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How have U.S Advanced Conventional Weapons shaped Russia's nuclear doctrine since 2013?

Abstract

As debates on Advanced Conventional Weapons and the increasingly blurred line between conventional and nuclear deterrence intensify, it becomes clear that there needs to be a deeper understanding on how these weapons affect the nuclear posture of states. Current research on ACW's focus on these weapons as being separate from their nuclear counterparts, which fits traditional deterrence theory. However, little is known about how nuclear doctrines are affected by the entanglement of nuclear and conventional forces. This research explores the effects of U.S. ACW's on Russia's nuclear doctrine post-2013, in order to expand on, and to some extent challenge current research in the field of nuclear politics. It covers how Russia perceives these weapons in the context of global and national stability, the survivability of its own nuclear arsenal, and it aims to uncover the doctrinal responses to them. The findings reveal that Russia does indeed find U.S. ACW's to be a threat to its strategic stability, leading the country down a path of an arms race to maintain parity with the U.S. in terms of their conventional capabilities. More importantly, it is revealed that besides modernization efforts of its conventional and dual-capable arsenal, Russia is now doubling down on the signaling of its nuclear triad through lowered nuclear escalation thresholds and increased strategic ambiguity. This opposes the dominant framework of traditional deterrence that treats nuclear and conventional weapons as separate from the other when analyzing a state's nuclear doctrine. Further research could benefit from using a comparative case-study to find out if the findings apply to other nuclear powers as well. Moreover, it would be enlightening to analyze how the proliferation of ACW's and their entanglement with nuclear forces shape and define regional conflicts.

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Introduction

Advanced Conventional Weapons and their implication on deterrence and global stability have been a point of contention amongst scholars and experts in the field of nuclear politics. These weapons have the ability to deliver tactical effects that could previously only be achieved through a nuclear strike, making them very attractive for states to develop due to their 'usability' (Sokov, 2018). They, however, undermine core pillars of deterrence theory according to scholars such as Unal et al. (2020), like the principle of Mutually Assured Destruction and a strict separation between conventional and nuclear forces (Futter et al., 2025; Freedman, 2003). In light of these developments, there is contention amongst scholars about if traditional deterrence theory can still hold up, as it cannot account for the proliferation of ACW's and their growing entanglement with state's nuclear forces (Lieber & Press, 2017). This thesis aims to answer the following research question: *"How has the emergence of U.S Advanced Conventional Weapons impacted Russia's nuclear doctrine since 2013?".* This was done in an attempt to extend current research on ACW's beyond the framework of traditional deterrence theory using Russia as a case study, in the hope of contributing to the understanding of the behaviors of nuclear states in an era of cutting-edge technologies and shifting global power dynamics. Ultimately, the goal is to get one step closer to global stability, free from nuclear threats. After extensive research, it was found that ACW'S create pressure on the Russian perception of strategic stability, especially in the context of the fall of the Intermediate-Range Nuclear Forces treaty and other developments, such as the war in Ukraine and the U.S. Conventional Prompt Global Strike program. This creates an arms-race dynamic where nuclear signaling, the constant reminders that Russia's nuclear forces are ready for use, is prevalent, in an attempt to maintain parity with adversaries. This arms race dynamic and nuclear signaling in the context of U.S. ACW's is clearly seen in Putin's official speeches and statements from 2013 onwards. Time and time again has Russia reiterated that it will mirror the developments

of its adversaries, in particular the U.S. When they modernize and deploy, Russia modernizes and deploys. Especially after the dissolution of the INF-treaty, the development and modernization of intermediate-range missiles are no longer of limits, which Putin has specifically acknowledged (President of Russia, 2019). Ultimately, the result of these external pressures is a lowering of the threshold for the use of nuclear weapons by adding conventional strikes to the list of potential triggers, and an increasingly ambiguous nuclear posture, where dual-use capabilities and the further entanglement of conventional and nuclear forces play a key role. The next section of this thesis will provide a detailed literature review that will illuminate key concepts, debates and theories surrounding ACW's and Russia's nuclear posture.

Literature Review & Theoretical Framework

This literature review will summarize and synthesize current literature and debates surrounding the research topic. It does not contain an analysis of the primary data yet; this will be discussed in the "analysis" chapter.

Advanced Conventional Weapons

Advanced Conventional Weapons, hereafter referred to as ACW's, are high-precision, technologically sophisticated non-nuclear weapons that, through their advanced speed, accuracy, and range, can deliver tactical effects comparable to the destructive effects of nuclear weapons (Onderco & Zutt, 2021; Futter et al., 2025). Dr. Nikolai Sokov (2018, powerpoint) seems to agree on this definition, as he also emphasizes the "usability" of ACW's compared to their nuclear counterparts. Next to being able to deliver tactical effects that previously could only be achieved by a destructive nuclear strike, these weapons do not seem to carry the same stigma as nuclear weapons do, potentially lowering the barriers for using them (Sokov, 2018). In this section I will elaborate on the following ACW's to create a backdrop for the

understanding of the analysis: Hypersonic weapons, Precision Guided Munitions (PGM's), and the broader category of Dual Use Weapons.

Firstly, hypersonic weapons are weapons that travel at speeds greater than Mach 5, which is five times the speed of sound. They maneuver in an unpredictable manner, making them harder to detect and intercept in a timely fashion (Speier et al., 2017). There are two main types of hypersonic weapons, which are Hypersonic Glide Vehicles (HGV's) and Hypersonic Cruise Missiles (HCM's). HGV's are typically released from a ballistic missile, and glide towards their target, whereas HGM's are powered throughout their flight by rockets or high-speed jet engines (Speier et al., 2017). Hypersonic missiles are dual use, as they can carry both nuclear and conventional warheads, increasing strategic ambiguity and crisis instability, as states cannot be sure if an incoming strike is nuclear or not (Kristensen & Korda, 2019).

Precision Guided Munitions are munitions that are guided onto a specific target using an electronic guidance system, thereby enhancing precision, and minimizing collateral damage (Truxal, 2019). An example of a PGM is the guided conventional bomb, often referred to as the 'Smart Bomb' (Kahn & Horowitz, 2022). PGM's enable a state to cripple an adversaries command-and-control centers and other high-value targets with surgical precision, requiring less munition (Kahn & Horowitz, 2022).

Lastly, Kristensen and Korda (2022) state that dual-use weapons are those systems that are capable of delivering both nuclear and conventional warheads. Russia has been investing in these systems, deploying the Iskander-M and Kinzhal as a strategic choice as these weapons serve a dual warfighting and deterrent purpose. This complicates threat assessment and leads to a strategic ambiguity that creates space for misunderstandings, potentially leading to an escalation into nuclear conflict as states are prone to assume the worst-case scenario (Kristensen & Korda, 2022).

According to Acton (2015), Russia seems to be concerned about the greater 'usability' of conventional weapons by potential adversaries compared to nuclear weapons, increasing their proliferation. In a 2013 interview with Anatoly Antonov (former Russian ambassador within the United States), this concern surrounding conventional capabilities and dual-use systems was reiterated and elaborated upon. According to him, at least in 2013, there was a real concern among Russian experts about the possibility that high-precision delivery systems developed under the U.S. Conventional Prompt Global Strike program might be re-armed with nuclear warheads (Acton, 2015; Antonov, 2013). In such a case, strategic stability will be gravely impacted according to Antonov (2013), as the ambiguity of whether or not a missile is nuclear or non-nuclear can escalate tensions, with Russian officials having to act under the worst-case scenario, assuming a nuclear strike and thus being forced to launch a counterattack that could have disastrous global consequences (Antonov, 2013). Antonov's vision is partly supported by Van Hooft et al. (2023), who posit in their research that the commingling and entanglement of nuclear and conventional capabilities can serve as a pathway to inadvertent nuclear escalation. There can be entanglement either through the fielding of dual-capable delivery systems that increase uncertainty about whether or not they carry a nuclear payload, the co-location of conventional and nuclear weapons and complimentary infrastructure, and/or the overlapping of command-and-control infrastructures (Van Hooft et al., 2023; Wilson & Rumbaugh, 2023). Arbatov (2019) builds on this argument by stating that this subsequently leads to an increased risk of misinterpretation, as time is of the essence and it is not possible to distinguish a nuclear warhead from a non-nuclear one before it is too late. States are then more inclined to launch a nuclear retaliatory strike or engage in pre-emption when they feel that their nuclear assets and command-and-control information systems are under threat.

