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## Continuity and Change: The Role of Nuclear Weapons and Missile Defence in Integrated Deterrence

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### The Challenge

The era of great power competition has provided a plethora of security challenges to address. According to the U.S. Department of Defense (DoD), the People's Republic of China, the primary threat to the United States, intends to refashion the Indo-Pacific region to suit its interests.<sup>1</sup> For over twenty years, China developed conventional and nuclear-armed ballistic and hypersonic missiles, which gives Beijing the potential to catch up with the U.S. militarily. In addition, with advanced space-based Intelligence, Surveillance, and Reconnaissance (ISR) systems, and sophisticated Command and Control (C2) networks, China possesses missile systems that can offset American forces in the Western Pacific.<sup>2</sup> Furthermore, Beijing is incorporating electronic, cyber, and space capabilities into its approach to warfare.<sup>3</sup> It also expanded, modernized, and diversified its nuclear forces, and likely intends to obtain over 1,000 warheads by the end of this decade.<sup>4</sup>

The United States' security challenges do not solely stem from China, and are not simply kinetic. The Russian Federation under Vladimir Putin has been labelled a secondary, but acute, threat to U.S. interests. Since February 24, 2022, the Kremlin's invasion of Ukraine demonstrates its ambitions to reassert itself as a major international player. Over the past decade, Russia developed, tested, and deployed new capabilities that challenge U.S. missile warning and defence systems. Moscow also continues to modernize, expand, and diversify its nuclear forces and systems that threaten NATO and its neighbours.<sup>5</sup> Considering these circumstances, the DoD predicts that by the 2030s, the U.S. will face two nuclear powers as competitors, and potential adversaries, for the first time in its history.<sup>6</sup> Other threats include North Korea, who continues to develop nuclear and missile capabilities that threaten the U.S., South Korea, and Japan, as well as Iran, who is working towards producing a nuclear weapon of its own.<sup>7</sup> Competitors are also engaging in gray zone activities: actions below the threshold of war. China, for instance, utilizes cyber and space operations, along

with economic coercion, against the U.S., its Allies, and partners. Russia also uses cyber and space activities, and capitalizes on disinformation operations. In Iran’s case, information and cyber operations are employed.<sup>8</sup>

To confront these threats, DoD released the unclassified version of the 2022 *National Defense Strategy* (NDS) in October 2022, which includes the updated *Nuclear Posture Review* (NPR) and *Missile Defense Review* (MDR). It lists four priorities: defending the homeland; deterring strategic attacks against the U.S., its Allies, and partners; deterring aggression and maintaining preparedness to prevail in armed conflict; and increasing resilience for the Joint Force and U.S. defence ecosystem. To accomplish these goals, one of the methods DoD plans to utilize is integrated deterrence.<sup>9</sup>

This paper explores what this concept means and identifies how the DoD wants to apply it to nuclear deterrence and missile defence. It also addresses misconceptions that inaccurately assume the U.S. seeks to prioritise soft power capabilities over their hard power counterparts. On the contrary, this paper argues that integrated deterrence is not diminishing the role of kinetic assets in American defence policy. Instead, it is incorporating a holistic approach to better respond to alternative acts of aggression, such as gray zone operations. It must also be highlighted that U.S. nuclear deterrence policy makes no major changes, with only some prior initiatives listed in the 2018 NPR being discontinued. Although Washington walks a fine line between nuclear deterrence and non-proliferation, more emphasis is placed on modernizing its nuclear forces. The same cannot be stated about the 2022 MDR, which rebrands and further explores concepts and systems discussed in the 2019 version. It also addresses emerging threats, such as drones, reiterates concerns stated in the previous review about hypersonic weapons, and indicates some continuation of prior initiatives for defeating them.<sup>10</sup>

