Charles University

Faculty of Social Sciences

Institute of Political Studies

Department of Security Studies

Master's Thesis

NATO's Deterrence Strategy: Causes of Shortcomings When Facing Russian Hybrid Strategy

Name: Joseph Thomas Ellis III

Year of project submission: 2021

Introduction

The North Atlantic Treaty Organization's relationship with the Soviet Union was once at the forefront of debate when it came to the study of international security and the reality of the current international order. The most debated topic of this relationship came to be the deterrence strategy of the two. The most significant contributions to the understanding of deterrence and how it affects the actions of two adversaries were made during this complicated time period known as the Cold War. However, during this time, nuclear deterrence was the primary topic of debate as the mutual assured destruction of the Soviet Union and United States, which provided extended deterrence to NATO, was guaranteed through war as most experts would have argued a conventional war would have surely turned nuclear. Yet, no direct conflict between the NATO allies and the Soviet Union took place. Furthermore, the collapse of the Soviet Union left NATO without a primary opponent. A weakened Russia was in no place to offer the same direct danger to the territorial sovereignty of NATO in comparison to the full might of the Soviet Union. Therefore, the core strategies and policies began to change for the alliance.

No more was the worry of Soviet tanks blitzing across the European plain or the preemptive nuclear strike on urban areas across Europe and North America. Rather than a focus on deterrence and protection of sovereignty across all member states, the alliance opened a policy of spreading western democracy to those who were unable to achieve these principles in the past. This ultimately led to the expansion of NATO to not only former Warsaw Pact states but also former Soviet Republics and now independent states along Russia's direct border. This led NATO directly to the border of Russia. However, Russia, which was still a wounded power from the collapse, did not present a serious danger to the newly expanded borders of the alliance.

Furthermore, the alliance began to shift its focus to outside of North Eastern Europe. Operations in the Balkans and the Middle East became the primary operations of the Alliance. Focusing more on counter insurgency and counter terrorism operations, the alliance shifted itself towards a focus on situational operations abroad. This led to a deterioration of capabilities and preparedness on the European front as it was believed that level of operational scale for deterrence would no longer be needed. Yet, this strategic thought process was only temporary, as in 2014, NATO once again was afraid for an end in the status quo of the continued territorial sovereignty of the now significantly expanded list of member states.

In what is now a monumental year in the history of Eastern European security, 2014 showed a resurging and revisionist Russia. The most worrisome fact about this is that the new-found Russian aggression found NATO in a flat-footed stance when it came to countering a revisionist Russia. While there had certainly been political clashes and disagreements between the two old adversaries along with the acknowledgement of a rebuilding and reinvention Russian conventional and hybrid abilities, there was very little preparedness for the alliance when Russia took its major gamble. This gamble was the 2014 annexation

of Crimea along with a more open use of hybrid and conventional operations to achieve political objectives in the region.

NATO was suddenly forced to heavily reintroduce and focus on levels of deterrence to prevent Russia from conducting hybrid actions against vulnerable member states, or even more so, attempting conventional operations to annex portions of territory which belong to sovereign member states of NATO. However, the alliance chose not to reinvest in a similar version of deterrence which was tried and proven during the course of the Cold War. The main issue which is faced by the resurgence for the necessary reintroduction of deterrence for NATO is that of the type of deterrence and what is ultimately being conducted and what was trying to be deterred in the first place.

Russian hybrid strategy is a strategy which is both complex and difficult to fully deter. No longer should lines between war and peace be considered black and white. Rather, there is now a blurred line of war and peace as Russian hybrid strategy calls for both conventional and hybrid means to be used in both a preceding and parallel path with one another as a means in order to achieve objectives. While the state of successful nuclear deterrence between the two adversaries will be continued, 20th century thought on conventional deterrence and a evolving 21st century understanding of war is something which puts NATO's deterrence credibility into question. A successful deterrence strategy must be able to adequately deter all measures of this new understanding of war which has become increasingly common within Russia's strategic arsenal. While Russia has not fully acted through the use of their hybrid strategy against NATO as of the summer of 2021, that does not mean the current deterrence posture is successful. It merely means Russia has not chosen to act against the shortcomings of the current NATO strategy. These shortcomings and their causes are relatively preventable, however, if they are left in the same state along with an increasingly dangerous Russia, it could prove monumentally costly for NATO. The area in which the most focus is put on in both the NATO and Russian perspective is that of the Baltic region where the three member states of Estonia, Latvia, and Lithuania live in constant fear of a repeat of Crimea, but with themselves being the Russian objective. With this being the case, the primary focus of NATO's deterrence strategy centers around the Baltics.

Research Target and Research Question

The main target of the research of this thesis is to identify the shortcomings of the current NATO strategic deterrence policy in terms of being able to reasonably and successfully deter Russian aggression by the way of Hybrid strategy. The goal is to critically assess the current conventional and unconventional capabilities of both NATO and Russia in order to understand if current deterrence strategy is credible enough to deter Russia from advancing its current aggressive strategy.

The overall main question to be asked throughout this research is: What are the causes or reasonings behind the shortcomings of NATO deterrence strategy when facing a Russian Hybrid Strategy? While the

main purpose of this research is to focus on the shortcomings of deterrence when facing Hybrid Strategy, it is also critical to ask further questions to better understand the situational causes. Such a secondary question is: in what ways is NATO's deterrence abilities lacking against Russian abilities? Without being able to analyze the shortcomings in this regard, there will be a lapse in ability to analyze deterrence against current hybrid threats also.

Through these main and secondary areas of research, it will be possible to determine if there are true and major shortcomings of the current NATO deterrence strategy against Russia. Once this is determined the ability to provide suggestions of policy or strategy can be issued to further advance the understanding of the research problem. If there are no major shortcomings, suggestions can still be made to warn of possible future shortcomings within the strategy. While not stated in the specific research question, the primary analysis of this question will be centered around the Baltic region, as this region is both the most likely test of NATO's current deterrence strategy and it is also where most measures of the deterrence strategy are focused.

Literature Review

The subjects of deterrence, hybrid warfare, and the relationship between Russia and NATO have been widely discussed throughout literature. With deterrence being a topic of literature since the cold war between NATO and the Soviet Union and hybrid warfare now being a relatively new topic in literature within security studies and international relations. For the purpose of this thesis, there are four categories of literature which can be used, although some categories generally overlap due to the subject matter.

The first category being literature which focuses on the theoretical concept of deterrence and more specifically, conventional deterrence. Deterrence theory as a theoretical concept provides a relatively large consensus within literature, therefore there are very few gaps in understanding and agreements by most experts. Most differentiating points on deterrence focus on more specific based points on the components of deterrence rather than the overall definition and types of deterrence. The core readings for this are *Conventional Deterrence* by John Mearsheimer[1] and *The Future of Extended Deterrence* by Stefanie Von Hlatky and Andreas Wenger[2]. These pieces provide excellent foundational groundwork into the core understanding of deterrence. Past these two pieces, *The Future of Conventional Deterrence: Strategies for Great Power Competition* by Robert Haffa and *Conventional Deterrence Redux: Avoiding Great Power Conflict in the 21st Century* by Karl Mueller will provide excellent insights into components which are necessary for a successful implementation of deterrence theory in a real-world situation. Such critical components such as capability, credibility, and communication are well discussed

---

[1] Mearsheimer, John J. *Conventional Deterrence*

[2] Hlatky, Stéfanie Von, and Andreas Wenger. *The Future of Extended Deterrence: the United States, NATO, and Beyond*

within these works and will be significant pillars when analyzing real world situations[3]. Another point of literature which is necessary to rely on is one that provides critiques to those who implement specific types of deterrence as Samuel Huntington does in *Conventional Deterrence and Conventional Retaliation in Europe[4]*. Even with criticisms and minor disagreements, literature on deterrence theory is a relatively streamlined affair when it comes to consensus on the topic.

The second category of literature to be used focuses on the conceptual understanding of the theory of Hybrid warfare. Unlike literature on deterrence theory, literature on hybrid warfare has a relatively large amount of disagreement on several aspects of the overall theory. From the general definition, components of, purpose of, and the name itself all find levels of contradiction within literature. Alexander Lanzoska's article *Russian hybrid warfare and the extended deterrence of eastern* for example points towards hybrid warfare as a means of strategy rather than a new form of Russian warfare while also providing key aspects which make an actor more susceptible to hybrid attacks[5]. *The Russian understanding of war* written by Oscar Jonsson points to the name hybrid warfare being merely a western name for a version of warfare which is deeply ingrained in the Russian understanding of conflict[6]. Meanwhile, a Rand Corporation study titled *Russia's Hostile Measures* focuses on how hybrid warfare is inherently linked to conventional conflict[7]. Disagreements in the name and general understanding further continue in works such as *Deterring Russia in the Gray Zone* by Michael McCarthy and Matthey Moyer in which Gray zone rather than hybrid warfare is the preferred term while the general understanding of hybrid warfare is listed as actions which do not meet the traditional notion of warfare yet are well above the notions of general peace[8]. Clearly there is a level of disagreement within the academic and military community on the theory of hybrid warfare. Therefore, extra steps will need to be taken to provide an adequate understanding of the definition, components, purpose and even a finalized name for hybrid warfare within the theoretical section.

The next category of literature to be used primarily focuses on the points of both Russian and NATO capabilities. With this matter, literature often focuses on both actors which in turn allows for a more streamlined analysis of capabilities across the hybrid and conventional linked streams of conflict. Furthermore, this is a widely discussed topic across multiple facets of academia and military professionals and therefore there is ample qualitative and quantitative data to be used for analysis of the causes of shortcomings within NATO's current deterrence strategy. Such works as *Strategic challenges in the*

---

[3] Mueller, Karl. "Conventional Deterrence Redux: Avoiding Great Power Conflict in the 21st Century
[4] Huntington, Samuel P. "Conventional Deterrence and Conventional Retaliation in Europe."
[5] Lanoszka, Alexander. "Russian Hybrid Warfare and Extended Deterrence in Eastern Europe
[6] Jonsson, Oscar. *The Russian Understanding of War Blurring the Lines between War and Peace*.
[7] Connable et al: *Russia's Hostile Measures: Combating Russian Gray Zone Aggression against NATO in the Contact, Blunt, and Surge Layers of Competition*
[8] McCarthy, Michael C., Matthew A. Moyer, and Brett H. Venable. *Deterring Russia in the Gray Zone*

Baltic Region, a collection of works edited by Ann-Sofie Dahl, *Conventional Detterence and Landpower in Northeastern Europe* by Alexander Lanoszka and Michael Hunzeker and RAND corporation wargaming article titled *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics* all provide ample insights into not only the hybrid aspect of the conflict between NATO and Russia but also the detailed looks into the offensive and defensive capabilities within the conventional sphere of the conflict. Further literature focuses on specific case studies of capabilities such as a study done by Lieutenant Colonel Colin Smith of the USMC and Jim Townsend titled *Not Enough Maritime Capability* which studies the major weakness of surge deployment capabilities of the United States, which will be shown to be a critical component of NATO's deterrence posture[9]. Other such specific case studies which prove monumental in the ability to fully analyze the effectiveness of NATO's deterrence strategy comes in the form of an article produced by USAF Major Matthew Wemyss in which he discusses the crucial importance of Russia's A2/AD abilities as a method to undermining NATO's projected presence in the case of a conflict between the two actors[10]. One final example of a specific case study within literature that will prove to be heavily relied upon within future analysis is that of a RAND corporation study on NATO's airpower and how its use will be of the utmost importance as the major tool of NATI;s strengthen the case of a conflict with Russia titled *At the Vanguard: European Contributions to NATO's Future Combat Airpower[11]*. Meanwhile, *NATO's return to Europe*, edited by Rebecca Moore and Damon Coletta, focuses on the strategic relationship between Russia and NATO over the last decade including on how NATO's deterrence posture has shifted before and after 2014[12]. All of these works within the scope of the topic will prove to be valuable in the analysis of what causes shortcomings within NATO's deterrence theory.

Conceptual and Theoretical Framework

The first concept that needs to be defined within the scope of the research being conducted is that of deterrence. Deterrence is a concept which has been debated and theorized about greatly since the beginning of the cold war. While the general definition of deterrence is mutually agreed upon across the majority of literature, it is the discerning of specific deterrence theory which is most important. The discernment between that of nuclear deterrence, which will not be the focus of the research being conducted, and that of conventional deterrence is an aspect which must be covered within the theoretical framework of this exploration of overall deterrence theory. Conventional deterrence is often the less

---

[9] Tsetsos, Konstantinos. "Colin Smith/Jim Townsend: Not Enough Maritime Capability

[10] Wemyss, Matthew. "The Bear's Den: Russian Anti-Access/Area-Denial in the Maritime Domain

[11] Binnendijk, Anika, Gene Germanovich, Bruce McClintock, and Sarah Anita Heintz. *At the Vanguard: European Contributions to NATO's Future Combat Airpower*

[12] Moore, Rebecca R., Damon V. Coletta, and R. Nicholas Burns. *NATO's Return to Europe: Engaging Ukraine, Russia, and Beyond*

studied of the two and deserves attention to how it is seen to be successfully implemented and also how it can possess shortcomings and ultimately fail in desired goals. The differing definitions or views of this within the literature will primarily deal with the discussion of what should be considered substantial ability and credibility to warrant a successful deterrence whether by denial or punishment. Furthermore, it will be discussed on what ultimately determines a successful deterrence strategy for a given state or multi-state alliance.

The concept which draws the most amount of disagreement with the varying degree of definitions is that of hybrid warfare. Hybrid warfare, a term coined by the west after Russia's actions in Ukraine, has a wide variety of not only definitions but also names. There is western literature which refers to it as hybrid strategy, hybrid warfare, gray-zone warfare, or non-linear warfare. Translations of Russian literature on the subject show that Russian academics and experts have a completely different understanding of the concept compared to their western counterparts. Furthermore, there is a wide degree of understanding on what components make up hybrid warfare and for what reasons these components are used. For this reason, this section of the theoretical framework must compare the different views and develop a concise understanding of the theory in order to move forward in the analytical section of the research. This concise understanding must include a proper name which will be used for the remainder of the paper, a clear definition of both the components of hybrid warfare and also hybrid warfare itself, and finally the general purpose behind the use of hybrid warfare within a hybrid strategy.

Empirical Data and Analytical Technique

The research analysis for this thesis will be based on individual reports and case studies provided by current literature on the subject matter along with governmental reports. With this being the case, a qualitative approach to research would be the most logical. However, quantitative methods may be used on a limited basis when statistics or numerical information is needed during the analysis.

The main sources for research are already within existing pieces of literature. The literature is primarily in the form of secondary sources. A varying degree of primary sources may be used throughout the analysis; however, they will not be heavily relied on. The primary literature to be used in this case have been mentioned above within the literature review section of this project.

The main method of analysis will be to analyze the aspects of capabilities of both sides within two distinct sections. Both focusing on the strengths and weaknesses of both Russia and NATO when it comes to both hybrid and conventional actions. Analyzing separately allows for a greater scope of detail across the four focuses just previously mentioned. Finally, there are some limitations when it comes to this research approach. Relying heavily on existing literature as the potential basis of analysis could lead to the use of skewed or biased information which could alter the results of the research. However, through the analysis of both governmental reports and a wide array of secondary sources which can be compared

against one another, the risk of the research results being misled completely is an unlikely scenario. Furthermore, as mentioned previously, the analysis of the strength and weaknesses of the primary actors will primarily focus on the Baltic region as it is the most likely area for NATO's deterrence strategy to be tested.

Planned Thesis Structure

After the completion of the introduction portion of this paper, which includes a topical introduction, a section on the research question and hypothesis, literature review, and methodology for both the conceptual and empirical sections for this paper. Once this section is complete it will then be followed by a theoretical section which will cover the two main conceptual frameworks of the thesis. These being the in depth look at the past and current understandings of deterrence theory and the examination of the understanding of both hybrid/gray zone warfare. This first of these being a section on deterrence theory with the following section being dedicated to the concept of hybrid warfare.

Following this, two sections will be dedicated to focus on both NATO and Russia's understanding of conflict and how their offensive and defensive capabilities in conventional and hybrid means reflect the understanding. Within these analytical sections, both the strengths and weaknesses of NATO and Russia's hybrid and conventional means will be determined. With this, both the shortcomings and their causes will be possible to identify. The first analytical section will be used to discuss Russian capabilities which can be used during a hybrid strategy. While hybrid warfare and conventional warfare are inherently linked, for organizational purposes these two points of capabilities will be divided. Following the discussion of Russian capabilities, a subchapter on NATO capabilities will be used to analyze the possible causes of weaknesses within their current use of deterrence. In similar fashion to the subchapter on Russia, this subchapter will include separate but very much linked sections on hybrid warfare and then conventional warfare. However, the NATO subchapter will also have a section which will not be included within the Russian subchapter, with this section focusing on NATO's cohesion and political willpower behind its current deterrence strategy which is crucial in being able to understand possible causes of shortcomings.

Finally, a conclusion section will follow the empirical section. Within this section, explanations of the causes of the shortcomings of NATO's deterrence theory will be made, if shortcomings are in fact found. After this, remarks on how current trends within international politics further points to the importance of this topic and analysis of NATO's deterrence. Finally, a small section on possible remedies and policy recommendations will provide avenues in which the shortcomings of NATO's deterrence strategy can be eradicated or at the very least limited.

Theoretical section

When looking at the overall scope of this paper, it is clear and simple to say that two very large theories are being explored through this topic. These theories being Deterrence theory and Hybrid Warfare theory. While this section will seek to properly address both theories and their both understood and misunderstood concepts, it must be noted that the level of analysis of each theory will not be proportionally balanced. This can be reasoned down to a singular reason. With deterrence theory being a concept, which has been around for nearly 80 years, the general understanding of the concept is consistently agreed upon by a vast collection of experts on the topic. Only minor disagreements or added characteristics truly differentiate most expert's conclusions on the theory itself, with most of these gaining a large amount of consensus. Hybrid Warfare, however, has blossomed in debate and literature only in the last decade on a consistent level. While there are accounts on the theory before this, the mainstream discussion of this theory has only begun quite recently in comparison to deterrence theory. Furthermore, there is an extreme lack of consensus on not just the detention of the concept, but also what characteristics it has, the general purpose of implementation, and even the name of hybrid warfare has brought about debate on the matter. With multiple defections, characteristics and even names such as Hybrid Warfare, Gray Zone warfare, political Warfare, and hostile measure; it is clear that a more significant amount of time and effort will be needed to undertake finding the true definition to be used by this paper.

Deterrence Theory

During the latter half of the twentieth century, deterrence theory became one of the most talked about strategies around the globe during the Cold War. However, one specific branch of deterrence theory found itself vastly more focused on compared to the other. This being the emphasis of focus on nuclear deterrence rather than conventional deterrence. While they share similar definitions and characteristics, they still hold a significant number of different characteristics. Within the scope of this analysis of deterrence theory, only conventional deterrence will be explored. Within the scope of analyzing deterrence theory alongside hybrid warfare, nuclear deterrence simply does not play enough of a part in the relationship between the two concepts, while conventional deterrence contributes significantly to the relationship.

In order to analyze conventional deterrence theory, three sections will be used. The first being exploring several defections from experts on the matter, the second being analyzing and determining the different types of conventional deterrence and how they are enacted by an actor, and finally a section on analyzing the characteristics and components of what may cause a specific deterrence strategy to be successful or to ultimately fail.

Definitions

When defining what conventional deterrence entails, the first expert to look to must be John Mearsheimer. In his book title *Conventional Deterrence*, Mearsheimer provides the definition of "Deterrence, in its broadest sense, means persuading an opponent not to initiate a specific action because the perceived benefits do not justify the estimated costs and risks"[13]. Essentially, Mearsheimer suggests that deterrence is meant to dissuade one's opponents with the idea that any action will not only have zero benefits, but also will induce serious costs to themselves. Robert Haffa follows this generalization of what deterrence theory is through his definition. Here

he states that: "In its most general form, deterrence is simply the persuasion of one's opponent that the costs and risks of a given course of action outweigh its benefits. The classic focus on deterrence theory has been on creating military capability to prevent taking aggressive military action. Thus, deterrence, for our purpose here can be defined as the manipulation of an adversary's estimation of the cost/benefit calculation of taking a given action...thereby convincing the opponent to avoid taking the action"[14]. With Haffa making slight changes but keeping the overall conceptualization provided by Mearsheimer, the picture of deterrence theory becomes clearer. An even more simplified definition on the concept of deterrence comes from Karl Mueller. In the *Strategic Studies quarterly,* He simplifies the concept of deterrence to the definition of "Deterrence is causing someone not to do something because they expect or fear that they will be worse off if they do it than if they don't"[15]. As it should be clear now, there is general consensus on the grander aspects on what deterrence theory entails. Deterrence theory being a concept which means making an opponent believe any aggressive action will not just result in a lack of gains for themselves but also a chance of severe consequences if said actions are undertaken. While one could go on with several more definitions provided across literature on the concept, this would merely bring us back to where the concept stands as understood now. While the wording may be different, simplified, or more complex on the given definition, the core concept remains the same. While the general detention finds itself carrying wide-spread consensus, the types and characteristics of deterrence do in fact provide a wide range of differing opinions.

It also should be understood that deterrence does not have to come in the form of solely military means. Conventional and nuclear deterrence typically dominate the vast amount of deterrence strategies; however, newer layers of deterrence tools deserve mention. While the two distinct subjects of study of deterrence are nuclear and conventional, which were developed distinctly during the Cold War, scholars have opened to the idea that the 21st century has brought about more layers of deterrence[16]. As stated by

---

[13] Mearshimer, 14
[14] Haffa, Robert. "The Future of Conventional Deterrence: Strategies for Great Power Competition." 96
[15] Mueller, 78
[16] Mueller, 80

Mueller, "there are many tools other than nuclear ones that can be used for deterrent purposes, including threats of economic sanctions, blockades, cyberattacks, diplomatic ostracism, and terrorist bombings"[17]. While military means are the primary source of deterrence, economic, cyber, and diplomatic actions can all play an important role as tools in a deterrence strategy. Mearsheimer agrees with this sentiment on non-military factors as he also makes it clear that non-military factors may also have effect on deterrence in a given situation[18]. To quickly further emphasize that the 21st century has changed the tools and threats which deterrent strategies may encounter, Mueller further states that challenges facing the understanding of deterrence in the 21st century include the aspect of cyber warfare being both a weapon of deterrence but also a action which must be deterred[19]. While these notions do not directly affect the overall definition of deterrence, it still must be understood that the definitions above do not solely represent pure military thinking but can also pertain to other tools and levels of deterrence outside of the conventional sphere.

Types of Deterrence

While the overall sense of deterrence seems simplified, there is no single type of deterrence theory which can be developed into a deterrence strategy, nor can these different types be delegated into a 'one size fits all' characterization. There are two separate but equally important areas of types of deterrence. One dealing with how direct the interaction is between the actors, the second the specific type of actions or threats used in order to deter.

The level of interaction between opposing actors allows deterrence to be split into two separate ways. While having relatively simple distinctions between the two, they still deserve significant focus. Robert Haffa contributes to these distinctions. He defines the two levels of deterrence interactions between type 1 also known as basic deterrence, and type two deterrence which is also known as extended deterrence. More specifically, Type 1 deterrence should be considered "eyeball to eyeball with the adversary threatening our national survival"[20]. Basic deterrence is direct cross-border action between adversaries. The actors are solely facing one another across a direct 'line of sight' or potential battlefield. This aspect of deterrence interaction has been widely used across history as it is the simplest form of a first line of defense. However, as history progressed forward and international relations became more globalized and complex, a second aspect of deterrence theory to be used in real world strategy began to see prominence. This being type two or extended deterrence. While type 1 meant more direct, adversary versus adversary, type two holds that the "objective is to defend allies and friends from attack"[21]. Unlike basic deterrence, extended deterrence provides the concept of no longer 'direct line of sight' deterrence.

---

[17] Mueller, 80
[18] Mearshimer, 14
[19] Mueller, 89
[20] Haffa, 97
[21] Haffa, 97

Through extended deterrence, an actor may be tasked with deterring an actor against an ally while also not being near the specific area where aggressive actions may take place. Due to this, extended deterrence is much more complex and is also seen as inherently less credible in comparison to standard type 1 deterrence[22]. While it is clear for an adversary to see direct deterrence, extended deterrence through alliances proves to be significantly more complicated. Extended deterrence must show that the state friend or ally is willing and able to come to the defense if any aggression takes place. However, this is much more difficult to illustrate that this will undoubtedly happen. This is why when discussing extended deterrence, it is often noted that if deterrence is two be seen as extended for the interaction, then it must be seen as unequivocally existing[23]. While the level of interaction between the actors may be different between extended and basic deterrence, there is still another distinction between types of deterrence which must be focused upon. However, these types of deterrence focus on how one seeks to influence a potential adversary.

While deterrence may be the act of attempting to dissuade one's adversary from conducting aggressive actions through a cost/benefit analysis, there is no singular way to go about this. In order for a deterrence to be enacted, there must be a specific level of threat on how an actor may respond to their opponent's action. Ultimately, this comes down to two different means for deterrence. These are deterrence by denial and deterrence by punishment. When discussing these two modes, John Mearsheimer makes the statement: "There is a well-known distinction between deterrence based on punishment, which involves threatening to destroy portions of an opponent's civilian population and industry, and deterrence based on denial, which requires convincing an opponent that he will not attain his goals on the battlefield"[24]. The names of these modes of deterrence are quite straight to the point in their meanings. To deter an opponent by denial means one must be able to deny any chance of immediate success or benefit for one to undertake an aggressive action while deterrence by punishment proposes the scenario of not immediately defeating an action, but instead making an aggressor pay immensely in cost for their actions. While there is relative consensus on the general meanings, some authors provide a more streamlined definition when compared to Mearsheimer. For instance, Karl Mueller states that deterrence be denial is achieved by "making it appear unlikely that the action will succeed" while going on to state that deterrence by punishment is the "making of expected costs of taking the action appear prohibitively high"[25]. While Mearsheimer suggests that deterrence by punishment is traditionally focused on civilian population and industry, Mueller merely suggests that greater cost is only needed and does not differentiate between civilian and military targets for this action. Both versions of deterrence theory have

---

[22] Haffa, 97
[23] Haffa, 102
[24] Mearshimer, 14
[25] Mueller, 78

been used throughout history, which has led to experts pointing out weak points in the foundational components.

Deterrence by punishment, while seemingly straight forward, has seen significantly more criticism towards its effectiveness when compared to deterrence by denial. One of the main experts who leads this critique is Samuel Huntington. While many focus on the defenders mindset and preference of deterrence strategies, Huntington takes extra steps to analyze how specific deterrence strategies may directly influence the thinking of a possible belligerent actor. First, Huntington points out that when at the two in the eyes of a belligerent, "the major difference between denial and retaliation concerns the certainty and controllability of costs he may incur"[26]. When an aggressor faces deterrence by denial, there is a relative level of certainty of what costs may be inflicted upon him and therefore, he is in control of those costs coming to fruition or not. However, with deterrence by punishment, a belligerent does have a level of uncertainty on not only if the punishment will come, but also in what form and how much cost it will inflict. With this possibility, Huntington addresses his most major critique of deterrence by punishment, or as he calls it, retaliation. Huntington addresses his concern by raising the point that if a belligerent "is confronted with a retaliatory deterrent, he may well be able to secure the gains he wants with relative effort, but he does not know the total costs he will have to pay and those costs are in large measure beyond his control"[27]. With this critique, he does provide an answer to how deterrence by punishment can be effective. First, retaliation must be directed at a target which has a high value in the mind of any potential adversary. Secondly, the retaliation aspect must show a significant probability of occurring[28]. This critique is a critical point to acknowledge when discussing deterrence by punishment as it shows that creating a successful deterrence model is often quite complex in nature in order to properly dissuade a potential aggressor. Furthermore, it shows that while deterrence by denial may take up more resources, time, and effort in the present in order to be successful, the alternative of waiting and focusing on punishment could bring about more significant costs to the defender. Finally, this critique and example of success allow a shift into the next section on deterrence, what components and characteristics make a successful application of deterrence and which ultimately lead to failure.

Components and Characteristics

There are a multitude of components, characteristics, and scenarios which can ultimately determine whether deterrence applied in the real world will be a success or failure. The first point to cover these are Robert Haffa's three components of deterrence. The beginnings of which can be seen above in the critique presented by Samuel Huntington. That being the credibility of deterrence by retaliation

---

[26] Huntington, 37
[27] Huntington, 37
[28] Huntington, 40

proving to be an issue in the success of a given model deterrence theory. Credibility being one of Haffa's three key components of deterrence. The full list of these being capability, credibility, and communication. When these three components are correctly implemented, then a given application of deterrence theory as a whole will most likely end in success.

For capability, Haffa states that capability "refers to the acquisition and deployment of military forces able to carry out plausible military threats to retaliate in an unacceptable manner or to deny the enemy's objectives in an unfavorable way"[29]. Deterrence by denial or punishment is ultimately not possible if the defender who implements the deterrence does not have the capability to carry out denial or retaliation. Without not just the correct, but strong enough capability, deterrence fails even in the phase of creation, long before it is implemented.

Credibility follows the component of capability for without the first you do not have the later. When developing the component of credibility, Haffa states that credibility should be understood "as the declared intent and believable resolve to protect a given interest, credibility can be reinforced by force structure, proximity, and power-projection capability and must be evaluated through comparative analysis"[30]. Credibility follows the line from capability when it comes to deterrence. What this means is that without capability, credibility is not possible. Yet, without credibility, capability is meaningless. Credibility is that of a heart and mind resolve which a defender must have to show their response and capabilities will in fact be used. If a defender is not showing the intent to carry out denial or punishment, then any belligerent would have cause to believe that any capabilities will not actually be used against them in response. A threat of denial or punishment cannot be credible if there is no capability to back the implementation of deterrence, and significant capability becomes useless if a defender does not show that the threat of use is in fact credible in nature. This dilemma with correct capability and credibility brings about the final linked component, this being communication. Haffa considers communication within deterrence the act of "relaying to the potential aggressor, in an unmistakable manner, the capability and will to carry out the deterrent threat"[31]. Without the ability to properly communicate one's capability and credible threat for defense, then deterrence cannot successfully be implemented. All three of these components not only build off of one another, but also are directly linked to the determination of if a specific use of deterrence theory as a strategy will be successful.

Other authors have also sought to explain the purpose of these factors. For instance, John Mearsheimer states that "the attacker primarily wants to know, not whether there will be a response, but rather how effective it is likely to be"[32]. This analysis of an aggressor's mindset ties into the concepts of

---

[29] Haffa, 96
[30] Haffa, 96
[31] Haffa, 96
[32] Mearshimer, 19

capability and credibility. When attacked, it is natural for a defender to provide a level of resistance. It is the level of resistance which ultimately sways the aggressor in the given scenario. Furthermore, Mearsheimer also touches on the importance of weaponry when two opposing sides interact through deterrence. Mearsheimer claims that the overall success in war, and that of deterrence theory as a strategy undertaken before the war, heavily depends on the level of weaponry available to the defender and aggressor[33]. This once again points to just how critical capabilities are when an aggressor faces deterrence theory being implemented as a strategy by a competitor. While these components are crucial, there are other scenarios or characteristics which heavily influence the overall effectiveness of a deterrence when it is applied to real world situations.

One characteristic or scenario which brings about wide consensus when discussing a possible failure of deterrence is that of a quick victory by the aggressor. Short conventional wars are considered to be highly desirable to a attacker as a short war typically means less costs for the aggressor[34]. What this leads to is the idea that deterrence is more likely to fail when the aggressor believes that a quick victory, determined by his goals, is in reach through a quick and surprise attack[35]. A quick victory is often easily achieved through a level of extremely quick escalation and surprise. As Samuel Huntington notes: "an initial offensive by a strong and determined attacker, particularly if accompanied by surprise, inevitably will score some gains"[36]. Tying this into the critique of deterrence by punishment put forth by Huntington, the hope of some immediate gain may be enough enticement for a aggressor to take action rather than focusing on what may happen in the long-term stream of events in the future. In fact, Huntington doubles down again on this scenario which could lead to a failure in deterrence by acknowledging that "the attackers succeed by massing unexpectedly where they could achieve a brief local superiority and by preserving their initial advantage through relentless exploitation"[37]. While this does call for a specific scenario for the failure of deterrence, the points of local superiority and exploitation not only play a significant role in the constant chess game of theoretical deterrence theory but will also play a role in the future analysis of real-world situations for this paper.

The final characteristic which must be noted for either a successful or unsuccessful implementation of deterrence comes down to the psychology of the opponents. Certainly, psychology does in fact favor the defenders. Defenders are the aggrieved party who are defending their homes, families, way of life, and government which are extremely powerful in enhancing resolve and determination of a defender[38]. This level of psychological resolve directly relates to the credible threat of

---

[33] Mearsheimer, 25
[34] Mearshimer, 24
[35] Mearshimer, 24
[36] Huntington, 39
[37] Huntington 47
[38] Chiabotti, Stephen D. "Clausewitz as Counterpuncher: The Logic of Conventional Deterrence,10

resistance towards any aggression and can directly result in successful deterrence. However, it is the psychological disposition of the aggressor which proves most dangerous to the success of deterrence. This can be divided into two different scenarios for a failed application of deterrence theory due to the aggressor's psychology. The first being, deterrence can simply fail due to the extremely motivated aggressor who is nearly impossible to convince that the costs are not worth their goals being achieved[39]. Whether due to a lack of rational decision making or an overpowering emotional reason for aggression fueling decision making, a strong attempt at deterrence may simply fail because the aggressor is willing to accept massive costs in order to achieve their goal. While this is a quite rare scenario for a failed level of deterrence, it is one that must be kept in mind when discussing possible failures. The second scenario follows more closely to related concepts discussed above. It can also be possible that the aggressor does not fully understand their own expectations and fears of cost, which could cause a less than rationale outcome of action[40]. Essentially, an aggressor may attack due to their lack of understanding on what they truly are willing to risk in order to gain a goal they may in fact not fully want. This is surely a more than extreme hypothetical scenario on how deterrence theory may fail, yet Karl Mueller found it a necessary inclusion in his possible scenarios, therefore it is of enough importance to mention in the analysis of deterrence theory.

The question of what ultimately determines a successful or failed implementation of deterrence theory is one that must be answered. In fact, this has been relatively answered through small points throughout this section on deterrence. With deterrence being the attempt to influence an opponent from making aggressive action through forcing the opponent to acknowledge that the costs of its actions would be too great in order to achieve any political or strategic objectives, the determination of success is relatively simple. If an opponent deduces in a quick and simple manner that the costs are too great or that they would be unable to achieve their objectives successfully, then the deterrence theory which was implemented as a strategy should be deemed successful. However, if the same opponent attempts to act against the actor which uses deterrence theory as a strategy, then this strategy clearly fails. Furthermore, it can be also argued that if an opponent second guesses and can continuously debate the strategic ability to overcome the deterrence initiatives in order to achieve its goals, then the deterrence theory model has already failed. When deterrence theory is formed into a strategy and is questioned openly by adversaries due to its perceived strength, then it has already failed. A successful application of deterrence theory should leave no doubt in an adversaries strategic thinking that its goals are simply out of reach.

To finish up deterrence theory, it is important to briefly review the most key elements when it comes to the theory and the successful implementation of the theory. Deterrence is essentially a defender

---

[39] Mueller 89
[40] Mueller 89

attempting to make an aggressor to not take aggressive action, as this would be in the aggressor's best interest due to the relative relationship of higher cost and little gain. There are two main levels of deterrence, these levels being how direct the contact is between the aggressor and the deterring actor. Direct deterrence, meaning typically cross-border rivals with direct battlefield line of sight for each other. The second of these being extended deterrence, the deterrence conducted by a larger power on the behalf of a smaller ally state in a different region when compared to the grander power imposing the deterrence. Furthermore, it is also known that extended deterrence is much harder to not just enforce but also prove credible. Next are the two general ways which deterrence theory can be implemented. Deterrence by denial, which seeks to deny any immediate goal of a would-be aggressor. Then deterrence by punishment, which seeks to punish the aggressor after aggressive actions have taken place. The critiques of these being deterrence by denial are more often than not more expensive for the defender, and deterrence by punishment leaves unknown factors for the aggressor which could in turn lead to hostile actions being taken. Following this, there are the components of what makes deterrence successful or what could lead to its failure. Three components which all must coexist for deterrence to be successful are capability, credibility, and communication. All three rely on another and all three must be present in order to have a successful application of deterrence theory. Finally, there are several scenarios which hold characteristics that threaten a successful application of deterrence theory as a strategy. The concept of a quick victory through escalation and surprise action can lead to a failed use of deterrence if they seem viable options. Furthermore, the rationale and psychology behind an aggressor's actions could leave even a strong application of deterrence being unable to persuade an aggressor against hostile measures. With these basic, but most crucial aspects of deterrence theory, it is not time to move on to a considerably newer theory which proves to be a powerful actor in the possible changes in how deterrence theory could be discussed in the future.

Hybrid Warfare

Hybrid warfare as a theory has only recently found itself at the forefront of debate within the professional and academic community. The main issue that comes from attempting to define and analyze this concept is that there is very little consensus when it comes to not just the definition and components of hybrid warfare, but also a lack of consensus on what to name the concept itself.in order to understand a lack of consensus on names, it is best to look at a excerpt from the Joint Special Operations University paper which states :"irregular warfare, hybrid warfare, asymmetric warfare, nonlinear warfare, non-traditional threats, small wars, unconventional warfare, complex operations, gray-zone warfare - all new

terms that have evolved to explain the nuances of conflict"[41]. There are a multitude of names which are meant to describe the same general concept. However, hybrid warfare as a name has been by far the most popular name used when discussing the concept during the last decade. Hybrid warfare as a name, generally attributed to Frank Hoffman of the U.S. National Defense University, became popular due to the adoption by NATO when discussing the actions of Russia while seizing Crimea[42]. With this adoption, it became the key name in the vast majority of literature on the subject. While Hybrid warfare definitions will be discussed in the following sections, other names for the concept will be explored. Other names such as gray zone warfare, hostile measures, Gerasimov Doctrine, and Gribidnaya Voina all require exploration in order to help come to a singular definition of the concept for this paper to move forward. The following sections will be divided into three key and successive sections. The first being defining what Hybrid Warfare is and other possible names for it, analyzing the components and tools used during the use of hybrid warfare, and finally, what is the purpose or endgame of the use of hybrid warfare.

Definitions

When discussing the definitions of hybrid warfare, it is often best to begin with where at least some of the consensus began. This comes from Frank Hoffman, who's term hybrid warfare was adopted by NATO in 2014. Hoffman defines his conceptualizations as "hybrid includes the employment of a broad spectrum of tactics and weapons in the same campaign, the combination of various tools - from high end military operations to terrorism, criminality, cyberattacks, insurgency, and more in order to target an opponent's vulnerabilities"[43]. Hoffman describes a multi-modal type of conflict which is not a one size fits all strategy, but rather, a type strategy, which when applied, adapts itself in order to take advantage of an opponent's specific weakness. This allows hybrid warfare, in Hoffman's view, to navigate the complex tools of defense and seek out what may be the underlying vulnerabilities of an enemy.

With NATO adopting the term hybrid warfare from Hoffman, it is also crucial to see how hybrid warfare is defined. In a paper produced by a joint council between NATO Allied Command and the U.S. Joint forces command Joint irregular warfare center, the following conclusion on hybrid warfare was reached : "admittedly, hybrid threat is a umbrella term encompassing a wide variety of existing adverse circumstances and actions, such as terrorism, migration, piracy, corruption, ethnic conflict, and so forth"[44]. Similar to Hoffman, this definition focuses on the multitude of possible modes in which hybrid threats can occur, although the point on ethnic conflict is a new and crucial addition.

---

[41] Stringer, Kevin D., Glennis F. Napier, and Mark C. Schwartz. *Resistance Views: Tartu Resistance Seminar Essays on Unconventional Warfare and Small State Resistance,* 69
[42] Connable et al : *Russia's Hostile,* 6
[43] Mazarr, Michael J. *Mastering the Gray Zone: Understanding a Changing Era of Conflict*, 45
[44] Fridman, Ofer. *Russian 'Hybrid Warfare': Resurgence and Politicisation,* 104

With these two definitions providing a general framework on what hybrid warfare is, it is now time to explore more complex definitions. One such detention comes from Alexander Lanoszka. Along with a different approach to defining hybrid warfare, Lanoszka also provides four conditions which could allow hybrid warfare to find success. These four conditions will help further explore this line of thinking. In terms of definition, Lanoszka brings a different approach to hybrid warfare. Lanzoska states "rather than being a new form of conflict, hybrid warfare is a strategy that the belligerent uses to advance its political goals on the battlefield by applying military force subversively"[45]. Lanoszka emphasizes that hybrid warfare is by no means a new type of conflict, and that not only is it not new, it should be noted as a specific strategy which uses military subversion. The emphasis to focus on more closely is that of military force being used subversively. Previous definitions saw the focus on more non-military means of achieving political goals but Lanoszka claims these means are truly military oriented in nature. On top of the definition, Lanzoska's four conditions provide a deeper understanding of what hybrid warfare may include. The first of these conditions which make hybrid warfare more likely is if the belligerent in the situation has local escalation dominance[46]. Local escalation dominance in this sense, means that the belligerent has superior forces in the local area where hybrid acts may take place. This in turn means that the belligerent can control the escalation of military action due to their superior numbers or capability in the area. The second condition is that the belligerent seeks to revise the international status quo, whether that be globally or regionally[47]. When seeking to revise the status quo, the belligerent is attempting to obtain greater influence within the international order than what would be deemed satisfactory to much of the rest of the order. Simply, a state who wishes to become a greater power and upset the current balance is a revisionist state. The third condition is that the belligerent has a weaker neighbor, who lacks a strong civil society while having some degree of ethnic or linguistic divides which can be exploited[48]. A weaker state who has clear cleavages within their civil society have an increased danger in a belligerent having the ability and chance to help further fracture these cleavages. A fractured civil society limits a united defensive mentality against any possible belligerent, and is in the belligerents best interest to exploit. The final and fourth condition is that the weak neighbor also shares similar ties, either linguistically or ethnically, to the belligerent[49]. Similar ties to the weaker opponent allow the belligerent to take full advantage of any possible fracture in civil society due to their shared ethnic or linguistic ties with a given set of the population. This allows for a greater usage of tools which make hybrid warfare unique and dangerous. While points of local escalation dominance and similar ethnic and linguistic ties are essential

---

[45] Lanzoska, *Russian Hybrid,* 176
[46] Lanzoska, *Russian Hybrid,* 176
[47] Lanzoska, *Russian Hybrid,* 176
[48] Lanzoska, Russian Hybrid, 176
[49] Lanzoska, *Russian Hybrid,* 176

additions to the current understanding, Lanoszka's detention still lacks a clear pathway for the explanation on how hybrid warfare can be conducted on a much grander scale without all four conditions necessarily being present.

While the previous definitions have been specifically for hybrid warfare, it is now time to explore those with alternative names for the concept. The first being gray-zone warfare. The United States Army Special Operations Command describes gray zone warfare as "activities, actions, or conflict in the space between peace and war"[50]. U.S. Army General Votel provides further description by stating that this space occupied by gray zone warfare is "characterized by intense political, economic, informational, and military competition more reverent in nature than normal steady-state diplomacy, yet short of conventional war"[51]. Even under a different name, these definitions share similar attributes to those of hybrid warfare, these being the intense use of political, economic, and informational tools used in a military fashion. The new addition to the understanding, being that this concept clearly does not meet the traditional standards of war, yet also clearly do not meet the standards of true peace.

Another term which can be linked to Gray zone warfare is hostile measures. A Rand Corporation report uses both hostile measures and gray zone warfare in order to explain the concept of hybrid warfare. By hostile measures, Rand means "state activities other than high order conventional or nuclear attack applied against other states at any time, and in any context, with the hostile intent of gaining advantage and reducing that state's capabilities, stability, or advantages"[52]. Hostile measures should be likened to the tools and methods of hybrid warfare which have been stated in previous sections. Specific examples of hostile measures, like tools of hybrid warfare, include limited military incursions, economic warfare, information warfare, and more tailored clandestine operations[53]. The use of hostile measures alone, in the view of this RAND study, does not incorporate the entire concept of what hybrid warfare or gray zone warfare is. In order to tie in hostile measures into the full concept, Gray zone warfare is defined as "Hostile measures applied to gain advantage short of war or to improve the chances of winning a prospective conventional war"[54]. While the first portion of this definition can be seen as relatively familiar to that of previous definitions, that being attempting to seek advantages through actions below the threshold of war, the second half proves a new area. This area being that Hybrid warfare, or gray zone in their definition, is used to help gain advantages for a future conventional war. This addition is of the utmost importance to understanding hybrid warfare, however, this will need to be discussed in its own section on the purposes behind hybrid warfare.

---

[50] Troeder, Elizabth. *A Whole-Of-Government Approach to Gray Zone Warfare,* 2
[51] Troeder, 2
[52] Connable et al : *Russia's Hostile*, 4
[53] Connable et al : *Russia's Hostile*, 5
[54] Connable et al : *Russia's Hostile*, 5

The next term which needs to be explored is less known and used in Western literature but has found significant use in Russian literature on Hybrid Warfare. This term being Gibridnaya Voina. This term began to surface in Russian discourse after Hybrid Warfare began to see significant attention and discussion among Western strategists and academics. Gibridnaya Voina is the literal transliteration for the English term of Hybrid Warfare and is merely meant to reference Western strategic thought[55]. Furthermore, unlike the West were hybrid warfare can be found in a multitude of military briefs and strategic documents, Gibridnaya voina does not appear in any official Russian military doctrinal publication, nor does it appear in *Voyennyy Entisklopedichesky Slovar* which is the dictionary of military terms[56]. While this term does not truly add to the definition, it holds relevance to future analysis.

The final term to be discussed once again does not alter the definition of general understanding but is important due to later analysis and also the way in which perception drives policy. This term is mostly directed at a single state's usage of hybrid warfare, but at times, has also been used as a alternative name for hybrid warfare. This alternative being, Gerasimov's doctrine, is named after Russian Chief of the General Staff Valery Gerasimov. The reasoning behind the use of this alternative term is that before Russia introduced one of the known successful implementations of hybrid warfare, General Gerasimov published as short paper on a style of new generation warfare in the newspaper *Voyenno-Prmyshlenny Kurier (Military industrial courier)*[57]. This new generation of warfare shares several attributes with hybrid warfare. For instance, it is proposed with the blurring lines of peace and war that tools such as subversion, disinformation, and sabotage can all be used below the threshold of war in order to weaken the enemy for eventual kinetic operations[58]. However, this supposed doctrine does not appear in the main platforms for peer review within the Russian military and this perceived new way of war is not entirely new to Russian thinking or practice. While some academics and professionals may use this short paper as a tool to explain foundational concepts of hybrid warfare, it does not fully explain the concept, nor give it proper background. Yet, it is of great enough importance to mention it as an alternative term which has been used for hybrid warfare.

Before providing the definition which this paper will use in it's future analysis, as a wide range of different definitions have been provided, the components of what make up hybrid warfare must be explored first. These components, or tools, of hybrid warfare have been briefly discussed above yet they deserve their own section of explanation.

---

[55] Jonsson, 11
[56] Fridman, 98
[57] Fridman, 98
[58] Galeotti, Mark. "The Mythical 'Gerasimov Doctrine' and the Language of Threat." 157

Hybrid Components

Hybrid warfare has a large degree of tools which can be implemented in order for a state to achieve certain objectives which it has set out. As stated in the above section on definition, hybrid warfare is by no means a one size fits all strategy and is more often than not tailored made for the given situation. With this being the case, any combination of tools which hybrid warfare has been linked to may be used in order to achieve an objective. This in no way suggests that one component is more effective or dangerous than the other, but merely means an actor implementing hybrid warfare as a significant choice of options for how it may wish to precede. The components which are known to be used within a hybrid warfare strategy are: Political warfare, Cyber Warfare, information Warfare, economic Warfare, Covert Actions, military operations, the use of proxies, diplomatic actions, and finally law warfare. While there can certainly be arguments for other tools of hybrid warfare, these components listed above have the most consensus in literature and the most real-world application when compared to other possible components.

Political warfare, as its name suggests, deals with the political sphere within an opponent's country. More precisely, political warfare is a type of covert action aimed at the influencing of a political situation or political leader of a give opponent[59]. Having the ability to destabilize the political situation in an opponent's country can prove extremely dangerous to the capabilities of providing resistance to attack or influence. To be more precise, political warfare can include covertly supporting, whether financially or through other means, actors who share similar views in political allies it the give country, or actors who wish to see the current Government change such as opposition groups[60]. Political warfare proves itself to be extremely effective in destabilizing the political infrastructure of an opponent if used properly while also being a tool of hybrid warfare which has a lower chance of being perceived as war yet can be extremely effective in bringing about similar goals. Furthermore, political warfare is in no way a new concept and has been used countless times throughout history by states and non-state actors all over the globe. The next component, while being a tool that any actor can use with enough resources, has been around for significantly less time.

Cyber warfare is a relatively new concept, as the more globalized and interconnected world of the 21st century has begun to heavily rely on computers and the internet for most aspects of daily life. Cyber warfare can be implemented for multiple uses, with the primary two activities being the collection of intelligence and the disruption of activities[61]. Examples of disruption could be exhausting an enemy's network bandwidth, operating system data structures, and computing power[62]. Paralyzing any of these cyber resources can prove to be devastating for a vast amount of areas with an opposing state, ranging

---

[59] Barber, Victoria, Andrew Koch, and Kaitlyn Neuberger. RUSSIAN HYBRID WARFARE,11
[60] Barber Kock Neuberger, 11
[61] Barber Kock Neubrerger,13
[62] Barber, Kock, Neuberger, 13

from ordinary citizens, private corporations, and even government-controlled areas which all rely heavily on the continuous operation of the resources stated above. Through these actions, an actor can seek to limit the ability of data or even deny the use of certain infrastructure ranging from banking, to energetic grids, and news sites.

The next component can be directly linked to cyber warfare. Information warfare links itself to cyber warfare simply due to the fact that the internet has become the mechanism of information distribution for the vast majority of people across the globe. One Definition of information warfare comes from the RAND corporation in which it states that information warfare is "the collection of tactical information about an adversary as well as the dissemination of propaganda in pursuit of a competitive advantage over an opponent"[63]. A further definition of Information warfare comes from Igor Nikolayevich Panarin of the Military Academy of Science of the Russian Federation. Igor's statement on information warfare covers the importance on the flow of information by explaining that: "since antiquity, the stability of the political system of any country has relied on how quickly and completely the political elites receive information (eg about [possible] danger) and how quickly they respond...political activity [by definition] is a informational struggle over the control of the minds of the elites and other social groups"[64] Igor's understanding of information warfare shows how it also can be directly linked in some manner to political warfare. Furthermore, it also contributes to the RAND definition that there are two primary areas of information warfare, the collection of information and the dissemination of information or disinformation which can also be classified as propaganda when aimed at larger social groups. Propaganda should be understood as information which "can be used to support individuals or groups friendly to one's own side or to undermine one's opponents, it can also be used to create false rumors of political unrest, economic shortages, or as direct attacks on individuals"[65]. The use of information warfare through the distribution of propaganda can have a major effect on civil society and other major facets of a state. Generally, there are two methods in which propaganda within information warfare can be used. The first being in overt ways. Overt information warfare and propaganda can be seen as announcements through official government offices, television and radio broadcasts, the internet, pop culture, and other possible cultural centers[66]. Overt information is information whose source is clear to the ears and eyes of the observer. Covert propaganda is the opposite of this. Covert information campaigns allow a deniability factor for the state conducting it, as the source of the information is often veiled in a sense of unknown[67]. Covert information campaigns can often be disinformation or other styles of campaign in which a specific

---

[63] Barber, Kock, Neuberger, 15
[64] Fridman, 85
[65] Barber, Kock, Neuberger, 16
[66] Barber, Kock, Neuberger, 16
[67] Barber, Kock, Neuberger, 16

narrative is pushed, without the perpetrator making it explicitly known that it is them which is pushing out this specific narrative.

The next component which can be used during a hybrid strategy is that of economic warfare. Economic warfare can be simplified down to the understanding that it is the practice of using economic means in order to manipulate opponents and achieve national objectives[68]. While economic warfare seems basic in nature, the means in which it is conducted are typically tailored for the given situation and opponent. However, there are common themes which can be explored. The two most common methods of economic warfare are resource denial and resource provision. Resource denial is the most used mode of version of economic warfare and involves denying a type of resource through tactics such as blockades, destruction of industry resources, and sanctions[69]. Denying resources, whether outright or limiting the supply of a given resource can have ample effect on a state's behavior and can prove extremely useful when attempting to achieve political or economic objectives. The second form of economic warfare comes in the provision of resources. By this, a state can provide resources which it controls a large supply of to other states in order to influence that specific state's behavior[70]. If a state uses a specific resource correctly, it can prevent a possible level of resistance, objection, or defiance to other actions being committed which can prove to be extremely valuable. The control of resources, whether through providing or denying, is a monumental factor when trying to influence another state's behavior.

Covert action, as a component of hybrid warfare, has not been mentioned as much compared to components mentioned above, yet it proves itself to be an extremely useful tool. Covert actions are actions which require a veil of secrecy in order to be effective. It is this secrecy that creates the ability to have plausible deniability for actions undertaken by a state, which in turn keeps these actions below the threshold of war[71]. Covert action can take many forms such as Sabotage, infiltration, and other actions that require plausible deniability.

The next component takes a different turn compared to other tools as hybrid warfare, as it is inherently more kinetic in nature. This component being the use of military operations. Military operations do not necessarily mean the conventional use of military forces which a state may possess, as this could be deemed as an act of war. However, the use of military forces for non-conventional means can be implemented as a powerful tool. One such method is the use of special operations groups, the elites of the conventional military, or paramilitary groups as tools to help wage a unconventional campaign which could include assisting allied forces or opposition groups in another state in order to support a

---

[68] Barber, Kock, Neuberger,25
[69] Barber, Kock, Neuberger, 25
[70] Barber, Kock, Neuberger,26
[71] Barber, Kock, Neuberger, 10

political goal[72]. Paramilitary or special forces units can provide destabilizing efforts through kinetic means, which proves both risky but also extremely effective if used correctly. Another form of military operations in the hybrid sense is the use of conventional forces for unconventional means. For instance, the use of naval forces to collect intelligence and information, or even cut communication, by attacking vulnerable deep-sea fiber optic cables used by possible opponents[73]. Military operations lay on the more extreme side of hybrid warfare due to its kinetic nature, as this can lead to kinetic responses from an opponent.

Similar in kinetic nature to that of military operations, while also providing a layer of space between the inhibitor and the target, is the use of proxies. The use of a proxy force can be generally defined as "using an actor within a given context to do one's dirty work rather than intervening directly"[74]. The use of proxies to do one's dirty work can involve a multitude of actions which can include using a proxy to fight an enemy rather than through direct operations, using a proxy to support an opposition group, or even a proxy to appear as a opposition group. Proxies provide kinetic operations with a degree of separation between a state who is supporting the proxy and the direct actions being conducted by the proxy.

The second to last possibly hybrid tool to be discussed is that of diplomatic action. Diplomatic action within hybrid warfare is one of the components which shares a closer relationship to that of traditional peace actions. Diplomatic actions, within hybrid warfare, are best paired with the use of aforementioned components. Diplomatic auctions can be defined as auctions which "seeks to leverage political relationships to justify behavior, garner support, discredit claims of other belligerent nations, and strategically move forward a nation's political agenda"[75]Diplomatic actions are more traditional in state versus state interactions, yet can play a role as a hybrid strategy when paired correctly with other components.

The final tool of hybrid warfare to be explored is lawfare, or the exploitation of international law. Lawfare, like diplomatic actions, are best suited to be paired with other more effective units of hybrid warfare. This is not to say that lawfare is not a useful component, but it is a component which on its own would have little effect against a component when trying to achieve larger political objectives. Lawfare in essence, is a tactic in which a belligerent attempts to develop a legally based narrative which justifies actions undertaken by the belligerent[76]. With this, lawfare is the aspect of hybrid warfare which is used to justify the legal basis behind other actions being committed by the aggressor.

---

[72] Barber Kock Neuberger,19
[73] Barber Kock Neuberger,21
[74] Barber Kock Neuberger,22
[75] Barber Kock Neuberger,27
[76] Barber, Kock, Neuberger,28

Purpose

      With these components above being listed and understood, alongside the understanding of the definitions also aforementioned, the next question of hybrid warfare is raised. This question being What is the purpose behind hybrid warfare? Another way to ask this, is hybrid warfare, a strategy which is conducted independently and without thought of other military operations may or is hybrid warfare, a strategy conducted with the mindset that future more conventional operations will follow. With the stated question above, one can derive which two avenues of thought on the purpose of hybrid warfare can lead. The first being that hybrid warfare is conducted on its own as a sole point to achieve objectives without the use of more conventional means. This has been the original notion when it came to hybrid warfare, therefore most definitions do not mention being in conjunction with conventional strategies or, explicitly state that hybrid warfare is a method of strategy in order to avoid more high-order conflict.

      However, consensus on this matter had begun to shift. Rather than being a stand-alone strategy, some experts have begun to focus on the idea that while hybrid warfare can be used on its own, it can also be an extremely dangerous strategy when being used in order to prepare an enemy for more conventional operations. With this, "many commentators have used hybrid warfare to refer to conventional and unconventional means designated to produce or lay the groundwork for eventual decisive operations by military forces"[77]. With hybrid warfare meant to exploit vulnerabilities within an opponent, it becomes the perfect tool to destabilize a potential foe in order to create a more likely chance of a quick victory when it comes to conventional action. With this line of thinking, Hybrid warfare in a way marries conventional operations in a sequential or parallel manner due to the psychological and destabilizing factors that it excels at[78]. Many components of hybrid warfare can still be used in high order conflict. A RAND corporation study which defined the hostile measures of gray zone warfare above, further mentions that "during high-order fighting, states apply hostile measures as enablers to improve friendly or to degrade enemy combat effectiveness"[79]. So, while hybrid warfare and it's components can certainly be used solely on its own merits, it is at its highest effective rate and danger to an opponent when married to a conventional and kinetic operation.

      With all of the above being considered, one facing hybrid warfare should also expect some level of conventional operations, if the given hybrid strategy is successful. The groundwork of destabilization and psychological warfare created by hybrid warfare creates an excellent scenario for a limited or full-scale conventional operation to take advantage of a weakened opponent and achieve a wide array of political and military objectives.

---

[77] Mazarr, 45
[78] MAzarr, 45.
[79] Connable et al, *Russian Hostile*, 5

Conclusion of Hybrid Warfare

This section has provided a wide array of terms, definitions, components, and purposes for the concept of hybrid warfare. Now it is finally time to conclude and establish the understanding which will be used in future sections of analysis. First, while there are several choice terms to use for this concept, hybrid warfare is the most widely used term and has been used thus far in this paper. Therefore, it is reasonable to continue the use of hybrid warfare rather than gray zone or other terms previously presented. For the definition, The RAND Corporation provision of the use of hostile measures, through hybrid warfare as a way to gain advantage or degrade an enemies capabilities in order to support more conventional operations is the best understanding of hybrid warfare to use for future analysis. Further key points of other definitions which should also be noted are that of local escalation dominance, sharing a linguistic or ethnic tie with an opponent, and the lack of a robust civil society are all important for the implementation of hybrid warfare. In terms of hostile measures, this is an alternative term for components of hybrid warfare and remains the same across definitions. These hostile measures can be used in case specific ways in a wide variety of combinations in order to achieve certain objectives. Components such as economic warfare, information warfare, military operations, the use of proxies, and other methods all play an equally important role, however, the specific case deems the most dangerous of these components. Finally, the use of hybrid warfare can be directed towards the eventual use of high order military operations rather than just the sole use of hostile measures. Furthermore, certain components of hybrid warfare can be conducted during conventional operations which further marries the two. What this means is that when analyzing a state's hybrid strategy capabilities, one must also analyze their conventional warfare capabilities as the two are ultimately linked to one another. This is compounded when analyzing the opponent of the defender's capability. While one must certainly analyze their ability to prevent the implementation of the hostile measures conducted during hybrid warfare, it is just as important to measure their conventional capabilities as it may prove the difference maker in preventing further escalation. With this in mind, along with the understanding of deterrence theory, it is now time to explore the strength and weakness of the two main actors of this analysis, NATO and the Russian Federation.

Analysis Section

With the understanding of deterrence theory and hybrid theory stated above, it is now time to turn and face the reality of the problem. How does the North Atlantic Treaty organization implement a specific deterrent strategy towards Russian hybrid strategies and what shortcomings may exist within this current form of deterrence strategy? In order to explore whether these possible shortcomings do in fact exist, two areas must be explored. These areas being the capabilities of Russia under a hybrid strategy and the capabilities of NATO in consolidation with its chosen form of deterrence strategy. When analyzing these

matters, it is important to note that the goal is not to determine whether or not Russia will in fact take advantage of any shortcoming, but rather what causes these shortcomings and. These shortcomings could exist and simply never be taken advantage of, yet it is still of importance to create an understanding on the causes of shortcomings which may exist for future exploitation.

An analysis section will be directed at analyzing the strength and weaknesses of Russian capabilities, and how these capabilities may be the cause of shortcomings to the NATO strategy in which it faces. A section will be dedicated to understanding and analyzing the capabilities of Russia when it comes to the use of hybrid measures within hybrid warfare. Once these capabilities have been duly explored, the final area of analysis of Russian capabilities will come in the form of their conventional abilities. These two chapters are not meant to explore hybrid and conventional as two separate modes of conflict as the two are inherently linked to one another. Rather this is done simply for organizational purposes.

When discussing the capabilities of NATO, three areas will be discussed when attempting to find any shortcomings of the deterrence strategy being used. The first, being an overview on how NATO implements its current deterrence strategy. The next step in analyzing NATO's deterrence capabilities will be looking at the strength and weakness of the alliance when focusing on deterring or combating hybrid measures which are short of the traditional notion of war. Finally, with the understanding that hybrid warfare is directly linked to conventional warfare, it is also crucial to analyze NATO's ability to deter a conventional Russian attack under its current strategy.

Russian Analysis

In the last decade, Russia has begun to show increased aggression towards its neighbors, all of which were former Soviet Republics. More specifically, this aggression has been directed at former Soviet Republics who have attempted to assimilate within western organizations such as the European Union or also NATO. The first large-scale aggression under this strategic thought was Ukraine in 2014, when both hybrid and low-intensity conventional warfare measures were used. Since this point, Russia has continued to use hybrid measures against multiple neighbors yet have not introduced any conventional measures. The greatest likelihood of large-scale hybrid warfare, preceding or running parallel to conventional warfare, being conducted against NATO comes to fruition in the Baltic region. Therefore, in similar nature to the exploration of NATO deterrence strategy focusing on the Baltic region, the exploration of Russian capabilities will also focus on the Baltic and western region of Russia.

With the understanding that hybrid strategies include hybrid measures which can precede or run parallel to conventional military operations making them not two types of conflict but singular entities, analyzing Russian capabilities will center around both hybrid capabilities and conventional capabilities which heavily revolve around one another. Within Russian strategic thinking, hybrid measures can be

used in two ways which themselves are closely linked. The first purpose is for hybrid measures themselves to inflict change within an opponent, so their actions align more closely with Russian objectives. The second purpose is to disrupt cohesion, functionality, and resolve within a given opponent in order to gain a greater advantage before and or during a conventional conflict which is tied to their hybrid strategy. Therefore, this paper will explore Russian hybrid capabilities by examining several measures which Russia has implemented in recent history and how they set a dangerous precedent to NATO. Some of these measures which will be explored include economic warfare, cyberwarfare, political warfare, the use of proxies, and finally information warfare. While there are more measures which Russia has implemented, these are the primary and most effective measures which Russian can put against NATO.

With hybrid measures having the possibility of being used in preparation of a conventional operation against, one must also analyze Russian conventional military means in the case of a conflict with NATO in the Baltic regions. This will first be done by examining a general overview of the Russian armed forces. Following this, a section will be dedicated to the geographic and deployment logistical advantages which the Russian military has over its NATO counterparts. A third section will focus on Russian land capabilities in the region and how wargaming predicts a conflict in the current setting. Finally, a section will be dedicated to Russian anti-access and area denial capabilities which include air defense and also air power, all of which are a tool to blunt a NATO reaction to any armed conflict.

<u>**Russian Hybrid Capabilities**</u>

As mentioned earlier, this section will seek to explore the strengths of Russian hybrid capabilities and how these capabilities can be used against the Baltic States and other NATO states in the case of Russian aggression. Examples of Russian hybrid measures over the last decade will be mentioned, some of which were against NATO member states, while others were against other neighboring states who were once under the Soviet sphere of influence. No level of hybrid measures are used in the same format as hybrid warfare itself is often tailored made for a given opponent and objective , therefore, it must first be mentioned that just because these methods have been used before does not mean Russia will re-use the measures in the same way. Yet, these real-life examples provide an insight into how Russia is capable of conducting hybrid operations. With that in mind, the measures will be discussed in the order of economic warfare, cyberwarfare, political warfare, the use of proxies, and finally information warfare.

<u>**Economic Warfare**</u>

Economic Warfare is by far one of the more powerful measures which Russia can use to either directly influence an opponent's decision making or disrupting an opponent's capability to mount a strong defense. Russia can conduct economic warfare in two primary ways, these being resource denial and

resource provision. Given the Baltic states' dependence on Russian goods and services, resource denial could prove to have dramatic effect on both behavior and capabilities of these states[80]. A sudden shortage of goods, caused by a limited supply or all out stoppage, could prove to be catastrophic to Baltic states. Resource denial can come in another form for Russia, with this being Russia refusing to import goods from neighboring states. While many former soviet republics and client states have made progress in swinging economic ties westward, there is still a high level of dependence on the Russian economy. A measure of this dependence comes in how sanctions on the Russian economy also had a tremendous effect on the Eastern European economy. Since the implementation of multinational sanctions against Russia began in 2014, the European economy has lost over 100 billion Euros due to interdependence[81]. However, it is important to look deeper into more specific examples of how Russia uses this dependence to their advantage. For example, in 2013, Moldova sought closer economic ties to the EU. In retaliation, Russia banned all imports of Moldovan wine, which in turn did cause economic downturn in Moldova which influenced a shift back towards Russian influence[82]. A further example of this is Russian banning the import of Polish fruit and vegetables in response to Poland supporting sanctions in response to Russia's actions with Ukraine[83]. Both of these real-world examples show Russia's capability to disrupt and influence an opponent through denying a resource or denying the financial compensation which these states rely on for their own resources. While these examples may seem to be limited in nature, they show how influencing behavior can be relatively easy due to the economic dependence in the region. Russia can tailor the resource denial for the given state or situation in order to disrupt local capabilities and also influence a behavior which may better suit their objectives.

While resource denial is a powerful tool for Russia, it is closely connected to a second option of economic warfare. This second option being resource provision. First, resource provision can itself turn into resource denial. The backbone of Russian resource provision comes in the form of Russia's major role as a major oil and gas provider[84]. Russia provides a significant amount of oil and gas for NATO member states located in Eastern Europe. In fact, Russian exports in the oil and gas sector account for upwards of one third of all European imports[85]. However, the true strength behind this is the gas and oil provision to NATO member states. Russia provides all three of the Baltic States with their entire supply of oil and gas for both domestic and military use[86]. While a lesser amount, Russia's major advantage in this sense is controlling the flow of 40% of Germany's natural gas and oil supply[87]. Germany is the

---

[80] Barber Kock Neuberger, 27
[81] McCarthy, 95
[82] McCarthy, 89
[83] McCarthy, 89
[84] Barber Kock Neuberger, 27
[85] McCarthy, 98
[86] McCarthy, 98
[87] McCarthy, 98

closest major NATO power to Russia and providing over one third of oil and gas flow allows Russia to put major influence over German decisions. All in all, Russia supplies 6 members of NATO with 60% of their oil and gas supply[88]. Russia's advantage with the capability to use its oil and gas industry comes in two ways. The provision of these, which can soon turn into the denial of, is an excellent tool for Russia to influence the behavior of a NATO member state. This could be used in the sense of attempting to break cohesion by not supporting their NATO allies. This provision can soon turn into denial by preceding a conventional operation. While most states do hold a level of strategic oil and gas reserves for emergencies, Russia 'turning off the valve' could extremely inhibit NATO military capabilities in the region let alone disrupting domestic consumption. It must be noted that doing this for a prolonged period of time could be a disaster for the Russian economy. However, it is nonetheless an extremely effective hybrid measure which can be used against NATO.

Cyberwarfare

Cyberwarfare also finds itself among the more widely used hybrid measures, and over the years Russia has become increasingly successful in the implementation of cyber-attacks around the globe. An example of an extremely successful implementation of Russian cyber warfare comes in 2016 against the Ukrainian capital of Kyiv. A Russian Cyber-attack targeted a transmission substation within the power grid of the city, with the result being a complete power blackout for several hospitals, banks, and public transportation center along with 225,000 electric customers for six hours[89]. This incident is significant due to not just its scope of dangerous effect, but also in the fact that it showed an official shift of Russian programs from a reconnaissance sense of cyber warfare to that of destruction and disruption[90]. While it is important to note this attack on Ukraine, it is time to focus on cyber warfare conducted against NATO member states and actual NATO forces.

While Russia has developed strong capabilities in cyber warfare, these capabilities are even more impactful in Estonia, Latvia, and Lithuania due to their growing reliance on cyber aspects. While every state in the world has become more reliant on cyber related systems for everyday life during the 21st century, the Baltic States are well above the average in terms of dependence on cyber networks which in turn makes them highly vulnerable to Russian aggression[91]. A more specific example of this comes from Estonia. Estonia's economy and society are heavily reliant on the internet, as several major social services such as banking and voting are fully cyber based[92]. Due to this, it should come as no surprise that Russia has targeted Estonia in recent years. The year 2007 brought a Russian cyber-attack against Estonian

---

[88] McCarthy, 98
[89] Troder, 9
[90] Troder, 9
[91] Barber, Kock, Neuberger, 15
[92] Barber, Kock, Neuberger, 51

government and private sector institutions which resulted in the crippling of key services for Estonian citizens for several weeks[93]. What can be drawn from these real-world examples is the following two points. Russian capabilities provide ample power to be able to significantly influence NATO member states through cyber-attacks. Furthermore, in the case of armed conflict, Russia also has the capability to actively disrupt social services and power grids which could prove to be major factors in destabilizing NATO states and their overall effectiveness to mount a defense or reinforcement operation.

The final point on cyberwarfare comes with Russia's direct actions against NATO troops themselves. Since 2017, there has been significant evidence of Russia hacking the personal cell phones of NATO troops who were deployed to the Baltic States as members of the Enhanced Forward Presence Battle Groups[94]. While personal cell phones may not hold major weight in NATO military operations, the mass hacking of these phones by Russia does set a precedent where Russia could conduct low level cyber reconnaissance into NATO troop movements and numbers in specific areas within the Baltic States. This could prove to be extremely beneficial to Russia in the opening hours of a conflict in the region but does not provide a large enough tool to sway an overall conflict.

Political Warfare

The next form of hostile measure which Russia has been known to use within hybrid warfare is that of political warfare. Political warfare has been used in several forms which all have varying degrees of direct action by the Russian government. One such form of political warfare comes in the form of controlled chaos. Controlled chaos being the action of Russia creating political chaos within an opponent that does inherently weaken the opponent, yet the chaos is in some form controlled by Russia. One real world example of this comes in the controlled chaos that is Ukraine. The annexation of Crimea, along with supported separatist 'governments' in Eastern Ukraine, fall under the category of Russia conducting political warfare in the sense of controlled chaos in order to weaken the legitimate Ukrainian government.

The main form of political warfare which is visible enough to examine comes from Russian support to opposition groups. The primary focus of Russian political warfare in its current singular form is to support leaders and groups, in states which are near-abroad, in order to influence local decisions in a way that supports Russian ambitions[95]. One such example of this is the support of pro-Russian factions within the Baltic States governments or the same in the Ukrainian government. Political warfare is a measure within the Russian arsenal which will not fully sway the outcome of a battlefield operation, yet it is a tool which can slowly overtime disrupt local cohesion, which as discussed before can prove extremely dangerous to a cohesion-based organization such as NATO.

---

[93] McCarthy, 74
[94] McCarthy, 74
[95] Barber Kock Neuberger, 12

Use of Proxies

The next hybrid measure within Russia's strategic arsenal is one which is best used in conjunction with other hybrid measures, primarily that of political warfare. This hybrid measure itself is the Russian use of proxies in near-abroad states. One of the more open cases of Russia using proxies in order to destabilize an opponent is that of Ukraine. By supporting separatist militias in Eastern Ukraine, Russia has been able to systematically destabilize Ukraine as it began to shift towards a more Western centric stance[96]. Through the use of separatist militants as proxies, Russia has been able to destabilize significant parts of Ukraine and inherently weaken the Ukrainian government's power base. Furthermore, these actions have led to Western institutions backing away from full support of Ukraine, which was one major objective of Russia. This example proves to be a legitimate fear of NATO member states along Russia's border. With the relative ease in which Russia implemented these proxies in Ukraine, it is realistic to believe that this could be copied in some form within NATO states that house a pro-Russian minority.

Another form of the Russian use of proxies comes in a less violent sense. Violence being relative in this sense. Rather than causing a separatist movement in a country, proxies can still be used to cause a level of dissent and destabilization within the country. An example of this is Russia fomenting protests against the Estonian government through the use of proxies[97]. Once again, Russian hybrid capabilities center around disrupting local, national, and multi-national cohesion in order to influence an opponent's behavior or disrupt an opponent's ability to adequately respond to Russian threats.

Past these two previous uses of proxies, Russia also has unique capability when it comes to the use of proxies. This unique and non-traditional form of proxy is not organized in ways similar to the political protest groups or that of the Ukrainian separatist. This unique proxy is in fact the population of the ethnic Russians who are often a minority in their current home country[98]. Through the support and influence over the Russian minority within a near-abroad opponent, Russia has an incredibly strong capability in quickly creating cleavages in social cohesion. These minority proxies can in turn provide several benefits such as a reason for Russia to intervene in a given area for their 'safety', a population who will continue to support their objectives politically and socially within less friendly states, and finally they provide a point of focus for outside governments to focus on while Russia turns it's true hybrid measure intentions elsewhere.

---

[96] Barber Kock Neuberger, 22
[97] Connable et al, *Russia's Hostile* ,40
[98] Barber Kock Neuberger, 22

Information Warfare

The final hybrid measure within Russia's arsenal is by no means the least important. While previous uses of hybrid measures may prove more reliable for the purpose of preceding a conventional conflict, few are more reliable when it comes to inciting local discontent and cleavages in social cohesion within opponents. This final Russian hybrid measure being information or disinformation warfare. Russia's information warfare, which often centers around the creation and distribution of disinformation, is often used in the mindset of creating a narrative which supports their objectives in a given case. This can come through the denying of support to proxies, creating a storyline which creates social division, and other means which can support a Russian narrative while also destabilizing an opponent's given narrative on the situation. Russia's capabilities within this sphere allow it to conduct highly effective information campaigns, which can center around traditional and non-traditional information spheres as ways to perpetuate deception and denial narratives[99]. By traditional and non-traditional means, traditional is the sense of state-controlled media services which while labeled as legitimate news outlets, can provide altered news points to meet the state's needs. An example of traditional spheres of information warfare which Russia can use comes in the form of state-owned television network RT (formerly Russia Today) and the news agency Sputnik, both of which have been identified by Western intelligence agencies as being a significant arm of Russian propaganda[100]. These news networks can both target Russian speaking minorities within NATO states while also having the capability of targeting English speakers with the creation of the RT America network. Examples of narratives being pushed through these news agencies and television networks are such points as local Russian minorities are being mistreated and that there are signs of ethnic cleansing and major cities such as Klaipeda never truly belonged to Lithuania historically[101]. Such narratives about the mistreatment of Russian minorities have even led to major violence due to protests which was the case in Estonia due to Russian information campaigns[102]. In a final sense of how Russia may use information to create cleavages within social structures comes in the case of Ukraine. As tensions grew between the two states, Russia news outlets began to liken the new Ukrainian government to the old common enemy of fascists in an attempt to drive historic hatred against their opponent[103]. Through all of these cases Russia managed to create a narrative which either supported their overall objectives, or a narrative which actively created a destabilizing effect within unfriendly states. While most of these information campaigns came in the traditional sense, that being news outlets, Russia also pushed these narratives through non-traditional means.

---

[99] Troeder, 8
[100] Troeder, 10
[101] Troeder, 11
[102] McCarthy, 74
[103] Barber, Kock, Neuberger, 50

The rise of social media and the reliance on it as a quick and reliant source of news has allowed Russia to add new methods into their information/disinformation campaigns. Through the use of bots and people (who are now known as social trolls) Russia is able to push narratives as opinions of the masses rather than relying on the sole power of traditional information distribution[104]. Through this, Russia can make it appear that there is social cohesion when there is none, or better yet, create destabilization due to 'opinions' coming from the masses in other states that just so happened to match Russia's objectives and narratives to the situation.

Through exploring the Russian capabilities within hybrid warfare, several things should be clearly taken away. The first being, Russia has significant ability to sway local cohesion in near-abroad states. Secondly, Russia's capability to disrupt multi-national cohesion, through manipulation and straight attacks could prove to be dire for a consensus organization such as NATO. Through economic, cyber, and other measures, Russia has significant capability to dissuade NATO members from acting against it in the case of conflict. Finally, several of these hybrid measures within Russia's arsenal are fully capable of disrupting political, social, and military response in the case of a surprise Russian advance into the Baltic States. These capabilities can be used singularly or in conjunction with one another and can ultimately prove detrimental to NATO. When these capabilities are used in a preceding or parallel manner with Russian conventional military capabilities, Russia proves to be a superior foe within the Baltic and Eastern European region when facing NATO.

<u>**Russian Conventional Capabilities**</u>

While the examination of the weaknesses of NATO and strength of Russia when it comes to hybrid warfare capabilities shows a large disparity between the two opponents, it is the disparity on the conventional warfare level which should produce the more significant worry. While NATO holds a strategic global advantage over Russia when it comes to manpower, heavy equipment, and airframes; NATO lacks the local numbers and equipment to match NATO. To examine the conventional military capabilities of Russia, and how they successfully match up against NATO, several key areas must be analyzed. The first step in analyzing Russian conventional capabilities comes with defining the basic characteristics of the Russian military, including available manpower and funding. The second area of analysis will focus around the geographical advantages Russian land forces have while also looking at Russian deployment and logistics capabilities in the case of a conflict in the Baltic region. The third point of focus will center around analyzing Russian manpower and equipment and how wargaming predicts a conflict would go with these numbers against NATO. The final section of analysis will focus on Russian air power and A2/AD capabilities, both of which are tasked with preventing or slowing down NATO

---

[104] Troeder, 10

reinforcements to the region. What these areas of analysis will make clear is that Russia holds a significant local superiority in the region, and that this local superiority is backed by capabilities which negate NATO's global superiority by limiting reinforcement and counteroffensive potential.

General overview

The Russian military is by no means a similar match to what the 20th century saw in the Soviet military at its height; however, the last 20 years have seen a dramatic increase in quality throughout the Russian military which makes it an extremely capable fighting force. When looking at Russian military might within its own borders and in the near-abroad sphere, its capabilities are highly impressive, however, these capabilities lose their luster once the scope is broadened to a global perspective on military capability[105]. Nonetheless, Russia has significant ability within manpower, with 3.3 million personnel across active duty and reserve rolls with just over 1 million being active duty[106]. While less than NATO's full force combined, only the United States offers a higher personnel count, while it takes the next several NATO members to match the same manpower ability compared to Russia.

While certainly no match for the overall military budget of all NATO member states combined, let alone solely the United States military budget, Russia has seen a significant increase in military spending since a dramatic decline after the fall of the Soviet Union. The last decade has seen the Russian military budget increase by over 230%[107]. This significant increase may speak more to the despair of the Russian economy and military immediately following the fall of the Soviet Union, yet it does show that the Russian military has been reformed into a well-funded military organization in recent years. A specific example of this increase comes between 2011 and 2014 in which the military budget increased from 44 billion USD to 80 billion USD[108]. This came just before the world saw an increase in Russian military activity and might. This increase in activity saw a correlation with increase in budget, which today leaves a well-funded and equipped Russian military.

Geographic and Logistical advantages

The second area which needs to be explored is that of the geographical and logistical advantage Russian land forces have over their NATO counterparts. While most NATO member states, outside of the Baltic States themselves and Poland, have a significant distance to travel through a relatively small area of operation (The Suwalki Gap); Russia has a relatively large area of movement for logistics while also having a close proximity to their own borders. In terms of proximity of borders to opponents' capitals, Russia possesses a significant advantage. From the Russian and Estonian border, Russian forces only

---

[105] Lanoszka, *Conventional Deterrence,* 26
[106] McCarthy, 71
[107] Dhal, 50
[108] Lanoszka, *Conventional Deterrence,* 23

have to travel 200km via highway in order to reach the Estonian capital of Tallinn[109]. In comparison, this distance a army would have to travel from the Polish and Lithuanian border to Tallinn would be 600km[110]. The same advantage is also there for the capital of Latvia, With Riga being 275km away from Russian borders while it is roughly 325 km from the Polish border[111]. In distance alone, Russian troops have a significantly smaller distance to advance which in turn means a much smaller supply line from their own borders. The second geographical advantage Russia holds comes from controlled Kaliningrad. With Kaliningrad placed between Poland and Lithuania, Russia is not just able to create a separate route of advance, but also create the Suwalki Gap. The Suwalki Gap is a 110 km wide gap where the Polish and Lithuanian borders meet between the enclave of Kaliningrad the Belarus border[112]. This geographical advantage allows a natural form of funneling NATO troops through a small land route within striking distance of Russian territory. However, this aspect will be more heavily discussed when exploring Russian A2/AD capabilities.

The second area where Russia holds an advantage, mainly due to its geographical location, is the logistical and mobilization abilities. Over time, Russia has been able to develop and execute large scale and relatively rapid deployments to border areas within the country using rail, road, and air transport[113]. If Russia decided to conduct a military operation in the Baltics, it does in fact have the capability to rapidly mass it's forces in the region before any NATO states could have a chance to counter and mount a similar mobilization effort. Furthermore, due to the relatively modern road system within Estonia, Latvia, and Lithuania, Russian ground forces will have relative ease in advancing barring significant local opposition. This brings the next point of analysis about, this being how capable are Russian ground forces in pushing back local NATO forces during an advance, and then holding their ground in the face of NATO reaction.

Available manpower and Equipment

While NATO relies significantly on large numbers of troops and heavy equipment being transported into the region, Russia holds a significant advantage in troop and heavy equipment numbers while wargaming shows these numbers have the ability to make quick work of their NATO counterparts. The Russian border along Latvia and Estonia falls under the jurisdiction of the Western military district of Russia. The Western military district typically is home to 300,000 personnel which includes the 6th army, the 20th army, the 1st guard tank army, along with several airborne divisions[114]. Without further

---

[109] Shlapak, David, and Michael Johnson. *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics,* 3
[110] Shlapak and Johnson, *Reinforcing Deterrence,* 3
[111] Shlapak and Johnson, *Reinforcing Deterrence,* 3
[112] Shlapak and johnson,*Reinforcing Deterrence,* 4
[113] Connable, Ben, Abby Doll, Alyssa Demus, Dara Massicot, Clint Reach, Anthony Atler, William Mackenzie, Matthew Povlock, and Lauren Skrabala. *Russia's Limit of Advance: Analysis of Russian Ground Force Deployment Capabilities and Limitations,* xvii
[114] Lanoszka, *Conventional Deterrence,* 21

reinforcement from other military districts, Russia is capable of mobilizing 1/3rd of it's armed forces and equipment in close proximity to the Baltics.

When looking at the comparison of heavy equipment for Russian forces and NATO forces in the region, it becomes clear why it is thought that taking control of the Baltics would take little effort. The heavy equipment advantage over NATO forces in the Baltics, and including that of the VJTF, creates significant reasons of confidence for Russian forces.

In terms of tanks within the region, Russia holds a 7:1 numerical advantage in this category[115]. While war has greatly changed throughout the 20th and 21st century, armour still remains vastly superior to lightly armed personnel and creates significant ability for large and powerful thrusts into enemy territory. Furthermore, Russia not only holds a numerical advantage in tanks, but several of Russia's tank platforms should be seen as on par or slightly superior to their NATO counterparts[116]. However, heavy armour in the form of tanks is not the only numerically superior advantage Russia holds.

It is also the case that Russian ground forces hold a 5:1 advantage when it comes to light armoured and infantry fighting vehicles[117]. Not only does this add on to the advantage of armoured vehicles against a limited NATO armour presence, but the presence of overwhelming numbers of vehicles allow for a quick line of advance. In fact, it is due to this overwhelming advantage in mobility and armour that wargaming scenarios currently predict that Russian forces would be capable of reaching and taking both Tallinn and Riga in under 60 hours from the onset of a operation[118]. Granted it is by no means the intention of NATO to be able to stop an immediate advance by Russian forces, but the quick projected time of completion provides Russia an advantage in the fact that their projected goals would most likely be complete before NATO's punishment and reinforcement strategy is able to be fully implemented. With this, Russia realizes that it will most likely have time to prepare for NATO counter strikes, and therefore significant capabilities have been built up in order to blunt this perceived onslaught of NATO.

The first area is still tied to the ratio and quality advantages in equipment. Tube and rocket artillery have always been a strong suit of Russia and its predecessor in the Soviet military. In terms of traditional tube artillery, Russia can count on an immediate 4:1 advantage, however, it can count on a 16:1 advantage when looking at long range rocket artillery[119]. It is not just the numbers which make this a dangerous aspect, as Russian artillery platforms hold a significant qualitative advantage also. NATO tube artillery can reach a range of 14 to 24km based on the model, yet Russian artillery holds a range of 29km[120]. On top of this, the best available NATO rocket platform has a range of up to 70 km while it's

---

[115] Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[116] Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[117] Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[118] Dhal, 65
[119] Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[120] Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO

Russian counterparts have a range upwards of 90km[121]. Not only can Russia produce more firing power, but this fire power can out range any NATO counterpart. This advantage is extremely crucial when one remembers that NATO must rely on forces being brought into the region in order to strike Russian forces in a manner strong enough to push them back. It is with this thought that wargaming has showed, in this given scenario, that Russian artillery is capable of pinning down and preventing the advance of NATO forces who would have little answer to this outside of air strikes[122]. With heavy equipment alone, Russia holds the capability to not only take control of NAOT territory, but also the capability to inflict heavy losses on NATO ground forces before they are able to strike Russian forces. Given NATO would need upwards of two months to match the numerical advantage held by Russian forces, Russia would have significant time to either negotiate or dig in to provide stiff resistance. However, this brings us to our next point, this being how Russian air defense and area denial capability is meant to combat the NATO strength of airpower and reinforcement in the region.

Anti-Access/Area Denial

Russia has a clear understanding that any operation against NATO would surely mean a prolonged NATO buildup in order to conduct a counteroffensive. As discussed in the NATO capability section, NATO relies heavily on the promise of punishment through airstrikes of its superior air power followed by reinforcements to further punish and push back Russian forces. With this being the case, Russia has developed significant A2/AD and air defense capabilities to erode NATO strengths. A2/AD or anti-access and area-denial are capabilities meant to deny one's opponents either the ability to enter an area or to freely operate within a given area[123]. For this reason, Russia has sought to expand it's A2/AD capabilities. Mainly due to the fact that A2/AD capabilities ultimately reduce the given value of extended deterrence by punishment as it inherently increases the cost of carrying out promises necessary for deterrence[124]. With this being the case, Russia has put significant resources into developing and improving these capabilities. In fact, the Danish Defense Intelligence Service (DDIS) suggests that Russian anti access and area denial systems are fully capable of threatening full access of substantial NATO reinforcements into the Baltic region[125]. Essentially, the reassurance package for the Baltic States created by NATO after the Crimean incident seems to completely miss the powerful factor of Russian A2/AD and the spread of long-range precision weapons to target air, land, and sea targets[126]. With this capability, Russia erodes NATO's main source of punishment to the point where the Alliance would in fact have to accept significant losses to properly deploy and supply reinforcements well before they

---

[121] Shlapak, David, and Michael Johnson. Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[122] Shlapak and Johnson, *Reinforcing Deterrence,*5
[123] Wemyss, 10
[124] Dhal, 76
[125] Dhal, 76
[126] Visan, George. "Crimea's Transformation into an Access-Denial Base." Black Sea in Access Denial Age

engage Russian ground forces in the area. With this, it is time to turn towards more of the specifics of Russian A2/AD capabilities.

One aspect that makes Russian A2/AD capabilities so fearsome is due to the Russian territorial enclave of Kaliningrad. Without this island of Russian territory situated between Poland and Lithuania, Russian A2/AD measures would have significantly less reach into NATO territory. Furthermore, this enclave creates the Suwalki Gap as discussed earlier. It is this gap which can be highly targeted. Due to this, Russia has sought to build up Kaliningrad as defensive bubble in which it could interdict and strike NATO airpower and reinforcements[127]. When paired with the large range of Russian precision munitions, this bubble becomes the source of Russian power of NATO in the region. For example, the Iskander missile system, which is now stationed in Kaliningrad, has a max target range of 500km[128]. Not only could Russian forces strike the Suwalki Gap, but all of Poland and areas in Germany and the Czech Republic are capable of being targeted. Given this, Russia has the capability to strike large NATO staging areas far from the front lines, guaranteeing a NATO buildup would result in significant costs. To compliment these advanced A2/AD capabilities, Russia has also bolstered its air defense systems.

Air-defense Capabilities

One major fear of Russian strategic thinkers, when wargaming and analyzing scenarios of a conflict with NATO, is the toll which can be incurred by the overwhelming strength and numbers of NATO airpower. In response to this fear, Russia has continued to develop and expand its air defense systems in both Kaliningrad and within traditional Russian borders. Currently, with its positioning across all of Western Russian territory around the Baltics, the Russian integrated Air Defense System (IADS) has the ability to successfully cover the entire span of the Baltic air space along with ⅓ of Polish air space[129]. Examples of Russian IADS systems are the s-200, the s-300, and the s-400 missile system which is vastly superior to its Russian counterparts. With this, Russian air defense can cover both the advance and defense of Russian troops against NATO air power. This is not to say that Russia wouldnt incur losses due to airstrikes, but NATO air power would sustain significant losses in the process of overwhelming the air defenses in the region. Furthermore, If NATO sought to strike Russian targets well within Russian territory, wargaming further suggests that this could prove significantly challenging, if not unlikely for successful strikes[130]. Russia's fear of NATO air platforms has not only led to an increased capability in air defense systems, but also other capabilities and air frames which seek to limit the NATO advantage in the air.

---

[127] Lanoszka,*Conventional Deterrence,* 29
[128] Dhal, 77
[129] Wemyess, 10
[130] Connable et al, *Russia's Limit of Advance,* 52

On top of its anti-air capabilities, Russia has also sought to blunt NATO air superiority through other means such as limiting the overall capability and full function of NATO air platforms. An example of this new capability comes from 2018 in the ongoing Syrian conflict where both Russian and NATO forces are constantly operating within the same area. Multiple reports from this time claim that Russia was relatively successful at using electronic warfare technology in order to interfere and disrupt NATO member air operation in the region[131]. On top of success in this theatre of operation, Russia also saw success in electromagnetic warfare when it came to targeting the GPS and communication systems of Ukrainian manned and unmanned aerial vehicles[132]. When one combines these factors along with the IADS and Russian airpower, it should be clear that while certainly at a disadvantage and vulnerable to air strikes, Russia certainly has the capability to make those airstrikes costly for NATO. Furthermore, one can certainly not simply forget the Russian air force. While it is certainly qualitatively and quantitatively inferior, Russia still possess the capability to not just only conduct interception operations but also air to ground operations of their own[133]. Russian air power, while weaker, can still add to the list of capabilities meant to blunt NATO airpower onslaught. But one thing should be clear from Russian capabilities meant to blunt NATO's air power. Unlike operations conducted by the United States and other NATO member states over the last two decades, air support will no longer be a simple call away and NATO troops have not had to fight in these conditions for some time[134]. Ultimately NATO air strikes would take a toll on Russian forces, but NATO airpower would be greatly diminished due to attrition in the opening stages of a conflict over the Baltics. With airpower being one of NATO's main components of a deterrence by punishment strategy, this strategy begins to show cracks in its foundation on whether it may actually fall short of its purpose.

Conclusion on Russia

In a brief summary, Russia not only holds significant conventional capabilities in order to take control of the Baltic States, but also has the capabilities to make retaking this territory an extremely costly measure for NATO. Russian capabilities provide strategic thinkers with the concept that they fully know that they are capable of overwhelming NATO forces in the region while also having a level of confidence in being able to blunt NATO punishment attempts. Therefore, without a clear knowledge of punishment, Russia may seek to call NATO's bluff of punishment and reinforcement. Through both the conventional military might and in conjunction with disruption of cohesion on the national and international levels through hybrid warfare, Russia may ultimately see NATO's deterrence strategy containing significant shortcoming and may choose to act efficiently. Due to both hybrid and conventional capabilities, it is

---

[131] Binnendijk, *At the Vanguard*, 49
[132] Binnendijk, *At the Vanguard*, 49
[133] Shlapak, David, and Michael Johnson. Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO
[134] Shlapak, David, and Michael Johnson. Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO

uncertain if NATO is not only capable but also willing to escalate the conflict in the manner necessary, therefore making its deterrence strategy inherently less credible than many believe it to be.

<u>NATO Deterrence Capabilities</u>
<u>Overview of NATO's Deterrence strategy</u>

As stated in the introduction to the analysis section, before being able to explore the strength and weaknesses of NATO's chosen form of deterrence strategy, it is crucial to first introduce and lay out the actual strategy itself. As explained in the section of deterrence theory, there is no one size fits all type of deterrence strategy, but there are models which can be generally followed. The first thing to establish about NATO's deterrence strategy is if it employs the use of deterrence by denial or deterrence by strategy. During the period of the Cold War, when NATO faced Soviet rather than Russian aggression, deterrence by denial was the choice of method to deter aggression. However, this is by no means the Cold War and the same situation which faced NATO in the past. The mass forward based method of deterrence by denial has been replaced with that of deterrence by punishment which relies on rapid reaction and reinforcement in the given situation[135]. Rather than seeking to outright prevent an attack, NATO seeks to threaten a surge of reinforcements and aggressive reactions which seeks to punish Russia. Furthermore, NATO conducts an extended form of deterrence by punishment. For a reminder, extended deterrence is deterrence which is performed not by direct opponents who share a border, but rather a form of deterrence which is conducted by more powerful allies on behalf of a singular or group of weaker states. When it comes to NATO deterrence strategy, while the member states of the Baltic's certainly contribute to deterrence, the primary actors are the main powers of NATO led by the United States[136]. The punishment which is relied on for deterrence will not come from smaller member states in the region, such as Estonia, Latvia, Lithuania, and Poland. Rather, it will be led by the United States along with the perceived great powers of NATO such as the United Kingdom, France, and Germany.

Due to the increase of Russian aggression in the Eastern European region since 2014, NATO has taken steps to increase both the capability and credibility of their deterrence, yet these measures still follow the deterrence by punishment model. The main feature of this strategy involves a rotational group of forces within each Baltic state and Poland which hold the strength of a light mechanized battalion, which in turn are called the Enhanced Forward Presence battle groups[137]. On top of this limited ground force deployment, NATO has also stepped up its efforts in policing and defending Baltic air space, as the Baltic states do not operate a domestic Air Force of their own. Since 2014, NATO has also stationed a

---

[135] Moore, 27
[136] Moore, 27
[137] McCarthy, 75

permanent, but rationale, group of allied squadrons under the name of the Baltic air-policing mission[138].
These measures seem roughly weak and inadequate if one was to solely focus on them, however, the
alliance intends for these limited forward deployments to hold more significant weight of importance
when examined closer. These units can be understood as NATO's contact layer in the event of a small or
full scale Russian incursion into the Baltic region[139]. By contact layer, it is meant that these forces are
only there to ensure the invocation of mutual defense agreement within the alliance, and that larger states
will most likely suffer casualties which would bring about a more absolute resolve in response. It is best
to liken these units to a tripwire effect. These small and under-armored units have limited ability in truly
defending the Baltic territory for a significant period of time, but the destruction or defeat of these units
would be a tripwire event which creates a chain reaction of reinforcement and response from NATO. This
limited forward deployment of multi-national units is intended to limit a major weakness in which all
alliance organizations have. This being that NATO, while certainly heavily influenced by a small amount
of the members, is a consensus-based organization[140]. Therefore, the current deterrence strategy of NATO
relies on losses from several member states, both large and small, to force a consensus on sending a
reaction which would punish Russia severely. This threat of punishment is hoped to be enough to fully
deter any Russian aggression in the region against member states. However, this is a general
establishment on the basics of NATO deterrence strategy and analyzing the strength and weakness of the
strategy will take further and more detailed focus in the following section.

<div align="center">**NATO versus Hybrid Measures**</div>

Since Russian aggression became more relevant due to actions against Ukraine, NATO has made
progress in establishing capabilities to both prevent and counter hybrid measures. Even with this progress,
there are still some glaring weaknesses in NATO's ability to deter and counter certain hybrid measures.
First the weaknesses of NATO when facing hybrid strategies must be established, following this, the
strengths and measures employed by NATO can be discussed.

The main weakness of NATO when facing hybrid measures comes down to the foundational
makeup of the alliance itself. The North Atlantic Treaty Organization is a collective group of individual
states who are in a multilateral military alliance. A multinational brigade commander, under the command
of NATO superiors, can do little to deter or prevent an economic, cyber, and information warfare
campaign against a specific host country[141]. A military alliance with a forward deployed presence is
merely that, a military alliance. While member states of NATO can certainly lend support to their fellow
members, weaker member states such as the Baltic States are left to their own abilities to counter these

---

[138] Dhal, 69
[139] Connable et al, *Russia's Hostile*, 60
[140] Barber, 75
[141] Connable et al, *Russia's Hostile*, 65

actions due to domestic political and economic policies. Latvia, Lithuania, and Estonia may be supported by their NATO allies, but they still lack a robust civil society and strong independent policies which can fully counter Russian hybrid aggression.

Economic Warfare

One major component of hybrid warfare which improves immensely difficult to not just deter but also counter is the aspect of economic warfare against not just the Baltic States, but also other European member states. The threat of economic warfare which must be countered and deterred comes in two forms for NATO. Economic warfare against the Baltic states which can be used to gain a strategic advantage during a military operation, or economic warfare which seeks to disrupt NATO consensus and resolve in coming to the aid of any NATO member state. The main source of weakness for NATO under the threat of economic warfare comes under resource denial for both gaining advantage and altering NATO consensus. Most examples of this will be discussed when exploring Russian strengths in this realm in later sections, however, an example for an attack on the consensus nature of NATO and it turn its deterrence strategy. The Crimean situation created a large reaction from not just NATO as an organization but also member states individually. However, the threat of economic warfare pushed some states to accept the limited aggression by Russia. Under the circumstances, Germany, who is commonly seen as a major power within NATO, did not strongly react to the situation. Essentially "Germany's economy was and is reliant on Russian natural resources to drive its industry, as Russia is the leading import source for the three main energy - producing fuels, natural gas, crude oil, and coal"[142]. The threat of Russian hybrid measures created a small but visible schism in a unified response for NATO states. Certainly, this Russian aggression was not against a fellow NATO member state, but the weakness in which consensus faces is very much a reality for NATO states when facing Russian hybrid capabilities.

On the other part of the spectrum of economic warfare, NATO can also employ measures of its own to deter and prevent possible Russian aggression and has played a significant part in the overall strategy of NATO when facing Russia. The use of economic warfare can be a joint action of member states under NATO suggestion and direction. NATO itself states that sanctions have "been a success in terms of the proximate goal of inflicting damage on the Russian economy"[143]. Now one may ask how economic sanctions are a strength of NATO capabilities when facing hybrid warfare. Reverting back to what hybrid warfare and its specific measures are, it involves the constant use of multiple state resources in order to achieve a strategic goal. Sanctions against the Russian economy limit the overall resources available to the state in order to conduct this strategy. The limiting of Russian capabilities provides NATO the ability to protect itself from Russian hybrid aggression. This method does not fully prevent

---

[142]Barber, Kock, Neubruger, 47
[143] Connable et al ,*Russia's Hostile*, 45

hybrid aggression, as incidents of hybrid measures and hostile actions have continued since NATO sanctions have been introduced. Yet, the measures have been lessened to a degree.

Use of Proxies

Another example of NATO weakness when facing Russian hybrid measures comes with the fear of proxies, political warfare, and information warfare when used to support or influence domestic enclaves of the Russian minority in the given country. NATO military units are not tasked with policing their host nation and are not expected to do so. The use of NATO forces within domestic policing, especially when facing an ethnic minority which has heavy Russian support, can prove to be a dangerous political chess match for an already strained relationship. The treatment of ethnic Russians within the Baltics is often a flashpoint for relations with Russia and its neighbors. This being the case, states which include neighbor members have become wary to not just to domestically act against but also request NATO assistance against an act which could fall under hybrid measures being used to support or by the local minority groups. An example of this wariness comes from Estonia. Since the killing of a ethnic Russian by a member of the Estonian Defence League volunteer, the Estonian Government has been concerned when the discussion arises on the of the deployment of local and foreign military to regions which hold a high population of ethnic Russians[144]. Now this may appear to be a small weakness across the Baltics, however, it shows glaring issues which not only are extremely exploitable but also give a relative forecast for the expectations of Russian strategic planners. The first glaring weakness of this aspect is that it allows a relatively open space for Russian activists to perform and support hybrid measures due to the lack of large-scale Estonian presence within regions that are primarily ethnic Russian. This open space could in turn allow significant measures to take place before Estonian forces and calls for support are made. This flaring gap caused by wariness on the domestic level could provide significantly slower response times to any Russian aggression which seeks to support the uprising or unrest of the local Russian population. The second weakness factor is one which possibly forecasts, at minimum, the apprehension of local NATO leaders to provide a significant response against Russian hybrid measures which may appear on the local level. Apprehension on the local level can in turn, cause a lack of cohesion and streamlined decision making when including foreign actors and organizations such as NATO. Furthermore, this lack of cohesion brings about a significant issue on not just the hybrid front but also the conventional aspect which deserves its own section of focus. That being, as NATO is a military alliance, relies on not just cohesion across all member states, but also the unity and permission of the member states which host NATO presence. NATO cannot act without Estonian permission. Even if NATO views an action within a Baltic state's best interest, apprehension within the local government could prove to be

---

[144] Barber, Kock, Neubruger, 71

decisive in a successful reaction. Further evidence that domestic politics within the Balltic States have an effect on NATO cohesion comes again from Estonia. While the overall view of the Estonian government is staunchly pro-western and NATO, local officials have been forced to make political and cultural concessions to local ethnic minorities in order to maintain a level of cohesion in the country[145]. What this again shows are that the Baltic states are vulnerable to influence and change when it comes to their cohesion. Essentially, political and information warfare has significant ability to take advantage of a weak and apprehensive local government which in itself creates a dangerous precedent for NATO's ability to counter hybrid measures successfully in the region.

While NATO may be hampered in its efforts to deter and combat hybrid measures being conducted by Russia due to its limited abilities outside of the scope of military policing and operations, it has still taken efforts to implement tools to deter and limit the effectiveness of hybrid measures. Examples of these measures include measures in communication, intelligence, and levels of economic targeting. However, as stated above, while individual member states can take larger actions to deter and prevent Russian hybrid measures, NATO itself is severely limited in the scope of actions that the organization can take on an independent and consensus level.

Information Warfare

One such area where steps have been taken in order to improve the alliance's capability to deter and counter hybrid measures comes in the place of improving NATO's counter to Russian information warfare. While information warfare itself has been explained to come in several forms, one of the most dangerous of these forms comes in information and data manipulation in order to present a favorable narrative for Russian operations and strategic goals. The Baltic state members of NATO are extremely vulnerable to this style of information warfare due to their location and demographic makeup. Therefore, it is natural to place possible safeguards and countermeasures to information measures in the region. This being the creation and implementation of the NATO Strategic Communications Centre, located in Riga since 2014[146]. The purpose behind this centre is to provide an organized system in which to monitor and counter possible information operations being conducted by Russia. Past this measure, member states often rely on their own methods and tools to counter such operations, yet the Strategic Communications Centre does provide ample assistance to small member states to deter and counter information operations.

In a similar purpose of deterrence and counter to possible Russian hybrid measures, NATO implemented further measures centered around intelligence. With intelligence collection being key to counter cyber, political, economic, along with proxy and paramilitary operations, NATO implemented the creation of a new intelligence division. In order to collect a vast array of intelligence, which can prove

---

[145] Barber, Kock, Neubruger, 69
[146] McCarthy, 52

key to countering and deterring hybrid measures, NATO founded the Joint Intelligence and Security Division in 2016[147]. Similar to the strategic communication centre, the Joint intelligence and Security Division is meant to bolster and support the capabilities of smaller member states, which includes the vulnerable states of Estonia, Latvia, and Lithuania.

Conclusion on hybrid measures

When looking at both the vulnerable nature of NATO's weaknesses and also the measures which have been introduced to deter and counter Russian hybrid actions, a line of thought should be relatively clear in one's mind. NATO faces significant vulnerabilities and weaknesses within their capabilities to counter and deter hybrid measures from Russia. Even with improvements, the overall NATO stance towards these actions is rather alarmingly lacking. Yet, this is entirely a culmination of poor strategic decisions by NATO which has led to this position. As stated several times before, NATO is a military alliance, and therefore lacks both scope in capability and authority to conduct actions which could deter or prevent specific Russian Hybrid actions. Furthermore, hybrid measures are often tailor made for a specific purpose and target in mind. By this, it is simply meant that a cohesive response to hybrid measures across NATO as a whole can prove to be insufficient in successfully combating more localized hybrid actions. Therefore, the true action of deterring and countering hybrid measures is left to the local member states of NATO. However, not all states have the complete means to do this, which in turn will consistently leave a vulnerable back door for threats of Russian aggression against NATO

NATO and Conventional measures

NATO, under its foundational purpose, is a military alliance meant to deter conventional aggression against its member states. In order to analyze the strengths and weaknesses of NATO's deterrence strategy capabilities when faced against possible Russian conventional aggression, several areas must be explored. The first point being the regional forces of the Baltic States which are the first line of defense for NATO sovereignty. This will include exploring local and NATO land and air forces stationed within the region. Secondly, with NATO deterrence strategy relying on a punishment route, it is critical to first analyze the full might of NATO land and air power while then proceeding to focus on NATO's ability to reinforce the Baltic region in the case of Russian aggression.

Regional Military Capabilities

With NATO's chosen deterrence strategy relies on reinforcement and punishment, the Baltic region does not hold a significant level of military buildup of not just troop numbers but also heavy equipment. As stated in a previous section, the use of these NATO controlled units is to both promote a contact layer which seeks to ensure NATO involvement in any armed conflict and also create a sense of

---

[147] Dhal, 41

cohesion throughout the alliance, by ensuring both large and small members are present in the defence of vulnerable member states. However, before the NATO forward deployed presence is analyzed, we will first explore the local forces of the Baltic states as they naturally play a large role in the defense capabilities of their home countries.

When examining the overall demographic and economic make up of Lithuania, Latvia, and Estonia, their small military might earn relative respect to their size. In total, the Baltic states boast a combined force of 65,000 military personnel at their disposal, however, more than half are reservist members. Estonia's defense force contains upwards of twenty thousand troops with the vast majority of this number being part-time reservist[148]. Latvia holds the lowest military force of the three with just over 15,000 troops being available, yet only around 5,500 of these are active duty members[149]. Finally, with Lithuania being the largest of the three countries, it has the most numerically advanced military of the three. With just under 30,000 personnel, Lithuania offers the most robust military presence of the three[150]. While these combined troop numbers are not an immediate cause for concern in the case of a limited or full-scale conflict, it is the weaponry and equipment of these armed forces which present a cause for concern. All three Baltic States lack heavy equipment, including heavy armour and artillery forces[151]. The lack of heavy equipment within the immediate regional operation area will continue to be a consistent issue within NATO forces. On top of this notion of the lack of heavy and advanced military hardware, the lack of airpower is also an issue in terms of local capability within the region. None of the three Baltic states have advanced air platforms or any platforms at all for that matter[152]. With this the case, local forces can offer extremely limited capabilities when faced with an armed conflict with a significantly larger and more well-equipped foe.

Forward Deployed Capabilities

Due to the rise in tension between NATO and Russia in the Baltic Region, NATO found it prudent to support and defend local member states through multiple forward deployments of several NATO allies. As stated before, this forward presence is not meant to stop an advance or incursion conducted by Russia, but rather to support cohesion within the alliance and to ensure Alliance involvement in any conflict within the region. The current NATO posture on the region is focused on the Enhanced Forward Presence (EFP) battle groups, a multi-national force divided among Lithuanian, Latvian, and Estonian territory along with a contingent being stationed in Poland[153]. Each battlegroup itself is the equivalent of a reinforced infantry battalion, numbering up to 1,100 troops, with limited

---

[148] Lanoska, *Conventional Deterrence,* 53
[149] Lanoska, *Conventional Deterrence,* 62
[150] Lanoska, *Conventional Deterrence,* 69
[151] Lanoska, *Conventional Deterrence,* 69
[152] Dahl, 41
[153] McCarthy 75

armour support[154]. These battle groups contain large contingents from the United Kingdom, France, Germany, and Canada along with smaller attachments on the platoon and company size from other NATO members[155]. The purpose of this multinational battlegroup is meant to increase the credibility of NATO's deterrence stance, while also communicating a rigid stance against actions which may threaten the territorial sovereignty of the Baltic states.

The EFP is not the sole means of NATO both enhancing their immediate capabilities in the region and also continuing to show the credible resolve of NATO towards facing Russian aggression. This second source comes from the Baltic Air Policing mission. This specific mission is crucial due to the general lack of air power and heavy equipment within the local military sphere of the Baltic member states, while also crucial in facing the overwhelming local dominance of Russian air and anti-air power. Founded in 2014, the Baltic air policing mission is tasked with defending and patrolling the air space of the Baltic States through the provision of several fighter groups on a rotational basis via different member states[156]. This mission has provided a wide range of air frame numbers, from a height of 16 aircraft in 2015, to a standard number of 8 aircraft in recent years. Again, in similar fashion to that of the EFP battlegroups, the Baltic Air Policing mission is by no means meant to prevent a large-scale Russian operation. In fact, when Russian air power and air defense capabilities are discussed in later sections, it should be noted that local NATO airpower is projected to be destroyed or grounded due to Russian local dominance in the onset of a conflict. This policing mission is once again merely set to enhance the credible resolve of NATO and to further communicate to Russia that aggression will not be accepted.

With looking at NATO's forward presence in the Baltics, it is clear that it is merely a showcase of cohesion and resolve in order to communicate credibility towards defending all NATO members, specifically those in the Baltic Region. The EFP and Air Policing Mission should be seen as what they are. Units which would trigger NATO's involvement in any conflict in the region. These units, as it will be discussed more specifically within the section on Russian capabilities, will be pushed aside in anywhere from a few hours to days due to their overwhelming local escalation dominance currently held by Russian forces in the region. With this being the case, it is now time to shift focus on how NATO truly goes about its deterrence strategy, that being deterrence by punishment.

Reinforcement and Punishment

While the forward presence and local member forces of the region provide worrisome figures on military capabilities in both combat capable troops and advanced military equipment, this is quite the opposite when looking at NATO as a whole. While NATO does not whole local escalation dominance, it

---

[154]McCarthy, 75
[155] McCarthy, 75
[156]Binnendijk et al, *At the Vanguard,* 25

vastly outperforms Russia in the capabilities of global escalation dominance, due in large part to the United States. Even with the recent economic and demographic shifts over the last decade which have seen dramatic military reduction and shifts throughout NATO, the overall strategic global strength of NATO remains immensely high. In fact, "NATO defense expenditures exceed those of Russia by a factor of 10. Even if we exclude U.S. defense expenditures, European NATO members still spend more than twice as much on their militaries than Russia"[157]. Outside of specific equipment expenditure and available numbers, such as main battle tanks, artillery pieces, and air defense systems; NATO is vastly more prepared for a high yield conventional war over a prolonged period. However, this has never been the debate at hand over NATO's deterrence strategy. What needs to be analyzed is the Strength behind NATO's punishment and reinforcement strategy, and also the flaws which could prove to ultimately be detrimental to a successful deterrence strategy.

Reactionary Forces

First one must analyze NATO's current measures outlined by their deterrence strategies, this being the quick influx of reinforcements to the Baltic region in response to a Russian incursion. NATO has introduced several measures since 2014 when the threat of Russian incursion in the Baltics increased. In the summer of 2014, during the Wales Summit, NATO introduced the Readiness Action Plan (RAP) which brought two units into existence for the purpose of rapid reinforcement to NATO's eastern flank[158]. These two units are designated as the VJTF and NRF units. The VJTF, also known in a less abbreviated term as the Very High Readiness Task Force, is a brigade sized contingent of 5,000 NATO combat troops based on a rotational national command which is meant to deployed to a given area in under 48 hours[159]. This unit is ultimately a light infantry brigade meant to quickly deploy to a region along NATO's Eastern Flank if an action is taken against a member state's sovereignty. Due to the rotational nature of the command, the skill and equipment level of the unit may vary with each different national military. The second form of reinforcement unit comes in the form of the NATO Response Force, the NRF. The NRF has tripled in size over recent years since its inception in 2014 to a size of 40,000 troops comprised of air, land, and naval units from a wide range of NATO states[160]. While it is not meant to be as quick of a reaction force when compared to the VJTF, it is still tasked with a relatively rapid response in the scenario of Russian aggression in the Baltic or other eastern regions within NATO's borders. While upwards of 45,000 troops being moved into the region is a critical first step in blunting a possible Russian advance, two clear issues do arise when looking at the overall picture in this given scenario of NATO reinforcement and punishment. The first being that these are the only units with the pure capability for a

---

[157] Lanoszka, *Conventional Deterrence*, 26
[158] Dhal 34
[159] Binnendijk et al, *At the Vanguard,* 24
[160] Dhal, 34

quick response, which while they do provide more support than the current NATO presence also are not enough to blunt a Russian operation which could see triple the amount of combat troops in the region. Simply, these quick reaction forces are not enough in numbers alone to fully slow down a large-scale Russian operation. Such mobilization from individual NATO states would take time, time which NATO may not be able to give up. The second issue that arises is that these units are light infantry or infantry with minor armour and long-range weapons support. When facing a Russian army which vastly out numbers NATO armour and artillery, lightly armed and quickly inserted units will prove to be insufficient in blunting a Russian advance or even 'punishing' Russian units for conducting these operations. When looking back to the Russian capability section, even with these reactionary units, NATO is still vastly outgunned and manned within the Baltic region. The lack of heavy equipment, in comparison to the abundance of Russian equipment, in the perceived opening stages of the conflict is one of the major causes of shortcomings within the current deterrence posture of NATO. This point is certainly linked to other sections to be discussed imminently, but what must be ultimately taken away is how limiting the proposed initial NATO response is in the face of a very capable Russian military.

Ultimately two of the major weaknesses of NATO's deterrence plan of reinforcement and punishment revolve around time and distance. Apart from Poland, any NATO state wishing to come to the side of the Baltic States will have some level of traveling to do, which takes time due to mobilization and transportation logistics[161]. Infantry is not the issue in this scenario, as airlift and improved infrastructure in the 21st century makes this feat relatively quick and seamless to move large numbers of men and small arms. However, this is not the case for what is truly needed for a successful punishment and counter-offensive campaign being conducted by NATO. Heavy armour and equipment is necessary to not just stop Russian advancements, but also to push back and inflict losses against those same Russian Forces. However, the amount of armour and equipment needed to take advantage of NATO airpower and inflict further losses on Russian forces could take weeks if not months to obtain in enough numbers[162]. This brings us to the net section of analysis when it comes to NATO's deterrence strategy. It's reliance on surge deployments from Western European and North American member states, primarily on the reliance of the promise of U.S. strategic deployments in the case of hostilities with Russia.

Logistical Weakness

Unlike the Cold War, where Europe saw large-scale pre-positioning of United States forces and equipment throughout several NATO states, the 21st century is very different. Currently, the United States has enough armour in Europe, primarily Poland, to constitute an armoured brigade[163]. Furthermore,

---

[161] Dhal, 80
[162] Shlapak and Johnson, *Reinforcing Deterrence,*8
[163] Moore, 31

the United States has pre-positioned 87 armoured vehicles and tanks, which allows for units to be flown out where equipment is ready to be used quickly[164].Yet, this is not enough when compared to the number of armour and artillery available to Russian forces. While Western European member states such as France, Germany, and the United Kingdom do possess the combined armour capabilities to counter Russia to some effect, a large-scale deployment from the United States to both successfully punish Russia and show cohesion is necessary. Yet, this kind of deployment takes time. In fact, some estimates say that this level of deployment, unseen since the first gulf war, could take upwards of two months due to the dangerously limited capabilities of U.S. sealift capabilities[165]. The state of U.S. sealift capabilities, which are very much an integral part to the United States' commitment to NATO and upholding NATO deterrence strategy, have degraded greatly over the last several decades. In a 2018 U.S. congressional report of the matter, it was determined that 90% of all equipment moved during a surge deployment must be moved by sea transport means[166]. Further findings within this report also showed that as early as 2023-2027-year range, the United States will no longer hold the capacity to quickly and seamlessly conduct a surge deployment towards European allied ports[167]. This dangerous precedent, along with an already extended time schedule for deployment, leaves up to a two month window for not just advancement, but also entrenchment or other means which could further disrupt NATO's attempts at reinforcement and eventual counter offensive into the Baltic states which have been attacked in a limited or full manner. Essentially, even with U.S. support, Russia understands that a significant NATO response which is capable of overwhelming their troops in the region could take from weeks to two months to fully mobilize and deploy. European member states would have to use rail systems to transport significant quantities of equipment while the U.S. contingent would need to be sea lifted and then transported by rail into the given staging region. All of this costs NATO valuable time and only increases the chance that Russia can entrench its forces or reach a political settlement due to their bargaining strength in this stage of the conflict. This in essence, provides ample fault to the punishment aspect of NATO's strategy. For Russia may know that punishment is coming, but it also knows that the full force of this punishment could arrive weeks or months after it has already achieved it's set goals in the region. Furthermore, Russia also knows that the transport of heavy equipment and further reinforcements are vulnerable to disruption via their A2/AD capabilities. Therefore, while sea and land reinforcement and the strike capabilities they bring may initially be limited, NATO's air capabilities will be relied upon in the opening stages of the conflict

Before directly discussing NATO's air strength, it is first crucial to tie the weakness of initial land force strength into that of NATO's superior air power. While NATO's airpower is significantly superior

---

[164] Dhal, 37
[165] Moore, 33
[166] Tsetsos, 4
[167] Tsetsos, 5

and capable of conducting significant strikes against Russian forces, these losses inflicted by air forces are insufficient due to the lack of heavy armour and significant troop numbers needed to take advantage of these strikes[168]. Furthermore, NATO air forces will be tasked with a wide range of tasks and targets, therefore Russia can mitigate losses by the way in which they deploy and use their forces while NATO air units focus on not just strikes against Russian units but also anti-air operations and infrastructure targets[169]. Yet even with this, it is still crucial to analyze the superior nature of NATO's air capabilities. However, before discussing NATO airpower, it is first prudent to discuss a more related factor to the logistical constraints faced by NATO. This being how Russian Anti-access and area denial capabilities are meant to directly disrupt NATO's logistics operations necessary to follow up on its deterrence threats.

Weaknesses through Anti-Access/Area denial

The main danger when it comes to NATO reinforcement and the logistics behind men and material being brought in is the ability of Russian anti-access and area-denial capabilities. Surface launched cruise missiles provide a significant hurdle for NATO's ability to safely and adequately assemble the proper number of men and material needed to mount a proper advance into Baltic Region and even parts of Eastern and Central Europe. It is projected that by 2025, Russian A2/AD ability could extend outwards of 500 to 1000km in which NATO would face difficulty and heavy losses before eventually overcoming these measures[170]. Furthermore, NATO reinforcements, coming by rail and roadway could still face strikes upwards of 2500km from forward Russian positions, although losses from this range are projected to be far less and have a negligible effect in overcoming the difficulty provided by these Russian measures[171]. When looking back on the full section on Russian A2/AD capabilities, it is clear that a major flaw in NATO's deterrence strategy is that of how costly the logistical buildup of reinforcements may be before any actual direct action is undertaken. Any buildup of NATO troops via rail junctions or roadways in staging areas within large swaths of Eastern Europe are in danger of Russian strikes and disruption.

Compounding this significant issue with the previously explained logistical issues due to the troop and heavy equipment numbers required, one of the major causes of shortcomings within NATO's deterrence theory begins to show itself. As stated within the relevant section focusing on Russian A2/AD capabilities, NATO's seemingly lack of acknowledgment on the detrimental effect these capabilities could impose does not follow the general thinking of the reassurance initiative that deterrence gives to the member states in the Baltics. However, the effectiveness and therefore the danger to NATO and its current posture of deterrence by punishment has already been greatly analyzed in previous selections.

---

[168] Shlapak and Johnson, *Reinforcing Deterrence,*6
[169] Shlapak and Johnson, *Reinforcing Deterrence,*6
[170] Kelly, Terrence K., David C. Gompert, and Duncan Long. *Smarter Power, Stronger Partners,*111
[171] Kelly, Terrence K., David C. Gompert, and Duncan Long. *Smarter Power, Stronger Partners,*111

With this being the case, one can begin to see that through the logistical challenges faced by NATO along with Russian capabilities to limit the staging of an eventual advance of reinforcements, a major cause of shortcomings of deterrence strategy becomes clearer. However, this matter will be discussed in greater depth later on, therefore it is prudent to move on to the next section of NATO capabilities.

NATO airpower

When it comes to overall impact of NATO's focus on deterrence by punishment, NATO's airpower constitutes a major line in which the alliance can count on for the reassurance of deterrence or the defense of its member states who may be threatened[172]. NATO holds a vast advantage over Russia when it comes to combative air power. In 2017, NATO maintained 5,457 combat aircraft, of which 2,529 are non-U.S. airframes; meanwhile Russia maintained only 1,251 combat capable aircraft[173]. In numbers alone, NATO nearly triples Russia's available airframes. Even without the United States, who currently has the largest and most capable air force, European NATO members still hold a 2:1 advantage over their Russian counterparts. Granted this is reliant on all NATO member states being involved, the overall numerical advantage is significant in itself.

While the numerical advantage is vast, some technology and advanced air frames are lacking when it comes to European member states. While 13 NATO member states do possess at least two or more squadrons of 4th and 5th generation aircraft, NATO has historically relied on more advanced air frames from the U.S. when conducting strategic strikes and missions[174]. With this being the case, studies from the RAND corporation have also shown that "European air forces currently possess fleets with relatively limited capabilities for conducting the most-demanding missions expected in a high intensity conflict"[175]. Even with this being the case, both the available air frame types and numerical availability of NATO provides ample threat to Russia's ability to fully achieve and protect its goals in the region. In both terms of air to air and air to ground scenarios, NATO holds the capability to inflict significant losses to Russian air and land forces. However, one must remember the previously stated points on Russia's Integrated Air Defense System. While NATO has a significant ability to inflict losses, control of the skies will not be a cost free endeavor and NATO's numerical advantage could be drastically cut and limited at least in the initial stages of the conflict. Even in the strongest aspect of NATO's arsenal of capabilities, there are still limitations to the desired effectiveness in the case of a conflict with NATO.

However even with Russia's IAD abilities, there is general fear within Russian strategic thinkers of NATO airpower. With this being the case, "Russian strategy documents, statements, and actions indicate particular concern about the depth and speed provided by NATO's advanced platforms and

---

[172] Binnendijk et al, *At the Vanguard,*2
[173] Binnendijk et al, *At the Vanguard,*26
[174]Binnendijk et al, *At the Vanguard,* 7
[175] Binnendijk et al, *At the Vanguard,*155

munitions, which could serve to blunt Russia's ground advantage"[176]. In essence, NATO's airpower is its superior strength, and is acknowledged accordingly by Russia as it has recently sought to diminish this decisive advantage. NATO air power provides the backbone of NATO's deterrence strategy involving punishment. It is the tool in which NATO plans to inflict heavy losses on Russia as punishment for its advance. It is airpower which will assist NATO ground forces in the region as they attempt to push into the Baltic region. However, as stated in several cases already, NATO troops should not expect the same freedom and control of the air which has become commonplace in recent conflicts.

Political Cohesion and Willpower

Within the credibility and communication factors of deterrence comes about an area which is crucial to understanding possible causes of shortcomings to NATO deterrence strategy. This area being the political unity and will power of NATO. It is through cohesion and willpower, that NATO provides the proper communication and credibility to back up the military capabilities as the backbone of its deterrence strategy. It is through the political nature of cohesion and willpower that NATO's full communication and credibility rely. Without complete and transparent unity within the alliance and also the will to take necessary measures, which could result in further losses, any proposed deterrence strategy is sure to fail.

Unlike a single state measure implementation of deterrence strategy where the state most solely relies on national unity and willingness to endure losses as a means of its credibility and communication to conduct deterrence, NATO is inherently more complicated in this manner. As a multinational military alliance with 30 member states, NATO heavily relies on joint decisions and communication among national militaries outside of NATO's strategic control. Furthermore, NATO must rely on permission from states to conduct military operations within their borders, even if these are member states of the Alliance. Finally, NATO must also navigate the political will power on both the national and domestic sphere of the individual states, with this will power being necessary to not only take aggressive steps to protect the sovereignty of NATO members but also to accept losses which will inevitably occur during military operations.

One aspect which finds itself ever changing due to global norms and also the given domestic political nature of each individual member state is that of political willingness to in fact act on the promise of punishment. A poll taken on the topic of domestic willingness to intervene in the case of a NATO conflict provides lackluster results for the purpose of communicating an unwavering level of NATO cohesion. When asked if their individual state should come to a NATO member's aide in the face of an attack, the median response across all member states was only 48% in favor of entering into a

---

[176] Binnendijk et al, *At the Vanguard,* 154

conflict[177]. Individual results from larger member states such as the United States showed 56% were in favor of entering a conflict, while in Germany just shy of 60% of respondents were against a NATO supported conflict[178]. While these numbers do not fully propose that individual member states would not come to the aid of their NATO allies, it does show that domestic cohesion, let alone international cohesion within the alliance. Domestic politics in the 21st century often lead to a relatively regular switch in policies which a national government seeks to undertake, and if there is limited domestic support within some member states, NATO could see a lack of commitment from its own members. Now this weakness is inherently more hypothetical in nature, as it is difficult to determine where 30 separate national policies may align in the future. Yet, it is this general understanding of this possible danger to cohesion which provides a weakened measure of credibility to coming to the defense of member states who may find themselves in danger of Russian aggression.

This next area, similar to the last as it too deals with national politics, focuses more on the member states which are in the most direct danger of Russian aggression and how this can lead to a weaker sense of credibility and cohesion among the alliance. Estonia, Latvia, and Lithuania are the member states which are the most isolated geographically along NATO's eastern border, while also showing signs of lack of full unity in the face of Russian aggression. As it has been previously mentioned within this analysis section on NATO, while Estonia remains pro-EU and NATO, it has begun to show signs of a weakening political will to fully stand up to Russia and its ethnic Russian population. In the case of a war with Russia, Estonia would be the first to fall within an extremely accelerated timetable due to the geographical border it shares with Russia. This in turn leads to how politically united Latvia and Lithuania may be in the face of Russian aggression which may have already taken Estonia out of the picture. Since 2016, many western analysts have suggested that Latvia is the political weak link within NATO's stand in the Baltic region[179]. Essentially, some analysts believe that in the face of Russian aggression, which has already seen the capitulation of Estonia, could lead Latvia to make significant political concessions to Russia, which in turn tremendously hurts NATO's cohesive response to the situation. One such hypothetical aspect which should be acknowledged, is that Latvia concedes to Russian demands and leaves NATO, which presents NATO with a political dilemma of coming to the aid of other Baltic states who may have requested it. However, when discussing Lithuania, this hypothetical has been nowhere near analysts' thought process. Lithuania is commonly viewed as the most hostile towards Russia of the three Baltic States, which is crucial due to the geographical position in holds between the Russian enclave in Kaliningrad and Belarus to the south.[180] Lithuania remaining staunchly united with NATO is

---

[177] Moore, 60
[178] Moore, 60
[179] Barber, Kock, Neubruger, 69
[180] Barber, Kock, Neubruger, 69

critical as it is it's only option when using NATO controlled roads to reinforce the Baltic region. This is just another challenge NATO faces, while Lithuania may be the most hostile at the moment, time brings about change and this factor could deteriorate against NATO's favor. While this section leans more heavily on hypothetical means to explain weaknesses with NATO cohesion, the one thing that must be taken away is that it is longer the case that all three Baltic States provide a unified stance against Russian aggression in the region[181]. This point in turn, leads to the next weakness of NATO when it comes to deterrence, that being that it is a consensus-based organization that relies on consent of individual members for certain actions.

NATO, as a multinational organization, requires systematic consensus and consent from member states in order for it to undertake large-scale operations. It is necessary for NATO to maintain a core of common interest and values which span across all member states in order for it to conduct effective decision making[182]. Yet, when 30 members of various cultural and value differences are brought together, common maintenance can be more difficult than it originally sounds. With this, the credibility of the full consensus measure of NATO can in fact provide a weakened image simply due to the likelihood of several member states disagreeing or not providing consent on specific NATO action. This in turn inherently weakens the credible and commutative stance on punishing Russia for aggressive actions. Consent with individual member states also becomes a weakness for both the response time and also the credibility of their response when it comes to NATO. By consent, it is meant that for major NATO players such as the United States, the United Kingdom, France, and Germany, they are in theory dependent on the consent of other NATO states such as Poland, Lithuania, and Latvia to come to the aid of Estonia as these member states provide the only land route[183]. It is by no means meant that this would in fact be the case if the given scenario of Russian aggression occurred. However, as mentioned with other points before, the very fact that this possibility exists once again inherently weakens the credibility of a large-scale NATO response. This, therefore, becomes one of the inherent causes of weakness within NATO's current deterrence strategy.

The final point which must be examined focuses on the political willpower of NATO. Willpower is something that has not been touched on greatly in this paper but is nonetheless important. Deterrence by punishment requires a high degree of willpower from the would be deterrer as inflicting such punishment generally means a great deal of resources, manpower, and political determination to be used up to achieve one's goals. An example of political will power which NATO must determine and communicate in regard to it's deterrence by punishment mindset is how willing are they to escalate the

---

[181] Barber, Kock, Neubruger,69
[182] Barber, Kock, Neubruger,75
[183] Barber, Kock, Neubruger,76

given conflict. One such way for this to be examined is the level political willingness for NATO forces to strike traditional Russian territory, rather than just Russian forces within occupied NATO territory, as this could dramatically escalate the scale of the conflict[184]. By this it is meant there is a significant escalatory difference between striking Russian troops occupying Estonia, or striking Russian targets close to Moscow, or even in the Russian territory of Kaliningrad. To strike this territory could lead to further escalation with Russia striking deeper into Western Europe. Essentially, conducting a deterrence by punishment strategy must be accompanied by ample political will power which in turn must be properly communicated to Russia. However, the issue is once again, while NATO has communicated greatly that it will defend its sovereign member states, there has been little communication on its willingness to escalate a given conflict. Another point of escalation with NATO comes with the topic of Belarus. Belarus is for the most part, beyond the scope of this paper. However, this specific point is important to explore when analyzing political willpower and how it relates to the credibility of NATO deterrence. Belarus is a state which has for most of its history, had extremely close political and military ties to Russia. Furthermore, Belarus shares a much larger border with the Baltic states when compared to Poland who as the closest NATO state only shares an extremely narrow land border with Lithuania. Which brings about the point that, if NATO possessed the political will power to stop at nothing in order to fully liberate occupied Baltic States, it could avoid the costly gap of the Lithuanian and Polish border by advancing through Belarusian territory. Again, as this section has become all too familiar with is that of hypotheticals. But these hypotheticals are continuously mentioned for the same reason. If NATO does not appear to be fully willing, and communicative on this willingness, then it can be seen as apprehensive towards an enemy or even worse, provoke a lackluster response leading to a failed deterrence by punishment attempt.

Conclusion

When looking back on all that has been presented, several things become clear when looking at the shortcomings of NATO's deterrence strategy and what are the causes behind these shortcomings. The military alliance's lack capability when facing hybrid measures which may precede or run parallel with a conventional operation, as hybrid and conventional conflicts are not separate but intertwined with another. While NATO holds the overall military advantage globally, the logistical issues of reinforcing with heavy equipment which is necessary to take advantage of NATO air power are troublesome when combined with Russian abilities to prevent or limit the effectiveness of these reinforcements. Finally, as NATO is a multinational organization, consensus, unity, and political will power can be brought into question when facing a high-intensity conflict. All of these facts bring a singular point to mind. If NATO provides Russia a impression, through weakness of capability and united stance against aggression in the

---

[184] Shlapak and Johnson, *Reinforcing Deterrence* 7

case of the Baltic States, Russia may be enticed to essentially 'call NATO's bluff of deterrence by punishment'[185]. As pointed out when discussing shortcomings of deterrence by punishment, there is a relative grey area where the belligerent is not completely sure how much loss it may incur, and therefore may find it reasonable to undertake action regardless of an opponent's threats. But this can only be the case if the aggressor, in this case Russia, believes they have superior capabilities not just only to overcome NATO defenses, but also blunt their reinforcement efforts all while using hybrid measures to break the cohesion and functionality of the Alliance. With this, it is not time to explore the capabilities of the hybrid and conventional strategies Russia would most likely employ in a conflict.

Conclusion

The last two chapters of this paper have seen both the full explanation of what deterrence theory and hybrid warfare are along with the full analysis of Russian and then NATO capabilities and strategies within the real world through the lens of these two theories. This was done in order for one purpose. As stated in the beginning of this paper, the primary focus of this paper was to discover the causes of shortcomings of NATO's deterrence theory if there were any. What should be clear to any reader's understanding is that shortcomings of NATO's deterrence strategy are very real in nature. Furthermore, the causes of these shortcomings should also be relatively clear after the formal analysis of the two actors and their strengths and weaknesses. The causes of the shortcomings range across many sectors including the specific chosen type of deterrence which NATO follows, the foundational makeup of NATO itself, the strength of Russian hybrid measures combined with NATO's weakness within this realm, and finally the weakness behind specific conventional measures compounded by Russian strengths in similar measures.

Furthermore, when exploring the causes of shortcomings, some prove to be fully reasonable in nature for NATO to reverse or at least limit the full effect over the probability of success for its deterrence strategy. However, some are not within the power of the alliance and will forever be at least the partial cause of shortcomings of any deterrence strategy in which NATO seeks to invoke against Russian aggression on its eastern border.

---

[185] McCarthy, 68

<div align="center">**Causes of shortcomings**</div>

1st cause

        The first cause of the shortcomings of NATO's deterrence strategy comes from the very concept of deterrence theory which NATO has sought to deploy since the end of the Cold War. Due to NATO's structure, the only logical form of deterrence is that of extended deterrence when it comes to the Baltic States of Latvia, Lithuania, and Estonia. These small states have no means to conduct a direct deterrence strategy. Yet, extended deterrence, as noted previously in the theoretical section, must be seen as the weaker of the two in terms of both credibility and capability. Past this, the further root of the cause of this specific shortcoming is NATO's choice of deterrence strategy when it comes to the choice of denial or punishment. Within this point, a reminder of Samuel Huntington's critique of deterrence by punishment is warranted. In his critique, Huntington states that within deterrence by punishment the controllability of cost is unknown to the potential aggressor. Essentially, Russia cannot accurately determine the risk of its actions based on the unknown factor of costs that it may incur. When the risk of cost is unknown to an aggressor, with this case being Russia, it may act in order to achieve its specific goals by essentially taking a chance on the punishment not being as great as it might anticipate. In the specific case of this paper, the cause of a shortcoming finds another aspect in the root of NATO allowing a degree of uncertainty when it comes to Russia being able to properly analyze the risk and benefit analysis when exploring it's options for achieving large scale objectives within the Baltic region. With these two points fully stated, it must be understood that NATO inherently causes weakness within its own deterrence theory model. While the extended portion of this cause cannot be altered, the aspect of deterrence by punishment and the shortcoming that it causes can in fact be limited or fully changed by NATO.

2nd cause

        The second cause of the shortcomings comes from foundational components of the alliance itself when combined with the prospect of Russian hybrid capabilities. Therefore, this cause of shortcoming must be attributed to both a weakness within the deterrence strategy of NATO and also a strength of Russia which has been developed in order to better exploit such weaknesses. The North Atlantic Treaty Organization is a multinational organization which requires consensus-based cooperation in order to create both the political cohesion and willpower necessary to conduct large scale military operations. Unlike a singular state or a bi-lateral agreement, the 30 member states of NATO provide a wide range of political views and objectives. While it is the understanding that all NATO states will defend each other, it cannot be counted on due to the reality of the current international order. In essence, another cause of shortcomings of its deterrence strategy is NATO's reliance on consensus. As it was pointed out routinely within the analysis section on NATO, cohesion and political willpower across the alliance is certainly a weak point without outside interference. However, this aspect is certainly not without outside

interference. With Russian hybrid measures having the ability to heavily influence the behavior, and therefore the social and political cohesion along with political willingness of multiple NATO member states, the cause of this shortcoming is further amplified. Russian hybrid measures, especially those of political, economic, and information warfare are designed to create fractures within a society or at the very least partially change the behavior of a state to better suit Russian needs. Adding this aspect to an organization of 30 individual member states which heavily rely on cohesion in order to create a consensus on actions to be taken causes a significant shortcoming of NATO's deterrence strategy to be developed. One argument against this point could be that as a military organization at its foundation, it is not within NATO's job to deter and prevent hybrid measures from happening and that these dangers are solely the responsibility of individual member states. However, it must be noted that conflict has truly evolved within the 21st century and therefore the Alliance must evolve too if it wishes to remain capable of handling a multitude of threats. Furthermore, while these points do remain outside of the traditional domain and focus of NATO, when these factors so heavily affect deterrence measures of the alliance in a way which limits ability and cohesion, then these factors are legitimate weaknesses which NATO must acknowledge.

Similar to the previous cause of shortcoming to NATO's deterrence strategy, there is little NATO as a whole organization can do to limit this specific cause. Russian capabilities within the area of hybrid measures are out of NATO's control due simply to the fact that it is a military alliance and can do little to prevent unconventional military measures. Prevention of these means is primarily reliant on individual member states. Furthermore, even if individual member states did create more successful measures to prevent or deter Russian hybrid measures, NATO is still a multinational organization reliant on a multitude of values and objectives across its members being in line with one another. Simply, this will always continue to be a cause of at least a minor shortcoming of NATO's defensive and operational posture.

3rd cause

The next cause of shortcomings within NATO's deterrence strategy comes from the conventional aspect of this paper. While the Russian advantage in heavy armour and equipment in both quantity and quality is a significant shortcoming, the cause of this shortcoming should be attributed to the logistical complications of NATO's deterrence strategy rather than NATO's military armament. The cause of this shortcoming ultimately boils down to that of NATO's reliance on reinforcement and transport of heavy equipment to the Baltic region. The limited heavy equipment currently available for a quick response within the Baltic region is dwarfed by the numbers which Russia can call upon. Furthermore, any NATO reaction force is predominantly a lightly armed infantry unit rather than armoured units or at minimum infantry units supported by armour. Without significant heavy equipment presence in the region, NATO

cannot hope to fully take advantage of their airpower advantage and begin to fully punish Russian forces in the region. Therefore, the logistical dilemma which NATO faces causes a significant shortcoming in the overall deterrence strategy. With reinforcements through large and sudden deployments by sea and railways, adequate forces would take upwards of two months to assemble. This time provides ample space for Russia to either prepare to defend its newly achieved objectives, or even attempt to negotiate and retain their objectives. This space of time brings about Samuel Huntington's point on lack of knowledge for punishment. Russia does not know the full cost it may incur through its actions, but it certainly knows how long before any significant cost may occur. Unlike previous shortcomings, this is a shortcoming which can be fixed through large yet simple measures. These measures being the possible further pre-deployment of heavy equipment to the region or even a shift from deterrence by punishment to that of deterrence by denial. However, more focus on this will be given shortly within a section on policy recommendations to this effect.

4th cause

A fourth cause of the shortcomings of NATO's current deterrence strategy centers around both the rise of Russian A2/AD and IADS capabilities and also the seemingly large lack of acknowledgement from NATO on these capabilities. This cause of weakness is also inherently linked to the logistical cause of shortcomings. While they are relatively separate, their effect on one another only increases the shortcomings faced in NATO's deterrence strategy.

When combined with the geographical advantages held by Russia, Russian A2/AD capabilities heavily interfere with NATO's ability to conduct deployment operations in the region. Russia has continued to develop these capabilities with the knowledge of NATO's dependence on a quick and seamless reinforcement operation to the Baltic States in the case of war. With the ability to contest a significant amount of NATO territory, including the extremely vulnerable Suwalki Gap, Russia further possesses the ability to incur the cost of reinforcements and further delay NATO's ability to be fully massed. Along with this comes the point of NATO's lack of full acknowledgment of the danger which this provides for their deterrence strategy. The current NATO promise of support and reinforcement to the Baltics disregards or at the very least underestimates the costs the alliance faces when attempting to advance eastward. The disregard of capabilities which can directly erode NATO military capabilities and strength causes significant shortcomings for NATO's deterrence strategy. Past Russian A2/AD capabilities is the linked Russian Integrated Air Defense system which also seeks to erode NATO's largest strength, this being their airpower. Russian capabilities meant to erode NATO strengths along with NATO's relative lack of response to this dangerous precedent it faces leads once again to the significant shortcoming of deterrence.

Final Remarks

The perceived clash between NATO and Russia has long been analyzed over the last decade by countless academics and military professionals alike. All provide a varying degree of belief on how successful NATO's deterrence strategy is or if Russia itself has the ability to take on NATO. However, it is aspects of reality that seem to be often forgotten when conclusions are made. As a whole, NATO's military resources, in weaponry, equipment, and manpower, are fully capable of overcoming Russia in a protracted conflict. In this sense, the credible and capable threat of deterrence by punishment should be seen as a flawless approach when facing Russia in the Baltic region. Limiting the conflict should not be in the mind of NATO, as a more protracted and costly war would ultimately end in their favor. Russia itself knows this fact. However, reality in this case is forgotten or disregarded. In the true reality of the world, escalation without thought of limitation is impracticable. Reality requires all facets of political and military decision making to be acknowledged. Reality forces NATO to understand that a conflict without limitation requires significant sacrifice of resources and manpower. With NATO being a multinational force, a full consensus and acceptance of these costs may be almost impossible. Reality shows fractures, however small they may be, in the political willpower and cohesion necessary to conduct an operation which upholds the promised acts behind deterrence by punishment. Russian hybrid and conventional capabilities pose threats in the case of influencing the behavior of NATO member states, and therefore NATO itself. Essentially, Russian capabilities along with the aspects of reality force NATO into a difficult position. Is coming to the aid of the Baltic states worth it? If Russia indeed manages to force this question to the mind of NATO military strategist, then deterrence has already failed itself.

Before ending this paper, it is prudent to acknowledge recent events which could have a serious effect on the overall findings and thought process being conducted throughout the analysis of the research question. As this paper has been written, Russian and NATO relations have continued to decline throughout the spring and summer of 2021. However, this decline has largely been due to reasons outside of the Baltic region, which is considered the most likely flashpoint of a Russian and NATO conflict. A resurgence of Russian and Ukrainian aggressive rhetoric and military mobilizations has created further tension between NATO and Russia. While the alliance certainly supports Ukraine's shift westward away from Russia, the question of the future relationship between NATO and Ukraine is very much up for speculation and debate. Ukraine's calls for admittance into NATO, along with Russia's highly vocal rejection of this possibility creates a dilemma for the future of NATO. Further enlargement of member states, such as Ukraine or Georgia, create a future scenario in which a dramatic increase in Russian aggression is almost certain. Russia, seeing itself as trapped in its own borders within this scenario, would

certainly become increasingly hostile with its hybrid and conventional capabilities. But more prudent to this would be the position which NATO would put itself in. With a significantly increased Eastern border with Russia, along with the already proven vulnerability of Ukraine to hybrid manipulation and conventional attacks, NATO's position and ability to adequately respond would prove deterrence by punishment to be an unattainable strategy. While the alliance made no promise of Ukrainian membership, the possibility of this happening only increases the major shortcomings of NATO's deterrence strategy if this does in fact come to reality.

Policy Recommendations

To end the overall discussion on the shortcomings of NATO's deterrence strategy, it is prudent to offer how policy may be shifted in order to limit the overall effect of these understood shortcomings. NATO chose their given strategy for the primary reason of cost of resources. As stated, when describing some of the differences between deterrence by punishment and deterrence by denial, deterrence by punishment is inherently less expensive of the two primary modes of deterrence theory. With Russia appearing to be a lesser threat after the fall of the Soviet Union, deterrence by punishment and therefore the deterrence strategy costing the least amount of resources and manpower to the alliance is one that makes sense. However, Russia is no longer a lesser threat as it might have been twenty years ago. As it has been clearly proven, there are major shortcomings within NATO's current deterrence by punishment strategy and the causes behind these shortcomings are no easy fix. One way which NATO can nullify many of these shortcomings is to shift from a deterrence by punishment strategy to that of a deterrence by denial strategy. While deterrence by denial is more expensive and requires significantly more political and military effort to perform, it is inherently less expensive and requires less military and political willpower in comparison to a conflict in which deterrence by punishment failed to deter an enemy. As stated by retired United States Army Lieutenant General Ben Hodges, "Russia only understands and responds to one thing, strength and power"[186]. A switch to deterrence by denial strategy would not fully correct or limit all of the shortcomings found in the current NATO deterrence posture. While the causes of shortcomings coming from the foundational aspects of the alliance itself and also the incredible capability of Russian hybrid measures may not be fixed through this switch, the causes of shortcomings which deal with conventional military capabilities will be instantly lessened or completely removed from the equation. The switch to a deterrence by denial stance for NATO would be an aggressive stance which would most likely cause an increase in defensive and paranoid actions from Russia but is the best option for NATO in the coming future. Deterrence by denial can do what the current deterrence by punishment strategy is incapable of doing. Deterrence by punishment leaves room for Russia to question the outcome.

---

[186] McCarthy, 67

Deterrence by denial would leave the outcome unquestionable in result, and this is what makes a true deterrence strategy successful. The moment the level of success against deterrence theory is entertained, it has already failed. It is through this idea in which if no level of change is made by NATO and the status quo continues, then NATO could very well snatch defeat from the jaws of victory due to their glaring shortcomings in its deterrence strategy.

<u>NOTES</u>

Barber, Victoria, Andrew Koch, and Kaitlyn Neuberger. "RUSSIAN HYBRID WARFARE." The Fletcher School of Law and Diplomacy at Tufts University, June 2017.

Binnendijk, Anika, Gene Germanovich, Bruce McClintock, and Sarah Anita Heintz. *At the Vanguard: European Contributions to NATO's Future Combat Airpower*. Santa Monica, CA: RAND Corporation, 2020.

Chiabotti, Stephen D. "Clausewitz as Counterpuncher: The Logic of Conventional Deterrence." *Strategic Studies Quarterly* Winter , no. 2018 (2018): 9–14.

Connable, Ben, Abby Doll, Alyssa Demus, Dara Massicot, Clint Reach, Anthony Atler, William Mackenzie, Matthew Povlock, and Lauren Skrabala. *Russia's Limit of Advance: Analysis of Russian Ground Force Deployment Capabilities and Limitations*. Santa Monica, CA: RAND Corporation, 2020.

Connable, Ben, Stephanie Young, Pézard Stéphanie, Andrew Radin, Raphael S. Cohen,   Katya Migacheva, and James Sladden. *Russia's Hostile Measures: Combating Russian Gray Zone Aggression against NATO in the Contact, Blunt, and Surge Layers of Competition*. Santa Monica, Calif: RAND, 2020.

Dahl, Ann-Sofie. *Strategic Challenges in the Baltic Sea Region: Russia, Deterrence, and Reassurance*. Washington, DC: Georgetown University Press, 2018.

Fridman, Ofer. *Russian 'Hybrid Warfare': Resurgence and Politicisation*. London: Hurst & Company, 2018.

Galeotti, Mark. "The Mythical 'Gerasimov Doctrine' and the Language of Threat." *Critical Studies on Security* 7, no. 2 (2018): 157–61. https://doi.org/10.1080/21624887.2018.1441623.

Haffa, Robert. "The Future of Conventional Deterrence: Strategies for Great Power Competition." *Strategic Studies Quarterly* Winter, no. 2018 (2018): 94–115.

Hlatky, Stéfanie Von, and Andreas Wenger. *The Future of Extended Deterrence: the United States, NATO, and Beyond*. Washington, D.C.: Georgetown University Press, 2015.

Huntington, Samuel P. "Conventional Deterrence and Conventional Retaliation in Europe." *International Security* 8, no. 3 (1983): 32. https://doi.org/10.2307/2538699.

Jonsson, Oscar. *The Russian Understanding of War Blurring the Lines between War and Peace*. Washington, DC: Georgetown University Press, 2019.

Kelly, Terrence K., David C. Gompert, and Duncan Long. *Smarter Power, Stronger Partners* . 1. Vol. 1. Santa Monica, CA: RAND Corporation, 2016.

Lanoszka, Alexander, and Michael A. Hunzeker. *Conventional Deterrence and Landpower in Northeastern Europe*. Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2019.

Lanoszka, Alexander. "Russian Hybrid Warfare and Extended Deterrence in Eastern Europe." *International Affairs* 92, no. 1 (n.d.): 175–95. Accessed 2020.

Mazarr, Michael J. *Mastering the Gray Zone: Understanding a Changing Era of Conflict*. Carlisle Barracks, PA: Strategic Studies Institute and U.S. Army War College Press, 2015.

McCarthy, Michael C., Matthew A. Moyer, and Brett H. Venable. *Deterring Russia in the Gray Zone*. Carlisle, PA: Strategic Studies Institute and U.S. Army War College Press, 2019.

Mearsheimer, John J. *Conventional Deterrence*. Ithaca: Cornell University Press, 1985.

Moore, Rebecca R., Damon V. