, has required a measure of equality insofar as the Alliance has sought to avoid major internal disputes and reach agreements that can accommodate the positions of all member countries. NATO's formal decision-making bodies are designed to afford each member, whatever its

relative military standing, a seat at the table and a podium from which to express its views. They also allow for smaller allies to work together in order to influence the policies of the larger partners, especially those of the United States.

For Canada, having a seat at a table at which major issues of international strategy are discussed has made collective security extremely attractive. Since the dark days of the First World War when Ottawa persuaded the British government to convene the Imperial War Cabinet, wherein the leaders of the self-governing Dominions would have a say in the direction of the war effort, Canada has sought to maximize its influence through international organizations. The Imperial War Cabinet led to a seat at the Versailles Peace Conference and membership separate from Britain in the League of Nations. In the immediate post-Second World War years, the Canadian government placed great hopes in the United Nations, not only because it viewed it as a means to avoid another global struggle, but also because at the UN the less-than-great powers would have a voice. When the increasing tension between East and West made the UN unworkable as a collective security organization, Ottawa worked for the creation of NATO and in particular lobbied for the entry of the United States. The Alliance served Canadian national security interests insofar as it made another war in Europe less likely and also negated Soviet influence there, thus fulfilling a long-standing Canadian objective that Europe not be dominated by a hostile power. It also provided for the kind of multilateral approach to security wherewith Ottawa's voice would be heard, and its preferences taken into account.

The trans-Atlantic Alliance was attractive to Canada as well because it meant that it could avoid a strictly bilateral security arrangement with the

United States. It was not that Ottawa failed to appreciate the need to defend North America, but rather that if possible North American collective efforts would be incorporated into the larger north Atlantic framework. In this way Canada could better influence U.S. policies, calling upon the diplomatic support of other allies. A wider approach meant that Canada would not have to take sides in an American-European rift because the institutional mechanisms of the Alliance would offer a means to reconcile differences. The NATO structures recognized Canada as an independent actor, not merely part of an exclusively American security system in North America.

Canada shares the NATO goal of maintaining allied unity as a means to buttress the individual security of the member states. Allied unity is also a prerequisite for the Alliance serving as a forum in which Canada might influence American policy and avoid relegation to the sidelines of international security issues. In recognition of this, Ottawa has pursued what former Canadian Ambassador to NATO, John Halstead, has called a "bridging role" within the Alliance. It does not propose major policy initiatives, nor does it assume that it could serve as a mediator amongst allies, especially between the Europeans and the Americans. Rather it tries to act as "an interpreter, seeking to further mutual understanding and to maximize common ground."[8]

This approach to collective security also explains why Canada has always been less enthusiastic about NORAD than it has about NATO, even though the former pact deals more directly with Canadian security. Although there is a Canada-U.S. region within NATO, the aerospace defence of North America does not involve any other allies. NORAD is not a NATO command on par with SACLANT or SACEUR (Supreme Allied Command, Europe). Yet even NORAD has its institutionalized recognition of formal equality. The commander-in-chief

(CINCNORAD) is responsible to both the President of the United States and the Prime Minister of Canada and his deputy (DCINCNORAD) is always a Canadian general. Canadian officers fill many top posts within the command, somewhat out of proportion to their country's material contributions.

In sum, because the United States has fostered a collective approach to its own national security and has accommodated the views of allies, participation in the American-led western collective security system has been attractive to Canada. To be sure, the realities of international politics cannot be ignored: NATO is not a pact amongst equals and the American weight in NORAD is at times overwhelming. Nevertheless both alliances afford Canada a measure of participation that would not have been available had the U.S. adopted a more unilateral approach to its security.

The United States has required that allies make material contributions to the common effort both in order to bolster deterrence and as symbols of their commitment. Canada, like other allies, has made contributions. Thus the Canadian conventional posture may be viewed as the price it is willing to pay in order to help keep collective security going, apart from any military value those forces may have for the U.S. and European allies. They are the dues necessary for a seat at the table, which in turn allows Canada to exercise some influence within allied councils. Put most starkly by James Eayrs: "...the main motive for the maintenance of a Canadian military establishment since the Second World War has had little to do with our national security as such...it has had everything to do with underpinning our diplomatic and negotiating position vis à vis international organizations and other countries."[9]

This approach to allied military contributions also goes some way to explaining why Canada's armed forces have been allowed to deteriorate since

the Cold War years. At that time, given the state of the European allies, Canadian conventional forces did contribute to security in Europe as well as serving to bolster allied unity. As the Europeans rebuilt, the strictly military need for Canadian contributions declined, but the political importance, especially the importance of maintaining standing forces in Germany, remained. Ottawa did not claim military relevance, either to the Alliance, or to Canadian security. Rather what it based its calculations on was political relevance. From that standpoint, any level of Canadian contributions would do. The Alliance, with its emphasis upon symbolism, encouraged this approach. When, in 1967, Washington persuaded the allies to adopt the flexible response strategy with its emphasis upon strengthening conventional deterrence, the importance of maintaining Canada's contributions should have increased. Yet, it was at this very time that Canada decided to halve its forces in Europe and reduce its overall military expenditures. The allies were not happy with the Canadian decision, but what could they do? Canada was not going to be thrown out of NATO or excluded from allied councils, and some Canadian troops were better than none at all.

Allied strategies and postures have also contributed to making this arrangement somewhat comfortable for Canada. Although even in the 1950s NATO was seeking to maintain conventional forces, Alliance security rested mainly upon the American nuclear arsenal. The U.S. nuclear forces in Europe served both as a deterrent against Soviet conventional forces and as the link between European security and that of the United States. Canada supported this view because it believed it was the best way to avoid a war in Europe and because it reduced the need to maintain large conventional forces. The adoption of the flexible response strategy did raise allied requirements for conventional

forces. But by this time, the Europeans had rebuilt their forces, and although Canada did support the objective of raising the nuclear threshold, it tended toward the European view that conventional forces could not substitute for U.S. nuclear forces in Europe. In any case, flexible response seemed to be flexible enough to accommodate a lowering of Canada's conventional contributions.

In North America, the trend since the early 1960s had been away from the maintenance of large air-defence forces. The United States Air Force (USAF) considered bomber defence a low priority and allowed its air-defence forces to decline. With the advent of the ballistic-missile threat, there seemed even less reason to maintain an elaborate air-defence network. Canada followed suit. By the early 1970s, NORAD's chief role had become surveillance and early warning of missile attack with active air defence, i.e. interception of bombers, reduced to a secondary, marginal role. Although Canada remained active in NORAD, its actual contributions to missile warning were quite minimal, with only two space surveillance facilities on Canadian territory.[10]

There was, therefore, no great pressure on Canada to maintain, let alone augment, its conventional forces. By 1971, Canada was ranked second-last of all NATO countries (excluding Iceland and just above Luxembourg) in terms of the percentage of Gross Domestic Product (GDP) devoted to defence. It is a position Canada has maintained since, even with the admission of Spain to the Alliance.[11]

The most recent U.S. Department of Defense (DOD) report to Congress on Allied Contributions to the Common Defense contains even more unfavourable comparisons between Canada and America's NATO allies as well as Japan. The report gauges various measurements of allied contributions not only against GDP, but also in reference to a nation's standing on a "prosperity index." This

is meant to give an indication of how much a nation should be contributing based upon its relative ability to contribute. Thus a country whose defence spending share (of all NATO defence spending plus Japan), divided by its "prosperity index" share, is 1.00, is said to be contributing to the common defence proportionate to its ability to contribute. The DOD report also measures contributions of "ground force armoured division equivalents" (ADE) and Air Force Tactical Combat Aircraft (Acft) in relation to the prosperity index.[12]

Canada has 4.38% of the total NATO plus Japan GDP, and 1.92% of total population; its per capita GDP is 86.1% of that of the U.S. On the prosperity index, Canada ranks fourth (behind the U.S., Japan and Germany), with 4.82%. Canadian defence spending is 2.2% of the total, meaning that the ratio of its defence share to its prosperity index share is 0.46, less than half of what it should be and higher only than that of Luxembourg (at 0.36) and Japan (at 0.27).

Canada contributes 1.47% of the total allied active defence manpower and 1.11% of the total active and reserve defence manpower. Measured against the prosperity index share, the Canadian manpower contribution is only 0.33 what it should be. For ADEs, the Canadian contribution is 1.09% (third last ahead of Portugal and Luxembourg) and only 0.23 of what its relative ability to pay would indicate. For Acfts, the Canadian share of the allied total is 2.39% (ranking it tenth), but only 0.50 of what it should be according to its prosperity index share.[13]

Despite the relative and absolute decline in Canada's contributions to collective defence, Ottawa has maintained the scope of contributions it assumed in the 1950s and 1960s. Believing that withdrawal from any obligation would reduce its influence in allied councils, it continued to keep forces in Germany, to pledge forces for the reinforcement of Norway, and to earmark naval forces

for SACLANT. With declining expenditures, it became all but impossible to sustain even a minimal level of strategic relevance in any role. By the early 1980s, there were only 3,200 ground troops in Germany and 54 aircraft; the CAST brigade lacked sufficient airlift, and although Canada has 3.26% of all of NATO's principal surface combatants tonnage (ranking it 6th),[14] only 4 of its 20 ships were less than fifteen years old. North American air-defence forces, as well as the radars, had declined to the point where Canada could not even guarantee its own territorial air sovereignty, let alone contribute effectively to the NORAD role.[15]

With the U.S. pressing all allies to support flexible response with more conventional forces, Canada did begin a reequipment programme in the late 1970s. New LRPAs (the Auroras) were bought, 138 CF-18s were ordered for both the NATO and North American roles, and, in 1983, funds were approved for the construction of six new frigates. In its first year in office the Mulroney government took further steps: adding 1,200 troops to CFE, approving funding for a new low-level air defence system for the forces in Europe, and entering into an agreement with the U.S. for the modernization of North American air defences. The major capital acquisitions of recent years allowed Canada to meet the NATO target goal of 3% annual real increases in defence expenditure. Yet, with the Conservatives' deficit-cutting budgets, this will drop to 2%. More importantly, recent increases will only replace existing equipment, in some cases on a less than one-for-one basis.