Deterrence theory

Deterrence theory as conceptualized by Waltz (2000) positions the idea that having an arsenal of nuclear weapons as a state will prevent other states from attacking and/or using their nuclear arsenal through the logic of Mutually Assured Destruction, or MAD for short. Through the threat of devastating retaliation any attack will result in unacceptable damage and the demise of a state. Thus, by assuming rationality in the actors, deterrence capabilities prevent nuclear escalation (Waltz, 2000). A key aspect of deterrence is credibility. A state can have a nuclear arsenal, but if the circumstances under which they can be used are not communicated effectively, credibility will be lost, misunderstandings can arise, and other actors cannot make the appropriate cost-benefit analysis (Huth & Russet, 1984). Freedman (2003) asserts that a second-strike capability is the foundation of traditional, mutual deterrence. Also referred to as assured retaliation, the term refers to a state's capacity to not only absorb a nuclear attack from an adversary, but to retaliate with unacceptable damages to the initial aggressor as well (Freedman, 2003).

This pillar of traditional deterrence, however, has arguably come under threat with the emergence of ACW's according to several scholars in the field of deterrence. Academic literature shows that Mutually Assured Destruction is not as assured anymore when a pre-emptive conventional strike can destroy nuclear silos, critical infrastructures, and early warning systems, therefore disabling a state's second strike-capabilities. This lowers the security of a state's nuclear arsenal, and this security is also inherent to traditional deterrence theory (Lieber & Press, 2017). As discussed in the previous section of this literature review, this can ultimately lead to a greater incentive for first use of nuclear weapons (Unal et al., 2020).

Another pillar of traditional deterrence pertains to the clarity and factuality of information. Deterrence centers around influencing the cost-benefit analysis of an adversary,

and therefore a thorough understanding of an adversaries perceptions, thoughts, and strategies is needed (Peters et al., 2018). In this case, incomplete and/or incorrect information can lead to nuclear escalation through misunderstandings and miscalculations about an opponent's goals and strategies. To illustrate, the US prefers deep-territory, rapid strikes early on in a conflict. When applied against China, such actions could prompt a nuclear retaliation due to the entanglement of nuclear and conventional forces in Beijing, as China might decide to use its nuclear arsenal whilst it is still intact, genuinely believing that its nuclear forces are under threat. This is then a case of escalation through misinterpretation, and this information is relevant to the study due to the fact that Russia is participating and investing in nuclear entanglement and dual-use systems as well (Unal et al., 2020; Kristensen & Korda, 2022).

These examples by experts in the field aim to show that an improved approach is needed to explain the nuclear posture of states during this third nuclear age where cutting-edge technologies keep emerging and proliferating, and nuclear entanglement is gradually becoming more of a rule, rather than the exception (Naylor, 2019).

In the next section of this literature review, an overview of the academic literature on Russia's current nuclear strategy and stance towards ACW's will be provided to extract key debates and concepts relevant to the subsequent thematic analysis that will be conducted later on in this thesis.

Debates on Russia's current nuclear strategy

Russia's 2020 policy on nuclear deterrence stated that the Russian Federation had reserved the right to use nuclear weapons as a response to a nuclear attack and any other type of weapon of mass destruction employed against the state. Moreover, Russia also reserved the right to use its nuclear arsenal if conventional weapons are used to attack, if such an attack brings the very existence of Russia as a state in jeopardy (Futter et al., 2025). However, reports

have circled that Russia has revised this policy in 2024, with the state now reserving the right to use nuclear weapons when an attack by another state creates a critical threat to its sovereignty and territorial integrity, or to that of Russia's ally, Belarus. Moreover, this policy also states that nuclear weapons might be used when there is reliable information on the launch of ballistic missiles attacking Russian territory or that of its allies (*Russia Revises Nuclear Use Doctrine | Arms Control Association*, 2024).

Russian nuclear doctrine throughout the years had relied heavily on its nuclear triad to deter possible attacks from other states. However, within this Third Nuclear Age, nuclear-armed states are now also developing strategic non-nuclear weapons using cutting-edge cyber and artificial intelligence capabilities (Zala, 2019). This is done to reduce a state's vulnerability to a nuclear attack, and transcends the reliance on traditional deterrence, rooted in mutually assured destruction (Zala, 2019). Nuclear weapons have provided stability in the sense that they deter other states from attacking first. However, if a state's nuclear arsenal can be wiped out by non-nuclear offensive technologies, this will have significant effects on traditional deterrence as currently used in global nuclear politics (Zala, 2019).

Now, Russia is investing in modernizing its nuclear and non-nuclear strategic and tactical forces (Futter et al., 2025). The advanced conventional component of this modernization program includes the development of the Peresvet and Zadira laser weapons, advanced cruise missiles, and the replacement of the nuclear-armed A135 missile defense system surrounding Moscow, with a non-nuclear system (Futter et al., 2025). Futter et al. (2025) posit that despite these conventional technological advancements, Russia still seems to emphasize its nuclear forces, demonstrated for instance through the nuclear signaling towards NATO in Ukraine during the war. Moreover, they argue that there is an emphasis on dual-use systems, which is a deliberate strategic choice as it increases uncertainty amongst adversary

states, who now have to think even faster due to the limited response times these advanced weapons give (Futter et al., 2025).

Russia's greater emphasis on non-nuclear deterrents is further demonstrated by its 2019 strategic deterrence exercise, which features the use of the Iskander and Kalibr dual-use systems alongside certain nuclear forces according to Akimenko (2021). Fueling the ambiguity surrounding its nuclear doctrine, Russia emphasized the involvement of 'strategic deterrence forces', rather than referring to strategic nuclear forces (Akimenko, 2021). In itself, Akimenko (2021) argues that this can be a deterrence strategy, but this uncertainty can also create misunderstandings and miscalculations. In an era of combined conventional and nuclear deterrence, a state such as the U.S. could have interpreted this exercise as nuclear signalling, causing them to prepare for a worst-case scenario such as a pre-emptive strike (Akimenko, 2021).

Several scholars found that there is a concern that American ACW'S, and more specifically, the CGPS-program could eliminate Russia's nuclear forces through a pre-emptive strike, without crossing the nuclear threshold (Acton, 2015). To enhance the survivability of its own nuclear arsenal, and to generate a more credible deterrence, Acton (2015) argues that this is one of the reasons why Russia is investing in hypersonic weapons and other conventional systems right now. To conclude this review, Sokov (2018, powerpoint) points out three major challenges that ACW's bring to strategic stability, which is the ideal situation in which no state has an incentive to launch a first nuclear strike: dual-use capabilities, high usability, and extremely short warning times (Ven Bruusgaard, 2023).

Research Puzzle

Although Russia's nuclear posture has been analyzed extensively since the Cold War, much of the academic literature and debate in this context still seems to separate nuclear

weapons and ACW's, primarily focusing on nuclear deterrence. This, despite nuclear entanglement becoming more prevalent than ever. States such as Russia, the U.S., and China are now increasingly investing in dual-use capabilities and co-locating their nuclear and conventional forces, increasing the risks of misunderstandings and misinterpretation (Peters et al., 2018; Van Hooft et al., 2023). Moreover, Russia now explicitly mentions conditions under which a conventional attack could trigger a nuclear retaliation (President of Russia, 2024). These developments signal a blurred line between conventional and nuclear conflict, which is a specific niche that has largely been overlooked in current academic research. In the cases where research does focus on ACW's and their implications on nuclear politics and posture, it is often done through the lens of traditional deterrence theory. However, this theory might need to be reshaped to fit the current context, as it does not currently account for the loss of second strike-capabilities at the hands of a conventional strike and the subsequent breakdown of MAD. In fact, it does not account for the implications of the blurring border between conventional and nuclear capabilities on strategic stability in general (Unal et al., 2020).

