

## **BMD AND US STRATEGIC DOCTRINE: CANADIAN STRATEGIC INTERESTS IN THE DEBATE ON MISSILE DEFENCE**

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In February of 2005, the Canadian government made the critical decision to decline formal participation in US plans for a ballistic missile defence (BMD) system for North America. This decision, while not totally unexpected due to Canada's long-standing opposition to 'strategic' BMD systems, did take place despite a number of public signals hinting at Canada's endorsement and involvement in the proposed system. The government under then Prime Minister Paul Martin had been quite vocal on the need to improve Canada-US relations, and it appeared that bilateral cooperation on missile defence would have been a key plank in this endeavour. It was therefore surprising that, despite what was likely an honest desire to participate in BMD, the Liberal government would only six months later suddenly reverse its decision to participate. As pointed out by Dr. James Fergusson, the seemingly blatant Canadian *volte face* on this issue "represents a blow to the manner in which bilateral defence, if not broader foreign policy relations, are conducted with the Americans and other nations."<sup>1</sup>

Despite the Martin government's declaration for non-participation, it is likely that we have not seen the end of this debate. With the recent election of a Conservative

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<sup>1</sup> James Fergusson, "Shall We Dance? The Missile Defence Decision, NORAD Renewal, and the Future of Canada-US Defence Relations," *Canadian Military Journal*, 8, 2 (Summer 2005), 14.

minority government in January 2006, there is now a political party in power which is more amenable to the idea of Canadian participation in strategic defence – though the US will be quite tentative to any such overtures until a stable majority government resides in Ottawa. Perhaps more importantly, there remains continuing uncertainty over the meaning of the term ‘participation’ and what exact role Canada has formally declined. Given that the North American Aerospace Defence Command (NORAD) now plays a critical early warning role in BMD, it is not impossible to imagine a more expansive Canadian role in the detection and guidance tracking – perhaps using new radar installations – of ballistic missiles. The separation between early warning of a ballistic missile and the command and control (C<sup>2</sup>) of a BMD interceptor, which seems to divide ‘involvement’ from ‘participation’ in any missile defence scheme, is not as clearly delineated as many in the government would like to maintain.<sup>2</sup> We could therefore easily see another *volte face* on the missile defence issue. Given that the Liberal Party was itself close to agreeing to such participation, there is the possibility – as remote as it may be given Stéphane Dion’s election as the new Liberal Party leader – that such a subsequent policy reversal *could* take place irrespective of which party is in power. In other words, the debate on substantive Canadian participation in American missile defence plans is far from over.

The previous Liberal government did make some attempt to justify the 2005 decision for non-participation in BMD on international security grounds, at least according to some of the newspaper editorials by prominent Liberal insiders.<sup>3</sup> To be sure, these concerns played an important role in the general distrust that the Liberal

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<sup>2</sup> See *Ibid.*, esp. 16-17.

<sup>3</sup> For example, see Warren Kinsella, “On missile defence, Martin was right,” *Globe and Mail*, March 3, 2005.

Party has towards BMD, especially among the party's rank-and-file members (alongside key members of the previous government's caucus). On the other hand, it is likely that the senior members of the Paul Martin government were swayed, not by any careful analysis of Canadian strategic interest vis-à-vis missile defence, but rather for reasons of sheer political expediency – necessitated by the government's relegation to minority status in 2004. One should remember that Prime Minister Martin, alongside Defence Minister John McCallum and Foreign Minister (and later Defence Minister) Bill Graham were all supporters of overturning Canada's long-standing opposition to strategic defences, and had clearly signalled their willingness to begin 'dancing' with the United States on this issue. As important as this missile defence refusal may have been, it was informed not by strategic considerations but rather by the need to placate the Liberal Party base, especially in the politically critical region of Quebec that remains highly suspicious of any Canada-US bilateral defence cooperation.<sup>4</sup>

The Conservative government, despite its ideological proclivities towards supporting BMD, must undertake a calculated examination of this issue and assess its benefits and costs to Canadian strategic interests. The previous government's lack of strategic thought is unfortunate. From the early decades of the Cold War, defence planners recognized that Canada's participation in US plans for air defence carried wider implications for American strategic doctrine. This recognition may have led to Canadian participation in bilateral air defence arrangements, but it also contributed to the country's support for the Anti-ballistic Missile (ABM) Treaty and its long-standing if often ambiguous refusal to support any proposed US plan for robust strategic defences.

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<sup>4</sup> See David Rudd, "Muddling Through on Missile Defence: The Politics of Indecision," *Policy Options*, 26, 4 (May 2005), 30-34.

Missile defence has not become disassociated from American strategic doctrine in the post-Cold War period. The 2002 *Nuclear Posture Review* (NPR) and the prominent inclusion of such active defences alongside strategic nuclear and conventional weapons make this relationship abundantly clear.<sup>5</sup> BMD may be an ostensibly defensive system, but it is also intimately connected to the American nuclear weapons arsenal and, especially under the Bush administration, the search for grand strategic '*primacy*'. More sophisticated nuclear and conventional 'global strike' systems, a flexible and responsive C<sup>2</sup> system and global BMD capabilities are all key components of this grand strategic vision. The wisdom of making such an important decision without an understanding of the relationship between active defences and strategic doctrine can therefore be questioned. Indeed, a politically-motivated and strategically uninformed decision would likely lead to a more ambiguous and, given the lack of a clear consensus on the issue, more easily reversible decision in the event that the Canadian political environment changes. Continental GMD deployments remain a politically controversial issue in Canada<sup>6</sup>, and deserves to be treated in a strategically informed and un-ideological manner. Sadly, it remains to be seen whether this government, or subsequent ones, will display any strategic acumen on this issue.

### **Strategic Defences in the Cold War**

Canada's defence strategy and proclivity to undertake bilateral defence arrangements with the United States, up to and including strategic defences against

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<sup>5</sup> The NPR was summarized at a January 9, 2002 briefing, and substantial portions would appear on the Globalsecurity.org website, at <http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm>.

<sup>6</sup> According to Michael O'Hanlon, the controversy over missile defence is largely a Canadian one, as the debate on its utility appears to have effectively ended south of the border. O'Hanlon in a lecture hosted by the Canadian Institute of International Affairs on February 1, 2005.

many (if not all) threats, has been rooted in its unique geo-strategic position in North America. As noted by the late Canadian strategist R. J. Sutherland, the presence of the American superpower on its southern border had a critical strategic consequence: “the United States is bound to defend Canada from external aggression almost regardless of whether or not Canadians wish to be defended.”<sup>7</sup> This security guarantee certainly offered Canadians a highly advantageous geographic environment, in so far as it made Canada-US security effectively inseparable. But it also stimulated an attendant concern that, in extreme situations, the US would eventually move towards *unilaterally* implementing continental security measures. Given the vast disparity in power between the two neighbours, Ottawa would be unable to either mitigate or prevent any American infringement of Canadian territory. The smaller partner in this asymmetrical relationship was, not surprisingly, sensitive to maintaining its territorial sovereignty. While not beholden to the security dilemmas that plague other countries in less hospital environments, Canada was faced with an acute, and no less problematic, ‘sovereignty dilemma’.

This dilemma has not only strained, if not endangered, the relationship between the two countries, but it also created the stimulus for the normative security framework that underpins the Canada-US geo-strategic relationship. This framework was explicitly elucidated in remarks by President Franklin Roosevelt and Prime Minister Mackenzie King in 1938, in which the United States pledged to “not stand idly by” if Canada was threatened by a great power and, in return, Canada pledged that “enemy forces” will not

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<sup>7</sup> R. J. Sutherland, “Canada’s Long Term Strategic Situation,” *International Journal*, 17, 3 (Summer 1962), 202.

be able to use Canadian territory to attack the US.<sup>8</sup> The 'Kingston Dispensation', as this exchange became known, would find organizational expression in the Odgersburg Agreement of 1940 that, in light of the possibility of a Nazi-dominated Europe, heralded the beginnings of a *de facto* "mutual non-aggression pact and the exchange of mutual security guarantees".<sup>9</sup>

The Soviet development of intercontinental bombers armed with atomic gravity bombs in the late 1940s and early 1950s only increased the strategic value of Canadian territory. Strategic offensive bombardment may have still been the primary mission for the United States Air Force (USAF), but American societal vulnerability to nuclear strikes by the Soviets – especially as Moscow accelerated its stockpile of atomic and later thermonuclear bombs as well as the size of the bomber fleet – could also not be ignored.<sup>10</sup> The US Air Defense Command (ADC) would gain an increasing share of military resources, if far less compared to the Strategic Air Command (SAC), while the development of the Permanent radar system would give the US a rudimentary early warning capability. The dangers posed by the Soviet atomic capability, alongside the attendant need for strategic continental defences against air-breathing threats, was also noted in National Security Council Memorandum 139 (NSC-139) and NSC-159, which

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<sup>8</sup> Cited in G. R. Lindsey, "Defending North America: a historical perspective," in *Aerospace Defence: Canada's Future Role? Wellesley Papers* 9 (Toronto, ON: Canadian Institute of International Affairs), 12.