The net result of all this is that Canada has had for a number of years a commitment-capability gap that will only grow in future years. A recent report by a joint committee of the House of Commons and the Senate called this gap the most "fundamental issue in defence policy."[16] In undertaking a wide range

of allied commitments largely for political purposes, Canada now finds that symbolism is becoming expensive and has called into question what had long been the comfortable assumptions about how much should be enough. Neither the United States nor other allies have given any indication that Canada will be penalized for its lagging defence effort, but the commitment-capability gap is an open secret that the Alliance may no longer be able to ignore.

Complicating the task of closing the gap between collective security commitments and capabilities is a growing sentiment in Canada that more resources need to be dedicated to sovereignty tasks, especially in the Arctic. During the summer of 1985, an American Coast Guard ship went through the Northwest Passage, which the United States does not recognize as Canadian internal waters. Although the U.S. notified Canada of the transit, it made it clear that it was holding to its claim that the passage was an international strait. A storm of protest arose in Canada not only because the United States continued to deny the Canadian claim, but also because it was clear Canada has little capability to monitor its Arctic frontier. There were suggestions that this lack of capability was due to the fact that Canadian defence policy was designed solely to support alliance commitments at the expense of national sovereignty protection.[17]

As the government draws up its white paper on defence it will have to address these sovereignty questions as well as the commitment-capability gap. As it does it will also have to take into account trends in U.S. strategy and posture that may well further complicate both a resolution of the commitment-capability gap and the sovereignty issue.

II

NATO-RELATED TRENDS

(i) The "Out-of-Area" Problem

Since its beginning, the North Atlantic Treaty Organization has been a "troubled" alliance. This is not surprising given the multitude of contradictions and inconsistencies with which it has coped. Take the long-standing issue of the role of nuclear weapons: these are deemed essential to NATO's defence posture, but it remains unclear as to what their exact role would be in the event of a war. Complementary to this is the question of conventional forces. The European view is that should conventional forces become too strong, deterrence would be undermined as the risks of war would become more calculable. On the other hand, the United States would be interested in reducing its nuclear "exposure" in Europe in order to limit and resolve a potential conflict in Europe, which, unlike a conventional war, might escalate to nuclear conflict involving American territory.[18] The continued dependence of the Europeans on the Americans generates resentment on both sides of the Atlantic.

Over the years, the Alliance has been able to live with these contradictions while overcoming various internal disputes and diplomatic crises. One reason for this was the paramount position Europe held in American global strategy. These considerations were reinforced by a genuine sentiment of responsibility and comity on the part of those American leaders who directed foreign policy during the Cold War and beyond.

In the 1980s, that sense of comity, which had "lubricated the delicate machinery of alliance," seems to be on the wane. As a new generation of

leaders assumes position of power in the U.S., a generation which grew up with Vietnam rather than the Cold War crises, the ties that have bound the Alliance together may be strained further, and the machinery "may come to a creaking halt."[19]

One issue that could well prove to be NATO's undoing is that of out-of-area responsibility. The Alliance has agreed to formally act together only within the territorial limits of the member states, as well as in the northern Atlantic and Mediterranean. The United States had always recognized this and was prepared to assume most of its extra-European commitments on its own. Since the oil crises of the 1970s, the U.S. has argued that threats to NATO can originate outside of Europe. More recently, the Reagan administration has put forth the view that, with deterrence holding in Europe and war unlikely, new Soviet or Soviet-inspired challenges will increase out of area. Thus far, the Europeans, although recognizing some of these threats, have been reluctant to commit forces to assist the U.S. in other areas of the world. This, in turn, has fueled resentment over the fact that the Europeans want American ground troops to remain in Europe even though this strains America's capability to meet other global commitments. They are also unwilling to increase their own forces. With Europe no longer viewed in the same way it was in the past, the U.S. might well decide to meet its other obligations at the expense of European conventional defence.

A solution to this problem, and a way to save NATO, would be to restructure Alliance roles and obligations. This would involve a reduction of American ground forces in Europe, freeing them for commitments elsewhere, coupled with a simultaneous build-up of European conventional forces. The United States would maintain most of its existing air forces in Europe as well as

its nuclear forces. In return for building up its own forces, the U.S. would assume exclusive responsibility for out-of-area operations. In this way, a new trans-Atlantic bargain would be struck and, according to one proponent of the plan, NATO would not only be saved, but would function more effectively: "If Europe builds up her conventional forces as part of a general reallocation of burdens, rather than as a result of American nagging, mutual trust and cooperation can be restored or indeed strengthened."[20]

While a formal restructuring of NATO roles, involving a major reduction in U.S. ground forces in Europe, seems unlikely in the immediate future, the United States appears already to be shifting emphasis out of area. Forces heretofore earmarked for European deployment in the event of a war are now being committed to the Persian Gulf. There is some cooperation between the U.S. and other NATO allies in the Indian Ocean area, but this is informal and outside the Alliance framework and does not involve large commitments by the Europeans.

(ii) The U.S. Navy's Maritime Strategy

The issue of European vs. out-of-area commitments is often cast in terms of a continentalist as opposed to a maritime orientation for U.S. forces, especially conventional forces.[21] But the U.S. Navy's "maritime strategy," as recently elaborated in the open literature by Chief of Naval Operations Admiral James D. Watkins, is much more than a concept for dealing with third world threats, at the expense of maintaining forces in Europe. It is a broad concept for the conduct of global war, a war in which it is assumed that Europe will still be the prime Soviet target. The maritime strategy does not deal with the role of the USN alone, nor does it envision the United States fighting without allies. Its goal is "to use maritime forces in combination with the efforts of our sister

services and the forces of our allies to bring about war termination on favorable terms."[22]

In the event of an East-West conflict, Europe would be "the centerpiece of Soviet strategy." There the USSR would be seeking a decisive and quick conventional victory and would, according to Watkins, prefer to be able to concentrate its forces on achieving that victory. The central premise of the maritime strategy would be "to deny them such an option by ensuring that they will have to face the prospect of a prolonged global conflict." This would be accomplished by horizontally escalating the conflict to include the engagement of Soviet forces, and those of their allies, in the Pacific, Indian Ocean, and Persian Gulf areas.

Such a war-fighting strategy requires an altered deterrent posture. Europe, it is argued, will be more secure if the United States forward deploys more forces, mainly naval forces, outside the NATO area. This would provide "a clear indication that should war come, the Soviets will not be able to ignore any region of the globe."[23]

Not only will global forward maritime pressure present the Soviets with a wider war, it will also serve to meet NATO's maritime needs, in particular the requirement to secure the sea lines of communication (SLOC). In order to secure the SLOC, NATO maritime strategy has envisioned a combination of barrier ASW, chiefly along the Greenland-Iceland-United Kingdom (GIUK) gap as well as open-ocean escort of reinforcement and resupply shipping. With the growing power of the Soviet fleet and its naval air forces, the Alliance itself has lately been discussing a more forward maritime posture. Such a posture would be necessary to defend Norway, which lies beyond the GIUK gap. The American maritime strategy goes further. It calls for defending the SLOC by putting

direct pressure on the USSR in its home waters. As one U.S. Admiral told a Congressional committee in 1984:

> In the absence of forward area pressure by our submarines, they (the Soviets) could concentrate major forces against supply lines we need for NATO reinforcement and against other naval forces. In short, they can pose many of the same problems for us that we do for them--problems that can be countered effectively by state of the art submarines operating in their backyard.(24)

It is generally acknowledged that the chief role for Soviet naval forces is defence of the Soviet homeland, including the USSR's ballistic missile submarines (SSBN). The maritime strategy seeks to respond to this by putting pressure not only on Soviet anti-shipping forces, but also by threatening the SSBN fleet held close to the USSR's coastal waters. In the event of a nuclear war, Soviet SSBNs would become targets for American attack submarines (SSN) in the ocean equivalent of a counter-force strike. Again, such a war-fighting approach requires a commensurate peacetime deterrent posture; therefore as part of the maritime strategy the U.S. is seeking to enhance its ability to identify and trail Soviet SSBNs in their home waters.[25]

(iii) New Conventional Strategies on the Central Front: FOFA

In its proposed maritime strategy, the U.S. would abandon static defence and deterrence through the threat of denial of victory to the attacker in favour of deterrence through the threat of eventual victory for the West. It is meant to exploit Soviet weakness at sea, in order to compensate for continued allied weakness on land in Europe. But a similar trend in strategic thinking has also been present with regard to NATO's land forces.

