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EXERCISE NEW HORIZONS

NATIONAL MISSILE DEFENCE: SHOULD CANADA PARTICIPATE?

Maj C.G. Ness

INTRODUCTION

The fall of the Berlin Wall in 1989 signaled the end of the Cold War. Some felt that this would be the beginning of a new era of Peace and prosperity and the "swords into plough shares" argument reappeared with vigor. No longer would Canada be sandwiched between the world's two most powerful adversaries, as it had been for the previous 44 years. Unfortunately, the reality has been somewhat different from the dream. The world political stage remains as unstable as ever, if not more so and nuclear proliferation continues, particularly amongst lesser powers seeking the prestige of being a nuclear power.

Against this backdrop of turmoil, Canada's Foreign Policy has promoted prosperity, employment and human security, while projecting Canadian values and culture. A cornerstone of Canadian foreign policy remains "the protection of our security within a stable global framework."¹ From the Canadian foreign policy viewpoint the 1972 Anti-Ballistic Missile Treaty is critical to global stability.²

In spite of the 1972 Anti-Ballistic Missile Treaty and numerous other arms and missile technology limiting agreements, there remains a credible and viable threat of a ballistic missile launch against North America, be it accidental or intentional. Depending on the source there are some 19 nations that possess the ability to launch a ballistic missile.³ Moreover, the rapid growth of the Internet has facilitated the illegal transfer of

technologies that would facilitate the development and/or improvement of ballistic missiles.

Concurrently, the United States, Canada's strongest ally and greatest economic trading partner, continues to develop a National Missile Defense (NMD) system. Proponents of NMD claim that it will enhance global stability by rendering ballistic missiles ineffective. Opponents of the system decry it as destabilizing, in violation of the 1972 Anti-Ballistic Missile Treaty, and claim development of NMD will precipitate another arms race. The strongest opponents to the development of the NMD include Russia, China and North Korea, the very powers that stand to lose the most should NMD be deployed.

In view of the controversy surrounding this system and Canada's long and beneficial relationship with the US, it is necessary to examine the arguments in support and against the development of NMD. The author contends that in order to maintain our position of leadership with respects to world stability and to maintain our relationship with our closest neighbour and strongest ally, the United States, it is essential that Canada support the US National Missile Defense Program.

This essay will briefly describe the concept of the NMD system. The paper will present and discuss the arguments in favour of Canadian participation in the program, followed by arguments against participation in the NMD program. Lastly, the essay will present conclusions on why Canada must participate in the program.

Addressing the technical merits of the NMD system is beyond the scope of this paper. For the purposes of this essay it is assumed that the United States will develop and seek to deploy a viable anti-ballistic missile defense system known as the National Missile Defense System.⁴

DISCUSSION

THE NATIONAL MISSILE DEFENSE SYSTEM

In order to understand the arguments in favour and against NMD, it is first necessary to understand the concept of NMD. It is important to note that currently, the NMD system is still at the developmental stage and many details are subject to change based on both technical and political pressures. Thus, the following explanation is conceptual vice technical.

Should a ballistic missile be fired at the continental United States, space-based satellites would detect the launch. After the initial detection, radars located in Massachusetts, California, Alaska, England and Greenland would attempt to gain contact and provide trajectory data. These satellites and radars already form part of the Ballistic Missile Early Warning System (BMEWS) which has been part of North American Air Defense for several decades.

Early tracking data from the BMEWS would then provide cueing for the detection sensor portion of the NMD. Initial cueing is necessary in order to narrow the search area and thus increase the detection ranges. All cueing and tracking data is then passed to a

Battle Management Center, located at Cheyenne Mountain Colorado, which determines intercept points and issues commands for the launch of intercept vehicles.

