

Archived Content

Information identified as archived on the Web is for reference, research or record-keeping purposes. It has not been altered or updated after the date of archiving. Web pages that are archived on the Web are not subject to the Government of Canada Web Standards.

As per the [Communications Policy of the Government of Canada](#), you can request alternate formats on the "[Contact Us](#)" page.

Information archivée dans le Web

Information archivée dans le Web à des fins de consultation, de recherche ou de tenue de documents. Cette dernière n'a aucunement été modifiée ni mise à jour depuis sa date de mise en archive. Les pages archivées dans le Web ne sont pas assujetties aux normes qui s'appliquent aux sites Web du gouvernement du Canada.

Conformément à la [Politique de communication du gouvernement du Canada](#), vous pouvez demander de recevoir cette information dans tout autre format de rechange à la page « [Contactez-nous](#) ».

CANADIAN FORCES COLLEGE / COLLÈGE DES FORCES CANADIENNES
CSC 27 / CCEM 27

EXERCISE NEW HORIZONS

Ballistic Missile Defence: Why Canada should participate in the Initiative

By Major Stephen Borland
Syndicate 4
02 April 2001

This paper was written by a student attending the Canadian Forces College in fulfilment of one of the requirements of the Course of Studies. The paper is a scholastic document, and thus contains facts and opinions which the author alone considered appropriate and correct for the subject. It does not necessarily reflect the policy or the opinion of any agency, including the Government of Canada and the Canadian Department of National Defence. This paper may not be released, quoted or copied except with the express permission of the Canadian Department of National Defence.

La présente étude a été rédigée par un stagiaire du Collège des Forces canadiennes pour satisfaire à l'une des exigences du cours. L'étude est un document qui se rapporte au cours et contient donc des faits et des opinions que seul l'auteur considère appropriés et convenables au sujet. Elle ne reflète pas nécessairement la politique ou l'opinion d'un organisme quelconque, y compris le gouvernement du Canada et le ministère de la Défense nationale du Canada. Il est défendu de diffuser, de citer ou de reproduire cette étude sans la permission expresse du ministère de la Défense nationale.

Introduction

Immediately following the Gulf War, the United States' Congress passed the National Defence Act which mandated the development and deployment of an Anti-Ballistic Missile (ABM) Treaty-compliant National Missile Defence (NMD) system as soon as technologically possible or by 1996.ⁱ The legislation was amended in 1995, and superseded by the Clinton Administration's enunciation of the policy known as "three plus three". The United States would proceed over the following three years with research, development, testing, and evaluation of an NMD systemⁱⁱ in order to acquire the capability to deploy such a system in an additional three years.ⁱⁱⁱ The world reaction to the United States' NMD plan has been largely negative and, at times, incredulous. Central to the arguments against the plan has been the issue of compliance with the ABM Treaty of 1972 and the potential for the plan to cause a nuclear arms race between Russia, China, and the United States. The potential for the proliferation of nuclear weapons amongst emerging nuclear powers has also been offered as another key reason for the Americans to cancel their NMD plans. The United States has continually maintained the position that the NMD plan is limited in nature and is designed solely to counter the growing ballistic missile threat posed by 'Rogue States', or the potential for an accidental missile launch by a nuclear power such as Russia or China.

Canada has, to this point, remained neutral to the United States' NMD plan. It must soon decide whether to support the plan and, potentially, enjoy the benefits associated with it from a research, development, economic, and National Security perspective. It is however, an avid supporter of the ABM Treaty of 1972 and views this treaty as the cornerstone for past and future arms control treaties. It vehemently opposed the Strategic Defence Initiative (SDI) proposed by

the Reagan Administration. Against this backdrop, it must decide whether to support Ballistic Missile Defence (BMD) against a threat not necessarily envisaged in 1972 but which is claimed by the Americans to be a very real and plausible threat in this century. The Bush Administration is committed to pushing ahead with BMD despite the objections of Russia, China, and NATO.

Thesis and Outline

This paper will argue that Canada should participate in the BMD initiative and establish a position that reconciles its defence and foreign policies. Canada and the United States face a potential threat from the proliferation of ballistic missiles from 'Rogue States'.^{iv} Canada must react profoundly to this emerging threat from a national security and defence perspective. It must also factor the ramifications for the North American Aerospace Defence (NORAD) Agreement into its decision as well as the view it wishes of itself on the world's political stage. It should take advantage of its close relationship with the United States in an effort to shape the architecture of BMD with the aim of involving Russia and China. With the respect it has gained on the world stage for its advocacy of arms control treaties and the Human Security Agenda, Canada should lead the effort to amend the ABM Treaty with the aim of having Russia, China, and the United States as signatories. Furthermore, Canada should champion Russian President Putin's suggestion to create a Global Missile Monitoring System. By establishing this position, Canada would provide for its own national security through the NORAD Agreement, retain its ability to support the ABM Treaty as the foundation for future arms control treaties, influence the scope and architecture of the BMD's deployment, and maintain its unique position on the world's political stage.

Background

Interest in the notion of ballistic missile defence was aroused after Adolf Hitler unveiled the first ballistic missile^v, the V2, during the Second World War.^{vi} The focus on BMD within the United States began in earnest in response to the first test of a Soviet ballistic missile in 1957 and, to the national hysteria generated by the Soviet's successful launch of the satellite 'Sputnik'.^{vii} Thus, the seeds of the idea of an ABM defence system were planted although little in the way of research and development was undertaken during the Eisenhower Administration's era.

The background for the arguments for and against the development and deployment of an ABM system were articulated in a speech made by then Secretary of Defence, Robert S. McNamara on September 18, 1967. The speech was made during the era of the strategic nuclear policy of Mutual Assured Destruction (MAD) when both the United States and the Union of Soviet Socialist Republics (USSR) had thousands of missiles poised to strike each other should one side have decided to launch an attack. McNamara enunciated that MAD was the very essence of the mutual deterrence concept providing both countries with the strongest possible motive to avoid triggering a nuclear war.^{viii} The intrinsic dynamics of the arms race were exemplified in the manner in which the United States and USSR had mutually influenced each other's planning of strategic weapons in the past through a process defined as the 'action-reaction phenomenon'.^{ix} He argued that, preferable to an unceasing arms race driven by this phenomenon, the achievement of an arms limitation and, eventually, an arms reduction accord between the superpowers would arrest the dynamism of the strategic arms race. The Soviets had, at that point, an ABM system of their own although it posed little threat against the ability of American missiles to penetrate it. McNamara stated that a technically perfect and impenetrable shield was impossible, since " the enemy could simply fortify its offensive warhead delivery system and

thereby overwhelm or exhaust the deployed ABM system."^x Furthermore, McNamara stated that the proper response to a Soviet decision to expand its modest ABM deployment into a massive BMD network would be to increase the size of American offensive forces. These statements serve as the present basis for the Soviet and Chinese arguments opposing the planned deployment of the Bush Administration's NMD system.

McNamara's subsequent comments with respect to China are even more ironic in light of the perceived threat posed by present day 'Rogue States'. Despite the emerging threat posed by Chinese nuclear forces, McNamara viewed China as a country in great internal ferment, fearless in its propaganda of American power and respectful of the awesomeness of nuclear power in its actions.^{xi} The United States, in McNamara's view, possessed the ability to deter the Chinese from reckless military action against them due to its power to assure its effective destruction for the foreseeable future.^{xii} Under McNamara's direction and, despite the opposition to the concept of ABM defence, the United States pushed ahead with the development and implementation of the Sentinel ABM system.

The ABM Treaty

In 1972, the United States and the USSR signed the ABM Treaty that would serve as the cornerstone of all future agreements on strategic weapons.^{xiii} The purpose of the treaty was to ban nation-wide defences against strategic missiles and to that end, it prohibited the testing and development, as well as the deployment, of such defences.^{xiv} The treaty is of unlimited duration and did not limit its ban to then current technologies. Every subsequent United States' Administration reaffirmed its support for the treaty.^{xv} Although not a signatory to the treaty, Canada remained a steadfast supporter and maintained a position that was commensurate with

the rest of the world; the treaty was the foundation for subsequent arms control treaties. It retained this position up to, and including, the debate that would surround the Reagan Administration's announcement of the SDI in 1983.

SDI

Fascination with the ABM systems of the 1970s resurfaced after a speech given by President Ronald Reagan in March 1983. In it he articulated the fear of atomic vulnerability, faith in American technology, fascination with progress in exotic technology, and the perceived inspirational value of the American spirit.^{xvi} During a tour of NORAD in 1979, Reagan was astonished to find that the United States possessed no defence against incoming Soviet ballistic missiles. SDI represented his longstanding dislike of the fact that the United States was susceptible to destruction by Soviet nuclear weapons and his equally longstanding fascination with missile defence.^{xvii} Reagan viewed missile defence as less of a technological issue and more as a test of patriotic renewal. His vision of missile defence would restore an invulnerability and transform the nature of future conflict.^{xviii} The initiative was, however, met with vehement opposition from the USSR, Canada, and the majority of the major world powers and alliances. In a broad interpretation of the ABM Treaty, the Reagan Administration sought to develop and deploy a system that used future technologies; an issue, they argued, that was not specifically mentioned in the ABM Treaty signed in 1972. Central to the debate in the 1980s, of which Canada was a part, were concerns about strategic and arms race stability. The general consensus at the time was that SDI would undermine strategic stability because it would threaten the viability of the Soviet Union's retaliatory capabilities, increase the likelihood of the United States and Soviet Union to adopt first strike postures, and force the Soviets to significantly increase the size of their strategic forces.^{xix} In Canada, there was vigorous national debate in response to the

SDI. The report from a Special All-Party Committee of the Senate and House of Commons concluded that:

The majority of the committee is concerned about the implications of ballistic missile defence on international stability and on the future of Canada's involvement in the arms control process. The majority of the committee recommends that the government remain firmly committed to the letter and spirit of the Anti-Ballistic Missile Treaty of 1972 as essential to the maintenance of order and stability.^{xx}

The view that prevailed within Canada was that arms control constituted one of the firm foundations of Canada's foreign policy. Canada did not support the SDI and retained its adherence to the ABM Treaty. It had established its foreign policy with respect to the agreement in light of the political and strategic climate of the day. It was a prudent position at the time and relevant to the threat posed by the vertical proliferation of strategic nuclear weapons and the advocacy of defensive systems to defeat them. It was a pattern of foreign policy that remained largely unchanged throughout the ABM and SDI debates. However, it must now find a balance in its foreign policy that allows for an approach to ABM defence that is reflective of the current strategic nuclear situation and of the lack of an adversarial relationship between the United States and the former Soviet Union.

The 'Rogue State' Threat

Canada still remains a champion of the ABM Treaty however; there is a new threat that is reflective of a changing world and, one that Canada must consider in determining its defence and foreign policies with respect to BMD. The development of ballistic missiles by 'Rogue States' and the possibility of an accidental launch of an Intercontinental Ballistic Missile (ICBM) by either China or Russia are the key reasons the United States is determined to push ahead with its BMD program. Canada's decision to support the BMD plan will be based in part upon the

existence of a credible threat and the likelihood of accidental missile launches that could result in drastic global consequences.

The United States draws a close parallel between potential capabilities and potential threats.^{xxi} It has long been concerned about the proliferation of ballistic missiles capable of delivering weapons of mass destruction. In the early 1990s, this anxiety focussed on the vulnerability of American forces and allies to short range, theatre ballistic missiles in regions such as the Middle East and East Asia; a threat demonstrated by Iraq's SCUD attacks during the Gulf War.^{xxii} In the latter half of the past decade, several countries have made progress in the development of ballistic missiles. US intelligence estimated in 1999 that within fifteen years North Korea^{xxiii}, probably Iran^{xxiv} and possibly Iraq^{xxv} would develop missiles capable of targeting mainland America with nuclear, chemical, or biological warheads.^{xxvi} Although the threat is an estimate wrought with "possibilities and probabilities", it is the threat of the capability of 'Rogue States' to target the United States and to constrain their involvement in future crises that is most worrisome. This concern is underscored by a perception that not all future American adversaries will be rational and, thus, they will not be deterred from acting by America's nuclear and conventional military predominance.^{xxvii} The threat in 2015 that could face the United States and Canada is dependant on political, economic, and defence related factors. However, the probability that a Weapon of Mass Destruction (WMD)-armed missile will be used against the United States or its interests is higher today than during most of the Cold War: "...with even a few such weapons, these countries would judge that they had the capability to threaten at least politically significant damage to the United States or its allies."^{xxviii}

Assuming that Canada largely retained current tenets of its foreign policy, the influence it could impose on an irrational state would likely be minimal. It would, therefore, be prudent for

Canada to be party to a defensive missile system and be closely allied with the nation or group of nations that has control of the means to influence the actions of such a state. It would reflect an acceptance of a new world order that could emerge in the next fifteen years, demonstrate a proactive approach to foreign and defence policy, and contribute significantly to the nation's security in the event of a crisis. Waiting for the threat to emerge more clearly is not a recommended alternative for Canada. Although the tendency to be cautious in approach is appealing and arguably, prudent, the speed with which countries are developing ballistic missile capabilities is alarming. A nation seeking a ballistic missile capability may decide that it will conduct shorter flight test, development, and deployment programs. The result is an availability of a weapon that could be used for a political, terrorist, or military impact upon a regional or crisis situation. Moreover, in the longer term, a few states potentially hostile to Canadian interests could acquire the capability, already possessed by Russia and China, to strike Canada directly with ballistic missiles.^{xxix} The potential threat to Canada is real and of a serious enough nature to warrant profound defensive measures. It should participate in the BMD program to enhance its national defence and security interests against the threat posed by 'Rogue States'.

It is important to note that the United States and by extension, Canada, are not defenceless against intentional ballistic-missile threats. Diplomacy may halt, or at least delay, the proliferation of long range missiles. North Korea, for example, agreed to halt its missile development programs in exchange for normalization of relations with the United States. Other states however, may not be as open to diplomatic efforts on the part of the United States to halt their programs and rhetoric. Ballistic missile defences could, therefore, insure against the failure of diplomacy to stem the proliferation of long-range ballistic missiles, the failure of deterrence, or ineffective counter-force options.^{xxx} Furthermore, [BMD] could do well against

unsophisticated attacks, provide very good insurance against accidental launches, and provide a firebreak at very high levels of tension.^{xxxix} With NORAD currently earmarked by the United States as the command and control architecture for BMD, Canada would stand to gain significantly from a decision to participate in the BMD program.

NORAD

Canada enjoys a politically and strategically important defence relationship with the United States through the NORAD Agreement. Since its inception in 1958, both countries share the responsibilities of defending North American aerospace through the monitoring of air and space from Colorado Springs, Colorado. With BMD, Canada must decide to participate should they wish the agreement to continue in its present form or, in an arrangement reflective of the architecture of a BMD defended airspace. Fundamentally, NORAD is an issue that must be addressed.^{xxxix} It would be impossible for Canada to not be involved with BMD and be party to the NORAD Agreement. The battle management and command and control architecture is earmarked for establishment at NORAD Headquarters. Canada would either participate or have no functional role within the Headquarters and, therefore, no participation within NORAD itself. The different tasks and roles of NORAD cannot be separated out into independent structures; it is an integrated command.^{xxxix} The central role of providing early warning and attack characterization of a strategic missile attack will not change with BMD except that time constraints will require that NORAD Command have the authorization to release a missile defence intercept.^{xxxix} The participation of Canada in BMD as part of NORAD is fundamental to our strategic defence agreement with the United States and in our best interests from a political and national security perspective. Indeed, the continuation of this arrangement is embodied in the

1994 Defence White Paper; serving as a cornerstone of continental security co-operation and the foundation of a Canada/United States bilateral aerospace defence relationship.^{xxxv}

The issue of the cost of participation in the BMD program through a NORAD arrangement will undoubtedly be a factor in the Canadian Government's decision to participate. At present, this would appear to be a moot point as " there is no indication that the NMD mission will result in additional costs to Canada's NORAD contribution, and thus any budgetary arguments would appear to be misplaced."^{xxxvi} Indeed, the cost of not participating, and the potential for the resultant requirement to provide for our own aerospace defence architecture are far outweighed by the benefits enjoyed through participation in a BMD arrangement through NORAD. Furthermore, Canada could ill-afford to jeopardize its longstanding strategic defence arrangement with the United States from a political and national security perspective. With BMD entrenched as a capability, NORAD would demonstrate an evolution commensurate with the threats inherent in the 21st century, retain its ability to detect and assess an attack, and counter or dissuade such an attack in order to ensure that deterrence would be assured. Through its NORAD partnership, Canada's national security would be greatly enhanced by participating in the BMD program.

Canadian Influence on BMD

As arguably the United States' closest ally and largest trading partner, there is expectation on the part of other states that Canada could play an influential role in determining whether the United States proceeds with the BMD initiative. Russia, China, and the European alliance have responded to the initiative with scepticism and concern about the ramifications it could have with respect to world stability, nuclear arms proliferation, and the status and future of current arms

control treaties. The United States has, in their opinion, failed to make a persuasive case that deployment is technically feasible. It has failed to gain widespread support among national security experts for its proposed deployment of a limited NMD capability, and it has not yet addressed adequately how it will handle ABM Treaty issues, particularly in view of repeated Russian, European, and Chinese statements regarding the importance of the ABM Treaty to strategic stability.^{xxxvii}

Russia has adamantly opposed the deployment of the system and refuses to consider any amendments to the ABM Treaty. Its prime concern is that a BMD system is a "...slippery slope leading to systems that could endanger its deterrent and undercut past, as well as future arms control agreements."^{xxxviii} China views the system as a threat to its modest deterrent and would render its small ballistic-missile threat ineffective.^{xxxix} NATO allies are seriously concerned for reasons that range from the negative impact deployment could have on relations with Russia to perceptions of American unilateralism.^{xl} With these positions firmly drawn in the sand, Canada, as a potential participant, should contribute to the effort to legitimize the program and ally fears amongst those opposing the plan.

A ballistic missile attack launched by a 'Rogue State' or, an accidental launch from Russia or China could result in serious damage to Canadian territory and infrastructure. If Canada were to add its diplomatic voice in favour of the initiative, it is possible that those nations who oppose the initiative on purely arms control and ABM Treaty grounds would better understand the Canadian and American concerns with the threat posed to North America. Prime Minister Chr>tien, in late 2000, issued a joint statement with Russian President Putin insisting that the United States respect the ABM Treaty. The sentiment expressed in this communiqué affirms that the ABM Treaty is central to the issue. An effort should be made by Canada to encourage the

United States, Russia, and ideally China, to agree to a modern, broad interpretation of the ABM Treaty. At present, the permissive interpretation of the Treaty permits testing and development of space-based systems employing exotic technology.^{xli} Without legal parsing of the treaty, a dialogue is necessary between the major nuclear powers whose aim would be to agree to terms on an amended version of the treaty that permits defence against missile threats to all three of the world's major powers. Furthermore, any potential treaty should be limited in nature in order to prohibit the deployment of a strategic system that would jeopardize the deterrent value of American, Russian, and Chinese nuclear arsenals. Canada should seek to champion such an idea with the United States and seek to convince Russia and China of the same. The political and strategic value of such an endeavour would be immeasurable. Canada would, in part, influence the framework through which development, testing, and deployment of a BMD system would be permitted and thereby influence the United States' initiative to be more palatable to the Russians, Chinese, and NATO. The end result would be a BMD system that is compliant with a modern ABM Treaty of which all major nuclear powers would be signatories.

Reconciliation of Canadian Defence and Foreign Policy

Canada has established itself on the world stage as an avid supporter of the Human Security Agenda and of arms control treaties. It has attempted to portray 'Soft Power' and has walked a fine line with respect to its support of issues that have been at odds with its American neighbour. To support the BMD initiative, Canada must reconcile its defence and foreign policy positions and determine how it wants to be viewed by the global political arena. Canada has recognized that the proliferation of short, medium, and long range ballistic missile technology represents a potential security challenge to an increasing number of countries and, that it could threaten its own troops on some military and peace support missions around the world.^{xlii}

Moreover, it has recognized that ballistic missile technology is a potential risk to Canada itself. These considerations should prompt Canada to support BMD however, at present, "The Government of Canada is closely following these developments but has made no decision with regard to Canadian participation in BMD."^{xliii} Canada's decision to support the American initiative must be weighed against foreign policy factors with the United States and the rest of the world and its long held position with respect to the ABM Treaty. Canada has, to date, limited its activities concerning BMD to research and consultation with the United States and other like-minded nations. The 1994 Defence White Paper clearly states that Canadian involvement would have to be cost effective, make an unambiguous contribution to Canadian defence requirements, and build upon missions already performed by the Canadian Forces, such as surveillance and communications.^{xliv} This could be effectively achieved through its participation in the project through NORAD and would solidify its defence and security obligations to the country and the alliance. The difficult issue for Canada will be how to sell its participation to the rest of the world and to garner support for clear, substantial changes to existing arms control treaties that would be reflective of a world in which BMD is a reality.

After the ABM Treaty, the Non-Proliferation Treaty (NPT) is the second major nuclear arms control treaty that must be addressed by the international community from a BMD perspective. Canada has long been a champion of the treaty. It should encourage the major nuclear powers to continue their support of it. The danger posed by Russian and Chinese refusal to support BMD is that they will increase the size of their nuclear arsenals to safeguard their own national security and nuclear deterrents. It is imperative that the United States, Russia, and China recognize and articulate the stabilizing merits of BMD, particularly with respect to the threat it is designed to defeat. Their united support is paramount. Otherwise, non-nuclear weapons states

that are signatories to the NPT will see this as a violation of the Nuclear Weapons States' obligation under the treaty to negotiate towards eliminating nuclear weapons.^{xlv} Furthermore, the pressure that could be brought to bear politically and militarily against 'Rogue States' would be significant if the three major nuclear states affirmed their support of the treaty, worked to curb vertical and horizontal proliferation, and jointly developed a treaty that permitted limited defence against missile attacks.

Canada, as a champion of both the ABM and NPT Treaties, should take the lead in ascertaining support for this approach. It has established itself on the world stage as a supporter of current trends towards arms control. The idea of spearheading an initiative that captured the essence of the security and nuclear threats and challenges inherent in the 21st century would be tantamount to one of the most major steps towards global stability seen to date. It would be in line with its Human Security Agenda, as this initiative would be seen as strengthening the rights and protection of every human being currently facing a nuclear threat. The launch of this initiative is necessary for Canada in order for it to maintain key tenets of its foreign policy and, as a means to reconcile its support of BMD with its defence and foreign policies. Canada would establish a unique position for itself on the world stage as a solid supporter of arms control through the initiation of the dialogue required to establish a framework for treaties to support a BMD deployment. As a logical follow on measure, Canada should champion the establishment of a compliance and security mechanism to augment a BMD system and any related treaties.

Global Missile Monitoring System

Russia has proposed, as an alternative to the BMD initiative, the creation of a pan-European non-strategic missile-defence system that would serve the interests of Europe. As a subsequent and additional benefit, similar multilateral systems could be created in the future in other regions with the ultimate creation of a global missile and missile technology control system. An international meeting of experts in Moscow in March 2000 confirmed the world's positive response to this Russian initiative.^{xlvi} The benefits that could be realized from this initiative are of a joint nature that would presumably involve the United States and, ideally, China:

...assessment of the nature and scale of missile proliferation and threats, development of a concept of pan-European non-strategic missile defence and a procedure for its development and deployment, and establishment of a joint early warning centre. Also part of the proposal is joint staff exercises, joint research and experiments, development of a non-strategic missile defence system, and creation of non-strategic anti-missile units to protect peacekeeping forces and non-combatants.^{xlvii}

This idea deserves close consideration from Canada as a means to pacify the Russian and Chinese fears of the strategic defence potential and destabilizing nature of BMD. With the common statement issued by Russia and Canada with respect to the ABM Treaty, Canada should seek to ascertain the level of support that could exist between the United States, China and Russia on the issue of BMD coupled with the proposal offered from President Putin. Involving the Chinese would assist in pacifying their concerns with respect to BMD and the perception of its threat towards their modest nuclear deterrent. This initiative would recognize the regional interests of the major world powers and would serve as a means by which they could act as global policemen towards their regional security issues and, to the security of the world as a whole. Canada could serve as a proponent of both the BMD and of a Global Missile Monitoring system designed to react jointly and decisively to a missile launch or threat of a launch. The

warning system would clearly recognize the perpetrator and a BMD system could react to the threat. As a joint endeavour, the likelihood of distrust between the major powers would be significantly reduced. The potential for an act of aggression to be committed against the United States, China, or Russia would essentially be eliminated, forcing a 'Rogue State' to reconsider the pursuit of missile technology and the threat of coercive diplomacy in a regional conflict or crisis. Canada should strongly advocate this concept to Russia, China, and the United States as a means of reaching a much-needed compromise on the issue of BMD.

Canada's support of BMD would effectively become linked to supporting mechanisms designed to enhance and guarantee to the greatest extent possible, world peace and stability. Canadian foreign and defence policy would become linked to BMD in a manner that reflects a commitment to world peace. Through the employment of an ABM Treaty compliant system, supported by regional and global warning systems operated jointly by China, Russia, and the United States, Canada would be party to the enhancement of current and future arms control treaties. These treaties would serve as the cornerstones for the world's security against the threat of nuclear proliferation well into the 21st century.

Conclusion

The NMD issue is one that is steeped in history and raises fears of strategic defences nullifying the deterrent effect of strategic nuclear forces. Canada has continually been a supporter of the ABM Treaty of 1972 and an avid supporter of arms control. However, the potential for a 'Rogue State' to launch a ballistic missile at the continental United States and Canada, is new, real, and convincing enough to the Americans to solidify their resolve to develop and deploy a limited missile defence system to defeat this threat. This poses difficult defence and

foreign policy related questions for Canada. As a potential target, Canada must react profoundly to this threat by participating in the BMD program. The Government should affirm the commitment it made in its own 1994 Defence White Paper with respect to the NORAD Agreement. It is incumbent upon Canada to partake in the initiative as a means of contributing towards its own defence and national security and, it solidifies the resolve to retain its strategic partnership with the United States. To reconcile its participation with the United States in BMD from a foreign policy perspective, Canada must rally support for an amended ABM Treaty that seeks to involve Russia, China, and the United States. The treaty must reflect the concerns of each of the signatories and effectively address the issue of ballistic missile defence against threats that were unforeseen when the original ABM Treaty was drafted and signed in 1972. Canada should use its influence as a middle power to persuade these countries to draft a landmark treaty that would serve as the cornerstone for the arms control measures required in a world in which BMD is a reality. Furthermore, Canada should champion the idea proposed by Russian President Putin that could result in a Global Missile Monitoring System. This idea has considerable merit and could result in the acceptance of BMD by the three main nuclear powers as a means to defeat regional and theatre specific threats. With the United States, Russia, and China as partners in this endeavour, the world's 'Rogue States' would be forced to seriously reconsider their intentions to seek an advantage in a crisis through the threat or use of a ballistic missile capability.

As a BMD participant, Canada would greatly enhance its national defence and security, and contribute significantly towards the realization of a new era of co-operation amongst the world's main nuclear powers. Indeed, it is in the best interests of Canada to support, and

participate in the BMD initiative and, to lead the way diplomatically in negotiating the supporting treaties and architecture to make the world a more stable place in the 21st century.

Endnotes

ⁱ James Fergusson, "Getting it Right: The American National Missile Defense Program and Canada", Canadian Defense Quarterly 27.4 Toronto, Summer 1998, 20.

ⁱⁱ Dean A. Wilkening, "Ballistic-Missile Defense and Strategic Stability", Adelphi Paper 334 (New York: Oxford UP, 2000) 30. NMD is a defensive network of sensors and ground based interceptors employing exo-atmospheric kinetic kill vehicles intended to provide an effective defence against a limited number of ballistic missiles.

ⁱⁱⁱ Fergusson 20.

iv "Foreign Missile Developments and the Ballistic Missile Threat to the United States through 2015", National Intelligence Council, September 1999: 2.

World Wide Web. "Ballistic Missile Proliferation", CSIS 2000/09 [www.csis-scrcs.gc.ca/miscdocs/200009_e.html]

v "Ballistic Missile Proliferation". A "ballistic missile" is defined as "a rocket-powered delivery vehicle that has some form of guidance system, that is primarily intended for use against ground targets, and that travels a large portion of its flight in a ballistic (free-fall) trajectory." Although not weapons of mass destruction (WMD) per se, ballistic missiles have aroused considerable concern and been targeted for control as part of the broader problem of WMD proliferation.

vi Edward Tabor Linenthal, Symbolic Defense: The Cultural Significance of the Strategic Defense Initiative (Chicago: U of I Press, 1989) 3.

vii Linenthal 3-4.

viii Ernest J. Yanarella, The Missile Defense Controversy (Lexington: UP of Kentucky, 1977) 120.

ix Yanarella 120.

x Yanarella 121.

xi Yanarella 121.

xii Yanarella 121.

xiii Frances Fitzgerald, Way Out There in the Blue (New York: Simon and Shuster, 2000) 291.

xiv Fitzgerald 291.

xv Fitzgerald 291.

xvi Linenthal 5.

xvii Linenthal 6.

xviii Linenthal 9.

xix Fergusson, "Getting it Right", 22.

xx John Polanyi, "NORAD and the SDI - A Canadian View", Strategic Defenses and the future of the arms race, John Holdren, ed (New York: St Martin's Press, 1987) 180.

^{xxi} George E.C. MacDonald, "NORAD and National Missile Defence: A Perspective of the Deputy Commander-in-Chief", Canadian Military Journal 1.2 Summer 2000, 7.

^{xxii} Wyn Bowen, "Shield against Rogues", The World Today 56.1 Jan. 2000, 4-5.

^{xxiii} "Ballistic Missile Proliferation". In September 1999, NIE stated that "North Korea could convert its Taepo Dong-1 SLV into an ICBM that could deliver a light payload (sufficient for a biological or chemical weapon) to the United States, albeit with inaccuracies that would make hitting large urban targets improbable. North Korea is more likely to weaponize the larger Taepo Dong-2 as an ICBM that could deliver a several-hundred kilogram payload (sufficient for early generation nuclear weapons) to the United States. Most analysts believe it could be tested at any time, probably initially as an SLV, unless it is delayed for political reasons." It concluded that: "After Russia and China, North Korea is the most likely to develop ICBMs capable of threatening the United States during the next 15 years." The NIC's "Global Trends 2015" paper of December 2000 more alarmingly warned that North Korea "could have a few to several Taepo Dong-2 type missiles deployed by 2005."

^{xxiv} "Ballistic Missile Proliferation". In July 1999, Kenneth Timmerman of the Middle East Data Project told a US Congressional committee that individual Russian scientists and engineers were helping Iran to develop an ICBM known as Kosar, with sufficient range to reach the US. The July 1998 Rumsfeld Commission, describing Iran's ballistic missile infrastructure as more sophisticated than that of North Korea, judged that "Iran now has the technical capability and resources to demonstrate an ICBM-range ballistic missile, similar to the [North Korean] [Taepo Dong] TD-2 (based on scaled-up Scud technology) within 5 years of a decision to proceed." However, the US National Intelligence Council (NIC)'s September 1999 NIE was considerably less alarmist, noting that "Analysts differ on the likely timing of Iran's first test of an ICBM that could threaten the US. Assessments range from likely before 2010 and very likely before 2015...to less than an even chance of an ICBM test by 2015." The NIC did, however, judge that "Iran is likely to test an SLV by 2010 that-once developed-could be converted into an ICBM capable of delivering a several-hundred kilogram payload to the United States."

^{xxv} "Ballistic Missile Proliferation". Iraq is one of just four potentially hostile Third World countries-along with North Korea, Iran, and Libya-identified by US intelligence as harbouring ambitions for an ICBM. The September 1999 NIE noted that "Analysts differ on the likely timing of Iraq's first test of an ICBM that could threaten the US-assessments range from likely before 2015, possibly before 2010 (foreign assistance would affect capability and timing) to unlikely before 2015." In short, it said: "Iraq could test an ICBM capable of reaching the US during the next 15 years."

^{xxvi} "Foreign Missile Developments" 2.

^{xxvii} Bowen 4.

^{xxviii} Foreign Missile Developments 5.

-
- xxix "Ballistic Missile Proliferation" 3.
- xxx Wilkening 13.
- xxxi Anti-Ballistic Missile: Yes or No (New York: Hill and Wang, 1968) 57.
- xxxii Fergusson, "Getting it Right", 24.
- xxxiii Fergusson, "Getting it Right", 24.
- xxxiv Fergusson, "Getting it Right", 24.
- xxxv MacDonald 5.
- xxxvi Fergusson, "Getting it Right", 24.
- xxxvii Daniel Goure, "Charting a Path for U.S. Missile Defenses: Technical and Policy Issues", CSIS June 2000: 4.
- xxxviii Spurgeon M. Keeny Jr, "The Right Thing to Do", Arms Control Today 30.7 Sep. 2000: 2.
- xxxix Keeney 2.
- xl Keeny 2.
- xli Abram Chayes, "Interpretations of the ABM Treaty", Strategic Defenses and the Future of the Arms Race, John Holdren, ed (New York: St Martin's Press, 1987) 202.
- xlii World Wide Web. "Canada's Policy on Ballistic Missile Defence", BG-99.055 [www.dnd.ca/eng/archive/1999/aug 99/19 BMD], 19 Aug 1999, 1.
- xlili "Canada's Policy" 1.
- xliv "Canada's Policy" 2.
- xlv MacDonald 15.
- xlvi Igor Ivanov, "The Missile-Defense Mistake", Foreign Affairs 79.5 Sep/Oct 2000, 19.
- xlvii Ivanov 19.

Bibliography

Anti-Ballistic Missile: Yes or No. New York: Hill and Wang, 1968.

Bashow, Dave, "Reconciling the irreconcilable: Canada's Foreign
And Defense Policy Linkage." Canadian Military Journal Spring 2000: 17-26.

Boese, Wade. "Officials Testify on National Missile Defense, Assess Program."
Arms Control Today 30.8 Oct. 2000: 25-29.

Bowen, Wyn. "Shield Against Rogues." The World Today 56.1 Jan. 2000: 4-6.

-
- Cohen, Eliot. "Defending America in the Twenty-First Century." Foreign Affairs 79.6 Nov./Dec. 2000: 40-56.
- Deutch J., Brown H., and White J. "National Missile Defence: Is There Another Way?" Foreign Policy 119 Summer 2000: 91-105.
- Fergusson, James. "Getting it Right: The American National Missile Defense Program and Canada." Canadian Defence Quarterly Summer 1998: 20-24.
- Fergusson, James. Forum Report, "Canada and Ballistic Missile Defence" 26-27 November, 1998. [<http://www.unmanitoba.ca/centres/defence/forum.htm>].
- Fergusson, James. "Déjà vu: Canada, NORAD, and Ballistic Missile Defence." University of Manitoba, Centre for Defence and Security Studies, Occasional Paper no. 39, 2000.
- Fitzgerald, Frances. Way out there in the Blue. New York: Simon and Shuster, 2000.
- "Foreign Missile Developments and the Ballistic Missile Threat to the United States through 2015." National Intelligence Council September 1999.
- Frelk, James J. and Glen E. Tait, Eds. Defending Against Ballistic Missile Attacks. Washington: George C. Marshall Institute, 1990.
- Goure, Daniel. "Charting a Path for U.S. Missile Defenses: Technical and Policy Issues." CSIS June 2000.
- Government of Canada, "Canada's Policy on Ballistic Missile Defence" BG -99.055, 19 August, 1999. [<http://www.dnd.ca/eng/archive/1999/aug/19BMD-b-e.htr>].
- Government of Canada, "Minutes of the proceedings on the presentation of DCINC NORAD on National Missile Defence and NORAD." Standing Committee of National Defence and Veterans Affairs February 29, 2000.
- Grand, Camille. "Missile Defense: The View from the other side of the Atlantic." Arms Control Today 30.7 Sep. 2000: 12-18.
- Harvey, Frank P. "The International Politics of National Missile Defence." International Journal Autumn 2000: 545-566.
- Holden, John, ed. Strategic Defences and the Future of the Arms Race. New York: St. Martin's Press, 1987.
- Ivanov, I. "Missile-Defense Madness." Foreign Affairs 79.5 September/October 2000:

15-20.

Jockel, Joseph T. "US National Missile Defence, Canada, and The Future of NORAD." Canada Among Nations 2000. Maureen Appel Molot, and Fen Osler Hampson, Eds. Don Mills: Oxford UP, 2000.

Keeny, Spurgeon M. "The Right Thing to Do." Arms Control Today 30.7 Sep. 2000: 2-3.

Koring, Paul and Jeff Sallot. "PM may be spared Missile Defence Query." The Globe and Mail 2 Feb. 2001.

Linenthal, Edward Tabor. Symbolic Defense: The Cultural Significance of the Strategic Defense Initiative. Chicago: U of I Press, 1989.

MacDonald, George. "NORAD and National Missile Defence: A Perspective of the Deputy Commander-in-Chief." Canadian Military Journal 1.2 Summer 2000: 1-21.

Regehr, Ernie. "Star Wars revisited: An updated NORAD Agreement has Canadian Defence Officials extolling the merits of Ballistic Missile Defence." Ploughshares Monitor 17.1 March 1996: 11.

Regehr, Ernie. "Ballistic Missile Defence: Questions for Canadians." Ploughshares Monitor June 2000: 1-7.

Robinson, Bill. "Canada and the US National Missile Defense Program." Ploughshares Monitor September 2000: 1-7.

Roussel, Stephanie. "Canada-US Relations in Defence." Defence Forum Report Montreal, October 20, 1999.

Walker, William. "Nuclear Order and Disorder." International Affairs 76.4 October 2000: 703-724.

Wilkening, Dean A. "Ballistic-Missile Defence and Strategic Stability." Adelphi Paper 334 New York: Oxford UP, 2000.

World Wide Web. Canada, DFAIT. "Ballistic Missile Defence and the Anti-Ballistic Missile Treaty." [http://www.dfait-maeci.gc.ca/arms/new_nuclear-e.asp].

World Wide Web. Canada, DND. "Canada's Policy on Ballistic Missile Defence." [http://www.dnd.ca/eng/archive/1999/aug99/19BMD_d_e.htm].

World Wide Web. Space Command. "NORAD Vision for 2010."
[<http://www.spacecom.af.mil/norad>].

World Wide Web. Boyes, Roger. "Putin Strives for Anti-Missile Pact." The Times
31 Jan. 2001.

World Wide Web. Gaffney Jr, Frank J. "Missile Defense Signals." The Washington Times. [www.washtimes.com/commentary] 31 Jan. 2001.

World Wide Web. "Germany Leads Europe's Attack over Star Wars." The Sunday Times. [www.Sunday-times.co.uk/news]. 4 Feb. 2001.

World Wide Web. "Pentagon Chief Dismisses Russian Objections to U.S. Missile Defence Plan." [www.southam.com/cpfs/world]. 4 Feb. 2001.

World Wide Web. "Ballistic Missile Proliferation." CSIS Report 2000/09. [www.csis-scrs.gc.ca/miscdocs/200009_e.html].

World Wide Web. "Sense and Missile Defense." Time.
[www.time.com/time/world/article]. 10 Feb. 2001.

Yanarella, Ernest J. The Missile Defense Controversy. Lexington: UP of Kentucky, 1977.

Yuan, Jing-dong. "The MTCR and Missile Proliferation: Moving toward the Next Phase." International Security Bureau May 2000.