<sup>9</sup> Paul Buteux, "Sutherland Revisited: Canada's Long-term Strategic Situation," *Canadian Defence Quarterly* (September 1994), 5. For more on the Kingston's Dispensation, see Michel Fortmann and David Haglund, "Canada and the Issue of Homeland Security: Does the 'Kingston Dispensation' Still Hold?" *Canadian Military Journal* (Spring 2002), 17-22.

<sup>10</sup> See Joseph T. Jockel, *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958* (Vancouver: University of British Columbia Press, 1987), Chp. 3. For information on the catastrophic nature of any Soviet atomic bombardment, even during this period of clear American nuclear superiority, see Richard Betts, "A Nuclear Golden Age? The Balance Before Parity," *International Security*, 11, 3 (Winter 1986-87), 3-33.

are dated 1952 and 1953 respectively.<sup>11</sup> It should not be surprising that Canadian participation was explicitly mentioned as a critical component of any effective strategic defence against the bomber threat. After all, Canada and the US formed a single strategic target set, which made both countries directly vulnerable to a nuclear attack, and any incoming Soviet bombers would use Canadian air corridors to attack the US.

Canada was initially hesitant on the costs of strategic defences against air-breathing bomber threats, especially since early proposals by both the Canada-US Military Cooperation Committee (MCC) and the US ADC – though having little American political support – raised the spectre of a massively costly radar perimeter for North America.<sup>12</sup> Yet there was clearly a need for bilateral participation in strategic defences. For example, the Permanent radar system – in the absence of a complementary Canadian system – only offered less than an hour's notice in the event of a Soviet bomber attack. Rather than being seen as only a 'diversionary' tactic, defence planners in Ottawa increasingly accepted the possibility and logic of a direct Soviet attack against North American targets, and were in turn more amenable to bilateral cooperation on active strategic defences. The close relationship between the two militaries, especially their respective air forces, further facilitated this trend towards air defence integration.<sup>13</sup>

Bilateral cooperation on strategic defence was initially limited to the construction of early warning radar on Canadian territory. Both air forces jointly drafted "A Plan for the Extension of the Permanent Radar Net of the Continental Air Defense System", later codified in PJBD Recommendation 51/1 and approved by both countries. This resulted

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<sup>11</sup> See David Cox, *Canada and NORAD, 1958-1978, Aurora Papers 1* (Ottawa: The Canadian Centre for Arms Control and Disarmament, 1985), 7-8.

<sup>12</sup> See Jockel, *No Boundaries Upstairs*, Chp. 2 and 3.

<sup>13</sup> See Ann Denholm Crosby, "A Middle-Power Military in Alliance: Canada and NORAD," *Journal of Peace Research*, 34, 1 (1997), 37-52.

in the joint construction of and shared costs for the Pinetree radar extension to the Permanent system.<sup>14</sup> The extension of radar coverage over Canadian territory did, however, open up the sensitive issue of ‘tactical cooperation’ between the two air forces. American preponderance in air defences, including interceptor squadrons and surface-to-air missile batteries, and the creation of radar networks on Canadian territory offered a strong incentive for the USAF to undertake cross-border interceptions of aircraft. Canada also found tactical cooperation attractive, largely due to the country’s relatively limited number of fighter aircraft squadrons available for interception, created under its newly minted Air Defence Group (ADG), alongside its interest in pushing any interception away from the country’s populated southern region. A number of PJBD Recommendations would progressively lessen restrictions on the American ability to intercept, investigate, and even shoot down aircraft in Canadian airspace. Tactical air defence cooperation was eventually codified under PJBD Recommendation 53/1, which allowed for cross-border interception in the event that the other side was unable to intercept an aircraft.

The growing tactical air defence cooperation did facilitate interest in the ‘strategic cooperation’ between each country’s respective air defence forces – where there would be an integrated and seamless strategic defence system capable of fully utilizing either country’s forces to intercept and engage Soviet nuclear-armed bombers. Canada successfully advocated a joint Military Study Group (MSG) to examine this issue, though with the noticeable benefit of giving Canada a window into American technical and strategic thinking. The complexity of any ‘thick’ air defence system necessitated

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<sup>14</sup> See Jockel, *No Boundaries Upstairs*, Chp. 3. Clauses were added in PJBD Recommendation 51/1, which provided that a Canadian crown corporation would construct most of the Pinetree radar stations, that Canada would retain the title to and the right of manning these stations, and the requirement that the US obey Canadian law in its operations on Canadian territory.



additional radar systems and closer co-ordination between both countries. On the former issue, Canada promised to fund and construct a Mid-Canada Line, formerly known as the 'McGill' line, in return for the American construction of the much more expensive Distant Early Warning (DEW) Line in the Canadian Arctic.<sup>15</sup> On the latter issue, an informal agreement was made to create a bilateral North American Air Defence Command in 1958, which was vested with operational control over both countries air defence forces.

Strategic defences against bombers were initially predicated on a US strategic doctrine that prioritized defensive measures to blunt, and ideally eliminate, the Soviet air-breathing threat to North America.<sup>16</sup> To be sure, this type of 'defence in depth' did prove more problematic for Canadian strategic interests. As a 1952 report by Canadian defence scientist George Lindsey noted, strategic defences might be useful to protect the United States' territory, but it could also leave the Canadian 'outer surface' of the network highly vulnerable to attack.<sup>17</sup> This danger was, however, partly alleviated by the creation of the expensive DEW line in the Arctic, which would allow for the interception of Soviet nuclear bombers further north of Canada's populated areas, and – with the four to six hours notice of an impending attack – minimize the societal vulnerability of both countries.<sup>18</sup> One should also recall that the air defence debate occurred at a time

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<sup>15</sup> See *Ibid.*, Chp. 4. This follows a number of study groups that examined the early warning/air defence issue, including Project Charles, Project Lincoln, Project East River, and the Lincoln Summer Study Group. Interestingly, the last group involved two Canadians, John S. Foster and George R. Lindsey, and would discuss both the Distant Early Warning (DEW) Line and the McGill or Mid-Canada Line.

<sup>16</sup> See R. B. Byers, "NORAD, Star Wars and Strategic Doctrine: The Implications for Canada," in *Aerospace Defence: Canada's Future Role? Wellesley Papers 9* (Toronto, ON: Canadian Institute of International Affairs), 31-56.

<sup>17</sup> Andrew Richter, *Avoiding Armageddon: Canadian Military Strategy and Nuclear Weapons, 1950-63* (Vancouver: UBC Press, 2002), 41.

<sup>18</sup> For more on the development of the DEW line, see Peter Grier, "A Line in the Thin Ice," *Air Force Magazine*, 87, 2 (February 2004), 64-69.

of American nuclear superiority, largely as a result of the Eisenhower administration's impressive expansion of US strategic nuclear capabilities in order to support its 'Massive Retaliation' doctrine.<sup>19</sup> The size of the American nuclear stockpile was increased to 18,000 warheads by 1960, and would benefit from an accelerated ballistic missile programme and the miniaturisation of the warheads themselves. In contrast, the Soviet bomber threat, while certainly capable of inflicting significant devastation on North American economic-industrial targets, was based on a relatively small number of 'Bison' and 'Bear' bombers (which never exceeded more than 200 aircraft). Moreover, the American inclination for a 'war-fighting doctrine', which contained elements of pre-emption and where defences played a critical role in any first-strike, made any air defence blunting role even more feasible. The impact that defences would have on the Soviet deterrent was simply not a dominant factor.

While Canada was eager to defend North American citizens from the scourge of a Soviet air attack, it would also independently conclude that the dangers posed to SAC's retaliatory capability, in light of a possible Soviet nuclear first-strike, necessitated a more robust (and therefore integrated) air defence system. This was the subject of a major DND study, which noted the importance of nuclear deterrence and advocated the need to co-operate with the US to improve the operational capability and credibility of the SAC.<sup>20</sup> This does not imply that Canada was in any way involved in American nuclear war planning – Canadians were limited to working with the US to provide control over North America airspace and obtaining early warning information through NORAD, which was in turn given to the appropriate nuclear weapons authorities in the US. But

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<sup>19</sup> See David Alan Rosenberg, 'The Origins of Overkill: Nuclear Weapons and American Strategy, 1945–1960', *International Security*, 7, 4 (Spring 1983), 3-71.

<sup>20</sup> Richter, *Avoiding Armageddon*, 63.

the threat to the American nuclear deterrent necessitated Canadian cooperation in air defence. Soviet first-strike capabilities, or even the perception of such capabilities, were not considered to be in Canada's strategic interest.