Each intercept vehicle would contain a rocket booster and an intercept portion known as an exoatmospheric kill vehicle. The intercept vehicle would receive intercept updates throughout the intercept. The kill vehicle would then manoeuvre to hit the incoming ballistic missile.⁵

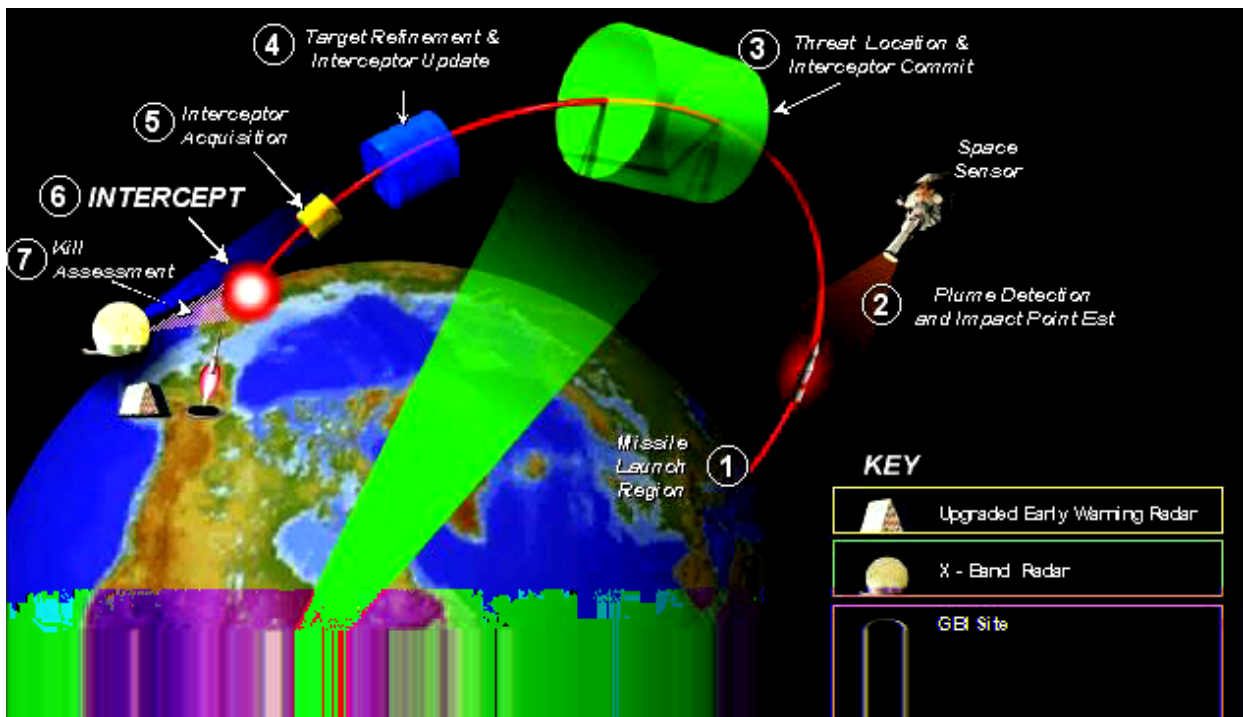


Figure 1 - Artist's Concept of Ballistic Missile Launch and NMD Intercept⁶

CANADA'S PARTICIPATION IN NMD

THREAT ASSESSMENT

A summary of Canada's Foreign Affairs objectives states "A world in which states chose to acquire nuclear weapons is inherently unstable and dangerous. The more nuclear weapons there are and the more states that possess them, the greater the threat of nuclear catastrophe, accidental or deliberate."⁷ Moreover, India and Pakistan have demonstrated a nuclear weapons capability in May 1998 which has caused the Canadian Government to remain "deeply worried"⁸ about the impact on world stability. Additionally, Iraq has proven that it has the capability to launch short-range ballistic missiles (a listing of countries that possess ballistic missiles and their associated ranges is attached as an annex to this essay). However, the greatest concerns, with respect to a nuclear missile capability, are the intentions of North Korea.