The U.S. Army's new doctrine, Air-land Battle, calls for ground forces to take the initiative and strike behind attacking enemy lines, making wide use of

flexible forces. Because Air-land battle also includes the possible use of tactical nuclear weapons, the Europeans have been wary of the doctrine and have not endorsed it. Nevertheless, the concept of greater mobility in defence was recommended for NATO by the U.S. Department of Defense in its report to Congress on Improving NATO's Conventional Capability.

In response to American pressure, the Alliance's Military Committee produced a new Conceptual Military Framework; and on November 9, 1984, the Defense Planning Committee approved SACEUR's Long-term Guideline for Follow-on Forces Attack. FOFA is not considered a departure from the overall strategy of flexible response, but rather an embellishment of it. It is a departure from a purely static defence in that it calls for strikes by NATO aircraft and conventionally armed missiles against Soviet rear-echelon positions behind the Forward Edge of the Battle Area (FEBA). The purpose of these strikes would be to slow down the Soviet advance, thereby both relieving pressure on the defending NATO forces and avoiding the need to give up NATO territory or resort to nuclear weapons.[26] By posturing its forces to implement FOFA, NATO would enhance deterrence by further complicating Soviet calculations.[27]

Even if FOFA is viewed as consistent with flexible response, it will require an increase of available conventional forces and expenditures on new technologies. Since the U.S. is unlikely to increase its conventional forces in Europe, the burden of enhancing NATO's ability to carry the battle behind the FEBA will fall upon the Europeans. Indeed, the new strategy may be part of the package of a restructured NATO wherein the U.S. diverted more resources out of area and to the maritime strategy, while the Europeans compensated by building up their forces and changing NATO's concepts of land operations.

American air and missile forces would remain at current levels because they fit well into FOFA.

The NATO-related trends outlined above will have important implications for Canada in two respects: first, they could increase the importance of the European members of the Alliance as a distinct group within NATO, thereby diminishing Canada's own standing and perhaps influence; second as long as Canada elects to remain within the Alliance and make conventional contributions, the new strategies will increase demands for greater Canadian defence expenditures.

As mentioned in the previous section, Canada not only has a stake in allied unity, it has also been concerned that NATO be viewed as more than just a Euro-American compact with Canada being an indistinguishable part of the America pillar.[28] If the price of allied unity in the future is a restructuring of allied roles, with the Europeans assuming greater responsibilities in Europe as the Americans take care of out-of-area threats, it will be extremely difficult for Canada to maintain a distinct place in the Alliance. In the European context its forces will not be particularly significant, and it is unlikely to assume any new roles in other global regions in support of the U.S. Moreover, a restructured NATO could well include a change in the Alliance's formal decision-making organization to emphasize the new responsibilities now assumed by the Europeans. The Euro-group, now an informal body, might acquire a greater role. As a non-European member, Canada could find itself increasingly left out in allied councils, its highly valued seat at the table becoming less and less important in terms of exercising influence. This would be ironic because Ottawa has long called upon the Alliance to pay heed to the views of the European members, especially the smaller powers. Yet in a restructured

organization, those smaller European members might find their influence augmented without help from Canada. The opportunities for Ottawa to play its traditional role as interpreter and "consensus builder" will be restricted. Should a political reorganization of the Alliance be coupled with military changes that would give the Europeans more of the major commands, including SACEUR, Canada would find itself even more of the "odd-man out."

Paying for the seat at the table, under whatever structure (or even if the Alliance maintains existing institutions), will also become increasingly difficult for Canada if current trends in allied conventional postures continue. Already, allied demands for greater conventional contributions have compelled Canada to spend more on CFE. The brigade group has been brought up to peacetime strength with the addition of 1,200 troops and the air group is to receive priority on the new CF-18 aircraft. Unfortunately, these increases will still leave CFE a relatively insignificant part of the overall equation on the Central Front, even more so if NATO fully implements FOFA. with its emphasis on flexibility and new weapons technologies.

The 4CMBG requires a wide range of long- and short-range weapons as well as anti-armour munitions and the vehicles to transport them. At present, it lacks the kinds of attack helicopters used by the U.S. and other allies. The Leopard tanks will also need replacement. As Professor David Cox of Queen's University has pointed out, for Canada "to maintain an armoured role in the future European battlefield will be extraordinarily expensive--it is not too far fetched to argue that capital expenditures in the order of $10 billion will be required over the next decade."[29] In the 1985/86 fiscal year capital expenditures for the entire CF amounted to not quite $2.6 billion.[30] Most of the coming years' expenditures will be going to continued acquisition of CF-18s

and the new frigates, the first six of which will cost an estimated $5 billion. Reinforcement of the 4CMBG will also be a problem because of the lack of airlift and the additional requirements to move troops for the AMF(L) and for the defence of Norway.

The situation for the air group is also in doubt. It remains at only 60% of wartime levels with 54 aircraft. Here again, however, reinforcement will be difficult given that the remaining 84 CF-18s will be required for North American defence and for Norway. And, the entire Norwegian commitment of the CAST brigade is in question because of a lack of airlift. At present, much of the movement for CAST would rely upon Norwegian shipping. Given that the CAST, to be effective, would have to arrive in advance of hostilities, its lack of quick deployment capabilities seriously detracts from its value to the Alliance; this will be even more the case if NATO adopts a more flexible forward posture.

The U.S. maritime strategy would seem to pose fewer potential problems for Canada than for the Europeans. MARCOM's major tasks have been to supply ASW forces for the protection of the allied SLOC, in addition to covering parts of the Western Atlantic. There is also the task of contributing to the seaward defence of North America in conjunction with U.S. forces. Should the USN move to a more forward posture, it would still require surveillance forces in the Western Atlantic and North American waters. Indeed, a more forward USN strategy could highlight the need for Canadian cooperation in these areas as the bulk of the American fleets moved towards the Eurasian land-mass. Just as the maritime strategy envisions the European navies providing forces for European coastal waters, so too might it look to Canada for a greater effort in rear areas. And, as the USN seeks to deal with protection of the SLOC by putting

forward pressure on Soviet anti-shipping forces, it would still look to allies, including Canada, to provide a measure of close convoy protection. Thus within the maritime strategy, Canada's maritime forces would still have an important role and in fact a niche behind the lines.

MARCOM's main problem will be filling this niche. Under current projections, it will have only 10 capable surface vessels by the mid 1990s, and no increases are slated for LRPAs. The government has decided to replace the fleet of Sea King ASW helicopters, but further improvements in MARCOM's posture must compete with the demands of AIRCOM, the FMC, and CFE if Canada elects to maintain all its current allied commitments.

One aspect of the maritime strategy that might put new and different demands upon MARCOM is the USN's emphasis upon strategic ASW, i.e. the application of forward pressure upon Soviet SSBNs in their sanctuaries. Until recently, it was assumed that American attack submarines would approach Soviet SSBN bastions from the open waters of the Pacific, or through the Norwegian Sea. It now appears that the U.S. will attempt to use the Arctic, transiting under the ice to reach Soviet submarines which themselves are expected to use the polar icecap as a protective cover. The newest Soviet SSBNs, especially the Typhoon class, can cover all targets in Europe and North America from Soviet Arctic regions. If this is the direction of U.S. strategy, then the Canadian Arctic could become more important, raising questions not only about MARCOM's capabilities, but also about Canadian sovereignty. The Arctic aspects of U.S. maritime strategy are discussed below.

The forward maritime strategy of the USN should not change fundamentally the context or character of the Canadian commitment to Norway. Sharing a border with the USSR, northern Norway is already in a forward position.

Moreover, the border is located near the Kola peninsula, where the Soviets have assembled massive air, land, and naval forces. Thus an offensively directed maritime response would encompass defence of Norwegian territory. Indeed, since the Soviets are expected to challenge NATO naval forces in the Norwegian and Baltic seas, Norway could find itself quickly behind the forward edge of the battle area. To the extent that Canada is able to augment Norwegian and other allied security forces (which it plans to do regardless of the new American emphasis on maritime strategy), the Canadian posture could mesh with the USN's plans for the area.

What could alter this situation would be an even more pronounced shift in U.S. strategy towards a purely maritime approach to NATO's northern flank, one that places priority not upon the direct defence of Norway, but rather upon offensive action against Soviet forces in the Kola. The thinking would be that the Soviets would not necessarily need to launch a land invasion of Norway in order to protect their bases. Possession of Norwegian territory would not add greatly to the USSR's strategic depth in the region, and might prove difficult. But if the Soviets bypassed Norway and challenged NATO in the Norwegian and Baltic seas, they could reduce the need to attack Norway itself, while inflicting great damage on allied naval and sea-borne reinforcements, leaving their own land forces relatively secure. Norwegian forces would not be expected to attack the USSR but would be postured for purely defensive measures. Indeed, Norway would become a necessary target for the Soviets only if the allied reinforcement effort brought to the region forces capable of attacking the Kola.