In the West, there are now fears that through its revised, increasingly flexible nuclear doctrine, Russia is moving towards an 'escalate to de-escalate' strategy, where it might use nuclear weapons early in a conflict to force an adversary to back down (Sokov, 2020). This thesis is interested in the role of ACW's when it comes to developments such as these. It analyzes the influence of U.S ACW's on Russia's nuclear doctrine post 2013, to address the gap in the literature regarding nuclear entanglement and the expanded role that ACW's now play within international conflicts. In doing so, the implications of these developments on broader strategic stability can be uncovered in a manner that goes beyond the framework of traditional deterrence.

Research design and methodology

This section will elaborate on the research design and methodologies used for this thesis. Firstly, this thesis will be based on the following research question: *'How have U.S Advanced Conventional Weapons impacted Russia's nuclear doctrine since 2013?'*.

The research follows an inductive, bottom-up, approach. Although theories such as deterrence theory helped shape this thesis, the paper itself is not primarily focusing on using the theory to explain Russia's nuclear politics. Rather, the foundations of this thesis lay in the collection of data and the observation of themes and patterns within this data. An inductive approach was selected due to the under-explored nature of the subject of ACW's in the context of Russia's nuclear doctrine. A deductive approach was ruled out, due to the fact that current theories such as deterrence theory do not seem to fit the current context of nuclear politics and ACW's.

A qualitative design was chosen instead of a quantitative design, as the data used within this thesis is largely non-numerical. The goal is to gain an in-depth understanding of U.S. ACW's and their influence on Russia's nuclear doctrine, which makes the research itself mostly explorative in nature, given that ACW's are a relatively novel phenomenon of the 21st century (Futter et al., 2025).

As for the research strategy, a case study focusing on Russia was selected rather than a small-n comparative case study, as it is an ideal way to study one actor or phenomenon in an in-depth manner, which is exactly what this study aims to achieve.

Following the qualitative design of this study, primary data serves as the heart of this thesis. The data in question includes government publications, news articles, arms control agreements and other multi/bilateral agreements that are relevant to the study. Specific examples of the primary data used are Russia's 2020 and 2024 '*Fundamentals of State Policy of the Russian Federation on Nuclear Deterrence'* and The Presidential address towards the

Federal Assembly from 2013. Furthermore, secondary sources such as academic journal articles, books written by scholars and experts in the field, and NGO publications are also included in this study. The primary sources from 2013 to 2025 were sourced mainly through the official Kremlin.ru website and the Ministry of Foreign Affairs of the Russian Federation, except for those cases where a direct translation of the material was not available. In such cases, academic translations and embassy documents were used. To aid in securing internal validity, a high degree of data triangulation was employed. This means that different official Russian government publications, statements, and speeches from different periods of time were combined and analyzed altogether. Moreover, a broad selection of peer-reviewed academic journal articles was selected to further support the analysis and to add different perspectives from different points of time to the study. The data triangulation thus aided in cross checking the information used in this study, consequently making the findings more robust.

The data analysis method selected for this thesis is a thematic/framework analysis, where the iterative, manual coding of the data leads to the subsequent identification of themes within the data. After their identification, these themes can then be ranked within a hierarchy and synthesized to provide an answer to the research question. This form of data analysis is preferred to, for example, a narrative analysis, due to the fact that the data used for this study is not heavily saturated with narratives (Gronmo, 2019). An exception for this can be the use of news articles for this study, but even then, these news articles are complementary to other secondary data, and not the focus of the study.

The strengths of this study have been mentioned before but include the development of an in-depth understanding of the topic of study. However, there are several limitations to this study as well. Firstly, it might be harder to achieve generalizability due to the qualitative nature of the research. Although not impossible, the way in which Western ACW's influence Russia's nuclear posture will be different from the way in which they influence other nuclear states.

Despite this, the study can still offer valuable insights that can be applicable to other states that might find themselves in a relatively similar position as Russia, given that ACW's are becoming more and more ubiquitous. Secondly, the process of data analysis, while thorough, could be subject to potential researchers' bias, as, to an extent, the interpretation of data is subjective and influenced by cultural, personal, and other external factors.

Operationalization of the variables

The year 2013 was chosen as a starting point because it coincides with the commencement of the third nuclear age (Naylor, 2019). In short, this means a shift towards multipolar global power dynamics, the argued redundancy and reduced effectiveness of arms control treaties, the rise of new nuclear powers, and a new arms race involving ACW's (Naylor, 2019). We now live in an age that is defined by new forms of technologies and ever-changing power dynamics. This thesis will reflect that. More importantly though, 2013 is considered to be the first year in which the Russian government issued several statements that start to mention concern about ACW's more explicitly. In 2007 Russia's former Deputy Minister of Defense stated that the U.S's prompt global strike program, in combination with ballistic missile defense, "becomes a means of seeking to dominate the world politically and strategically" (Antonov, 2013). The CGPS-program sought to develop long range non-nuclear weapons that could destroy strategically significant targets within a short amount of time (Acton & Carnegie Endowment for International Peace, 2013). An example of such an ACW's would be a hypersonic missile, discussed in the literature review section of this thesis. 6 Years later, hours before former U.S. President Barack Obama called for increased non-proliferation efforts, Putin issued a pre-emptive statement, stating that: "we see that work is active around the world on developing high-precision conventional weapons systems that in their strike capabilities come close to strategic nuclear weapons. Countries that have such weapons substantially

increase their offensive capability" (Acton & Carnegie Endowment for International Peace, 2013). Combining this with statements from Antonov, it became arguable that foreign ACW's were becoming more and more of a strategic concern for Russia.

The concept of 'doctrine' in this thesis will be operationally defined in two parts: hardware and software. In other words, During the coding and analysis process, both the way Russian officials speak about nuclear policy and the real, offensive, nuclear, and non-nuclear capabilities are included. The codes used for the analysis of the data can be found in the appendix. They helped shape the following four themes referenced in table 1.

Table 1

Explanation of the themes

Themes	**Reasoning**
Advanced conventional weapons contributing to strategic instability	Refers to the concept of strategic stability mentioned in the literature review. Russia is concerned about its position of power and the survivability of its nuclear arsenal now that U.S. ACW's continue to modernize and proliferate (Ven Bruusgaard, 2023).
Lowering the threshold for nuclear escalation	Throughout the coding process it was found that Russia has been lowering the threshold for nuclear escalation more extensively during the 2010's and this decade, in part, as a response to U.S. ACW's.

Balancing against vulnerabilities through arms-race dynamics	The literature review and coding process revealed that Russia is heavily investing in its advanced conventional and nuclear capabilities as a response to U.S. developments in that realm to maintain parity.
Deterring conventional threats through increased strategic ambiguity	The academic literature often refers to ambiguity as a central part of Russia's nuclear posture. After the coding process, the primary data seems to affirm this, connecting it to the deterring of Western conventional threats.

Thematic analysis of the data

This section of the thesis will underscore the relevant and interconnected themes found after a careful iterative coding and inductive thematic analysis process, after which these findings will be summarized to answer the research question that this paper is dedicated to. These findings are based on the analysis of primary data, with secondary data incorporated to contextualize and support the statements made in this analysis. Firstly, however, it is crucial to explain the data analysis process a little bit more.