North Korea has not only demonstrated a capability to launch intermediate-range ballistic missiles but it has demonstrated a desire to acquire the technology and capability to launch long-range missiles. Also of concern is the demonstrated willingness of North Korea to sell its capability to any organization in order to generate revenue.⁹ Examples of this are found in the missile capabilities of Libya, Syria and Iran.¹⁰

In addition to the Canadian foreign policy assessment already stated, one should consider the conclusions of the US Secretary of Defense, Donald Rumsfeld. The Rumsfeld Commission concluded that both North Korea and Iran could develop an Intercontinental Ballistic Missile (ICBM) capability within five years of commencing a program.¹¹ It should be noted that this report has been at the center of the US continuing development of the NMD.

While there is no direct threat to Canada, either presently or in the near future, one must consider our proximity to the United States. It must remember that the majority of our population and industry are located within 200 miles of the US border. Thus, even if Canada were not the intended target it could sustain damage in the form of fallout. Moreover, given the proximity to the US, the possibility of targeting and/or navigation error, which could result in missile impact on Canadian territory, must be considered.

When considering the threat it is necessary to consider the spread of ballistic missile capability. There are currently 19 nations which have a ballistic missile capability with either conventional or weapons of mass destruction capabilities.¹² While the Missile Technology Control Regime seeks to control the export of technology that could enhance the ballistic missile capability of a nation, not all nations capable of providing technology are signatories of the Missile Technology Control Regime. The ineffectiveness of the Missile Technology Control Regime was demonstrated recently when Russia stated it “plans to sign a military-technical cooperation agreement with Iran.”¹³ Russia is also reported to be selling missile and nuclear weapons technology to India as well as aiding India in developing an Intercontinental Ballistic Missile “that will eventually be able to hit North America.”¹⁴ Moreover, as computers and the Internet flourish, the ease with which missile technology can be transferred will increase dramatically.¹⁵ This facilitates the development of a ballistic missile capability by nations which might not otherwise possess the technical capacity to develop ballistic missile technology.

In an effort to improve their own missile technology other nations continue to target the United States for espionage activities. It has been reported that the Russian Foreign intelligence agency (SVR, formerly the KGB) has increased operations by 50% in the US and Europe since 1991.¹⁶ Additionally, in an unclassified version of its final report a US House Select Committee reported that China has engaged in "wide-ranging and successful efforts to obtain secret data from US nuclear weapons laboratories."¹⁷ Amongst these efforts were illegal technology transfer by US corporations. The report further states that, as a result, China was able to make improvements to its Long March rocket which otherwise would not have been possible, these improvements were "inherently applicable" to China's ballistic missile program. The report further claims that the Chinese gained information about "every warhead that the US currently deployed."¹⁸

There is a counter argument to this threat assessment in that opponents of the NMD conclude that there is no viable threat to Canada, nor do belligerent nations possess missiles with sufficient range to strike Canada. An important consideration when regarding this argument is the time required to field a ballistic-missile defence system if the threat does materialize. As previously stated it is felt that some nations could field an ICBM within five years of attempting to do so.¹⁹ In contrast, the time to develop and deploy an anti-ballistic missile defence would take considerably longer due to the complicated nature of the technologies involved. When development time is measured in

years, it is irrational to wait for a threat to develop before taking defensive measures.²⁰ Additionally, this argument does not address the possibility of an accidental launch.

Thus, while there is little direct threat to Canada, ballistic missile technology continues to develop and spread amongst nations. This in turn poses an indirect threat to Canada due to our proximity to the US. Any attack against the US industrial base could result in collateral damage to Canada due to fallout, missile malfunction, or navigation error.

ACCIDENTAL/UNAUTHORIZED LAUNCH

While the threat of an intentional ballistic missile attack against Canada will likely remain negligible for the foreseeable future, one must consider the possibility of an accidental or unauthorized launch. This could include retaliatory launches based on false warnings of a US ballistic missile attack. In addition to these accidents, the Canadian Government has expressed concern over the "potential deterioration of Russia's nuclear command and control system."²¹

An example of the possibility of an accidental launch is provided in the incident of a Norwegian scientific rocket launch, 25 Jan. 1995. Despite the fact the Russia Foreign Ministry had been advised of the launch, the missile was detected and classified as a potential US submarine ballistic missile attack. The situation was such that the

"nuclear briefcase" of President Yeltsin was switched to "alert mode for emergency use, allowing him to order a full Russian nuclear response."²²

Thus, while the world has yet to witness an accidental or unauthorized launch the possibility of such an event is acknowledged in Canadian government documents and policy.²³ Accepting the possibility, it is only prudent to plan a defense against such an event.