The deployment of ballistic missiles as the primary vehicle for the nuclear arsenals of both superpowers heralded the gradual decline of the 'defensive' justification for strategic defences, and the growing acceptance – by Canadian and American officials – of a strategic doctrine that prioritized mutually assured destruction (MAD), and therefore deterrence, of both superpowers. The importance of air defence was greatly reduced, while the need to maintain early warning capabilities – as the means to assure a survivable second-strike retaliatory capability for the US deterrent – was consequently increased. Not surprisingly, NORAD's role was reconfigured to emphasize surveillance and early warning, based on the Ballistic Missile Early Warning System (BMEWSs) radars in Alaska, Greenland and England, rather than the active defence of an otherwise declining bomber threat. Most importantly, it was in this context that a Canadian revision on the importance of strategic defences against the Soviet nuclear deterrent took place. Canadian defence planners recognized that the advent of ballistic missiles signified the end of American nuclear superiority, and the *de facto* arrival of mutual vulnerability of both superpowers to nuclear weapons. Both R. J. Sutherland and George Ignatieff, two influential thinkers from the Department of National Defence (DND) and the Department of External Affairs (DEA) respectively, argued that 'mutual assured deterrence' promoted strategic nuclear stability and was in the Canadian strategic interest to maintain.<sup>21</sup>

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<sup>21</sup> See *Ibid.*, Chp. 3.

Defence planners in Washington were not nearly as enamoured with the concept of MAD as their northern counterparts. Indeed, the United States may have grudgingly accepted its vulnerability to the Soviet bomber and missile threat, but it was also keen to expand SAC's 'damage limitation' capabilities and therefore found itself in the curious position of combining "the acceptance of counterforce strikes with the claim that stability rested on the concept of mutual assured destruction."<sup>22</sup> Strategic defences against bombers did decline in importance in the 1960s, while the possibility of an ABM system proved to be a tempting yet exceedingly difficult goal. The Sentinel system, which was to be a two-tiered layered defence system consisting of long-range interceptor missiles (Spartan) and short-range point-defence systems (Sprint), was envisioned in 1967 as a means to limit the damage of any ballistic missile attack against urban areas and the US force of intercontinental ballistic missiles (ICBMs). Initial plans for a 'thick' area-defence system would, given its expected costs and the possibility of countermeasures and 'defence suppression' attacks, be rejected for this 'thin' Sentinel ABM system to be directed at the more limited Chinese ICBM threat that was expected to arise in the early 1970s – though with the possibility of a more substantial 'breakout' capability in the future. The Nixon administration introduced Safeguard as its own successor ABM programme in 1969, which embraced a more limited point-defence system to protect the American ICBM and C<sup>2</sup> capability. Any future possibility of a significant strategic defence system was, however, largely curtailed in the ABM Treaty of 1972. Only one American site – in Grand Forks, North Dakota – with a limited number of interceptors

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<sup>22</sup> Cox, *Canada and NORAD, 1958-1978*, 35.

(capped at 100) became operational in 1976, and it was just as quickly deactivated after a few months of service.<sup>23</sup>

Canada refused to participate in either of these programmes and, while allowing for NORAD's early warning capability to be used in the brief operational life of the Safeguard system, even inserted a clause which prohibited Canadian involvement in any ABM system during the 1968 NORAD treaty renewal.<sup>24</sup> In the 1981 NORAD Renewal, this clause was revoked and the command's terms of reference was changed from 'air' to 'aerospace', which coincided closely with the Reagan administration's plans to expand research into the ambitious Strategic Defence Initiative (SDI) programme.<sup>25</sup> The SDI was a defensive complement to the development of enhanced counterforce and 'hard-target kill' capabilities, including the high-yield silo-busting MX and D-5 missiles, for use in prompt counter-leadership and counter-C<sup>2</sup> targeting.<sup>26</sup> Yet Canada would in turn offer a 'polite no' towards any formal participation in this strategic defence programme. The concern was in part economic, as any strategic defence would be both prohibitively expensive and would require robust air defences to prevent bombers from undertaking 'defence suppression' attacks using air-launched cruise missiles (ALCMs). The SDI also coincided with an American effort at an Air Defense Initiative (ADI), and the US remained keen to work with Canada to improve the continent's early warning and defence capabilities – through the installation of OTH-B (over-the-horizon

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<sup>23</sup> See Douglas A. Ross, *Coping with Star Wars: Issues for Canada and the Alliance*, Aurora Papers 2 (Ottawa: Canadian Centre for Arms Control and Disarmament, 1985), 28-34.

<sup>24</sup> Fergusson, "Shall We Dance?" 15.

<sup>25</sup> It is more uncertain whether the Reagan administration had placed any pressure on Canada to acquiesce to such changes. The militaries of both countries, however, did agree to implement such changes as early as 1974, and neither Parliament nor its Standing Committee that examined this renewal appeared to have been informed of the clause's removal. See Denholm, "A Middle-Power Military," 46-47.

<sup>26</sup> For more on the Reagan administration's hawkish nuclear weapons policy, see Desmond Ball and Robert C. Toth, "Revising the SIOP: Taking War-Fighting to Dangerous Extremes," *International Security*, 14, 4 (Spring 1990), 65-92.

backscatter) radars, the transformation of the DEW Line into the automated North Warning System (NWS), and the creation of Forward Operating Locations for interceptor bases in the Arctic.<sup>27</sup> But perhaps the most robust indictment was the relationship between strategic defences and strategic doctrine. After all, a thick strategic defence system, if sufficiently robust and combined with an emphasis on ‘decapitation’ strikes and counterforce weapons, would conceivably blunt the Soviet nuclear deterrent. A combination of counterforce weapons and active defences were considered necessary in order to give the US some degree of ‘strategic superiority’ – to recapture at least a shadow of the ‘golden age’ of American nuclear superiority. As pointed out by such ‘hawkish’ nuclear strategists as Colin Gray and Keith Payne, a war-fighting combination could conceivably give the US the capability “to wage nuclear war at ever higher levels of violence until an acceptable outcome is achieved.”<sup>28</sup>

Any purported advantage in active defence capabilities would be seen by the Soviets as entailing an unacceptable loss of strategic parity with the United States, and therefore such a defence would – by the use of decoys, penetration aids and other countermeasures as well as increases in offensive strike capability – be very much in the Soviet interest to overwhelm. After all, if the US contemplated a pre-emptive first-strike, and indeed its counterforce capabilities were heavily tailored to such a posture, strategic defences could conceivably be able to limit the damage of any residual Soviet retaliation. Canada may have displayed a certain wariness on the stability of the MAD concept, but was even more uncertain on the merits of any ABM system– such active

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<sup>27</sup> Douglas A. Ross, “SDI and Canadian-American Relations: Managing Strategic Doctrinal Incompatibilities,” in Lauren McKinsey and Kim Richard Nossal, eds., *America's Alliances and Canadian-American Relations: North American Security in a Changing World* (Toronto, ON: Summerhill Press, 1988), 155.

<sup>28</sup> Colin S. Gray and Keith Payne, “Victory is Possible,” *Foreign Policy*, 39 (Summer 1980), 26.

defences were seen as perilously leading towards, to borrow Albert Wohstetter's phrase, 'a delicate balance of terror'.

### **Canadian Political Expediency on Missile Defence**

During the Cold War, successive Canadian governments refrained from participation in American BMD proposals, from the Sentinel and Safeguard programmes to Reagan's flirtation with SDI, because such a system would have been inimical to the Canadian support for MAD. The issue was held in abeyance for most of the post-Cold War period. The Clinton administration was far more eager to emphasize research in theatre missile defence (TMD) systems designed for kinetic 'hit-to-kill' interception of shorter-range missile threats from aggressive regional powers and 'rogue states', but neither violated the ABM Treaty nor be seen to endanger strategic nuclear stability between the established nuclear powers. Indeed, while noticeably silent on the TMD issue, Canada displayed some surprising interest in this type of technology – as shown by its participation in several North Atlantic Treaty Organisation (NATO) studies on TMD in the mid-1990s, the examination of a missile defence role in its initial proposal for a Command and Control Area Air Defence Replacement for its *Iroquois*-class destroyers and even the contribution to the Dutch Advanced Phased Array Radar programme.<sup>29</sup>

The Clinton administration, however, did move intermittently towards a 'national' missile defence (NMD) system in the mid- to late-1990s, due in large part by the growing pressure of an increasingly influential Republican Party that sought a more robust policy against this 'imminent' intercontinental threat. This gradual embrace of a

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<sup>29</sup> James Fergusson, "Not home alone: Canada and ballistic missile defence," *International Journal*, 56, 4 (Autumn 2001), 680.

continental area defence system can be found in the 1996 designation of NMD as a deployment readiness programme, as opposed to a technology readiness programme, which was followed by increasing Congressional expenditures on this programme, above and beyond even the Clinton administration's budgetary requests. This process culminated in President Clinton's formal endorsement of this project with the signing of the National Missile Defence Act in 1999.<sup>30</sup> The Capability 1 (C1) and Capability 2 (C2) phases of the NMD programme were designed to field a limited mid-course area defence of the continental United States, based on a single interceptor site – which would either be in North Dakota or Alaska – alongside x-band radar and an advanced space-based, infrared sensor, low altitude (SBIRS-low) surveillance satellite constellation.<sup>31</sup> This programme would remain a research programme, as the Clinton administration deferred any deployment decision for the subsequent administration due to the failure of various interceptor tests. The delay in any deployment decision was a critical one for Canada, as the Chrétien government was quick to refrain from making a decision on participation in missile defence until interceptor deployments had begun. As one expert goes on to describe this policy, “no architecture, no deployment decision, no invitation and nothing to decide.”<sup>32</sup>

Canada's ambiguous policy on BMD came to an abrupt end with the Bush administration's unilateral decision to withdrawal from the ABM Treaty in December 2001, followed by its gradual deployment of a limited number of ground-based interceptors (GBIs) at Fort Greely, Alaska and Vandenburg Air Force base, California.

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<sup>30</sup> For further information, see “National Missile Defence” Federation of American Scientists website, available at <http://www.fas.org/spp/starwars/program/nmd>

<sup>31</sup> For more on this system, see James M. Lindsay and Michael E. O'Hanlon, *Defending America: The Case for Limited National Missile Defense* (Washington D.C.: Brookings Institution Press, 2001), Chp. 4.

<sup>32</sup> Fergusson, “Shall We Dance?” 18.



The Bush administration's ground-based missile defence (GMD) system – which in the short-term will utilize these two GMD sites alongside Cobra Dane radar in Shemya Island, Alaska and a mobile sea-based x-band radar – constitutes the successor system to the previous administration's NMD efforts. GMD became a critical issue for the Canadian government, and it appears that there was strong movement towards some kind of bilateral missile defence agreement. The Chrétien government did initiate some small, still hesitant steps in this direction. Minister of National Defence, John McCallum, announced the beginning of discussions on Canadian participation in the GMD system in May of 2003. Under the subsequent Paul Martin government, an exchange of letters between the defence ministers of both countries marked the first time that Canada requested formal negotiations on possible participation in the GMD system. This was in turn followed by an August 2004 amendment to the NORAD agreement, which allowed for the information from NORAD's Integrated Tactical Warning/Attack Assessment (ITW/AA) to be used by the GMD system. There may have been some qualms over the system, specifically whether it entailed space weaponization, interceptors on Canadian territory, or some kind of asymmetrical Canadian contribution, but Canada's response was for the most part positive.

This was the backdrop to Prime Minister Paul Martin's sudden announcement in February 24, 2005 that Canada would *not* participate in American plans for continental GMD. Paul Martin's Liberal Party had been divided on the issue of missile defence, while other political parties, namely the Bloc Québécois and the NDP, have displayed consistent opposition to any such defence cooperation with the Americans. A Liberal Party forced into minority status was simply in an untenable position to make any such

agreements. Not only was it often reliant on the Bloc and NDP support, but given the Conservative's generally more supportive stance towards such defence cooperation – and their aspirations to replace the Liberal Party in government – it became politically infeasible for the Liberals to participate in any continental GMD programme. As one commentator notes, the recent Canadian decision on missile defence appears to have been “determined primarily by party politics [rather] than an appreciation of the strategic landscape.”<sup>33</sup>

The Liberal government, while offering perhaps a less than polite ‘no’ to the US, also offered the promise of a substantial infusion of resources for the Canadian Forces (CF) – likely as a means of offsetting any American criticisms of its missile defence decision. The government was also keen to transfer the critical NORAD ITW/AA role for use in the GMD system, which safeguarded the bilateral command's early warning role and offered the US what it arguably was most interesting in obtaining (aside from perhaps a political endorsement). NORAD remains a reasonably stable organization that, in the current climate of homeland security addiction<sup>34</sup> and the spectre of air-breathing threats (from hijacked planes to cruise missiles), will continue to play an important air defence role. Indeed, an expanded NORAD was precisely one of the many recommendations offered by the Bi-national Planning Group (BPG), which was formed in 2002 in order to examine issues of bilateral defence cooperation. While the renewal of 2006 would only feature incremental changes, such as an indefinite extension and the incorporation of a maritime warning role in the bilateral command, it would not be impossible to imagine the expansion of the maritime and land warning *and* control

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<sup>33</sup> Rudd, “Muddling Through on Missile Defence,” 31.

<sup>34</sup> See Frank P. Harvey, “Addicted to Security: Globalized Terrorism and the Inevitability of American unilateralism,” *International Journal*, 59, 1 (Winter 2003-2004), 1-37

responsibilities in a future joint review of NORAD. As Joseph Jockel and Joel Sokolsky have noted, the recent NORAD renewal agreement has a number of outstanding unresolved issues that will need to be dealt with sooner rather than later.<sup>35</sup>

Canada will likely face continuing incentive to participate more significantly in American missile defence proposals, irrespective of whether this participation is formally acknowledged or simply operationally incorporated into the bilateral arrangement – the involvement if not participation through NORAD's early warning functions could be a hint at the new type of the *de facto* bilateral cooperation on missile defence. The arguments offered by those whom Douglas Ross has labelled 'tactical accommodationists' would be very persuasive to any government in Ottawa eager to improve relations with Washington.<sup>36</sup> Canada would be secured "continued access to U.S. strategic thinking and plans in missile defence and space", which in turn offered a window of "global, rather than just continental, scale."<sup>37</sup> The third debate on missile defence, rather than being over with a definitive refusal to participate, is likely only in a temporary lull until a more stable political environment develops in Canada. As such, it is doubly prudent to re-assess the linkages between missile defence and strategic doctrine. The relationship between these two factors provides a useful strategic context to assess Canadian policy options on missile defence in the aftermath of NORAD's renewal.

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<sup>35</sup> See Joseph T. Jockel and Joel J. Sokolsky, "Renewing NORAD – Now if not Forever," *Policy Options* (July-August 2006), 53-58.

<sup>36</sup> See Douglas A. Ross, "American Missile Defence, Grand Strategy and Global Security," in David S. McDonough and Douglas A. Ross (eds.), *The Dilemmas of American Strategic Primacy: Implications for the Future of Canadian-American Cooperation* (Toronto, ON: Royal Canadian Military Institute, 2005), 35-66.

<sup>37</sup> James Fergusson, "Canada and Ballistic Missile Defence: What we know, don't know and can't know," Breakfast on the Hill Seminar Series (November 2004), 7. Available at <http://www.fedcan.ca/english/pdf/fromold/breakfast-fergusson1104.pdf>

## Missile Defence and American Strategic Doctrine

The New Triad strategic concept, which has been codified in the 2002 NPR, represents a redefinition of what constitutes a sufficient deterrent, whereby nuclear superiority and unilateral 'assured destruction' of an adversary's strategic capabilities becomes the end goal. 'Offensive strike systems,' including both nuclear *and* conventional kinetic or explosive weapons, would be designed for a variety of missions against rogue states.<sup>38</sup> New counterforce capabilities would, however, be complemented by the incorporation of BMD as a component to or adjunct within US nuclear strategy. Rather than accepting a divide between theatre and national systems, the Bush administration has been eager to eliminate this divide, and have advocated the development and deployment of a multi-layered and 'global' BMD architecture against short-, medium- and long-range ballistic missiles. GMD would provide protection against a long-term threat, while a mélange of theatre and tactical systems would be used to protect American forward deployed forces and/or allies against the more immediate threat of short- and medium-range missiles. The apparent logic of such systems is as clear as it is seductive: missile defence would complement offensive strike systems by "enhancing deterrence and still saving lives if deterrence failed."<sup>39</sup>

The Bush administration has explicitly placed defensive capabilities, including missile defence and less controversial passive defence measures, squarely within American strategic doctrine. As President George W. Bush noted in a 2001 speech to the National Defense University, "We need new concepts of deterrence that rely on both

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<sup>38</sup> See Department of Energy and Department of Defense, *Report to Congress on the Defeat of Hardened and Deeply Buried Targets* (Washington DC: Department of Energy and Defense, July 2001) and Michael A. Levi, 'Fire in the Hold: Nuclear and Non-nuclear Options for Counter-Proliferation,' *Carnegie Endowment for International Peace Working Paper*, 31 (November 2002).