Documents from the DoD have been heavily consulted in this paper. The 2022 *National Security Strategy* (NSS) and NDS were examined to determine what integrated deterrence means and how it would be applied. To explore how nuclear deterrence and missile defence fit in this approach, the 2022 NPR and MDR were analyzed. Additionally, the 2018 NPR and 2019 MDR were examined to determine which concepts and capabilities were continued, altered, or removed by the current versions. News media, academic blogs, and other primary and secondary sources were also explored to discuss past debates about integrated deterrence and elaborate on concepts not explained in DoD documentation. Finally, the paper concludes with a brief discussion about what integrated deterrence could mean for Canada, and why a new debate about North American defence, as recommended by James Fergusson,<sup>11</sup> but with an emphasis on Ottawa’s role in ballistic missile defence (BMD), is necessary. Consequently, sources from Canadian academics – such as Fergusson, Andrea Charron, Nancy Teeple, and others – were consulted to provide a Canadian perspective.

## Unpacking Integrated Deterrence

The NSS defines integrated deterrence as “the seamless combination of capabilities to convince potential adversaries that the costs of their hostile activities outweigh their benefits.”<sup>12</sup> More specifically, because competing states are operating in military and non-military domains, both of which equally threaten

American interests at home and abroad, the current approach integrates all U.S. Government sectors to prevent adversaries from altering the status quo to their favor. This includes incorporating intelligence, economic, and diplomatic tools as available force posture decisions. Emphasis is also placed on cooperating with Allies and partners in “interoperability and joint capability development, cooperative posture planning, along with incorporating coordinated diplomatic and economic approaches.” As the 2022 NSS explains, this is the backbone for the current NSS.<sup>13</sup>

The NDS explains how DoD intends to utilize integrated deterrence. Its fourth chapter identifies three strategies to deter aggression, and stresses the need to prevent competition from evolving into conflict. The first is “deterrence by denial,” the ability to deny competitors the benefits from engaging in hostile activity.<sup>14</sup> According to the strategy, DoD plans to obtain new assets for this purpose, such as long-range strike capabilities; underwater, autonomous, and hypersonic systems; improving information sharing; and integrating non-kinetic tools – most likely referring to cyber and space infrastructure.<sup>15</sup>

The second is “deterrence by resilience,” the ability to resist, endure, and recuperate from disruptive activities. This method prioritizes enhancing cyber and space resiliency to protect the American homeland, and for collaborating with its Allies and partners. The third is “deterrence by direct and collective cost imposition,” the ability to impose consequences on hostile action that outweigh their perceived benefits. It is a combination of cyber, space, economic, and diplomatic measures, as well as kinetic capabilities.<sup>16</sup> The NDS also places heavy importance on modernizing the American nuclear force, which is described as “the ultimate backstop to deter attacks on the homeland and our Allies and partners who rely on U.S. extended deterrence.”<sup>17</sup> It is also important to mention the “role of information in deterrence,” the ability to effectively convey messages and intent with potential adversaries. To prevent competition from turning into aggression, DoD plans to improve its information domain effectiveness by collaborating with its Allies and partners, along with other U.S. agencies and federal departments.<sup>18</sup>

Integrated deterrence has not been received without criticism. One opponent is Congressman Mike Gallagher, who has questioned its effectiveness since 2021.<sup>19</sup> As noted by Melanie W. Sisson – a fellow at the Brookings Institution – Gallagher claims it downplays the importance of military strength, and failed to protect Ukraine from Russian aggression.<sup>20</sup> He also accused the term of being merely a “fancy phrase” that covers up attempts to “defund the military,” and asserts that the Biden Administration intends to prioritize climate change and equity, diversity, and inclusion over conventional hard power in the American military.<sup>21</sup> Another critic is retired Lt. Gen. Thomas Spoehr, who also claims that integrated deterrence did not prevent Putin from invading Ukraine, despite Western warnings about grave consequences.<sup>22</sup> Additionally, while Spoehr agrees that the U.S. should use all elements of national power and allied contributions in its deterrence posture, he states that relying on non-military tools, instead of investing in hard power capabilities, will not deter potential adversaries like Russia and China. For example, he cites Moscow’s invasions of Georgia and Ukraine in 2008 and 2014, respectively, despite knowing that it would face economic sanctions, and Beijing’s dismissal of the UN Convention on the Law of the Sea (UNCLOS), which stated that its claims over the South China Sea are unlawful.<sup>23</sup>