Based upon this assessment of Soviet strategy, NATO and the USN would be drawn into a costly battle for Norway, which they would have trouble winning

because of the large numbers of Soviet forces, and which would move the battle away from prime Soviet targets in the Kola. What former U.S. Navy Admiral Worth Bagley calls a "rational alternative" to reinforcing Norway, while maintaining its security, would be to base that defence upon power projection by conventionally armed cruise missiles launched from U.S. and perhaps allied ships against the Kola:

> The long range of a modern cruise missile complicates Soviet counter-action and reduces U.S. reaction time. By presenting a non-nuclear cruise missile threat against Soviet forces in the Kola area from north or south of Iceland waters, U.S. sea power would reduce its reaction time from the United States by three or four days. Bases on Norwegian soil for either side would be unimportant to the land-target strike threat and so, for the Soviet Union, another reason not to invade Norway.(31)

Presenting the Soviets with a sea-based cruise missile threat to the Kola would help contain the USSR's anti-SLOC forces by compelling them to adopt a more defensive posture. A Soviet invasion of north Norway would not appreciably deal with this threat.

This approach to Norway could call into question the value of the Canadian reinforcement pledge, especially in its present untenable posture. On the other hand, the relatively small Canadian force destined for Norway, assuming it could arrive before hostilities, might be just the right size to mesh well with a Norwegian defence based upon sea-based cruise missiles. It would be small enough to reassure the Norwegians of allied support and bolster their own defensive forces, yet not large enough or equipped with sufficient long-range capabilities to threaten land targets in the Kola.

At present both the U.S. and NATO seem satisfied that they can deploy sufficient forces to Norway to mount a credible defence. Even amongst advocates of the maritime strategy there is little indication of a shift towards a strictly maritime allied defence of Norway. Yet, the offensive trend in the U.S.

does suggest alternative contexts for the CAST brigade group along the northern flank.

III

NORTH-AMERICAN/NORAD RELATED TRENDS

(i) The Arctic as a Strategic Arena

The potentially growing importance of the Canadian Arctic in American strategy arises out of trends relating to defence as well as offense in formulating the U.S. posture. Although strategic defence has recently received much attention because of the SDI, the United States in cooperation with Canada has never totally ignored the direct defence of North America. Formal cooperation between the two countries dates back to the establishment of the Permanent Joint Board on Defence (PJBD) in 1940. In the post-war era it has included joint planning for the land, sea, and air defence of North America. Only in the area of air defence was a peacetime joint command established, NORAD. Maritime cooperation is partly covered under NATO's Atlantic Command which stretches from Europe to North American shores. It has also included strictly bilateral efforts in both the Atlantic and to a lesser extent in the Pacific.

The greatest seabed threat to North America comes from Soviet SSBNs, with a more modest threat posed by Soviet attack submarines. Soviet SSBNs of the

Delta and Typhoon classes do not have to approach North America for their sea-launched ballistic missiles (SLBMs) to reach targets in the U.S. The older Yankee class SSBNs do. The United States and Canada maintain continual surveillance against all SSBNs, which often patrol off North American coasts. This surveillance is similar to the early warning maintained against land-based ballistic missiles by NORAD.

Soviet attack submarines can also be found off North American coasts on what appear to be routine patrols. It is believed that the primary peacetime mission of the Soviet SSN is to track or shadow American SSBNs as they leave their bases.[32]

It is generally assumed that in a crisis situation, with war seemingly impending, the USSR will pull back its submarine forces, collecting its SSBNs in bastions protected by SSNs and other maritime forces. The U.S. maritime strategy seems predicated on such a pull-back and seeks to exploit it. This would decrease the importance of close-in maritime defence of North America. However, as the western maritime posture stresses forward defence in the Soviets' backyard, it may encourage the Soviets to attempt to get out through the back door--that is under the ice--and enter the Western Atlantic through the Canadian Arctic. This would place Soviet SSNs behind NATO ASW barriers and within range of the Atlantic SLOC. To the extent that such transit becomes possible in the future, Canadian waters will increase in importance.[33]

Another concern is that the Soviets will deploy a new generation of sea-launched cruise missiles (SLCMs) with ranges sufficient to strike at North American targets from the Canadian Arctic. The modernization of NORAD's radar facilities, especially the construction of the Over-the-Horizon Backscatter radars (OTH-B), has been partly justified on the grounds that Soviet SLCM will

pose an increasing threat in the coming years. In the Atlantic and Pacific surveillance is already maintained against all Soviet submarines, but there is no complementary network covering the Arctic approaches.

Another trend that may make the Arctic an important strategic arena has already been mentioned: U.S. plans to enter Soviet SSBN bastions under the ice. As the Soviets seek the safety of the polar icecap for their sea-based nuclear forces, the U.S. Navy may increasingly become active there with its attack submarines, doing to the Soviets what the latter would be doing to them in the Atlantic and Pacific.[34]

If these trends continue and a new East-West front opens in the Canadian Arctic, Canada will find itself ill-prepared to cope or make any substantial contribution. Indeed, it is less prepared to operate in this part of its own territory than it is on the territory and in the open water of allies. Canada has no submarines capable of under-ice transit, nor does it maintain an under-ice passive surveillance system. This situation not only makes it nearly impossible for it to participate with the U.S. in under-ice activities, it also means that Canada has no way of knowing what the U.S. is doing up there, thus raising the issue of national sovereignty.

The U.S. Navy could inform Canada of its activities and share with it any information it obtained on Soviet movements. But if past practice is any guide, this would not necessarily be the case. It bears noting that while MARCOM and the USN have an active exchange of information in the Atlantic where Canada makes a substantial contribution to fixed and mobile surveillance systems, a similar exchange does not take place in the Pacific where Canada "does not currently share in the burden of underwater surveillance apart from periodic reports." As former Deputy MARCOM Commander, Rear Admiral F.W. Crickard,

recently observed: "The message is clear--participation in joint operations opens the door to intelligence that would otherwise be closed to Canada."[35]

The pressure on MARCOM to develop an under-ice capability is also mounting from within Canada, partly in response to expectations that the United States sees the Arctic as a new strategic arena, but one in which cooperation with Canada may not be necessary or desirable. It is not self-evident, for example, that the USN would want Canada to know the movement of its attack submarines under the ice into Soviet waters. There is also the long-standing dispute between the two countries over the status of the Northwest Passage. There have been calls in Canada for an independent posture in the Arctic, one not reliant upon cooperation with the U.S. This would include the ability to monitor the "undeclared transit to and from the open waters of the Atlantic by nuclear submarines of any nation."[36] For this task, Canada would not need nuclear submarines of its own, but could deploy a passive surveillance system.

Although put forth as a means towards establishing Canadian sovereignty in the Arctic as part of a more independent defence posture, such a system, if it were deployed, could serve to enhance Canada's ability to cooperate with the U.S. in the seaward defence of the continent. MARCOM would be able to supply information to the U.S. on possible Soviet submarine movements, in exchange for which Canada would be apprised of American under-ice activity. Since Canada would be able to track U.S. submarines, there would be no "undeclared" American transit through Canadian Arctic waters. The situation would be analogous to that which exists with regard to air defence. Under NORAD, Canada contributes assets to the joint air defence of the continent and also provides for the means to monitor its own air sovereignty. The same situation would exist in the Arctic with regard to submarine detection.

All this assumes, however, that MARCOM will be given the additional resources it needs to operate in the Arctic on a much larger scale than it does now. Current maritime capital projects are directed towards enhancing the surface fleet. The growing importance of the Arctic, and domestic pressure to assert sovereignty there, may speed up plans for replacement of the submarine fleet or, as a less expensive alternative, the development of a passive under-ice surveillance capability.

(ii) Defence Against Bombers and Cruise Missiles

The establishment of NORAD in 1958 formalized what had already been a close cooperative arrangement between the USAF and the RCAF in the air defence of the continent from Soviet bombers.[37] Not too long after, however, the bomber ceased to be the major threat to North America as the Soviets developed ballistic missiles against which there was no defence. NORAD's missions expanded to include warning of missile attack as well as space surveillance. Active bomber defences declined, as did radar capabilities. By the late 1970s NORAD's defences were considered incapable of dealing with Soviet bombers as well as with the expected new generations of Air-Launched Cruise Missiles (ALCM) and SLCMs. As a recent report to Congress observed, Pentagon planners had paid little attention to, and Congress had provided little money for, "defenses that could ward off ALCM, SLCM, and bomber attacks against the United States."[38]

In 1979, the Congress directed DOD to develop a master plan for improving continental air defences. This Air Defence Master Plan (ADMP) was used as a basis for negotiations with Canada on the joint modernization of NORAD's air defences. In 1985, the two countries agreed to implement such a modernization

in order to improve the ability to detect low-flying bombers and cruise missiles on the perimeter of the continent. The Distant Early Warning (DEW) radar line in northern Canada will be replaced by the North Warning System (NWS) composed of 13 minimally attended long-range radars (11 in Canada), and 39 unattended short-range radars (36 in Canada). Covering the rest of the perimeter will be the OTH-Bs, one in Alaska and three in the continental United States, located on the east and west coasts, and in the South. It is expected that continuous coverage will be provided by the NWS and the Southern OTH-B, which will overlap with those on the east and west coasts. Should this not prove to be the case, Canada and the U.S. have agreed to deploy additional radars along the western and eastern coasts.