<sup>39</sup> *Nuclear Posture Review*, 25.

offensive and defensive forces. Deterrence can no longer be based solely on the threat of nuclear retaliation. Defenses can strengthen deterrence by reducing the incentive for proliferation."<sup>40</sup> The most controversial aspect of its missile defence plans remains the GMD system for the continental United States. While its current deployments closely follow the Clinton administration's plans for NMD, the ultimate size of the GMD system architecture has yet to be determined. The United States may simply not know the exact size of the planned GMD architecture, but this does raise international concerns on both the ultimate intention of the current American administration and the possibility that these modest deployments could be rapidly expanded. Indeed, the Bush administration's interest in modifying traditional TMD systems for long-range missile interception raises the possibility that there will be over 1,000 interceptors capable of providing a 'thick' area defence of the United States.<sup>41</sup>

The possibility of a strategic defence against ballistic missiles is seen as a necessary measure to protect the continental United States from the potential long-term threat of ICBMs in the hands of unstable rogue state regimes, with the most likely candidates being the two remaining members of the 'Axis of Evil' – North Korea and Iran. Both countries, after all, seem to provide a volatile mixture of nuclear weapons ambitions and interest in long-range delivery systems. It would, however, be a mistake to assume that GMD is meant to only provide protection against a rogue state's hypothetical 'bolt from the blue' attack, especially when the United States is equally focused on the development of counter-proliferation capabilities. The Bush

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<sup>40</sup> George W. Bush, "Remarks by the President to Students and Faculty at National Defense University", Speech to the National Defense University, May 1, 2001. Available at: <http://www.whitehouse.gov/news/releases/2001/05/20010501-10.html>.

<sup>41</sup> See James M. Lindsay and Michael O'Hanlon, "Missile Defense after the ABM Treaty," *The Washington Quarterly*, 25, 3 (Summer 2002), 161-176.

administration had undertaken research on earth-penetrating bunker-busters designed to be capable of generating sufficient ground shock to destroy an underground facility and/or high heat and radiation levels to incinerate chemical or biological agents. Both the Robust Nuclear Earth Penetrator (RNEP) project and the 'Advanced Concepts' Initiative' have encountered an increasingly sceptical Congress, and as a consequence have recently been cancelled. The United States has not, however, cancelled its overarching goal to acquire *specialized* counterforce capabilities, both nuclear and conventional, that would be designed for counterproliferation missions against the Pentagon's growing list of new target requirements – including weapons of mass destruction (WMD) facilities and those hard and deeply buried targets (HDBTs) capable of protecting both WMD stockpiles and C<sup>2</sup> facilities.<sup>42</sup>

Strategic defences against rogue states represent a feasible and tempting addition for US defence planners. The dangers associated with deterrence failure would be reduced, while the promise of strategic 'damage limitation' capabilities – when applied in conjunction with American counterforce capabilities – would be realized. Indeed, the requirement for blunting an adversary's residual deterrent becomes far less onerous after a pre-emptive first-strike has disarmed much of the country's strategic forces, especially given the massive strategic disparity between the United States and its rogue adversaries. Moreover, the development of more flexible and rapid nuclear strike options, embodied in the newly created Concepts Plan 8022 (CONPLAN-8022) that seeks prompt 'crisis action planning' and global strike capability for unexpected

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<sup>42</sup> Nuclear planning for counterproliferation missions has been an under-reported feature of the post-Cold War period. See Hans M. Kristensen and Joshua Handler, "The USA and Counter-Proliferation: A New and Dubious Role for US Nuclear Weapons", *Security Dialogue*, 27, 4 (1996), 387–99.

contingencies, would further increase the speed in which targets are targeted and attacked. As a consequence, the US would have an expanded capability, if not willingness, to undertake pre-emptive strikes using conventional and even nuclear weapons.<sup>43</sup>

Canadian defence planners should reassess the relationship between American plans for GMD and the strategic nuclear doctrine that has, increasingly during the post-Cold War period, been redirected towards rogue states. The New Triad, rather than simply old wine in a new bottle, is actually indicative of a wider shift in the US calculus of deterrence towards achieving the control and dominance of any escalatory step, up to and including the use of WMD, by a rogue state adversary during a military conflict. This 'deterrence by denial' approach, which in the parlance of nuclear strategy is commonly referred to as 'escalation dominance', has been a long-standing strategic goal for American nuclear weapon policy against the Soviet Union, and it remains an even more feasible goal against the strategically weak, if still problematic, rogue state adversaries of the post-Cold War period. New specialized counterforce capabilities would be designed to target HDBTs and WMD facilities among rogue states in order to eliminate any asymmetrical edge of these potential adversaries, while defences would shield against or blunt any rogue state pre-emptive or retaliatory strike in the event of deterrence failure. Deterrence would no longer be a matter of 'punishment', but would rather be based on the military 'denial' of an adversary's strategic deterrent capability. Counter-proliferation occupies a central position in US strategic doctrine and, if it is

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<sup>43</sup> For more on nuclear war planning under the Bush administration, see Hans M. Kristensen, "The Role of U.S. Nuclear Weapons: New Doctrine Falls Short of Bush Pledge," *Arms Control Today*, 35, 7 (September 2005) and *Global Strike: A Chronology of the Pentagon's New Offensive Strike Plan* (Washington DC: Federation of American Scientists, March 2006), available at <http://www.fas.org/ssp/docs/GlobalStrikeReport.pdf>.

successfully implemented in American strategic doctrine, will only further enable American military interventions and regime change campaigns against rogue states in the 21<sup>st</sup> century.

Despite its aggressive nature, the strategic logic that underpins this doctrine should be recognized. Rogue states *do* pose a dilemma for traditional US nuclear deterrence. In the event that the US did have to intervene in a rogue state adversary, strategic WMD capabilities could be used as a means of deterring the Americans from either initiating the military intervention or from completing certain military objectives. A campaign of regime change, for example, would leave little constraint on the behaviour of the rogue state, and the traditional nuclear arsenal and its threat of nuclear annihilation would thereby lose its deterrent value. As pointed out by Charles Glaser and Steve Fetter, “the state’s leader [in the midst of a regime change campaign] might then decide he has little to lose by using nuclear weapons, either in a last-ditch effort to deter the United States or simply to exact revenge.”<sup>44</sup> Alternatively, the authors also raise the possibility that a rogue state with a survivable deterrent might be able to compel an American military withdrawal by launching a limited nuclear strike, and to deter any US retaliation with its reserve deterrent capabilities. Rather than deterring a rogue state, the US might find *itself* deterred from any such intervention. Rogue state may not have developed ICBMs capable of reaching the continental United States, but it is imprudent to assume, given the scale of missile technology proliferation, that this remains only an unlikely and hypothetical scenario. In the meantime, a number of other regional targets – including US allies, basing areas and troop deployments – will still be

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<sup>44</sup> Charles L. Glaser and Steve Fetter, “Counterforce Revisited: Assessing the Nuclear Posture Review’s New Missions,” *International Security*, 30, 2 (Fall 2005), 103.



vulnerable to shorter range missiles. 'Triangular deterrence,' given the possible imbalance of interest and resolve in any regional dispute, could be sufficient for the United States to refrain from such an intervention.<sup>45</sup>

With that in mind, the New Triad's combination of offensive and defensive capabilities, with active defences including both tactical theatre missile defence against the short-term missile threat and continental GMD for the long-term challenge, should be viewed as a critical means of eliminating the advantages accrued from any rogue state deterrent capability. New, more specialized conventional weapons would be seen as entirely *useable* tools of counter-proliferation, and would allow the US to undertake conventional and disarming counterforce attacks against a rogue state. On the other hand, new *nuclear* counterforce weapons are seen as making deterrence (and especially intra-war deterrence) more credible and, in the event of a successful WMD attack during an American military campaign, retaliation much more feasible. New nuclear capabilities may even be viewed as first-use weapons for pre-emptive strikes against suspected HDBTs and WMD facilities that conventional armaments are incapable of neutralizing. This scenario might seem like an extreme measure, but given the high likelihood of a rogue state employment of its WMD capabilities during a regime change campaign, such extreme measures may be seen as both justifiable and feasible.

Missile defence plays a crucial role in supporting such offensive counterforce capabilities. As noted in a draft of the 2005 *Doctrine for Joint Nuclear Operations*, active defences allow for the employment of "offensive counterforce strikes while enhancing

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<sup>45</sup> For more on this deterrence concept, see Robert E. Harkavy, "Triangular or Indirect Deterrence/Compellence: Something New in Deterrence Theory," *Comparative Strategy*, 17, 1 (January-March 1998), 63-82.

security from catastrophic results if an adversary launches a retaliatory strike while under attack.”<sup>46</sup> A disarming counterforce strike, even against such poorly armed adversaries as rogue states, would still be a very difficult task. Rogue states could increase the survivability of their strategic WMD capabilities through concealment, mobility and super-hardened facilities that require high-yield silo-busting weapons to neutralize, which the US could in turn be hesitant to employ. BMD therefore becomes a final damage limitation safety net to enable such military campaigns. Tactical and theatre defences would be needed in order to reduce or eliminate the impact of any rogue state’s residual retaliatory missile attacks – possibly armed with WMD – against allies, basing areas and troop deployments. But if one accepts the need to enable global US interventions, and the need to acquire BMD systems against short-range missiles, strategic defences against long-range missile threats to North America represents a natural long-term goal.