There are three issues with these critiques. First, claims that integrated deterrence failed to prevent Russia from attacking Ukraine indicate that the concept was already in force before the war began, which is inaccurate. As identified by Michael E. O’Hanlon – Senior Fellow at the Brookings Institution – this approach to deterrence was employed after Russia invaded.<sup>24</sup> Second, investing only in kinetic assets will restrict the United States’ ability to respond to grey zone operations. According to O’Hanlon, integrated deterrence does not attempt to replace raw military power, but recognizes that, in responding to scenarios that blur the line between war and peace, escalating to direct conflict is not always the best option. For example, he explains that if China seizes one of the disputed Senkaku Islands, which both it and Japan claim, “without firing a shot,” attacking the invading troops would not be the correct response. Rather, using economic punishment, military reinforcement and redeployment, coalition building, and increasing resilience against retaliatory economic sanctions by aggressors is more sensible. Additionally, investing in diverse domains provides the U.S. President with more options in such a crisis, which could also include a partial Chinese blockade on Taiwan. In this case, if such an operation fell short of a full invasion, and employed limited lethal force, economic warfare would be a better tool compared to a strictly military response.<sup>25</sup> Otherwise, with only kinetic assets available, O’Hanlon explains that the U.S. would face two unacceptable options: one, a large-scale military response that would be disproportionate to the threat, or two, the lack of a response, which could be inconsistent with Washington’s international obligations.<sup>26</sup>

Finally, as also identified by Sisson, these critiques assume that military capabilities will be neglected in favor of their non-military counterparts.<sup>27</sup> While retired Lt. Gen. Spoehr is right to assert that military strength is best suited to offset kinetic threats,<sup>28</sup> integrated deterrence does not aim to devalue it. According to Sisson, the DoD seeks to use a holistic approach to deterrence, where additional elements of national power are incorporated with military action.<sup>29</sup> Furthermore, even though emphasis is placed on non-military means like space, information, and cyber capabilities, the role of nuclear weapons is not downplayed. On the contrary, they are crucial for integrated deterrence to succeed.<sup>30</sup>

The strategy also brings the nuclear threat to the forefront, explaining that their use by adversaries, regardless of launch location and blast intensity, “would fundamentally alter the nature of a conflict,” creating potential for uncontrollable escalation crises. To offset potential aggression, the DoD intends to modernize the United States’ nuclear force, Nuclear Command, Control, and Communications (NC3), and nuclear weapon production. Additionally, the Department seeks to improve the U.S. conventional force’s ability to operate during not only limited nuclear attacks, but those of a biological and chemical nature as well, to deny adversaries the benefit of owning and using such weapons.<sup>31</sup>

Consequently, claims that integrated deterrence wishes to downplay or outright neglect hard power in U.S. defence policy are incorrect. As far as non-military capabilities like economic sanctions and diplomacy are concerned, they have only been incorporated to provide Washington with additional options to respond to aggression, particularly grey zone activities. They are not intended to replace military assets. Furthermore, since nuclear weapons are described to have “unique deterrent effects,”<sup>32</sup> it can be argued that, on the contrary, they make a more considerable contribution to deterrence than non-military capabilities.