Theme 1: Advanced conventional weapons contributing to strategic instability

Russia has been strongly monitoring foreign developments in the realm of non-nuclear modernization efforts, especially in the context of NATO and the United States. The country,

over the past decades, has been increasingly viewing these developments within the West as a threat to its strategic stability, demanding a response to maintain parity (Lieber & Press, 2017). A specific concern for Vladimir Putin is the American Conventional Prompt Global Strike Program. The US development of these hypersonic, long-range, and non-nuclear munitions has been mentioned by Putin several times over the past decade, most notably during his 2013 State of the Nation Address (Acton, 2015). Here, he emphasized that the program in combination with western missile defense systems "could negate all previous agreements on the limitation and reduction of strategic nuclear weapons and disrupt the strategic balance of power" (President of Russia, 2013). The introduction of ACW's into the strategic field has caused an erosion of strategic stability (Ven Bruusgaard, 2023). ACW's have the capacity to neutralize a state's nuclear arsenal, which is their deterrent, without ever needing to resort to nuclear escalation (Acton, 2015). Because of this, a potential adversary can launch a preemptive strike that can critically damage the target's nuclear assets before they can be deployed, severely impacting the existing strategic stability that nuclear deterrence used to provide (Lieber & Press, 2017). This can lower Russia's second-strike capability, subsequently lowering the credibility of the state's deterrence and heightening the state's sense of vulnerability.

In an official statement given by President Vladimir Putin, the Russian president elaborates on Russia's response to these western ACW's and their deployment, stating:

> In response to the deployment of American and British long-range weapons, on November 21, the Russian Armed Forces delivered a combined strike on a facility within Ukraine's defence industrial complex. In field conditions, we also carried out tests of one of Russia's latest medium-range missile systems – in this case, carrying a non-nuclear hypersonic ballistic missile that our engineers named Oreshnik. (President of Russia, 2024).

Russia is now upscaling the development and modernization of its conventional arsenal as a direct reaction to the perceived threat posed by the United States and NATO, with the production of Kinzhal and Tsirkon precision hypersonic missile systems receiving special attention (President of Russia, 2023). This is evident in the following quote from a high-profile meeting that was broadcasted nationwide and subsequently published online: "We see the modern military and political situation is dynamically changing and we must take this into consideration" Putin stated, emphasizing "the emergence of new sources of military threats and risks for Russia and our allies" (Afp, 2025).

Another event that can be seen as a contributing factor towards enhancing Russia's perception of strategic instability is the unilateral withdrawal of the U.S. from the Intermediate-Range Nuclear Forces (INF) treaty in 2019. This treaty was established in 1988 between the former Soviet Union and the United States in an effort to ban two classes of nuclear-capable, ground-launched cruise and ballistic missiles (Anderson & Nelson, 2019). The withdrawal by the U.S. from the treaty was a response to Russia's unwillingness to dismantle its treaty-violating SSC-8 missile (Anderson & Nelson, 2019). The fall of the INF treaty solidified Russian threat perceptions regarding U.S. conventional and dual-use capabilities, which was reflected in a televised meeting between Putin and his ministers of Foreign Affairs and Defense. Here, they accused the U.S. of violating the treaty back in 2014 when it deployed MK-41 vertical launching systems, which are suitable for Tomahawk intermediate-range attack missiles (President of Russia, 2019a). More importantly, however, this meeting stressed the importance of reacting to the modernization of intermediate-range weapons by the U.S. that were formerly prohibited under the treaty:

> I agree. This is what we will do. Our response will be symmetrical. Our US partners announced that they are suspending their participation in the INF Treaty, and we are

> suspending it too. They said that they are engaged in research, development and design work, and we will do the same. I agree with the Defence Ministry's proposals to create a land-based version of the Kalibr launchers and work on a new project to develop a land-based hypersonic intermediate-range missile (President of Russia, 2019a).

It can be argued that Russia is currently reassessing the survivability of its nuclear deterrent. Because of this perceived strategic instability, Russia is now doubling down on not only the commitment to the modernization of its advanced conventional weapons, such as the Orezhnik, Kinzhal, and Tsirkon high-precision systems, but to the modernization and signaling of the readiness of its nuclear triad as well (President of Russia, 2022). Ultimately, what is shown through these statements from 2013 onwards and the subsequent official doctrinal revisions in 2020 and 2024 is that Russia has been increasingly viewing Western ACW's as a threat towards its strategic stability.

Balancing against new conventional threats proliferated by the fall of the INF treaty, it is thus unsurprising that Russia is now increasingly linking its conventional and nuclear deterrence, lowering the threshold for the use of nuclear weapons through the state's updated 2024 nuclear policy in an attempt to retain credible deterrence.

Theme 2: lowering the threshold for nuclear escalation

It can be argued that Western ACW's have impacted Russia's doctrine since 2013 by creating a need to lower the threshold for the use of its nuclear weapons. Credible deterrence, from Russia's point of view, is maintained first and foremost through doubling down on its nuclear triad and signaling its readiness in terms of combat to the Western world. Putin states that "At present, our nuclear triad remains the most important security guarantee for our state and citizens, an instrument for maintaining strategic parity and balance of forces in the world" (President of Russia, 2024a). More evidence can be found firstly in the 2024 Fundamentals of

State Policy on Nuclear Deterrence. Article 2 already posits that assured deterrence of a potential adversary from aggression against the Russian Federation and (or) its allies is one of the highest priorities of the state (Ministry of Foreign Affairs of the Russian Federation, 2024). The 2020 version of this document emphasized that nuclear escalation can be triggered through foreign aggression with the use of ACW's when "the very existence of the state is in jeopardy" (Gause & CNA Russia Studies Program, 2020). The 2024 amended version, states that nuclear escalation can be triggered through conventional means when there is a "critical threat to their sovereignty and (or) territorial integrity" (Ministry of Foreign Affairs of the Russian Federation, 2024). This demonstrates an explicit lowering of the threshold for Russian nuclear escalation. Moreover, the document now officially includes Belarus as a part of its nuclear umbrella, creating an even more flexible posture, as attacking an ally can result in nuclear retaliation as well.

As opposed to its 2020 counterpart, the amended 2024 nuclear doctrine now explicitly refers to specific ACW types as well, with article 15 elevating high-precision non-nuclear and hypersonic weapons (Ministry of Foreign Affairs of the Russian Federation, 2024). Furthermore, article 19, which codifies the conditions that enable the possibility of the employment of nuclear weapons by the Russian Federation, now includes actions by an adversary that affect elements of critically important infrastructure of the Russian Federation as well (Ministry of Foreign Affairs of the Russian Federation, 2024). This indicates that not only can a conventional strike trigger nuclear retaliation when the territorial integrity of sovereignty of the state is in danger, nuclear retaliation can be a consequence when certain military and state infrastructures are hit as well, lest the disablement of such infrastructures would disrupt response actions by nuclear forces.

In the context of nuclear signaling, president Putin and his generals have done this on multiple occasions, but with increasing resolve towards NATO and the United States over the past years. During the 2022 meeting of the Board of the Defence Ministry, the following was emphasized: “We will continue maintaining and improving the combat readiness of the nuclear triad. It is the main guarantee that our sovereignty and territorial integrity, strategic parity and the general balance of forces in the world are preserved” (President of Russia, 2022). The meeting demonstrated a resolve to communicate this increased deterrent capability towards Russia’s adversaries. The president continued: “This year, the level of modern armaments in the strategic nuclear forces has already exceeded 91 percent”, signaling that the modernization efforts are on track (President of Russia, 2022). This signals that the list of potential nuclear triggers has expanded, and most importantly, that Russia has everything it needs to perfect its arsenal, and it is not afraid to use it.

Looking at Russia’s amended 2024 official doctrine document compared to the 2020 version, it is clear that the threshold for nuclear use has been lowered. However, it is also clear that the 2020 version in itself contains a lowered threshold as well, next to other elements that can be seen as reactionary to new Western conventional capabilities. To further illustrate this point, we will need to go back in time and draw from Russia’s 2014 official military doctrine:

> The Russian Federation reserves the right to use nuclear weapons in the response to the use against it and (or) its allies of nuclear and other types of weapons of mass destruction, as well as in the event of large-scale aggression against the Russian Federation with the use of conventional weapons when the very existence of the state is in jeopardy (*THE MILITARY DOCTRINE OF THE RUSSIAN FEDERATION*, 2015)

According to the translation of Sinovets and Renz (2015), it is also the first time that the “Prompt Global Strike” concept is labelled as an official military danger. It is here that we can

explicitly see the impact of U.S. advanced conventional capabilities and investments on Russian threat perceptions.