Canada may find the gradual incorporation of rogue states within US strategic doctrine alarming, especially as it would appear to expand American nuclear options as well as the chances of unilateral US-led ‘counter-proliferation wars’ against rogue state adversaries. With missile defence’s uncertain and untested technology, it could lead to interventions that feature the successful use of a rogue state’s strategic deterrent and, as a consequence, severe US counter-retaliation, up to and including the use of nuclear weapons.<sup>47</sup> These capabilities could provide an impetus for a rogue state to adopt unstable employment strategies for its own deterrent, including pre-delegation, ‘launch-

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<sup>46</sup> Joint Chiefs of Staff, *Doctrine for Joint Nuclear Operations*, Joint Pub 3-12 (Final Coordination [2] draft, March 15, 2005) II-10, available at [http://www.nukestrat.com/us/jcs/JCS\\_JP3-12\\_05draft.pdf](http://www.nukestrat.com/us/jcs/JCS_JP3-12_05draft.pdf). The controversial document, the contents of which were highlighted in *Arms Control Today* and the *Washington Post*, would later be removed from the Pentagon website and, soon thereafter, cancelled.

<sup>47</sup> This argument is reiterated in Glaser and Fetter, “Counterforce Revisited,” 84-126.

on-warning' (LOW) postures and the use of more asymmetrical means of deployment, from cruise missiles to prepositioned WMD. Nuclear use, WMD contaminated environments and catalytic regional warfare certainly represent the worst-case scenario for strategic instability between the US and its rogue adversaries.

It would, however, be a mistake to dismiss the utility of missile defence, even if associated with a highly aggressive strategic doctrine, against such adversaries. The technological feasibility of BMD against rogue states, due to their limited ability to develop sufficient missiles or countermeasures to overwhelm an effective layered defence, remains a far less onerous task. Nor do these adversaries have sufficient long-range strike capabilities to undertake pre-emptive suppression attacks (either with ALCMs or anti-satellite [ASAT] weapons) against the otherwise soft and vulnerable radar and interceptor sites of any BMD system, which reduces the need to build expensive air defence 'walls' against air-breathing cruise missile threats to protect the missile defence 'roof'. The asymmetrical strategic resource disparity between the US and these adversaries also makes it less likely that missile defences would facilitate any 'action-reaction' arms race phenomena. Strategic defences would simply increase the costs of and reduce the incentives for WMD proliferation, as scarce resources would have to be spent on decoys and other countermeasures for a strategic WMD capability that may not be effective.<sup>48</sup> Indeed, the recent test failure of the North Korean long-range *Taepodong* ICBM, alongside continuing uncertainty on its capability to either miniaturise its nuclear warhead let alone to incorporate countermeasures, should be an indictment not of the eventual need for defences against ballistic missiles, but rather of

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<sup>48</sup> See Frank P. Harvey, "The international politics of national missile defence: A response to the critics," *International Journal*, 55, 4 (Autumn 2000), 545-566 and "National missile defence revisited, again: A reply to David Mutimer," *International Journal*, 56, 2 (Spring 2001), 347-360.

a rogue state's ability to overwhelm any BMD system. The US ability to blunt any residual retaliatory strike could in fact lead to an adversary's reassessment on the strategic utility of WMD. Perhaps most importantly, the United States may rightly need to undertake conventional military operations in various regional theatres, and therefore need to deal with not only the strategic deterrent capability of its adversaries but also any lingering domestic doubts that could self-deter its foreign policy options. The capability to provide intra-war deterrence of a rogue state's own WMDs, including the defensive requirement to provide protection in the event of deterrence failure, might entail some potentially disconcerting consequences, but it might also simply be necessary.

Notwithstanding its own hesitancy towards some of the elements within the current US shift towards counter-proliferation, Canada should be aware that missile defence would be used primarily as a means to prevent any American disengagement from the global environment.<sup>49</sup> In that sense, Canadian strategic interests are served with some kind of BMD against rogue states and nascent nuclear powers. TMD and tactical missile defence systems are the more pressing requirement, given the more advanced state of the short- and medium-range missile threat. Strategic defences against the long-range missile threat may eventually be necessary, but their immediate deployment – if not their research and development – is not necessarily an immediate concern. But Canadian participation in strategic defence, given its position in North America, remains the natural location for its activities. NORAD is a bilateral command that, with its long-standing early-warning, surveillance and air defence role, appears to

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<sup>49</sup> See James Fergusson's comments in James Fergusson, Douglas A. Ross, J. Marshall Beier, Frank Harvey, and Ann Denholm Crosby, "Round Table: Missile Defence in a Post-September 11th Context," *Canadian Foreign Policy*, 9, 2 (Winter 2002).

be designed for a strategic missile defence role. Canada would also gain a number of important benefits from such cooperation, whether this is the often cited 'seat at the table' of an important US strategic development or the industrial benefits that Canadian companies could potentially accrue from BMD contracts. Indeed, proponents of bilateral strategic defence cooperation have been quick to note the possible fallout to the NORAD partnership from a Canadian refusal to participate. NORAD may have weathered the most recent Canadian refusal, but one cannot be certain that its current importance will continue indefinitely. The US will increasingly rely on Northern Command (NORTHCOM) as a unilateral mechanism to secure homeland defence, and will likely expand the early warning data collection and missile defence capabilities within US-only commands (e.g. Strategic Command [STRATCOM]). Meanwhile, even Canada might conceivably expand the air defence role of the newly created Canada Command (CANCOM) at the expense of NORAD.<sup>50</sup>

Strategic defences are not, however, an issue that can be easily disentangled or isolated from the wider strategic nuclear balance. As Glaser and Fetter have noted, strategic defences are not simply a matter of military-technical or military-political issues vis-à-vis rogue states – the true issue is its “unavoidable connection to US strategic nuclear policy and to the United States’ political relationships with Russia and China.”<sup>51</sup> Unfortunately, the American emphasis on strategic defences will be a source of concern for both Russian and Chinese defence planners. The current plans for a GMD system remain relatively modest and, while potentially having the potential for a more significant

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<sup>50</sup> See Jockel and Sokolsky, “Renewing NORAD,” 53-58. For more on other avenues for the United States, see James Fergusson, “Déjà vu: Canada, NORAD, and Ballistic Missile Defence,” *Occasional Paper 39* (Winnipeg: Centre for Defence and Security Studies, Spring 2001) and Fergusson, “Shall We Dance?,” 13-22.

<sup>51</sup> Charles L. Glaser and Steve Fetter, “National Missile Defense and the Future of US Nuclear Weapons Policy,” *International Security*, 26, 1 (Summer 2001), 40.

missile defence 'breakout', will likely not pose a threat to either Russian or Chinese deterrents. But if the sea-based systems – traditionally used for TMD – become useable for long-range missile interception, the combined size of American strategic defences would become sufficiently robust as to appear threatening to even established nuclear powers.<sup>52</sup>

Counterforce capabilities are also not simply limited to the still unrealized vision of bunker-busters and agent defeat weapons (ADWs). The United States has been undertaking a number of strategic force modernization projects that are aimed at maintaining and upgrading its 'nuclear legacy systems,' but will also significantly expand the counterforce and hard-target kill capabilities of these platforms. The Minuteman III ICBMs will benefit from increased accuracy as well as the larger yield warheads from the now defunct MX missile. American ballistic missile submarines (SSBNs) will also become an even more lethal silo-busting fleet, due to the retirement of the low-yield and less accurate C-4 SLBM and the modernization of the D-5 missile, which remains perhaps the most impressive hard-target kill weapon of the entire US nuclear arsenal. With the additional modernization programmes for both the American fleet of bombers and cruise missiles, the US nuclear arsenal appears to be reducing in quantitative size but its qualitative counterforce capabilities has certainly expanded and will likely continue to do so in the years ahead.<sup>53</sup> Whether due to a 'primacist' inclination or sheer bureaucratic inertia, this combination of offensive and defensive capabilities appears to give the United States at least the worst-case potential for a first-strike capability –

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<sup>52</sup> See Dean A. Wilkening, "How Much Ballistic Missile Defence is Too Much?" *Working Paper* (Centre for International Security and Cooperation, October 1998), available at <http://iis-db.stanford.edu/pubs/10259/toomuch.pdf>.

<sup>53</sup> For more on these developments, see Keir Lieber and Daryl Press, "The End of MAD? The Nuclear Dimension of US Primacy," *International Security*, 30, 4 (Spring 2006), 7-44.

irrespective of whether the US would indeed threaten or launch such a strike, or whether such a strike would actually represent a 'splendid' disarming strike.

While not necessarily leading to a full arms race dynamic, both Russia and China will need to make modifications to their own nuclear arsenals. Russia has already begun to redirect its strategic force modernization plan towards overwhelming any American BMD capability. This includes the retention of the large SS-17 and SS-18 missiles, alongside multiple independently-targetable re-entry vehicle (MIRV) technology for both of these ICBMs and possibly the new SS-27; the refurbishment of its SSBN fleet and the introduction of the new Bulava SLBM<sup>54</sup>; the upgrade of its 'Bear' and 'Blackjack' bombers; the resumption of regular ballistic missile tests and long-range bomber training exercises; and the accelerated development of manoeuvrable re-entry vehicle (MARV) technology.<sup>55</sup> Chinese strategic force modernization remains more problematic, given that the country has less technological nuclear weapon experience than its Russian counterpart and its modernization projects have been slowly under development for a number of years. That being said, China does appear to be accelerating the development of its next-generation platforms, including the more accurate and road-mobile DF-31 and DF-31A ICBMs, which would be solid-fuelled and could potentially be mated with MIRV technology, as well as the three-stage JL-2 SLBM

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<sup>54</sup> A strengthened SLBM force may further increase the survivability of the Russian deterrent. However, SLBMs would still be vulnerable if the SSBNs were stationed at their ports, a high likelihood given Russia's declining number of deterrence patrols. Even if such patrols were increased, the Russian SLBM force would still have to contend with advanced US anti-submarine warfare (ASW) capabilities. This may become a growing concern in the near future, if American ASW capabilities are increased to deal with the growing threat posed to US forces by China's submarine force in the Taiwan Straits. Russian defence planners will undoubtedly watch any such developments closely – especially since 5 of its 12 SSBNs are located at the Kamchatka Peninsula in the Far East.

<sup>55</sup> See Douglas A. Ross, "Canadian Options on Missile Defence After NORAD Renewal: A Persistent Search for Strategic Stability," Paper presented at the Association for Canadian Studies in the United States (28, 29 September 2006). For more on Russia's strategic forces modernization, see Robert S. Norris and Hans M. Kristensen, "Russian nuclear forces, 2006," *The Bulletin of the Atomic Scientists*, 62, 2 (March/April 2006), 64-67.

that would eventually be based on the planned development of a new *Jin*-class SSBN (under Project 094). MIRV technology has yet to be incorporated into China's nuclear arsenal, but the country does have the capability to use this technology as a potent force multiplier in the face of its relatively declining deterrent posture, especially for its upgraded silo-based D-5As and potentially on its next-generation mobile missiles.<sup>56</sup>

These strategic developments are not necessarily directly linked to the American posture, as significant impetus could be caused by the need for national prestige, the security dangers caused by regional (as opposed to global) rivalries, and the often overlooked pressure of a large military-industrial complex.<sup>57</sup> Indeed, the modifications to both country's nuclear arsenals could be seen as a prudent measure to prevent a strategic imbalance with the United States. But it would be a mistake to assume that the consequences of the American posture are therefore strategically benign. In the short-term, both countries will increasingly need to assure the survivability of their respective deterrents in the face of the ever more robust American nuclear force posture. China may have a relatively sanguine view of the US capability to undertake a disarming counterforce attack against its forces, but this will likely change in the event that thick strategic defences are finally fielded that could blunt its admittedly 'minimal means' of retaliation. Given the doubts surrounding Russia's ability to maintain its nuclear arsenal, even to the reduced operational warhead ceiling of the 2002 Moscow Treaty, "Over time, a deteriorating Russian arsenal will become increasingly vulnerable to pre-emptive attack, particularly as the United States undertakes planned modernization of nuclear

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<sup>56</sup> See Robert S. Norris and Hans M. Kristensen, "Chinese nuclear forces, 2006," *Bulletin of the Atomic Scientists*, 62, 3 (May/June 2006), 60-63.

<sup>57</sup> For more on the reasons for nuclear developments, see Scott Sagan, "Why Do States Build Nuclear Weapons: Three Models in Search of a Bomb," *International Security*, 21, 3 (Winter 1996/97), 54-86.



forces and the deployment of missile defenses.”<sup>58</sup> Neither country may believe that the US is indeed attempting to attain a first-strike capability, nor that the US would realistically undertake the unprovoked pre-emptive attack that – by preventing either country from raising their alert status – has the greatest possibility of being successful.<sup>59</sup> It would, however, be imprudent for either country to base its nuclear force planning on anything other than unexpected worst-case scenarios. Russia and China will undertake precautionary measures that, while meant to assure the survivability of their respective deterrents, could still be construed as being strategically destabilizing

Strategic forces modernization programmes will continue in both countries, but limitations in strategic resources – especially in the event of a future downturn in their respective economies – will increase the temptation for a hair-trigger LOW attack postures in order to secure a retaliatory strike against the United States. Chinese nuclear planners, for instance, have already displayed some interest in attaining the capability to deter the superior American conventional capability, including some measure of ‘escalation control’ in the event of deterrence failure. The expansion of US first-strike capability, especially the development of relatively thick strategic defences, will likely only accelerate this trend towards a ‘limited deterrence’ posture. Indeed, Chinese defence planners would face the prospect of assuring retaliatory strikes under increasingly demanding circumstances and, once mobile and solid-fuelled ICBMs are finally fielded, could easily follow the Russian and American lead by adopting a LOW

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<sup>58</sup> John Steinbruner and Jeffrey Lewis, “The unsettled legacy of the Cold War,” *Daedalus* (Fall 2002), 6.

<sup>59</sup> Bruce Blair and Chen Yali, “The Fallacy of Nuclear Primacy,” *China Security* (Autumn 2006), 63.

posture in the event of an impending attack.<sup>60</sup> The Russian dilemma is slightly different, in so far as size of its nuclear arsenal remains relatively robust from a quantitative perspective, and its survivability would likely increase as it begins to emphasize qualitative improvements and less vulnerable deployment schemes. But Russia has traditionally had fears that its highly centralized C<sup>2</sup> arrangements remain vulnerable to nuclear decapitation and, despite continuing uncertainty over its deteriorating early warning radar and satellite coverage, will likely follow its Soviet predecessor by reinforcing a LOW posture. Indeed, Russia could also rely on its Soviet era 'dead hand' quasi-automated retaliation system that, while offering an extreme 'launch-under-attack' (LUA) posture, could also be vulnerable to false alarms due to sensor and/or communication disruption.<sup>61</sup>

In the long-term, one can certainly question the wisdom of a strategic posture that may not create an arms race or immediate strategic destabilization, but will only make both Russia and China more suspicious of long-term US intentions. After all, the Bush administration has embraced a grand strategy of primacy that explicitly links American security to its unipolar global dominance and envisions highly aggressive policies to 'rollback' potential peer competitors and *indefinitely* extend such supremacy. This maximalist grand strategy, which has certainly been facilitated by the current climate of 'security addiction', will likely survive intact (if not unscathed) from the current imbroglio of Iraq and continue to heavily inform American strategic thought, irrespective

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<sup>60</sup> For further information on the doctrine of limited deterrence, see Alastair Iain Johnston, "China's New 'Old Thinking': The Concept of Limited Deterrence," *International Security*, 20, 3 (Winter 1995-1996), 5-42.

<sup>61</sup> Bruce Blair, "Russia's Doomsday Machine", *New York Times*, 8 October 1993. For a contrasting view on whether the automated nature of this system, see Valery Yarynich, "The Doomsday Machine's Safety Catch", *New York Times*, 1 February 1994, p. A17.

of whether the Democratic Party wins the next presidential election.<sup>62</sup> Unfortunately, this grand strategy may lead to the other major powers to gradually form balancing counterweights to US strategic dominance. This may at first represent acts of so-called 'soft balancing,' which are acts that do not directly challenge American strategic primacy, but such balancing may become increasingly robust and 'hard' as suspicion grows over US intentions.<sup>63</sup> This is especially a concern with the developing US-China strategic relationship. Indeed, China was specifically mentioned as a "country that could be involved in an immediate or potential contingency," and the likelihood of a crisis in the Taiwan Straits cannot be ruled out.<sup>64</sup> It is therefore quite possible that the need to maintain 'crisis stability' may become increasingly important in the years ahead. This provides a far more worrisome environment for the New Triad's emphasis on escalation dominance capabilities, and increases the possibility that strategic stability will gradually deteriorate and an offensive (and possibly defensive) arms race dynamic will take hold.

### **Canadian Policy Options on Strategic Defence: Towards a 'Limited' Approach?**

The potential consequences of the American strategic doctrine, while perhaps not as severe as some critics would contend, does raise important questions on the wisdom of any future Canadian involvement in missile defence. The 'tactical' benefits of Canadian participation in GMD through the NORAD arrangement, and the potentially 'strategic' costs to the bilateral partnership of non-participation, are certainly important

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<sup>62</sup> See Barry R. Posen, "Command of the Commons: The Military Foundation of US Hegemony," *International Security*, 28, 1 (Summer 2003), 5-46. For more on security addiction, see Harvey, "Addicted to Security," 1-37.

<sup>63</sup> For more on the growth of 'soft balancing' behaviour by major powers towards the United States, and the role of aggressive US unilateralism in stimulating such behaviour, see Robert A. Pape, "Soft Balancing Against the United States," *International Security*, 30, 1 (Summer 2005), 7-45.