## The Continued Reliance on Nuclear Weapons

Considering that the 2022 NPR frames nuclear weapons as the capability that provides “unique deterrence effects that no other element of U.S. military power can replace,”<sup>33</sup> it is important to discuss their relationship with integrated deterrence. The DoD intends to incorporate non-nuclear capabilities into nuclear structures.<sup>34</sup> When read out of context, the review appears to indicate that the role of nuclear weapons will decrease; however, nowhere does it state that non-nuclear tools will replace their nuclear counterparts. Instead, it explains that nuclear assets are embedded in deterrence policy, which will be complemented by non-nuclear capabilities when appropriate.<sup>35</sup> This reliance on nuclear weapons is demonstrated by the NPR’s declaratory policy:

As long as nuclear weapons exist, [their] fundamental role ... is to deter nuclear attack on the United States, our Allies, and partners. The United States would only consider the use of nuclear weapons in extreme circumstances to defend the vital interests of the United States or its Allies and partners.<sup>36</sup>

As identified by Lisbeth Gronlund – Research Affiliate with the Department of Nuclear Science and Engineering at the Massachusetts Institute of Technology – the statement surrounding the use of nuclear weapons is a continuation from the 2018 NPR, with little to no change in the wording.<sup>37</sup> The absence of a nuclear policy shift is further demonstrated by the current NPR, which states that while no first use and sole purpose<sup>38</sup> frameworks were reviewed for its nuclear declaratory policy, the DoD decided against using either approach. The department’s reasoning was that either option “would result in an unacceptable level of risk in light of the range of non-nuclear capabilities” that competing states possess and develop, which could inflict devastating effects on vulnerable Allies and partners.<sup>39</sup>

The importance of nuclear assets is also showcased by the U.S.’s need to counter adversaries’ reliance on nuclear escalation. According to the DoD, “some competitors have developed strategies for warfare that may rely on the threat of nuclear escalation in order to terminate a conflict on advantageous terms.”<sup>40</sup> Consequently, the NPR places importance on deterring not only nuclear strikes, but non-nuclear aggression as well. If Washington cannot deter escalatory behaviour, it renders the decision to conduct conventional operations more dangerous. Additionally, to undermine adversaries’ confidence in using escalation strategies, the NPR reiterates the NDS’s intention to increase the U.S. military’s resilience when conducting conventional operations amid limited nuclear strikes. This approach is intended to signal that escalation will not incapacitate American forces, along with those of its Allies and partners.<sup>41</sup> In light of these declarations, even though non-nuclear capabilities are being integrated into current nuclear structures, integrated deterrence still relies on nuclear weapons.

The concept of integrating nuclear and non-nuclear capabilities, with more importance being placed on the former, is not new. The 2018 NPR discussed a similar approach, stating that, while nuclear capabilities

cannot deter all conflict, they provide a unique contribution to deterring nuclear and non-nuclear threats. Furthermore, to ensure that hostile action by either method was not successful, the former review sought to integrate “nuclear and non-nuclear military planning and operations.”<sup>42</sup> Additionally, the previous version did not adopt a no first use approach as its nuclear policy, indicating that the threat environment required the U.S. “to retain some ambiguity regarding the precise circumstances that might lead to a U.S. nuclear response.”<sup>43</sup> It also highlighted the same adversarial escalation strategy by discussing Russia’s belief that nuclear threats, or actual limited first use, can coerce the U.S. and NATO to end conflict on Moscow’s terms, and stating that North Korea perceives its nuclear development as a means to obtain escalatory options in a crisis or conflict.<sup>44</sup> The 2018 review’s solution, however, differs from that of the recent version, since it sought to expand the U.S. nuclear force to include low-yield options to discourage escalatory actions by potential adversaries, compared to increasing the U.S. military’s resilience in the face of limited nuclear strikes.<sup>45</sup>

The 2022 NPR also proclaims a commitment to reduce its reliance on nuclear weapons, however, it is not at the forefront of nuclear policy. Even though the review’s first chapter states that “deterrence alone will not reduce nuclear dangers,” and that the U.S. aims to renew its emphasis on arms control and non-proliferation, with the purpose of “reducing the role of nuclear weapons in U.S. strategy,”<sup>46</sup> these concerns are not high priorities for the DoD. Only the review’s sixth chapter is dedicated to discussing matters like negotiating another Strategic Arms Reduction Treaty (START),<sup>47</sup> engaging with potential adversaries on arms control, supporting the Comprehensive Nuclear Test Ban and Fissile Material Cut-Off treaties,<sup>48</sup> and preventing terrorist groups from obtaining nuclear arms.<sup>49</sup> Apart from this chapter, the rest of the NPR prioritizes nuclear threats and deterrence.