NORAD

The North American Aerospace Defense Command (NORAD95996 Tm(o)Tj12 0 0 12 218.9917261

cost. However, the real strength of the NORAD agreement may be not what it states but rather what it symbolizes, that is "an important expression of friendship."²⁸

Thus, defense of Canada against ballistic missiles, while not specifically mentioned, would be consistent with the intent of the NORAD Agreement. Moreover, our participation would signal our continuing friendship with our closest ally. Failure to participate in the NMD could lead to the dissolution of NORAD,²⁹ as NORAD would be marginalized in the context of a NMD system³⁰. The impact of this would be significant, as Canada simply cannot afford to provide the same level of defense that participation in NORAD allows. From a broader perspective, failure to participate in NMD and the subsequent dissolution of NORAD might be the harbinger of a decline in relations between Canada and the US.

REDUCTION IN WARHEAD NUMBERS AND ALERT STATUS

While the new US government has yet to define a way ahead with respect to NMD, President George W. Bush stated during the presidential campaign that he would reduce the number of nuclear missiles and pursue NMD. Furthermore, he stated that he was willing to undertake these reductions unilaterally, consistent with security requirements.³¹ President Bush reaffirmed these comments when he stated that he was willing to cut the number of warheads to a level 1000 below the reductions agreed to with Russia in 1997. Furthermore, Bush has stated that he will remove weapons from alert

status.³² It is important to note that these actions would be wholly consistent with Canada's view of a more stable world.

WHY CANADA SHOULD NOT PARTICIPATE IN NMD

NMD WILL RESTART AN ARMS RACE

A major concern of all parties is the argument that pursuit of a NMD system will initiate another arms race. Opponents of the NMD program argue that nations with small ICBM forces such as China will be compelled to upgrade their ICBM capability in order to compensate for the deterioration of their force's effectiveness brought about by NMD.³³ Canadian Foreign Affairs policy notes that the "security gains of one party are not the losses of another."³⁴ Interestingly enough it is countries such as China and Russia that have been most vocal in advancing this argument. China's Chief Disarmament Negotiator, Sha Zukang, has accused the US of possessing "some kind of Cold-War Psyche", furthermore, he states that people "are searching for some kind of enemy, and maybe it can be China."³⁵

On the face of the argument one might be willing to accept these statements. However, China's actions do not follow her words. China's continuing efforts to conduct espionage activities against the US, specifically in the nuclear and missile technology areas, points to clear intention on behalf of China to continue her arms development regardless of the state of various treaties.³⁶

An interesting consideration is the logic of this argument wherein a defensive system, initiates an offensive arms race. Why would a nation feel the need to build up an offensive capability in order to overwhelm a defense unless, there was some consideration that the offensive capability would be used some day.

While opponents decry the deployment of NMD as being destabilizing, there is an argument to be made to the contrary. If the United States is able to quell her security concerns with the deployment of NMD, they are more likely to reduce the number of warheads they have. Canadian Foreign policy states that reductions in the numbers of warheads and weapons systems are essential to ensuring global stability.³⁷

NMD AND ANTI-BALLISTIC MISSILE TREATY

Linked closely with the concept of a new arms race is the impact that a NMD system will have on the Anti-Ballistic Missile Treaty. Many nations, most notably Russia, consider the Anti-Ballistic Missile Treaty the "cornerstone of strategic stability"³⁸ and arms control. Moreover, they consider the Anti-Ballistic Missile Treaty as being fundamental to the Strategic Arms Limitation Talks (SALT) I, II, and III, and the Intermediate Nuclear Forces Treaty (INF).³⁹ The "Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems" entered into force 03 October 1972. The purpose of the treaty is to

prohibit "deployment of Anti-Ballistic Missile systems for territorial defense."⁴⁰

However articles and protocols allow for a limited Anti-Ballistic Missile system.