Backing up the passive-detection facilities will be interceptors, needed for positive identification and, if necessary, to shoot down bombers. Also to be employed are Airborne Warning and Control (AWAC) aircraft, which may be required to direct the air battle. Because of the expected range of Soviet ALCMs, both Canada and the United States envision employment of the interceptors and AWACs in the far north. This will necessitate the upgrading of northern Canadian air bases to serve as Forward Operating Locations (FOLs) for the interceptors, as well as other facilities to provide dispersed operating bases (DOBs) for the AWACs. The total cost of the modernization (excluding costs of the FOLs and DOBs) is $7 billion, with Canada paying about 12%. On the NWS the specific split will be 60/40, with the U.S. paying the larger portion.[39]

The improvements in radar and warning capabilities will be accompanied by a continuation of the upgrading of interceptors. In total, NORAD will have 16 available squadrons: 3 USAF with F-15s; 11 U.S. Air National Guard using F-16s; and two Canadian squadrons of CF-18s. (At present there are 4 USAF squadrons

and only one Canadian. The removal of one USAF squadron will be compensated for by the addition of a Canadian one as more CF-18s are delivered.) These forces could be augmented by additional USAF aircraft and the Canadian CF-18 training squadron. NORAD will also be able to draw upon 8 AWACs, provided they are not needed elsewhere. (Unlike the interceptor squadrons, NORAD's AWACs are only designated for its use, not dedicated.)

Although the projected improvement in NORAD's air-defence capabilities is significant relative to the previous decade and a half of neglect, it represents only a marginal response, and is not based upon expectations that the USSR will vastly increase the bomber leg of its strategic triad. Rather the objective is to provide some insurance against the possiblity of a Soviet precursor strike using bombers and cruise missiles, which would partially blind the U.S. to a follow-on ballistic missile attack. The precursor scenario was used for planning purposes "because it was large enough, given the assumption of surprise, to be a significant threat" and "small enough so that a reasonable defensive system might be considered affordable."[40]

For Canada, the improvements will be affordable, even given tight defence budgets. Ottawa had already decided to replace AIRCOM's older fighters with the new CF-18 (nearly half of which will be used in Europe), and its share of the NWS will amount to roughly $600 million spread out over seven years. By comparison, the new low level air defence system for CFE will cost almost the same, the new frigates are nearly one billion dollars each, and it costs Canada an estimated $900 million just to keep forces in Europe for a year.

Canada will, therefore, be able to make a contribution to North American air defence and provide for its own territorial air sovereignty on roughly the same basis as it has done in the past. And, as long as air defence remains a

NORAD role along with missile and space surveillance, Canada will have access to a wide range of information on threats to North America and what the U.S. is doing to meet those threats. This assumes, though, that air defence will remain a relatively low priority for the U.S., demanding relatively modest resources that Canada can augment at a reasonable cost, and that Canadian participation will be necessary. Conflicting trends in the U.S. approach to air defence appear to make such assumptions questionable. These trends are, moreover, linked to the future of the Strategic Defence Initiative, adding further complications that leave Canada in doubt as to whether its air-defence forces, including the NWS, and its territory will become more or less important in U.S. strategic-defence calculations.

The United States is not putting major resources into air defence in the near term. Although President Reagan's 1981 strategic modernization programme called for five USAF squadrons to be dedicated to NORAD, as well as additional AWACs to be made available, the number of USAF squadrons is now four and will drop to three next year, with no more AWACs to be designated. Beyond those outlined in the ADMP, no other warning facilities directed against bombers and cruise missiles are planned.

The reason for this is clear. Given that air-breathing platforms still constitute only 11% of all Soviet delivery systems, it makes no sense to divert resources into active bomber and cruise defences in the absence of an effective ballistic missile defence system. As the 1985 DOD report to Congress on the SDI stated: "...the deployment of a robust air defence system will occur only in conjunction with the deployment of an effective defense against ballistic missiles."[41] Critics of the SDI have pointed out that if the U.S. does deploy a BMD, it will have to augment its air defences because the Soviets will be

compelled to increase their bomber and cruise missile forces. To have BMD without air defence would be akin to having a house with a roof but no walls.[42]

This raises the possibility that in the long term, if SDI research leads to deployment, whether of space- or ground-based BMD systems, a robust air-defence system will accompany it. Canadian critics of the SDI have taken up this argument, suggesting that if Canada remained in NORAD, even if it only participated in air defence, it would find itself involved in an integrated defence system involving both air defence and BMD.[43]

This view finds support in the DOD report to Congress, which notes that there is currently a "minimal" relationship between SDI and recent improvements in North American air defence, but goes on to state:

> As we look to the year 2000 and beyond, however, SDI is expected to have a much greater impact. Study efforts will not ignore the relationship between the research of the Strategic Defense Initiative and strategic air defense. Strategic air defense requirements are currently under review and continuing progress in the area of the Strategic Defense Initiative will permit the addressing of, even more comprehensively, the interrelationship between SDI and strategic air defense.(44)

This interrelationship is already being studied. A few months before President Reagan launched the SDI, the U.S. Undersecretary of Defense for Research and Development initiated the Strategic Defense Architecture 2000 (SDA 2000) study. The purpose of the study is to "develop a concept for integrated defence against bombers, cruise missiles and ballistic missiles" which would serve as a planning annex to the ADMP. Phase I of SDA 2000 looked only at bombers and cruise missiles and was concluded in April 1985. Canadian officials participated in this phase but have not yet accepted the U.S. invitation to participate in Phase II, which will be looking into missile defence.[45]

The link between the SDI and a more robust air defence is also indicated by the USAF's Air Defense Initiative (ADI). Still a modest research programme,

with a budget of only $53 million, ADI is exploring whether in fact air-defence "walls" can be deployed to complement the BMD "roof" promised by the SDI. It is anticipated that sufficient research will have been completed by the time decisions are made regarding deployment of BMD systems to allow for the deployment of complementary new air-defence systems.

As with the SDI and other American strategic trends such as the new maritime strategy, ADI emphasizes a more explicitly war-fighting approach to deterrence. It is assumed that in a nuclear war even the new warning systems such as the NWS and the OTH-Bs will be too vulnerable, and will not survive an initial attack to help manage the air battle against bombers and cruise missiles. The goal of the ADI is to develop survivable systems that could ride out a Soviet first strike. Thus it is looking into more mobile and dispersed ground-based radar systems and especially into air-borne and space-based systems.[46] Of interest, for example, would be the U.S. Defense Advanced Research Projects Agency's (DARPA) Teal Ruby satellite, which had been scheduled to be put in orbit by the Space Shuttle to test bomber detection from space.

The ADI is also looking into active interception of bombers and cruise missiles using ground-based missiles rather than aircraft. The goal is to develop surface-to-air missiles capable of striking down bombers and cruise missiles at ranges in excess of a thousand miles. There is already a DARPA programme to develop such a system, the Long Range Interceptor Experiment (LORAINE).

If the ADI expands and continues to complement the SDI, air defence will assume greater importance in the U.S. posture. But this may not necessarily mean that the United States will be looking to Canada to continue its cooperative efforts in air defence. Whereas technologies and plans of the ADMP

are predicated on continued bilateral cooperation, the thrust of the ADI appears to be towards providing the U.S. with the option of a more unilateral approach to air defence. As John Hamre of the U.S. Senate Armed Services Committee staff has pointed out, technology is providing opportunities for long-range detection without relying on Canadian participation. "It is a cornerstone of United States relations with Canada that there should be collaboration in the defense of North America. Time and technology are making that a matter of choice not of necessity."[47]

The ADI technologies are seeking to push any future air battle away from U.S. territory and the heavily populated areas of southern Canada towards northern Canada. But the new systems need not be based in Canada to accomplish this. Space-based radars would allow for detection of threats over Canada and out to sea in the case of SLCMs. Long-range ground-based interceptor missiles could be based entirely on U.S. territory, unlike the present interception posture which still requires participation by Canadian aircraft and the forward basing of U.S. aircraft in Canada in the event of an emergency. One report indicates that the ADI is looking toward a new system of radars and anti-aircraft missile batteries that would "blanket the east and west coasts as well as the U.S.-Canadian border, the border with Mexico and the Gulf coast."[48] Thus, although the air-defence front may become more important for the U.S., the need for active Canadian participation in this long-standing joint effort may diminish. This trend is almost exactly opposite to the fears held by many in Canada that SDI and the associated need for greater air defences will drag Canada into a more active and expensive role in North American defence.

In order for Canada to maintain an active role in North American air defence it will have to consider deployment of new systems itself, such as

space-based radars and perhaps even surface-to-air missiles. This would give it some assets with which to contribute to the American effort, assuming the U.S. will continue to desire Canadian participation. It has been a cornerstone of Canadian defence policy that the United States would not undertake the air defence of North America unilaterally. For this still to be the case, serious consideration will have to be given to these new technologies. Indeed, the Canadian government has already indicated that it does not want to be left behind in this regard. In addition to participating in the U.S. Teal Ruby project, it is now funding initial research into space-based air surveillance systems. If successful, this research could lead to the deployment of a Canadian system that could not only serve to secure Canadian participation in future air-defence efforts, in much the same way as an under-ice Arctic surveillance system would secure participation in Arctic defence, but could also enhance Canada's ability to provide for its own air sovereignty, again, in the same way that the Arctic system would.

Even if the ADI and SDI do not result in elaborate new air-defence systems for North America, Canada will be facing problems with regard to its air sovereignty. During the 1950s, Canada and the U.S. cooperated in the construction of three cross-Canada radar lines, the DEW line in the north, and the CANDIN PINETREE and Mid-Canada lines in the south. They served both to warn of attack and, especially in the south, as internal military radars for Canada. Over the years, these lines were shut down and under the NORAD modernization plans the southern lines will disappear entirely. AIRCOM, which now controls all Canadian airspace from Regional Operations Control Centres (ROCC) located in Canada, will have no internal radar. The NWS and any new coastal radars will be peripheral.

In the United States, new internal military and civilian radars were constructed under the Joint Surveillance System (JSS). Because of a lack of funds, Canada only built new civilian radars, leaving a "hole in the middle" of southern Canada. In the event of an attack, this hole could be covered by AWACs, but they would have to come from the United States. The southern part of Canada will not be covered by the CF-18s because in order to make use of the limited number of aircraft available, they will be deployed to the north where they could operate with the NWS.

The hole in the middle has little consequence for the detection of Soviet bombers and cruise missiles because these would be picked up by the NWS and the OTH-Bs. In a crisis or war, U.S. aircraft and AWACs would enter Canadian airspace under NORAD's joint command arrangements.

Problems of territorial air sovereignty may not be restricted to the hole in the middle in the south. Some inhabitants of the Canadian high Arctic, as well as military observers, have pointed out that the coverage of the NWS does not extend to the air space over the entire Arctic archipelago, resulting in a hole at the top as well as in the middle. Because of this, it has been argued that the NWS is essentially a warning system for the American heartland rather than for Canada. In addition, this lack of Canadian coverage over the entire Canadian Arctic claim raises questions of sovereignty, in spite of the fact that the NWS is to be Canadian-owned and -manned.[49]

Here again, from a U.S. strategic perspective, there is no problem. The NWS is intended to allow for identification and, if necessary, interception of bombers and cruise missiles far enough north to provide some protection for military targets in southern Canada, but especially in the northern U.S. Total coverage of the entire Canadian Arctic is not necessary and should additional coverage

be needed, it could be supplied by American AWACs operating from DOBs, just as U.S.-based fighters and AWACs may cover the hole in the middle of Canada. Under normal peace-time conditions, American air-defence surveillance needs do not extend as far as the needs for Canadian territorial air sovereignty, and in a crisis or war it is a fundamental assumption by both countries that the entire air space of the continent would be treated as an indivisible unit, with U.S. forces filling the gaps Canada is unable to plug.

However, short of a military emergency, Canada will increasingly lack the capability to control its own aircraft in its own airspace to enforce Canadian air sovereignty. This would particularly include the inability to enforce Canadian regulation over such non-compliant aircraft as straying airliners. The air-sovereignty problem is a political and an emotional one. As one former AIRCOM commander put it:

> I instinctively, as I think most Canadians do, have a feeling that unless we have the capability of controlling our airspace--that is of knowing of the presence of any intruder and being able to intercept and identify that intruder to enforce our sovereignty in airspace--there is something lacking in the composition of the Canadian nation.(50)

Whatever the outcome of the ADI and SDI research, and regardless of whether or not air defence does in fact become a more important element in the U.S. posture, there will be increasing demands for additional resources to be devoted to Canadian air-sovereignty tasks. These demands will join others for an enhanced capability to monitor Canadian Arctic territory. But they will have to compete with what are likely to be pressures to maintain contributions to collective security, tasks that themselves will come to be increasingly difficult as the U.S. implements changes in its global posture. Without some changes in the Canadian posture, the commitment-capability gap now confronting the CF will widen, becoming a political liability at home as well as abroad.

IV

RESTRUCTURING THE CANADIAN DEFENCE POSTURE

From the Central Front in Germany, to the world's ocean spaces, to the High Arctic, and back to the American homeland, the United States appears to be moving toward strategic doctrines that stress flexibility, survivability and successful war-fighting capabilities as the desired attributes of a deterrent posture. Canada, which along with the European allies, has tended to be wary of American suggestions that a war with the Soviet Union can be fought and won at acceptable costs, may not entirely be pleased with the thrust of all these trends. On the other hand, Ottawa has not called into question the American strategic-modernization programme and has generally supported the need to augment NATO's conventional posture in order to raise the nuclear threshold. Given its stake in allied unity, it would not be in Canada's interest for the U.S. and its allies to engage in a public debate over the meaning of trends in United States strategy. Such a debate would be inconclusive at best, because it would centre about untestable theories and predictions, and highly detrimental at worst, because it would spotlight areas of strategic disagreement that most allies wish to avoid. Not even the renowned skill of Canada's diplomats could mold a new consensus under these circumstances.

Most importantly, the full implications and meaning of trends in U.S. strategy need not be known, let alone agreed upon, for Canada to use them now as an additional, and very persuasive, argument for restructuring its contributions to collective security. Enough has changed already, and sufficient information is available on short-term trends, for Canada to begin addressing its

growing commitment-capability gap in order to make the CF better suited to meet allied and national responsibilities. As the joint House of Commons-Senate committee on foreign policy recently recommended, the Canadian government should immediately undertake a study to determine how much additional expenditure will be required over the next ten years to close the gap given existing commitments. "If this level of spending is not considered attainable," the Committee concluded, "then the government should attempt, in consultation with its allies, to renegotiate or restructure some of Canada's defence commitments so as to close the gap between capabilities and commitments and ensure that Canada's forces can carry out properly the roles assigned to them."[51]

In light of the size of the federal deficit projections over the next several years and the spending priorities already adopted by the Conservative government, it seems safe to assume that the funds will not be available to bring all of Canada's capabilities up to the level where they could meet commitments. The question then becomes which roles to drop and which to maintain, bearing in mind trends in U.S. strategy as well as national sovereignty roles. It would seem that a posture should be selected that allows, as far as possible, for the forces to be able to fulfil multiple roles with the same equipment, and to be flexible enough to allow for adjustment to likely future trends.

The following posture would go a long way to meeting these criteria:[52]

1) Canada should withdraw all its ground and air forces from Germany. Given present trends in NATO's conventional posture, the single armoured brigade group and air group will not be able to make any meaningful contribution to the allied deterrent posture. Keeping these forces compatible with other NATO

units will become increasingly expensive. Most importantly, as long as Canada maintains this commitment, it will find it difficult to fund others, especially those where the same forces that are dedicated to an allied role can be used in peacetime to fulfil North American and sovereignty functions. The troops now stationed in Germany could be based in Canada and added to those already committed to Norway, while the aircraft could likewise be based in Canada and available to AIRCOM for day-to-day sovereignty protection and in the event of a crisis, for NORAD or to increase the Norwegian air role.

2) To compensate allies for the withdrawal from the Central Front, Canada should agree to increase its maritime forces. In particular this would involve building additional surface ships and acquiring more long-range patrol aircraft. These forces would then be in a position to contribute to NATO's ASW posture in the western to mid-Atlantic, filling any niche created by the more forward deployment of U.S. forces. Surface ships and maritime aircraft would also be able to augment available U.S. forces in the seaward defence of North America. Additional maritime forces would enhance sovereignty-protection capabilities as they fulfilled their North American defence roles and stood ready to contribute to NATO's maritime forces. Included in an increase in maritime effectiveness would be the deployment of under-ice surveillance systems in the Arctic. As mentioned, these systems would allow Canada to know what was going on and to contribute to American and allied security. Whether or not the USN would want Canada to know that it was transiting under the ice to reach Soviet bastions on a routine basis, a Canadian under-ice capability would make Canada independent of the U.S. for this information.

3) The withdrawal of ground forces from Germany and their recommitment to Norway would have to be supplemented by an increase in available airlift

capabilities. With sufficient airlift and pre-positioning, the CAST group could arrive in Norway in a matter of days, instead of weeks which is now the case with its dependence upon ocean transport. Unlike the situation that obtains along the Central Front, in Norway an additional five to six thousand Canadian troops would be significant, especially since they are already committed to the northern part of the country where no other reinforcements are slated to arrive. Substituting an enhanced Norwegian reinforcement commitment for the German role would allow Canada to maintain a role in Europe's land defence without the expense of foreign basing. And this role is unlikely to change even if the NATO forces on the Central Front adopt the FOFA concept. Norway is already well forward and indeed if the Soviets move into the Norwegian Sea, it will fall behind the forward edge of the maritime battle. A shift in U.S. strategy to emphasize sea-based non-nuclear cruise missiles along the northern flank could, as noted, call into question the importance of the CAST commitment. Yet, it might also enhance the relative importance of the small Canadian reinforcement forces. In any event, forces maintained in Canada, unlike those permanently based in Germany, will have greater flexibility in adapting to possible shifts in allied strategy.