These priorities include modernizing the U.S. nuclear arsenal, which was also discussed in the 2018 review. According to the recent version, competitor states show little interest in nuclear arms reduction, and continue incorporating destabilizing systems and non-nuclear strategic threats into their nuclear capabilities. Consequently, the DoD intends to update its aging nuclear force structures, such as the Nuclear Command, Control, and Communications (NC3) system.<sup>50</sup> It should also be mentioned that the 2022 NPR’s modernization approach utilizes several initiatives discussed by the 2018 version, while incorporating a new one to offset emerging technologies. The 2018 NPR sought to strengthen infrastructural protection against cyber and space-based threats, enhance integrated tactical warning and attack assessment, improve command post and communication links, upgrade decision support technology, and integrate planning and operations.<sup>51</sup> These structures are likewise highlighted in the current NPR’s NC3 modernization efforts; however, it also emphasizes protecting the system from electromagnetic pulses, likely to counter Chinese electronic warfare capabilities mentioned by the 2022 NDS.<sup>52</sup>

Despite some changes, the role of nuclear weapons in integrated deterrence does not indicate a radical shift in U.S. nuclear policy. Even though the incorporation of non-nuclear capabilities could be misinterpreted as an attempt to replace their nuclear counterparts, their real purpose is to complement, not displace, the U.S. nuclear force. This concept was also discussed in the 2018 NPR. Finally, even though some emphasis is placed on arms control and non-proliferation, they are not high priorities for the DoD. Instead,

more importance is placed on nuclear threats and deterrence, which includes modernizing nuclear force structures. Considering the minimal alterations made, the current role of nuclear weapons is only a utilization of familiar concepts that were adjusted to reflect the existing international security environment.

## Missile Defence: A More Dynamic Approach

Unlike the 2022 NPR, the recent MDR underwent more significant policy developments. Even though no extreme changes were made, the review rebrands and further explores concepts and systems that were discussed in the prior 2019 version, like the Integrated Air and Missile Defense (IAMD) system, along with modernizing current structures. It also seeks to address new challenges, such as drone warfare, and reiterates the 2019 MDR's importance on addressing hypersonic threats.

Missile defence's role in integrated deterrence has two elements. The first is through the NDS's "deterrence by denial" component, which aims to cast doubt in adversaries' minds over the possibility of a successful missile attack. Additionally, the utilization of missile defences to deter aggression is described as a means to provide damage limitation, which makes the decision-making process, and operational maneuverability, more flexible. The second combines nuclear forces with missile defence structures, since they are complementary components of integrated deterrence. According to the review, while nuclear warheads promise a strong response to aggression, missile defences can mitigate the effects of hostile action if deterrence fails.<sup>53</sup>

The 2022 MDR also formalizes concepts mentioned in the 2019 version and seeks to modernize existing systems. While the previous review discussed missile interception in a broad sense, the current one introduces "missile defeat" as a formal term. It is defined as encompassing "the range of activities to counter the development, acquisition, proliferation, potential and actual use of adversary offensive missiles of all types, and to limit damage from such use."<sup>54</sup> Additionally, a substantial part of this concept consists of modernizing the Ground-based Midcourse Defense (GMD) system, which consists of interceptors based in Alaska and California, space and terrestrial-based sensor infrastructures, and an integrated C2 architecture. Modernization efforts include developing the Next Generation Interceptor to supplement, and possibly replace, the existing arsenal of Ground-Based Interceptors, both of which are intended to counter ballistic missile threats from potential adversaries like Iran and North Korea. The GMD system, however, is not designed to defeat ballistic missile threats from Russia and China, which are more sophisticated. Instead, the U.S. relies on strategic deterrence to counter them.<sup>55</sup>