In 2014, the threshold for nuclear use was raised, arguably as a response to primarily the CPGS-program. In 2020, the threshold was lowered even further. To illustrate, this document deviates from its predecessors in the sense that it talks about "reliable information" indicating a ballistic missile attack on Russia, or one of its "allies". Furthermore, attacks on "critical" infrastructure and military sites might generate a nuclear retaliation as well (Gause & CNA Russia Studies Program, 2020). 2024 was the most recent expansion of potential nuclear triggers, as emphasized earlier on in this section.

Theme 3: Balancing conventional vulnerabilities through arms-race dynamics

Throughout the primary literature that has been analyzed, one theme is ubiquitous: the positioning of Russia's nuclear doctrine as a defensive, reactionary policy aimed at countering Western threats, expansionism, and neo-nazi ideology. From this flows an arms-race dynamic that is supposed to lead to a strategic advantage that can neutralize these foreign threats to the territorial integrity and sovereignty of the Russian Federation. The overall aim of this arms-race dynamic can be described as Russia being able to assure retaliation under conditions of asymmetry when it comes to conventional capabilities. The Expanded Meeting of Defence Ministry Board document clarifies this through several extractions. Firstly, the following is stated: "Given the changing nature of military threats and the emergence of new military and political risks, the role of the nuclear triad, which ensures the balance of power, the strategic balance of power in the world, has significantly increased" (President of Russia, 2023). The role of the nuclear triad is emphasized, in line with the claim that Russia is now balancing against conventional vulnerability through an increased reliance on the nuclear triad, with lower escalation thresholds and strategic ambiguity as a consequence. Russia has been

particularly investing in the modernization of its dual-capable hypersonic missile system called the Avangard. Capable of carrying both conventional and nuclear warheads, it is an HGV travelling at a hypersonic speed, significantly decreasing the decision-making timeframe of a target (Kessler, 2022). Moreover, sitting on top of a ballistic missile, it is supposed to have an unlimited range, able to avoid missile defense systems because of its speed and maneuverability (Kessler, 2022).

In the year 2023, Russia has built up to 592 high-tech facilities for the deployment of the Sarmat, Avangard and Yars missile complexes, with the aim of putting 15 Yars and Avangard missile system launchers into combat service in the strategic missile forces (President of Russia, 2023). In a potential crisis involving both nuclear and conventional forces, (dual-capable) systems such as the Avangard enhance Russia's escalation management capabilities by complicating adversary calculations. Instead of the traditional deterrence-by-retaliation doctrine as mentioned by Freedman (2003), the Avangard can restore credibility through deterrence-by-punishment (Futter et al., 2025). This method of deterrence is adopted in Russia's 2024 nuclear doctrine, stating:

> Nuclear deterrence is ensured by the presence in the structure of the Armed Forces of the Russian Federation of combat-ready forces and means capable of inflicting assured unacceptable damage on a potential adversary under any circumstances through the employment of nuclear weapons, as well as by the readiness and resolve of the Russian Federation to employ such weapons. (Ministry of Foreign Affairs of the Russian Federation, 2024).

Unacceptable damage can be inflicted upon a party as a response to said party's (perceived) aggression as a punishment.

The Avangard system ensures retaliation and penetration, circumventing missile defense systems, and thus offering a way to restore mutual vulnerability and the credibility of Russia's second strike capabilities (Kristensen & Korda, 2020). This investment, as mentioned earlier in this paper, is a direct reaction to the perceived threat of NATO and U.S. missile defense systems and the CPGS-program, as Russia feared the erosion of its strategic stability and the global balance of power (President of Russia, 2013). Putin emphasizes that Russia is ready for whatever the enemy throws at it, and that it does not fear any countermoves, as:

> There are no means of countering such weapons today. Missiles attack targets at a speed of Mach 10, which is 2.5 to 3 kilometres per second. Air defence systems currently available in the world and missile defence systems being created by the Americans in Europe cannot intercept such missiles. It is impossible. (President of Russia, 2024).

Theme 4: deterring conventional threats through increased strategic ambiguity

Second to the lowered threshold for nuclear escalation, Russia is reacting to foreign ACW's by increasing its strategic and doctrinal ambiguity to maximize deterrence. It is aimed at deterring adversaries that want to exploit the growing conventional-nuclear gap by making the consequences of such actions unclear. Terms used in the amended nuclear doctrine lack operational definition. A condition that would enable Russia to retaliate with nuclear weapons would be, for example, a "receipt of reliable data on the launch of ballistic missiles attacking the territories of the Russian Federation and (or) its allies" (Ministry of Foreign Affairs of the Russian Federation, 2024). This example can be found in the 2020 document as well, but it is a good starting point to illustrate that ambiguity has been integral to Russian nuclear posture for years now. The document offers no clarification on what would constitute 'reliable' data, or from whom the data is supposed to come. Besides this example, the 2020 Russian nuclear doctrine consists of other forms of ambiguous language as well, notably in article 17 and article

19. Article 17 emphasises that the Russian Federation reserves the right to use nuclear weapons in response to aggression, whether conventional or nuclear, when the very existence of the state is in jeopardy (Gause & CNA Russia Studies Program, 2020). Article 19 states the conditions for a potential nuclear strike but does not operationally define concepts such as “aggression” or “critically important state or military objects” (Gause & CNA Russia Studies Program, 2020). Although the 2020 document is already rather ambiguous, the thresholds for nuclear use were more on the conservative side. Furthermore, the tone of the document is more defensive than its 2024 counterpart. Where Russia’s 2020 policy talks about the “jeopardy of the existence of the state”, which is arguably more straightforward, the 2024 version mentions the creation of a “critical threat to sovereignty and (or) territorial integrity” (Ministry of Foreign Affairs of the Russian Federation, 2024). What the latter means, is literally up to interpretation of potential adversaries, and this is done so intentionally. Due to the ambiguity surrounding Russia’s nuclear posture, an adversary can never know if, for example, a conventional strike, can be interpreted by the Russian state as a threat to sovereignty and territorial integrity, therefore resulting in a pre-emptive nuclear strike. This complicates strategic decision making and cost-benefit analyses, and ultimately, deters an adversary from attacking at all.

This ambiguity surrounding Russia’s nuclear thresholds, or so-called “red lines” is an example of nuclear brinkmanship. Nuclear brinkmanship can be described as deterrence through the manipulation of risk (Pauly & McDermott, 2023). By establishing vague and flexible thresholds for a nuclear attack, an adversary is forced to operate under the worst-case scenario, leading to a paralyzation of the decision-making process (Pauly & Mcdermott, 2023). Moreover, the explicit signaling of either pre-emptive or retaliatory attacks adds another layer of psychological pressure on the perceived adversary, in this case, the U.S and NATO.

Strategic ambiguity in Russian nuclear doctrine and communication towards its adversaries is nothing new. It has been well established amongst scholars that Russia purposely leaves its potential adversaries guessing as to what they will do next (Futter et al., 2025). What is new, however, are the circumstances under which states now have to operate when it comes to nuclear politics and decision-making. The mentioning of the CPGS-program as a military danger in 2013 was one of Russia's first official references to U.S. ACW's, which means that around that time, countering these ACW's became a priority. The fall of the INF treaty in 2019 contributed to the Russian perception that the U.S. was going to start investing in missiles and other weaponry that was previously prohibited. Russia responded to this by stating that it will mirror the U.S. by investing in these systems as well. Furthermore, the circumstance of Russia's conventional invasion of Ukraine also plays a role in Russia's more ambiguous nuclear posture. The following quote demonstrates a very real concern about Western ACW's being used to support Ukraine in retaliating against Russia:

> Finally, after the US destroyed the INF Treaty, the Pentagon has been openly developing many land-based attack weapons, including ballistic missiles that are capable of hitting targets at a distance of up to 5,500 km. If deployed in Ukraine, such systems will be able to hit targets in Russia's entire European part. The flying time of Tomahawk cruise missiles to Moscow will be less than 35 minutes; ballistic missiles from Kharkov will take seven to eight minutes; and hypersonic assault weapons, four to five minutes. It is like a knife to the throat. (President of Russia, 2022b).

Therefore, while ambiguity has always been an integral part of Russia's nuclear doctrine, it cannot be a mere coincidence given these circumstances that Russia has increased its ambiguity expeditiously ever since 2013.

Conclusion

This thesis aimed to find an answer to the question of how U.S. ACW's influenced Russia's nuclear doctrine since 2013 and seeks to contribute to a broader discussion within academia regarding ACW's and their implications on traditional deterrence and strategic stability as we know it. Despite the case study for this research being highly specific, which can be a limitation of this study considering it hinders replicability, it does give an insight into how traditional notions of deterrence and warfighting might not be as useful as they used to be, now that conventional and nuclear capabilities are increasingly interlinked. Understanding this and expanding the research on what is needed to maintain strategic stability in the future will prove to be crucial in maintaining peace and de-escalation of existing conflicts.

After a careful iterative coding process and inductive thematic analysis of the data, it was found that U.S. ACW'S led to a perception of increasingly fragile strategic stability among Russian government officials. Russia realizes that a conventional pre-emptive strike can neutralize its nuclear assets, therefore diminishing second-strike capabilities and credible deterrence. Russia is now fostering arms race dynamics with the U.S. in an attempt to maintain parity with its adversaries. This is done through modernization programmes of both its ACW's and nuclear weapons, along with its dual-capable systems. This dynamic is being reinforced through events such as the war in Ukraine and the fall of the INF-treaty, which opened new doors for arsenal modernization and the creation of new weapons. The signaling of these modernization efforts serves as an explicit warning to the U.S. that Russia is ready for any turn of events and that any form of threat towards the integrity and sovereignty of the state will be met with devastating consequences.

U.S. ACW's have shaped Russia's current nuclear doctrine in two major ways: Firstly, by creating a sense of urgency to lower the threshold for nuclear escalation. Russia's desire to

expand its deterrence credibility manifests itself in increased nuclear signaling and lowering of nuclear thresholds. By including more scenarios in which a nuclear strike can be triggered, Russia hopes to deter its adversaries from using their acquired ACW's. On multiple occasions has Putin engaged in nuclear signaling, emphasizing the readiness of the Russian nuclear triad to engage in combat at the slightest provocation. Secondly, the increasingly ambiguous language and posturing that is visible in the 2024 nuclear doctrine is arguably a direct response to U.S. and NATO ACW's as well. Through engaging in nuclear brinkmanship, or the so-called manipulation of risk, adversaries are forced to continuously operate under a worst-case-scenario. On top of that, the lack of operational definitions in the revised 2024 doctrine creates additional psychological pressure on potential adversaries, complicating the decision-making process on whether or not to engage in a conventional strike against Russia and/or its ally, Belarus.

In sum, the findings seem to confirm the belief that the analysis of the nuclear postures of states needs to go beyond the framework of traditional deterrence, due to increasing nuclear entanglement. While this research is not a quantitative study and generalizability of the findings might be more complicated, one thing needs to be kept in mind: ACW's as it stands, are gradually becoming more and more influential when it comes to the nuclear doctrines of powerful states who are able to develop and respond to them. Therefore, it is no longer useful to treat ACW's and nuclear weapons as separate dimensions. Rather, they are now becoming two sides of the same coin.

References

Acton, J. M. & Carnegie Endowment for International Peace. (2013). Conventional prompt global strike and Russia's nuclear forces. *Независимое Военное Обозрение [Independent Military Review]*. https://carnegie-production-assets.s3.amazonaws.com/static/files/Acton_NVO_trans.pdf

Acton, J. M. (2015). Russia and strategic conventional weapons: *The Nonproliferation Review*, *22*(2), 141–154. https://doi.org/10.1080/10736700.2015.1105434

Afp. (2025, April 23). Putin proposes broader criteria for using nuclear arms. *The Moscow Times*. https://www.themoscowtimes.com/2024/09/25/putin-proposes-broader-criteria-for-using-nuclear-arms-a86478

Akimenko, V. (2021). Russia and strategic non-nuclear deterrence: Capabilities, limitations and challenges. In *Chatham House*. Chatham House. Retrieved March 31, 2025, from https://www.chathamhouse.org/2021/07/russia-and-strategic-non-nuclear-deterrence/about-author

Anderson, J. V., & Nelson, A. J. (2019). The INF Treaty: A Spectacular, Inflexible, Time-Bound Success. *Strategic Studies Quarterly*, *13*(2), 90–122. https://www.jstor.org/stable/26639675

Antonov, A. (2013). Russia Forced to Develop Global Prompt Strike Weapons. *Security Index: A Russian Journal on International Security*, 19(3), 3-8.

Arbatov, A. (2019). Mad momentum redux? The rise and fall of nuclear arms control. *Survival*, 61(3), 7-38.

Bradley, J. (2015). Increasing Uncertainty. *Air & Space Power Journal*, *29*(4), 72–83.

Bruusgaard, K. V. (2016). Russian strategic deterrence. *Survival*, *58*(4), 7–26. https://doi.org/10.1080/00396338.2016.1207945

Freedman, L. (2003). *The evolution of nuclear strategy*. Palgrave Macmillan.

Fuhrmann, M., & Sechser, T. S. (2014). Signaling alliance commitments: Hand-Tying and

sunk costs in extended nuclear deterrence. *American Journal of Political Science*, *58*(4), 919–935. https://doi.org/10.1111/ajps.12082

Futter, A., Bracken, P., Castelli, L., Hunter, C., Samuel, O., Silvestri, F., & Zala, B. (2025). *The global third nuclear age*. https://doi.org/10.4324/9781003570707

Gause, K. E. & CNA Russia Studies Program. (2020). *Foundations of state policy of the Russian Federation in the area of nuclear deterrence*. https://www.cna.org/reports/2020/06/Foundations%20of%20State%20Policy%20of%20the%20Russian%20Federation%20in%20the%20Area%20of%20Nuclear%20Deterrence.pdf

Grønmo, S. (2019). *Social research methods: Qualitative, Quantitative and Mixed Methods Approaches*. SAGE Publications Limited.

Huth, P., & Russett, B. (1984). What Makes Deterrence Work? Cases from 1900 to 1980. *World Politics*, *36*(4), 496–526. https://doi.org/10.2307/2010184

Kahn, L., & Horowitz, M. C. (2022). Who gets Smart? Explaining how precision bombs proliferate. *Journal of Conflict Resolution*, *67*(1), 3–37. https://doi.org/10.1177/00220027221111143

Kessler, A. (2022). Russian hypersonic glide vehicles: what to know and what to fear. *Orbis*, *66*(2), 213–223. https://doi.org/10.1016/j.orbis.2022.02.009

Kristensen, H. M., & Korda, M. (2022). Russian nuclear weapons, 2022. *Bulletin of the Atomic Scientists*, *78*(2), 98–121. https://doi.org/10.1080/00963402.2022.2038907

Kristensen, H. M., & Korda, M. (2020). Russian nuclear forces, 2020. *Bulletin of the Atomic Scientists*, *76*(2), 102–117. https://doi.org/10.1080/00963402.2020.1728985

Lieber, K. A., & Press, D. G. (2017). The new era of counterforce: Technological change and the future of nuclear deterrence. *International Security*, 41(4), 9-49.

Ministry of Foreign Affairs of the Russian Federation. (2024). *Fundamentals of State Policy of*

the Russian Federation on Nuclear Deterrence. Retrieved April 25, 2025, from https://www.mid.ru/en/foreign_policy/international_safety/1434131/

Naylor, J. L. (2019). The third nuclear age. Comparative Strategy, 38(4), 276–288. https://doi.org/10.1080/01495933.2019.1633185

Notte, H. (2024). Russia, the global South and the mechanics of the nuclear order. *Survival*, *66*(3), 49–57. https://doi.org/10.1080/00396338.2024.2357480

Onderco, M., & Zutt, M. (2021). Emerging technology and nuclear security: What does the wisdom of the crowd tell us? *Contemporary Security Policy*, *42*(3), 286–311. https://doi.org/10.1080/13523260.2021.1928963

Peters, R., Anderson, J., & Menke, H. (2018). Deterrence in the 21st century: Integrating nuclear and conventional force. Strategic Studies Quarterly, 12(4), 15-43.

Pfeifer, E. (2025, May 6). Putin says new "Instantaneous" weapons pose danger to global stability. *The Moscow Times*. https://www.themoscowtimes.com/2013/12/12/putin-says-new-instantaneous-weapons-pose-danger-to-global-stability-a30441

Podvig, P. (2016). Blurring the line between nuclear and nonnuclear weapons: Increasing the risk of accidental nuclear war? *Bulletin of the Atomic Scientists*, *72*(3), 145–149. https://doi.org/10.1080/00963402.2016.1170363

Podvig, P. (2018). Russia's current nuclear modernization and arms control. *Journal for Peace and Nuclear Disarmament*, *1*(2), 256–267. https://doi.org/10.1080/25751654.2018.1526629

President of Russia. (2024b). *Statement by the President of the Russian Federation* [Press release]. Retrieved April 25, 2025, from http://en.kremlin.ru/events/president/news/75614

President of Russia (2024a) *Meeting of the Security Council standing conference on nuclear deterrence.* Retrieved May 18, 2025, from http://en.kremlin.ru/events/president/news/75182

President of Russia. (2023). *Expanded meeting of Defence Ministry Board*. Retrieved April 25, 2025, from http://en.kremlin.ru/events/president/news/73035

President of Russia. (2022a). *Meeting of Defence Ministry Board*. Retrieved April 25, 2025, from http://en.kremlin.ru/events/president/news/70159

President of Russia. (2022b). *Address by the President of the Russian Federation.* Retrieved May 16, 2025, from http://en.kremlin.ru/events/president/news/67828

President of Russia (2019a). *Meeting with Sergei Lavrov and Sergei Shoigu.* Retrieved May 7th, from http://en.kremlin.ru/events/president/news/59763

President of Russia (2019b) *Statement by the President of Russia on the unilateral withdrawal of the United States from the Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles*. Retrieved May 18, 2025, from http://en.kremlin.ru/events/president/news/61271

President of Russia. (2013). *Presidential Address to the Federal Assembly.* Retrieved April 25, 2025, from http://en.kremlin.ru/events/president/news/19825

Reid B. C. Pauly, Rose McDermott; The Psychology of Nuclear Brinkmanship. *International Security* 2023; 47 (3): 9–51. doi: https://doi.org/10.1162/isec_a_00451

Sauer, T. & EU Non-Proliferation and Disarmament Consortium. (2024). THE POTENTIALLY REVOLUTIONARY IMPACT OF EMERGING AND DISRUPTIVE TECHNOLOGIES AND STRATEGIC CONVENTIONAL WEAPONS ON THE NUCLEAR DETERRENCE DEBATE. *Non - Proliferation and Disarmament Papers*. https://www.sipri.org/sites/default/files/2024-11/eunpdc_no_91.pdf

Sinovets, P., & Renz, B. (2015). *Russia's 2014 Military Doctrine and beyond: threat perceptions, capabilities and ambition*s (pp. 1-12). Research Division, NATO Defense College.

Sokov, N. (2018, april 16). *Advanced Conventional Weapons and the Changing Nature of International Security* [PowerPoint slides]. Vienna Centre for Disarmament and Non-Proliferation. https://vcdnp.org/advanced-conventional-weapons-and-the-changing-nature-of-international-security/

Sokov, N. (2020). Russia clarifies its nuclear deterrence policy. In *Vienna Center for Disarmament and Non-Proliferation*. Vienna Center for Disarmament and Non-Proliferation. Retrieved April 7, 2025, from https://vcdnp.org/russia-clarifies-its-nuclear-deterrence-policy/

Speier, R., Nacouzi, G., Lee, C., & Moore, R. (2017). Hypersonic missile nonproliferation: hindering the spread of a new class of weapons. In *RAND Corporation eBooks*. https://doi.org/10.7249/rr2137

THE MILITARY DOCTRINE OF THE RUSSIAN FEDERATION: approved by the President of the Russian Federation on December 25, 2014 No. Pr.-2976 (The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland, Trans.). (2015, June 19). The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland. Retrieved May 18, 2025, from https://london.mid.ru/en/press-centre/gb_en_fnapr_1947/

Truxal, L. (2019). Precision-Guided Munitions (PGMs). In *Conflict in the 21st Century : The Impact of Cyber Warfare, Social Media, and Technology* (pp. 288–291).

Unal, B., Afina, Y., Lewis, P., Borrie, J., Shea, J., Watkins, P., Rublee, M. R., Varriale, C., Ogilvie-White, T., Futter, A., & Parthemore, C. (2020). Perspectives on Nuclear Deterrence in the 21st Century. In *Chatham House*. Retrieved May 4, 2025, from https://apo.org.au/node/303455

Van Hooft, P., Ellison, D., & Sweijs, T. (2023). Pathways to Disaster: Russia's War Against Ukraine and the Risks of Inadvertent Nuclear Escalation. Hague Centre for Strategic Studies (HCSS).

Waltz, K. N. (2000). Structural Realism after the Cold War. *International Security*, *25*(1), 5–41. https://doi.org/10.1162/016228800560372

Wilson, R. S., & Rumbaugh, R. (2023). Reversal of nuclear-conventional entanglement in outer space. *Journal of Strategic Studies*, *47*(1), 64–91.

https://doi.org/10.1080/01402390.2023.2249622

Zala, B. (2019). How the next nuclear arms race will be different from the last one. *Bulletin of the Atomic Scientists*, *75*(1), 36–43. https://doi.org/10.1080/00963402.2019.1555999

Appendix

Codebook

Code name	**Definitions**	**Operationalization**	**Example of application**
Shifting global order *(Theme 1)*		Used when the source refers to a change, threat or disruption to existing power structures	"There is a stage-by-stage redistribution of influence in favour of new centres of economic growth and political attraction" (*THE MILITARY DOCTRINE OF THE RUSSIAN FEDERATION*, 2015, para. 9).
Foreign aggression and blame strategies *(Theme 1)*		Used when actions by Russia are described as retaliatory to foreign, usually U.S. and NATO aggression.	"I would like to emphasise once again that it was not Russia, but the United States that destroyed the international security system and, by continuing to fight, cling to its hegemony, they are

			pushing the whole world into a global conflict." (President of Russia, 2024b, para. 13). "Finally, after the US destroyed the INF Treaty, the Pentagon has been openly developing many land-based attack weapons, including ballistic missiles that are capable of hitting targets at a distance of up to 5,500 km" (President of Russia 2022b, para. 102)
Cutting-edge technologies *(Theme 1)*		Used when the document refers to state of the art technologies in the context of nuclear weapons and ACW's	"I will repeat, it will carry cutting-edge Zircon sea-based hypersonic missiles without equal in the world" (President of Russia 2022a, para. 25) "The Navy has received a cutting-edge submarine, six surface ships, three

			gunboats, 11 support vessels and boats and two coastal missile complexes" (President of Russia, 2022a, para. 131).
Concern about Western ACW's *(Theme 1)*		Used when Russia explicitly or implicitly refers to U.S. ACW's as threatening and/or concerning, implying that countering them should be a top priority.	"The United States went on to use ballistic target missiles for testing their missile defence system, and in 2014 they began the deployment in their missile defence system positioning areas in Europe of Mk 41 vertical launching systems. These launchers are fully suitable as they are for Tomahawk intermediate-range attack missiles" (President of Russia, 2019a, para. 4). "The ramping up of high-precision strategic non-nuclear systems by other countries, in

			combination with the build-up of missile defence capabilities, could negate all previous agreements on the limitation and reduction of strategic nuclear weapons, and disrupt the strategic balance of power" (President of Russia, 2013, para. 188).
Strategic stability *(Theme 1)*	A situation in which neither party has an incentive to launch a first nuclear strike (Ven Bruusgaard, 2023).	Applied when the documents explicitly or implicitly refer to U.S. ACW's and general disposition towards Russia as a threat to strategic stability.	"We are well aware of our enormous responsibility when it comes to regional and global stability. Back in 2008, Russia put forth an initiative to conclude a European Security Treaty under which not a single Euro-Atlantic state or international organisation could strengthen their security at the expense of the

			security of others. However, our proposal was rejected right off the bat on the pretext that Russia should not be allowed to put limits on NATO activities" (President of Russia, 2022b, para. 104) "There is no doubt that these developments make things worse overall in the sphere of nuclear disarmament and strategic stability" (President of Russia, 2019a, para. 11).
Nationalism *(Theme 1)*		Used when Russia describes itself as humanitarian, civilized, peaceful, and as a protector of peace, stability and patriotism.	"Of course, I would like to note the unprecedented support of our people, including support for the defenders of the Fatherland, the patriotic mood of the overwhelming majority of Russian

			citizens, the unity and cohesion of people of various nationalities and religious denominations. This is a reliable and indestructible pillar of our army and navy" (President of Russia, 2023, para. 7) "Together we must rise to the challenge; we must safeguard interethnic peace and thus the unity of our society, the unity and integrity of the Russian state" (President of Russia, 2013, para. 39).
Arsenal modernization *(Theme 2)*		Used in those cases where the documents refer to the technical aspects of modernization of Russia's ACW's and/or nuclear triad.	"The production of Kinzhal and Tsirkon precision hypersonic missile systems will be stepped up, and deliveries of missiles and ammunition will grow by 80 percent. The work on other

			promising models will continue" (President of Russia, 2023, para. 131). "In the near future, Sarmat ICBMs will be put on combat duty for the first time. We know there will be a certain delay in time but this does not change our plans – everything will be done. Our troops continue receiving Yars missiles. We will continue developing hypersonic missile systems with unique characteristics, unmatched in the world" (President of Russia, 2022a, para. 25).
Importance of the nuclear triad *(Theme 2)*	A state that has nuclear weapons in all three domains of land, sea, and air (Futter et al., 2025).	Applied when the documents explicitly refer to the urgency of maintaining and optimizing Russia's	"We will continue maintaining and improving the combat readiness of the nuclear triad. It is

		nuclear triad in the face of current adversity.	the main guarantee that our sovereignty and territorial integrity, strategic parity and the general balance of forces in the world are preserved" (President of Russia, 2022a, para. 23). "Given the changing nature of military threats and the emergence of new military and political risks, the role of the nuclear triad, which ensures the balance of power, the strategic balance of power in the world, has significantly increased" (President of Russia, 2023, para. 22).
Military superiority *(Theme 2)*		Applied when Russia explicitly refers to the superiority of its conventional and/or nuclear forces compared to its	"No one should entertain any illusions about achieving military superiority over Russia; we will never

		perceived adversaries.	allow it. Russia will respond to all these challenges, both political and technological. We have all we need in order to do so" (President of Russia, 2013, para. 138). "Because there are no means of countering such weapons today. Missiles attack targets at a speed of Mach 10, which is 2.5 to 3 kilometres per second. Air defence systems currently available in the world… cannot intercept such missiles" (President of Russia, 2024, para. 12).
Lowering of threshold *(Theme 3)*		Applied when Russia explicitly expands the amount of triggers that could provoke a nuclear retaliation**.**	"Aggression against the Russian Federation… which creates a critical threat to their sovereignty and (or)

			territorial integrity" (Ministry of Foreign Affairs of the Russian Federation, 2024, para. 19d). "Aggression against the Russian Federation with the use of conventional weapons when the very existence of state is in jeopardy" (Gause & CNA Russia Studies Program, 2020, para. 17d).
Nuclear Brinkmanship *(Theme 3)*	Deterrence through the manipulation of risk (Pauly & McDermott, 2023).	Applied when Russia's rhetoric surrounding the deployment of its nuclear arsenal gets more aggressive to pressure its adversaries into backing down.	"We maintain our nuclear triad at the level of guaranteed strategic deterrence. The combat readiness of the strategic nuclear forces stands at an unprecedented 91.3 percent" (President of Russia, 2022a, para. 78). "Our military

			doctrine and advanced weapons, weapons that are being and will be deployed, will unconditionally allow us to ensure the security of the Russian state." (President of Russia, 2013, para.139).
Reactionary posture *(Theme 3)*		Applied when Russia seems to blame the West for its escalatory foreign policy, prompting Russia to alter its posture as a response.	"Our response will be symmetrical. Our US partners announced that they are suspending their participation in the INF Treaty, and we are suspending it too. They said that they are engaged in research, development and design work, and we will do the same" (President of Russia, 2019a, para. 33). "Prevention of a nuclear military conflict as well as of any other military

			conflict is the basis of the military policy of the Russian Federation" (*THE MILITARY DOCTRINE OF THE RUSSIAN FEDERATION*, 2015, para. 20).
Reference to allies *(Theme 3 & 4)*		Applied when Russia either refers to its own allies, such as Belarus, or Western Military coalitions.	"Aggression by any state from a military coalition (bloc, alliance) against the Russian Federation and (or) its allies is considered as the aggression by this coalition (bloc, alliance) as a whole" (Ministry of Foreign Affairs of the Russian Federation, 2024, para. 10). "Considerable forces and resources from the United States have been redeployed to our borders, including aircraft. The number

			of NATO troops in Eastern and Central Europe has increased. As we know, Finland has been dragged into NATO already, and Sweden is planning to join" (President of Russia, 2023, para. 11).
ambiguous wording *(Theme 4)*		Applied when the words of the documents analyzed lack operationalization and thus are overly vague.	"the receipt of reliable information about the launch of ballistic missiles…" (Gause & CNA Russia Studies Program, 2020, para. 19a). "At the same time, we can see that the modern military-political situation is rapidly changing and we have to factor that in, including the emergence of new sources of military threats and risks for Russia and our allies" (President of

			Russia, 2024a, para. 7).
nuclear brinkmanship *(Theme 4)*	Deterrence through the manipulation of risk (Pauly & McDermott, 2023)	Applied when Russia's rhetoric surrounding the deployment of its nuclear arsenal gets more aggressive to pressure its adversaries into backing down.	"We maintain our nuclear triad at the level of guaranteed strategic deterrence. The combat readiness of the strategic nuclear forces stands at an unprecedented 91.3 percent" (President of Russia, 2022a, para. 78). "If anyone still doubts this, make no mistake: there will always be a response" (President of Russia, 2024b, para. 15).
nuclear entanglement and dual-use technologies *(Theme 4)*	Entanglement describes the overlap of nuclear and conventional forces or nuclear- and conventional-enabling capabilities, such as command and control assets,	Applied when the line between conventional and nuclear deterrence in the documents become blurred and one cannot distinguish between a reference to an	"establishment and deployment of strategic missile defense systems undermining global stability and violating the established balance of forces related to

	and how that overlap can risk inadvertent nuclear escalation (Wilson & Rumbaugh, 2023, pp.68).	ACW or a nuclear weapon. Also applied when there is a reference to dual-use technologies.	nuclear missiles, implementation of the global strike concept…deployment of strategic non-nuclear systems of high-precision weapons", para. 12d). Russia will reliably offset the threats… by relying on the means that we already have: the X-101 and the Kinzhal air-launched missiles, the Kalibr sea-launched missile, as well as future weapons systems, including Tsirkon-class hypersonic systems" (President of Russia, 2019b, para. 5).