Article I of the treaty states "Each Party undertakes to limit⁴¹ anti-ballistic missile (ABM) systems..."⁴² Article I further states that ABM systems shall not be deployed except as allowed for in Article III. Article III of the treaty allows for one ABM system with 100 launchers and missiles plus radars centered on the party's national capital. Additionally, a second system, with similar restrictions, may be deployed for the protection of a complex of ICBM silos.⁴³ In the 1974 Protocol to the ABM Treaty each party agreed to limit their ABM systems to one site only, The US chose the Grand Forks Launch area, while the USSR selected Moscow.⁴⁴

Another aspect of the ABM treaty and the NMD is the deployment of radars that are an essential part of the system. While opponents of NMD argue that the deployment of radars in support of the NMD are in contravention of the Anti-Ballistic Missile Treaty. This is simply incorrect. Article VI of the Anti-Ballistic Missile Treaty allows for allows for early warning radars "at locations along the periphery of its national territory and oriented outward."⁴⁵

Russia considers the deployment of NMD to be in violation of the Anti-Ballistic Missile Treaty that prohibits defensive weapons and limits offensive weapons. Russia diplomats contend that if you violate the NMD it will start the arms race all over again.⁴⁶ Russian concerns over the continued validity of the Anti-Ballistic Missile Treaty lose

much of their credibility when one considers that to date only one nation's capitol is protected by an anti-missile defense system. The GALOSH missile defense system has been deployed around Moscow since the 1970's and still remains operational, although of questionable effectiveness.⁴⁷ Moreover, Russian President Putin has recently approached NATO's Secretary-General with a proposal for a joint European missile defense.⁴⁸ Putin went so far as to request that Lord Robertson lobby Western Europeans to consider a "pan-European 'non-strategic' ballistic missile defense shield."⁴⁹ Lord Robertson accepted the offer as recognition by Moscow that "NMD is necessary."⁵⁰

The question of the continued validity of the Anti-Ballistic Missile Treaty in view of the US fielding a NMD is a genuine problem and one that is very much open to legal interpretation of the treaty itself. Proponents of the NMD argue that the Anti-Ballistic Missile Treaty only limits the number location and deployment of an NMD system, rather than prohibiting the system itself.⁵¹ The 1974 Protocol of the Anti-Ballistic Missile Treaty allows for deployment of 100 missile interceptors and associated ground-based surveillance assets at a single location. It is within this context that proponents of the system argue that NMD is not contrary to the Anti-Ballistic Missile Treaty.⁵² Furthermore, the US government has sought to renegotiate the 1972 Anti-Ballistic Missile Treaty with Russia to allow for a limited national defense capability in view of the increasing threat. While such action is clearly in the interest of the US, it does point to a desire on behalf of the US to maintain the Anti-Ballistic Missile Treaty in some form.⁵³

It is the opinion of this author that the Russian argument is largely an emotional argument based on the perceived decline of Russia's status as a world power. The NMD system would have the effect of seemingly eroding the status and prestige associated with nuclear ballistic missiles. In actuality NMD, as currently designed, will have the ability to intercept a limited number of warheads,⁵⁴ thus, major powers such as Russia would still possess the ability to overwhelm the NMD system if required.

NMD WILL NOT WORK

One argument that critics have put forward against NMD is the fact that it won't work. While some cite technical problems, others point to the fact that there would still be other types of threats to American security. These could include cruise missile attack or a bomb onboard a merchant ship in a US harbour.⁵⁵

Addressing the technical merits of the NMD system is beyond the scope of this paper. The argument is correct with respect to the existence of other threats. However, it seeks to ignore the fact that there is still a risk of a ballistic-missile attack, intentional, or accidental. To propose that defence against such a threat not be engaged in, merely because there is a lower probability of such an attack, is folly. Moreover, the risk of an accidental launch of weapons, or a retaliatory launch based on false warnings has been acknowledged in Canadian Foreign policy statements as previously discussed.

US RETALIATORY CAPABILITY

Critics of the NMD system argue that the system is not required, as the US possesses an overwhelming capability to launch a retaliatory strike. Thus, no sane person would dare launch an initial strike against the US.⁵⁶

This argument is disturbing to say the least. Firstly, it fails to address the possibility of an accidental launch, or a launch based on false warnings. Secondly, it supposes that all nations possessing a ballistic missile capability have, and will be headed by a rational person. Thirdly, in the event of a launch, either accidental or deliberate, the loss of life is acceptable because the US can strike back. Lastly, the argument proposes that inflicting death by the tens of thousands is an acceptable action if someone launches an attack.

Simply stated, two wrongs don't make a right. If an accidental or deliberate attack were launched against North America, a NMD would, firstly, offer some measure of protection. Secondly, it would allow time to more accurately determine the intent of the launch and execute a well thought out measured response as appropriate.

WEAPONIZATION OF OUTER SPACE

An argument in the discussion of NMD is the concern that it will lead to the weaponization of outerspace. This is likely a vestige of the “Star Wars” plan that President Reagan pursued in the ‘80’s. While the weaponization of space is a valid concern, current plans do not call for the basing of interceptors in space. Furthermore, the United States has recently confirmed their stance of no weapons in space with the signing of Demarcation Agreements 27 September 1997, which “clearly prohibit space-based interceptors for Theatre Missile Defence.”⁵⁷ Canadian Foreign policy views the Demarcation Agreement as reinforcing the ABM Treaty.⁵⁸

CONCLUSIONS

Some people have characterised the relationship between Canada and the US as that of the mouse and the elephant. While this relationship has tremendous economic benefits, there is a price to be paid. Our proximity to the US and more importantly, the concentration of our population and industry within 200 miles of the US border puts Canada at risk of absorbing collateral damage if a ballistic missile were ever launched at the US. While some argue that there is no longer a risk of a nuclear exchange with the end of the Cold War, the fact remains that there is a proliferation in the number of countries that possess or are seeking to acquire a ballistic missile capability. Moreover, nations that possess a rudimentary ballistic missile capability are seeking to enhance their capabilities either in terms of numbers, payload and/or range. Thus, while actual

numbers of warheads in the world may decrease due to the arms limitations efforts of the US and Russia, the threat of a ballistic missile launch increases as the number of nations with a capability increases.

When one considers the threat to Canada, it is important to move beyond the concept of a direct strategic threat. The threat may be in the form of radioactive fallout from a missile attack against the US. Alternatively, errors in missile navigation and missile malfunction may result in an impact on Canadian territory. Finally, the possibility of an accidental launch, either in response to a false attack warning, or due to degradation of ageing command and control systems, cannot be discounted.

Opponents of a NMD system argue that deployment of NMD will restart an arms race. Amongst these opponents are Russia and China. While one can accept these arguments initially, the actions of Russia and China do not support their words. Russia has recently proposed a partnership with NATO for a European Missile defence system, thus acknowledging the threat of Ballistic missiles and the importance of defence, thus their words and concerns over a US system are somewhat hollow. Moreover, China has continued her own form of arms race in the guise of espionage activities targeted against both nuclear warhead technologies and US ballistic missile technologies.

While the interpretation of the 1972 Anti-Ballistic Missile Treaty is open to question, it does allow for a ballistic missile defence system to protect either a Capital city or an array of ballistic missile silos. Associated with the Anti-Ballistic Missile

Treaty are concerns over the weaponization of space. While details of a NMD system are not firm, initial plans do not call for space based interceptors.

The most frightening argument against the deployment of NMD concerns US retaliatory capability. Some feel that the Cold War concept of retaliatory strike is more than enough to dissuade nations from first strike. However, this argument does not consider accidental launches, or launches based on false indications of attack. Moreover it legitimises the concept of an eye for an eye.

Canada must participate in a National Missile Defense program. There is a threat, be it intentional or accidental. The long-standing alliance between Canada and the US while beneficial to the US, is essential to Canada's defensive well being. More importantly however, is the leadership role Canada could play in enhancing global stability. President Bush has indicated a willingness to further reduce the number of warheads and their alert status, if US security interests are maintained. Canada should leverage our participation with such a reduction. It is only active participation in the program that will allow Canada a voice with the US and thus, an opportunity to influence, to some degree, the direction of the program. This influence in turn may allow for the concerns of other nations too be addressed, thereby contributing to our goal of a more stable world. Decrying the NMD as destabilising merely aligns us with nations such as North Korea, China and Russia. Moreover, we will be but one voice in a crowd with little or no influence over the elephant.

Canada should participate in the National Missile Defense program. In order to do so with support from the Canadian public, it is essential to initiate a dialogue about the NMD and the need to participate. However, Canada's participation must be leveraged with an assurance of further reductions in the number of US warheads and the reduction in alert status of the US nuclear weapons arsenal. Moreover, Canada must ensure that participation in NMD allows the opportunity to influence the program such that security concerns of other nations are considered. Lastly, Canada must use our position as a lesser power to explain the benefits of NMD in ensuring a more stable global framework.

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- ⁴⁴ "Protocol to the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems," (<http://www.acq.osd.mil/acic/treaties/abm/74protocol.htm>) 03 Jul. 1974.
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- ⁴⁶ Deputy Ambassador Andrey Kelin, Deputy Permanent Representative of Russia to NATO, Briefing to Command and Staff Course 27, Brussels Belgium, 19 Feb. 2001.
- ⁴⁷ James Fergusson, "Getting it Right: The American National Missile Defense Programme and Canada," Canadian Defence Quarterly, Vol 27 Number 4, Summer 1998: 24.
- ⁴⁸ Vladimir Isachenkov, "Russia Offers European Missile Defense Proposals," Boston Globe, 20 Feb 2001
- ⁴⁹ Pavel Felgenhauer, "Friends to the Bitter End," The Moscow Times.com, 22 Feb. 2001.
- ⁵⁰ Opinion/Editorial, "World Steps Deeper into NMD Bog," The Moscow Times.com, 22 Feb. 2001.
- ⁵¹ James Fergusson, "Getting it Right: The American National Missile Defense Programme and Canada," Canadian Defence Quarterly, Vol 27 Number 4, Summer 1998: 22.

⁵² James Fergusson, "Getting it Right: The American National Missile Defense Programme and Canada," *Canadian Defence Quarterly*, Vol 27 Number 4, Summer 1998: 21.

⁵³ FACTS.com, "Disarmament: U.S. Seeks ABM Treaty Renegotiation," (<http://www.2facts.com/stories/index/1999124650.asp>), 28 Jan. 1999.

⁵⁴ Some writers feel that a 100 intercept vehicle system would have the capability to intercept approximately 30 reentry vehicles while other writers have hypothesized that up to 10 intercept vehicles would be required for each reentry vehicle.

⁵⁵ Jeff Sallot, "China wants Ottawa's Aid in Stopping U.S. Shield," *Globe and Mail*, 19 Feb. 2001.

⁵⁶ Martin Kettle, Ewen MacAskill and Richard Norton-Taylor, "NATO Chief Stirs Row Over Missile Defense," *The Guardian*, 06 Feb. 2001, (<http://www.guardian.co.uk/Print/0,3858,4131539,00.html>).

⁵⁷ James Fergusson, "Getting it Right: The American National Missile Defense Programme and Canada," *Canadian Defence Quarterly*, Vol 27 Number 4, Summer 1998: 20.

⁵⁸ Canada, Department of Foreign Affairs and International Trade, *Foreign Policy*, Government Statement, Nuclear Disarmament and Non-Proliferation: Advancing Canadian Objectives, Web Page (<http://www.dfait-maeci.gc.ca/nucchallenge/POLICY-e.htm>), 15 Feb. 2001.