Another component of missile defeat is the integration of air and missile defences, also called IAMD.<sup>56</sup> This system was also discussed in the 2019 MDR, particularly about its role in using combined systems of deterrence, attack operations, and active and passive defences to prevent offensive air and missile strikes. It is mentioned in the context of enhanced missile defence cooperation efforts with U.S. Allies and partners as well.<sup>57</sup> However, the current version expands upon the IAMD system, stating that it represents a shift from using a strictly platform-specific missile defence approach to a broader one that integrates passive, defensive,

offensive, non-kinetic, and kinetic capabilities into one construct.<sup>58</sup> Additionally, the review places importance on ensuring IAMD capabilities keep pace with evolving regional missile threats, because they can potentially “blur the line between regional and homeland defence and challenge existing IAMD architectures.”<sup>59</sup> IAMD also plays a role in NATO’s defence, which addresses ballistic and cruise missile threats and utilizes defences such as the PATRIOT, Surface-to-Air Missile Platform/Terrain, and National Advanced Surface-to-Air Missile System infrastructures.<sup>60</sup>

The current MDR also expresses concern over drones, formally called Uncrewed Aircraft Systems (UAS).<sup>61</sup> They are described as a cost-efficient and flexible means to conduct strikes below the threshold of conflict, making them an attractive capability for potential adversaries. Drone strikes can be just as lethal as cruise missile attacks, and are capable of being launched from various locations, practically undetected. Additionally, since adversaries do not perceive UAS capabilities as having the same destabilizing geostrategic effects as missiles do, they are becoming a preferred method to conduct tactical strikes. The DoD also predicts that the use of drones will likely expand and continue to threaten U.S. military personnel serving overseas, its Allies and partners, and potentially American soil. Consequently, counter-UAS capabilities have been described by the MDR as an important IAMD initiative; however, little information is given about how DoD intends to engage in this development, other than strengthening regional air defences in the Middle East.<sup>62</sup>

The 2022 MDR echoes the previous version’s concerns about hypersonic missiles as well. Both reviews highlight how these weapons can challenge existing defences, with the 2019 version emphasizing its high speeds, and the current review underlining its dual nuclear and conventional warhead capability. Each version also emphasizes their unpredictable flight patterns.<sup>63</sup> The 2022 MDR additionally claims that China improved its hypersonic missile technology and capability development, and continues to catch up with the U.S. in this category. It also strongly indicates that Russia already owns a hypersonic arsenal, considering its assertion that Moscow used them alongside land, air, and sea-launched cruise and ballistic missiles in Ukraine.<sup>64</sup> Consequently, the review explains that the U.S. will continue developing passive and active defences against regional hypersonic threats, and obtain a network of sensors to track and identify all incoming missiles so they can be intercepted. The acquisition of sensors is also prioritized over acquiring interceptors and C2 systems. Furthermore, the review mentions that the U.S. will research and develop hypersonic defence systems with its Allies and partners.<sup>65</sup> Finally, while this cannot be factually stated without further evidence, the current review’s commitment to developing anti-hypersonic defences could be referring to similar initiatives mentioned in the 2019 version, which includes obtaining space-based sensors and assessing defence architectures to counter hypersonic weapons.<sup>66</sup>

Unlike the role of nuclear weapons in integrated deterrence, that of missile defence is more dynamic. Even though it does not make a drastic policy shift, substantial alterations were made to reflect emerging threats, such as drone warfare. This is also the case for initiatives and concepts that were continued from the 2019 MDR, such as the GMD and IAMD systems, and efforts to counter hypersonic missiles. Notably, none of these initiatives indicate that hard power capabilities will be neglected, which showcases that non-kinetic



capabilities can be implemented in defence policies while they simultaneously maintain a strong emphasis on their kinetic counterparts.

## Implications for Canada

With the role of nuclear weapons and missile defence within integrated deterrence explained, it is important to close with a consideration about what this means for Canada, because of its role in modernizing NORAD. Since Ottawa does not have a nuclear arsenal, having given up the last of its nuclear weapons in 1984, and does not intend to obtain any more, given the current government's strong commitment to non-proliferation,<sup>67</sup> it makes little sense to discuss possibilities of directly participating in nuclear deterrence. However, considering the United States' integration of air and missile defence systems, and the uncertainty over whether Canada can continue to stay outside of (BMD), we should consider James Fergusson's recommendation for a new public debate about North American defence,<sup>68</sup> but with an emphasis on the potential for Canadian BMD participation. Additionally, we should contemplate the possibility of Ottawa obtaining its own anti-ballistic missiles. Considering the increasingly precarious security environment, without its own ballistic interception capabilities, Canada stands to lose agency in its own defence, since the United States would unilaterally decide how North America will be protected.<sup>69</sup> This would also place Canadians in a disadvantageous position, since the United States is not obligated to protect Canadian soil from a missile strike.<sup>70</sup>

It also appears that limited participation may not be on the table for Canada. Before the 2022 NDS was released, its fact sheet's statement about the inclusion of Allied and partner perspectives in defence planning<sup>71</sup> could have been interpreted as the U.S. being open to this possibility. Such options, in the words of Nancy Teeple, could have consisted of expanding upon current roles in data sharing, assessment, and early warning, participating in research and development, or exploring non-kinetic left-of-launch approaches in the space and cyber domains to electronically disable offensive systems.<sup>72</sup> Unfortunately, the official NDS does not indicate that any of these possibilities are available for Ottawa to explore. Discussions about U.S.-Canada defence cooperation are sparse and broadly stated. For example, the strategy only mentions Washington's partnership with Ottawa in the context of enhancing "North American Aerospace Defense Command capabilities."<sup>73</sup> The MDR makes a similar statement, that both countries through NORAD "will continue to work together to improve early warning surveillance for potential incursions or attacks originating from any direction into North America."<sup>74</sup> Nowhere does U.S. documentation imply that alternative approaches would be considered. If that were the case, the DoD would have dedicated at least a brief section to discussing the matter. This is not to suggest, however, that the U.S. is concretely opposed to limited participation for Canada, but its absence from the strategy indicates that Washington is not interested in exploring these possibilities.

Even though this approach would have been politically attractive for Ottawa, it would have posed problems in the future. As Justin Massie, Jean-Christophe Boucher, and Stéphane Roussel explain, previous debates about missile defence indicate that the Canadian public has a negative perception about its offensive

aspect. Instead, the public is more likely to support NORAD modernization if its defensive role in detection is maintained.<sup>75</sup> It is true that public opinion motivated the Canadian government's decision to not participate in American BMD systems since the 1960s, with many variables affecting this social pressure, such as the influence of Quebecois politics, anti-Americanism, and fears about the weaponization of space.<sup>76</sup> However, the clear divide between offensive and defensive capabilities and postures, as Andrea Charron and Jim Fergusson explain, will not last. Advancements in military technology, such as hypersonic weapons, will likely quicken the merger of air and space domains, rendering the division of offensive and defensive positions problematic.<sup>77</sup> Consequently, public perception of missile defence will be inevitably challenged.