With regard to North American air defence, Canada now faces some uncertainty. Will the currently planned improvements in NORAD's air-defence capabilities be the last for a while, at least until the future of the SDI is made clear? Regardless of the progress of the SDI or the ADI, will the U.S. move to replace ground-based systems with space-based air surveillance? How will the SLCM threat be met? Canada, in other words, cannot know for sure whether its territory and material contributions will be of more, less, or just about the same importance for the U.S. Nevertheless, the redeployment of the European CF-18s

back to Canada will allow for a better coverage of Canadian airspace and add to NORAD's existing inventory. And whether or not the United States goes ahead with plans to deploy space-based air-surveillance satellites, there are compelling reasons for Canada to do so on its own as a means to ensure its air sovereignty. If NORAD does come to rely increasingly on space, then here again Canada will be in a better position to make a contribution and maintain its importance to the U.S. A decision on whether to deploy ground-based interceptor missiles, should the U.S. move in this direction, would have to be made. But as with the SDI, this seems fairly far off, while other steps can be taken now to improve Canadian air defences.

A restructuring along these lines should make the CF into a more effective fighting force. It should also appeal to the wishes of those in Canada who want to see the forces improve their contribution to sovereignty protection. There remains, however, the question of whether or not this posture would also serve Canada's political objectives: would it enhance or detract from Ottawa's abilities to exercise influence in allied councils, particularly in view of what may be organizational changes within NATO's political bodies as a result of a restructuring of allied roles to deal with the out-of-area issue? A Canadian decision to withdraw from Germany may be used by the Europeans to exclude Canada from further allied deliberations on the defence of Europe, making Canada even more the odd man out in the Alliance.

It is possible that Canada will find itself unable to participate in allied councils in the same way it has in the past. But this could happen even if it did not restructure its own posture. Moreover, whatever influence Canada has exercised in the past has not been dependent on the size and composition of its contributions, but rather on the skill of its diplomats. The 1970s were active

years for Canada in NATO, even though they witnessed a steady decline in its military capabilities. Thus a Canadian restructuring should have no effect one way or the other on Canada's allied diplomacy. The country would still remain in the Alliance and maintain land, sea, and air commitments to the defence of Europe. If the Europeans recognize this, and also recognize that Canada has collective security obligations in North America, there should be no reason for Canada to be overly penalized, particularly when even a restructured Canadian defence posture will entail greater defence expenditures for collective security.

For its part, the United States should welcome a restructuring along the lines proposed above. After all, it is partly the change in the way the U.S. has approached collective defence that has exacerbated the commitment-capability gap of the CF. The more it emphasizes conventional forward defence, whether on land or sea, the greater attention America gives to strategic defence, and the more active the USN becomes in the Arctic, the harder it will be for Canada to keep up.

Washington should also recognize that additional Canadian maritime forces, an increase in available air-defence forces, a greater Canadian under-ice capability, and a more credible Norwegian reinforcement role would all benefit the United States and do so even if current trends were not taken to their fullest extent. For example, like Canada, the U.S. has a reinforcement commitment to Norway. Yet the U.S. Marines who would fulfil this obligation are not solely tasked for Norwegian deployment; they could be required elsewhere. A withdrawal by Canada from Germany, which would allow the CF to augment its CAST group, would only ease the strain on U.S. forces. With respect to North American defence, the trends in the American approach do imply a more unilateral bent. However, American defence budgets may not

continue to grow at the rate they have been in the past few years. Until recently air defence has been a low priority and it may well have to be underfunded again to compensate for other more pressing programmes. If this should be the case, any contribution Canada might make to North American air defence would be welcomed. And while the U.S. could attempt to go it alone in North America, it would not reflect well on continued American leadership of the West if it deliberately shed its cooperative air-defence arrangements with the only NATO ally to share a border with it.

The posture of Canada's armed forces remains frozen in the Cold War era. Because Canada fears that any alteration of this posture will have unfavourable political consequences in its relations with the allies, Canada would seem to need a clear signal of encouragement from the latter to persuade it to take the difficult and still costly step of restructuring its defence posture. The alternatives for the United States and the rest of NATO are either a perpetuation of the existing and growing commitment-capability gap of the CF, or, more worrisomely, the adoption of a defence posture that, feeding upon a growing resentment towards the costs of collective security, substitutes purely Canadian national roles for allied commitments, with further reductions in defence spending.

As the government of Canada draws up its new White Paper on defence it will confront the legacy of past years of neglect and new pressures arising out of the nature of the Western collective security system. Given Canada's continued adherence to the fundamental principles of Western defence, it has a right to expect assistance and understanding from allies whose fate it has deliberately bound up with its own.

Notes

[1]Canada, Department of National Defence, Defence in the 70s (Ottawa: Information Canada, 1971).

[2]See, for example, transcript of a radio interview with Brian Mulroney, August 1984 (text courtesy the Progressive Conservative Party of Canada). The Tory defence critic was calling for a 6% annual real increase in defence expenditure.

[3]This essay will not discuss in depth the implications for Canada of the American Strategic Defense Initiative (SDI), or changes with regard to the organization and structure of NORAD. Air defence is considered here because of the demands it may or may not place upon Canadian air resources and because changes in the way the United States approaches air defence may have an impact upon Canadian sovereignty concerns.

[4]Canada, Secretary of State for External Affairs, Competitiveness and Security: Directions for Canada's International Relations (Ottawa: May 1985), pp. 13, 28, 37-38.

[5]In the 1960s, Canada unified its armed forces. Abolished were the Royal Canadian Air Force (RCAF), Royal Canadian Navy (RCN), and the Canadian Army. The unified single service is divided along functional lines into a number of commands with Air Command (AIRCOM), Maritime Command (MARCOM), and Mobile Command (FMC-Force Mobile du Canada), roughly taking the place of the old RCAF, RCN, and the Army. Nearly half the personnel in the CF are not found in the three major commands but are assigned to various support functions, or to Canadian Forces Europe (CFE). There is a Chief of the Defence Staff (CDS) at the head of the CF, but he, unlike the U.S. Chairman of the Joint Chiefs of Staff, does not preside over a committee of service chiefs. All personnel have been wearing the same green uniform, although there is now underway a reintroduction of the distinctive colours of the old services.

[6]Canada, Senate, Special Committee on National Defence, Hearings, 2nd Session, 32nd Parliament, Issue No. 8, April 17, 1984, p. 8A:6.

[7]See for example: Gerald Porter, In Retreat: The Canadian Forces in the Trudeau Years (Toronto: Denau and Greenberg, 1979); Peter C. Newman, True North, Not Strong and Free (Toronto: McClelland and Stewart, 1983); Business Council on National Issues, Canada's Defence Policy: Capabilities versus Commitments (Ottawa: September 1984); Joel Sokolsky and Joseph T. Jockel, "Canada: The Not So Faithful Ally," Washington Quarterly 7 (Fall 1984); Idem, Canada and Collective Security: Odd Man Out, Washington Papers, no. 121 (New York: Praeger, 1986). In recent years, Committees of the Canadian Senate have been studying defence policy; their reports have chronicled the growing commitment-capability gap. See Canada, Senate, Sub-committee on National Defence of the Standing Committee on Foreign Affairs, Report, Manpower in Canada's Armed Forces (Ottawa, January 1982); Idem, Canada's Maritime Forces (Ottawa, May 1983); Special Committee on National Defence, Canada's Territorial Air Defence (Ottawa, January 1985) (hereinafter, Senate, Territorial Air Defence); Idem, Military Air Transport (Ottawa, February 1986). Also see

Steven L. Canby and Jean E. Smith, "Canada's Role in NATO: The Laggard Who Can Rescue The Alliance," Strategic Review 13 (Summer 1985).

[8]John G.H. Halstead, "Canada's Security in the 1980s: Options and Pitfalls," Behind the Headlines 41, 1 (1983), p. 12.

[9]James Eayrs, "Military Policy and the Middle Power: The Canadian Experience," in Canada's Role as a Middle Power, ed. J. King Gordon (Toronto: Canadian Institute of International Affairs, 1966), p. 70.

[10]On Canada's role in NORAD, see especially: Canada, House of Commons, Standing Committee on External Affairs and National Defence (SCEAND), Report on Canada-U.S. Defence Cooperation and the 1986 Renewal of the NORAD Agreement, (Ottawa, February 1986) (hereinafter, SCEAND Report, 1986); and Senate, Territorial Air Defence.

[11]United States, Department of Defense, Report on Allied Contributions to The Common Defense, A Report to the United States Congress by Caspar Weinberger, Secretary of Defense, (Washington, D.C., March 1986), p. 21.

[12]Ibid., p. 17. The prosperity index was added by DOD to the GDP in order to take into account differences in economic development and standard of living amongst the NATO nations and Japan. Its use is based on the premise that the wealthier nations, measured in terms of GDP per capita, must pay a proportionately larger share of the collective defence burden "thereby allowing relatively less prosperous nations to concentrate their limited resources to a greater degree on basic domestic programs." The index is computed by multiplying summed GDP shares (of the NATO members plus Japan) by per capita GDP (which is expressed as a percent of the highest nation's per capita GDP--meaning the U.S.) and normalizing the results. Calculations for selected nations are:

	GDP Share	(Rank)	Per Capita GDP	(Rank)	Prosperty Index Share	(Rank)
U.S.	47.92%	(1)	100.0	(1)	61.19%	(1)
Belgium	1.00	(10)	50.3	(10)	.64	(11)
Turkey	.66	(13)	6.7	(16)	.06	(14)
Germany	8.08	(3)	65.3	(5)	6.74	(3)
Japan	15.38	(2)	6.3	(6)	12.42	(2)
Canada	4.38	(7)	86.1	(2)	4.82	(4)
Total NATO & Japan	100.00		65.6		100.00	

Taking, for example, the actual share of total defence expenditure, the U.S. spends 67.49%; dividing this by the American prosperity index share yields a ratio of 1.10, meaning that the U.S. is spending 0.10 more than its fair share. Looking at the same countries:

	Defence Spending Share (1)	(Rank)	Prosperity Index Share	Ratio (1)/(2)	(Rank)
U.S.	67.49%	(1)	61.19%	1.10	(9)
Belgium	.71	(10)	.64	1.11	(8)
Turkey	.64	(12)	.06	11.42	(1)
Germany	5.87	(4)	6.74	5.68	(2)
Japan	3.41	(5)	12.42	0.27	(16)
Canada	2.20	(7)	4.82	0.46	(14)
Total NATO & Japan	100.00		100.00	1.00	

[13]Ibid., pp. 18-20, 23.

[14]Ibid., p. 107.

[15]See Jockel and Sokolsky, Canada and Collective Security, chap. 3; Senate, Maritime Forces.

[16]Canada, Special Joint Committee of the Senate and of the House of Commons on Canada's International Relations, Report, Independence and Internationalism (Ottawa: Queen's Printer for Canada, June 1986), p. 50 (hereinafter, Joint Committee Report, 1986).

[17]Joel J. Sokolsky, "Canada's Maritime Forces: Strategic Assumptions, Commitments, Priorities," Canadian Defence Quarterly 15 (Winter 1985/86):24.

[18]North Atlantic Assembly Papers, Conventional Defence in Europe: A Comprehensive Evaluation (Brussels: North Atlantic Assembly, December 1985), p. 6.

[19]Eliot A. Cohen, "The Long-Term Crisis of the Alliance," Foreign Affairs 61 (Winter 1982/83):328-29.

[20]Ibid., p. 341.

[21]On this debate see: Keith A. Dunn and William O. Staudenmaier, Strategic Implications of the Continental-Maritime Debate, Washington Papers, no. 107 (New York: Praeger, 1984); Robert W. Komer, "Maritime Strategy vs. Coalition Defense," Foreign Affairs 60 (Summer 1982); Stansfield Turner and George Thibault, "Preparing for the Unexpected: The Need for a New Strategy," Foreign Affairs 61 (Fall 1982).

[22]Admiral James D. Watkins, USN, Chief of Naval Operations, "The Maritime Strategy," United States Naval Institute Proceedings (Special Supplement on the Maritime Strategy, January 1986), p. 4. Also contained in this supplement are statements by General P.X. Kelly, USMC, Commandant of the U.S. Marine Corps, and John F. Lehman, Secretary of the Navy.

[23]Watkins, "Maritime Strategy," p. 10.

[24]Text of statement of Admiral Kinnard R. McKee, USN, Director Naval Nuclear Propulsion Program, before the Subcommittees on Research and Development and Seapower and Strategic and Critical Minerals of the U.S. House of Representatives Armed Services Committee, February 6, 1984, p. 9.

[25]Watkins, "Maritime Strategy," p. 14; David B. Rivkin, Jr., "No Bastions for the Bear," United States Naval Institute Proceedings 110 (April 1984). Some have argued that strategic ASW has always been an objective of the USN as part of its "damage-limitation approach to nuclear war." See, for this view, Hamlin Caldwell, "The Empty Silo--Strategic ASW." Naval War College Review 34 (September/October 1981).

[26]General Bernard W. Rogers, USA, Supreme Allied Commander, Europe, "Follow-on Forces Attack: Myths and Realities," NATO Review 32 (December 1984).

[27]The U.S. Army argues that both its Air-land Doctrine and FOFA will enhance the deterrence value of the flexible response strategy by complicating Soviet calculations and possible NATO responses. See Major Dorn Crawford, USA, "Doctrine as Deterrent: Conventional Retaliation and the Airland Battle," paper presented to the International Studies Association, March, 1986. Samuel P. Huntington has advocated a NATO posture that threatens immediate invasion of Warsaw Pact territories in the event of a Soviet attack, in "Conventional Deterrence and Conventional Retaliation in Europe," International Security 8 (Winter 1983-84). As with previous U.S. attempts to strengthen the role of conventional forces, the Europeans are somewhat wary of the new strategies; see Francois L. Heisbourg, "Conventional Defense and Europe's Constraints and Opportunities," in The Conventional Defense of Europe: New Technologies and New Strategies, ed. Andrew J. Pierre (New York: Council on Foreign Relations, 1986).

[28]On this point, see John W. Holmes, "The Dumbbell Won't Do," Foreign Policy, no. 50 (Spring 1983). Former Canadian Ambassador to NATO, John G.H. Halstead, has argued that NORAD should be brought into NATO and that the Alliance's structures "should reflect the fact that NATO defends North America as well as Europe." Halstead, "Canada's Security," p. 12.

[29]David Cox, "Defence Procurement, Defence Budgets and Canada's European Commitments," paper presented to the conference on "Arms Control, Disarmament and Defence Policy: Assessing Canada's Role in the 1980s," Queen's University, Kingston, Ontario, November 22, 1984.

[30]Canada, Department of National Defence, Defence Estimates 1984/85 (Ottawa, 1984), p. 60.

[31]Worth Bagley, "Strategy and Future Naval Forces," in Deterrence and Defense in the North, ed. Johan Holst (Oslo: Norwegian University Press, 1985), p. 88.

[32]Milan Vego, "Soviet Anti-Submarine Warfare Doctrine," Journal of the Royal United Services Institute 128 (June 1983):48.

[33]W. Harriet Critchley, "Polar Deployment of Soviet Submarines," International Journal 34 (Autumn 1984):859-60.

[34]Anthony Wells, "The Soviet Navy in the Arctic and North Atlantic," National Defense 70 (February 1986); Oran Young, "The Age of the Arctic," Foreign Policy, no. 61 (Winter 1985-86).

[35]Canada, SCEAND, 1st Session, 33d Parliament, 1984-85, Minutes of Proceedings and Evidence, Issue No. 50 (November 28, 1985), p. 50:40 (hereinafter, SCEAND Proceedings).

[36]Ibid., p. 50:42. See also the Joint Committee Report, 1986, which calls for a "northern direction" to Canadian foreign policy that includes greater emphasis on Arctic sovereignty.

[37]On the pre-NORAD U.S.-Canada air-defence cooperation see Joseph T. Jockel, "The Military Establishments and the Creation of NORAD," American Review of Canadian Studies 12 (Fall 1982); and Idem, No Boundaries Upstairs: Canada, the United States and North American Air Defence, 1945-1958 (Vancouver: University of British Columbia Press, forthcoming).

[38]John M. Collins, U.S.-Soviet Military Balance 1980-1985 (New York: Pergamon-Brassey's, 1985), p. 154.

[39]SCEAND Report, 1986, pp. 30-31.

[40]John Hamre, "Continental Air Defence, United States Security Policy and Canada United States Defence Relations," in Aerospace Defence: Canada's Future Role?, ed. G.R. Lindsey et al., Wellesley Papers, 9/1985 (Toronto: Canadian Institute of International Affairs, 1985), p. 22.

[41]United States, Department of Defense, Report to Congress on the Strategic Defense Initiative (1985), p. C-21.

[42]Harold Brown, "The Strategic Defense Initiative: Defensive Systems and the Strategic Debate," Survival (March/April 1985): 56.

[43]SCEAND Proceedings, Issue no. 43, November 18, 1985, p. 43:30.

[44]U.S., DOD, Report to Congress on SDI, p. C-21.

[45]The history of the SDA 2000 study was described in a letter from the Canadian Department of National Defence to the SCEAND, November 20, 1985.

[46]David Lynch, "U.S. Considered Air Defense Shield," Defense Week, June 23, 1986.

[47]Hamre, "Continental Air Defence," p. 25.

[48]Lynch, "U.S. Considered Air Defense Shield," p. 13.

[49]On this point, see the testimony of Mr. Tom Butters, a member of the Legislative Assembly of the Northwest Territories, before SCEAND, SCEAND Proceedings, Issue No. 28, (September 17, 1985), pp. 28:7-9. Also Graham Fraser, "Radar-line Location Risks Sovereignty, Two Generals Warn," Globe and Mail, September 11, 1986, pp. A-1, A-4.

[50]Senate, Territorial Air Defence, p. 16.

[51]Joint Committee Report, 1986, p. 144.

[52]For an elaboration on the arguments in favour of this posture, see Jockel and Sokolsky, Canada and Collective Security, chaps. 3-4.