<sup>64</sup> *Nuclear Posture Review*, 16-17.

factors that must be weighed by policy-makers in Ottawa. Canadian involvement would give it a window on global developments and a 'seat at the table' of this vitally important US initiative, while continued access to American space assets and an even further strengthened NORAD arrangement would be assured. But any analysis must also take into consideration the linkage between strategic defence and strategic doctrine, in reference to the immediate threat posed by rogue states and the indirect consequences to strategic nuclear stability. Missile defence is not solely a defensive system, nor is it a policy that can be isolated from either American strategic doctrine or its growing fixation on strategic primacy. A window on strategic developments may be useful, but it is also in Canada's interest to fully understand the purpose of missile defence and the consequences of such developments. Otherwise, Canada may simply become passive observers of developments that are not necessarily in the country's strategic interest.

It is clear that an argument can be made on Canada's involvement in missile defence based on the feasibility of and strategic need for defences against rogue states. To be sure, this may not fit comfortably with the traditional Canadian notion of multilateral non-proliferation, as the New Triad supports the notion that the US is actively seeking to unilaterally "take charge of the core security issues" and become "the primary legitimate authority to deal with the proliferation of weapons of mass destruction".<sup>65</sup> But with the continuing disarray in the non-proliferation regime, it could be in Canada's strategic interest – though perhaps offensive to its values – to participate in more ad hoc and flexible 'coalition of the willing' arrangements to prevent and counter the threat of WMD proliferation. Canada is already a member of the newly

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<sup>65</sup> Douglas A. Ross, "Foreign policy challenges for Paul Martin: Canada's international security policy in an era of American hyperpower and continental vulnerability," *International Journal*, 58, 4 (Autumn 2003), 534.

created Proliferation Security Initiative (PSI), and its participation in missile defence could simply be viewed as another example of the current trend towards US-led counter-proliferation efforts. Indeed, Canada should recognize that the US may rightly need to undertake interventions and regime change campaigns against rogue states, and defensive capabilities to blunt any of their retaliatory deterrent capabilities – for a regional theatre and, in the long-term, for continental North America – may therefore be needed. That being said, the possible trade-off to nuclear stability among the principal nuclear powers does raise troubling questions on the long-term wisdom of participating in strategic defence. Rogue state proliferators may be a worrisome danger in the post-Cold War period, but it would surely be imprudent to be fixated on these dangers at the expense of strategic nuclear stability among the ‘great powers’.

Such an ambiguous conclusion does not necessarily mean that Canada must embrace non-participation in any such active defence system. TMD systems are the most vital in the short- to medium-term, and has the benefit of being largely directed at the rogue state threat and, while enabling military interventions against such proliferators, having a minimal impact on strategic nuclear stability. These systems, however, need to be differentiated from strategic defence systems (e.g. radar coverage, deployment area, interceptor velocity) and not be deployed to certain sensitive regions (e.g. Taiwan Straits) in order to placate lingering Russian and Chinese concerns. Strategic defences are more problematic, but there is no reason why a limited system cannot be developed that would both mitigate a small ICBM volley and minimize concerns among other established nuclear weapon states. For example, some American experts have advocated a smaller midcourse GMD system – with perhaps

only 200 or so interceptors – for the continental system, and boost-phase strategic defences systems that could be located near regional trouble spots. A limited GMD system, especially designed to protect either ICBM silos or the nuclear C<sup>2</sup> system, would have the added benefit of enhancing the survivability of the US nuclear arsenal in the event of an adversary's pre-emptive disarming or decapitating strike. Meanwhile, the latter type of system has the advantage of being unable to threaten Russian or Chinese ICBMs, would likely prove to be more effective due to the lack of possible countermeasures during the boost phase, and could be used as a facilitator of missile defence cooperation with Russia and China, both of which are nearby to rogue states.<sup>66</sup> Indeed, the post-9/11 American military presence in Central Asia might provide a useful means to facilitate such cooperation, as boost-phase GBIs sites in a region like Central Asia would be capable of blunting any Iranian ballistic missile attack against Europe or the United States.

The US should also work towards a more substantive arms control agreement with Russia, which would curtail the strategic *and* tactical nuclear arsenals of both countries through a process of reductions and verified elimination of warheads and delivery systems, as opposed to the current trend towards the creation of a non-operational 'hedge' stockpile. The moderate expansion of the Chinese nuclear arsenal should also be accepted as a sensible means to achieve a robust second-strike capability that would assure the survivability of that country's deterrent. There is also the commensurate need to prevent any future actions that could be construed as being strategically destabilizing, such as the deployment of American space-based BMD

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<sup>66</sup> See Lindsay and O'Hanlon, "Missile Defense after the ABM Treaty," 161-176 and *Defending America*, Chp. 6.

systems or the development of such offsetting measures as ASAT weapon technology. The recent successful test of a Chinese ICBM as an ASAT weapon, while likely meant to offset American conventional superiority that remains so dependent on space 'militarization', also effectively pre-empts any American space-based BMD deployments. This will likely only increase the incentive for more explicit 'balancing' behaviour by the United States (among others), and illustrates the immediate need to prevent further mistrust from growing among the principal nuclear powers. Confidence and security-building measures (CSBMs) can be facilitated with an agreement on a more limited and transparent BMD architecture, if made in conjunction with agreements on strategic force reductions and – to prevent the development of any incipient offensive and defensive space-based arms race dynamic – the prohibition of space weaponization. The United States should also embrace a renewed emphasis on 'countervalue' capabilities, with perhaps a small arsenal of tactical counterforce weapons for prompt counter-proliferation missions. This 'limited counterforce capability' would still be able to mitigate the advantages of a rogue state's deterrent capability, but it would also allay any lingering 'first-strike anxiety' among the principal nuclear powers.<sup>67</sup>

Rather than simply dismissing all types of active defences as either strategically dangerous or technologically infeasible, Canada must actively participate in the American BMD debate with a more nuanced position. In that sense, Canada's official refusal to politically endorse the Bush administration's strategic defence plan, while allowing NORAD's operational functions to be used in such a defence, does constitute a

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<sup>67</sup> See David S. McDonough, *Nuclear Superiority: The 'New Triad' and the Evolution of Nuclear Strategy*, Adelphi Paper 383 (London: International Institute for Strategic Studies, 2006), esp. 85-91.

haphazard but – in the end – strategically ‘savvy’ decision to placate American security concerns while not fully legitimizing what remains an unknown and potentially destabilizing BMD architecture. This should, however, only be the beginning of a more sophisticated approach to the missile defence issue. TMD remains the most immediately required type of active defence, and Canada should emphasize its willingness to accept this type of theatre defence system. The gradual NATO endorsement of a European-based area defence system, evident in its still classified Missile Defence Feasibility Study, would be an ideal environment in which to expand Canada’s involvement in missile defences. Canada does have an interest in placing the controversial missile defence issue within a more multilateral context, while NATO’s European members do share Canada’s suspicions that a thick strategic defence for the United States could have detrimental consequences to strategic nuclear stability. While European-based GBIs under the NATO umbrella promises some potentially fruitful means of trans-Atlantic cooperation, there is a clear need to further placate Russian sensitivities over such a system, lest Moscow’s threat to abrogate the Intermediate-Range Nuclear Forces Treaty (INF) becomes a reality.

In the meantime, Canada should try to placate American homeland defence concerns by accelerating its gradual re-armament programme and displaying a greater willingness to expand NORAD’s responsibility, either by adding land and sea control responsibilities or by emphasizing an ‘overhead surveillance’ capability for North America.<sup>68</sup> Canada should also advocate a more limited approach to BMD and a clearer picture on the end-state of the strategic defence architecture, both of which would

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<sup>68</sup> For an excellent argument on the advantages of ‘overhead surveillance’, see George Lindsey, “Potential contributions by the Canadian Armed Forces to the defence of North America against terrorism: the importance of overhead surveillance,” *International Journal*, 58, 3 (Summer 2003).



constitute necessary conditions for any Canadian political endorsement. At that point, the country would certainly benefit from openly participating in a limited strategic defence system, as that route offers both strategic and tactical benefits to Canadian security and pre-empt the unilateral American impulse for an expansive (e.g. SDI-based) strategic defence vision. There will always be the possibility that such a limited system could be rapidly expanded in the future, but such a robust deployment will – given the slow deployment GBI deployment schedule of the last few years – likely take many years to accomplish. Canada could also make such cooperation more politically palatable by, for example, requiring a weaponization of space exclusion clause to the NORAD agreement.<sup>69</sup> In the end, Ottawa should go into any deliberation on missile defence with its eyes open and recognize that a more sophisticated and ‘limited’ approach to missile defence, while having a clear relationship with an aggressive American strategic doctrine, could also be in Canada’s strategic interest.

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<sup>69</sup> James Fergusson, “NORAD Renewal – Much Ado About...” in “Security and Sovereignty: Renewing NORAD”, *One Issue, Two Voices* (Woodrow Wilson International Centre for Scholars, March 2005), 11.