Considering these developments, a renewed conversation about the potential for Canadian participation in BMD, at the academic, political, and public spheres, is necessary. Attempts will be made to manipulate public opinion, particularly through highlighting supposed perils of participation, such as playing on Canadian fears about relinquishing sovereignty to the U.S., as well as concerns over government spending.<sup>78</sup> To avoid this issue, it is essential for academics to be at the forefront to provide nuanced assessments for both sides of the argument, and prevent a "misguided emotional debate, rather than a reasoned one."<sup>79</sup> The Government of Canada also has an important role to play, since Fergusson explains they need to go beyond making funding commitments, and provide a solid platform for an informed public debate.<sup>80</sup> Additionally, even though emotional dismissals of this matter are problematic, blind support can be just as, if not more, troublesome, considering it can lead to alarmist rhetoric that can damage discourse. The plethora of complexities the current threat environment brings are here to stay, and as the U.S. prepares for them, Canada, during its part in modernizing NORAD, needs to decide what its role will be in the face of great power competition.

## Notes

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<sup>1</sup> U.S. Department of Defense, *2022 National Defense Strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review* (Washington D.C.: The Office of the Secretary of Defense, 2022), 4, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>2</sup> U.S. Department of Defense, "2022 Missile Defense Review," in *2022 National Defense Strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review* (Washington D.C.: The Office of the Secretary of Defense, 2022), 2, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>3</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 4.

<sup>4</sup> U.S. Department of Defense, "2022 Nuclear Posture Review," in *2022 National Defense Strategy of the United States of America: Including the 2022 Nuclear Posture Review and the 2022 Missile Defense Review* (Washington D.C.: The Office of the Secretary of Defense, 2022), 4, <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>.

<sup>5</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 4-5; U.S. Department of Defense, "2022 Missile Defense Review," 2-3.

- <sup>6</sup> U.S. Department of Defense, “2022 Nuclear Posture Review,” 4.
- <sup>7</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 5.
- <sup>8</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 5-6.
- <sup>9</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 1.
- <sup>10</sup> U.S. Department of Defense, “2022 Missile Defense Review,” 2-4, 7-8; U.S. Department of Defense, *2019 Missile Defense Review*, xvi, 6, 58-59.
- <sup>11</sup> James Fergusson, “North American Defence Modernization in an Age of Uncertainty” *Macdonald-Laurier Institute Commentary* (October 2022): 8-9, [https://macdonaldlaurier.ca/wp-content/uploads/2022/10/20221017\\_NORAD\\_Fergusson\\_COMMENTARY\\_FWeb.pdf](https://macdonaldlaurier.ca/wp-content/uploads/2022/10/20221017_NORAD_Fergusson_COMMENTARY_FWeb.pdf).
- <sup>12</sup> The White House, *2022 National Security Strategy* (Washington D.C.: The White House, 2022), 22, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.
- <sup>13</sup> The White House, *2022 National Security Strategy*, 22.
- <sup>14</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 8-9 and Michael J. Mazarr, “Understanding Deterrence,” (Santa Monica, CA: RAND Corporation, 2018), 2, <https://www.rand.org/pubs/perspectives/PE295.html>.
- <sup>15</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 8 and U.S. Department of Defense, *2022 Nuclear Posture Review*, 4.
- <sup>16</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 8-9.
- <sup>17</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 9.
- <sup>18</sup> U.S. Department of Defense, *2022 National Defense Strategy*, 9.
- <sup>19</sup> Mike Gallagher, “Opinion: The Pentagon’s ‘deterrence’ strategy ignores hard-earned lessons about the balance of power,” *Washington Post*, September 29, 2021, <https://www.washingtonpost.com/opinions/2021/09/29/pentagons-deterrence-strategy-ignores-hard-earned-lessons-about-balance-power/>.
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- <sup>44</sup> U.S. Department of Defense, *2018 Nuclear Posture Review*, 30, 54.
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- <sup>46</sup> U.S. Department of Defense, “2022 Nuclear Posture Review,” 1.
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- <sup>72</sup> Teeple, “The Future of Canadian Participation in Missile Defence,” 127. According to Nancy Teeple, left-of-launch refers to the act of destroying or disrupting offensive missiles before they are launched. These operations can be accomplished with either kinetic or non-kinetic capabilities. Teeple, “The Future of Canadian Participation in Missile Defence,” 124-125.
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# POLICY PRIMER



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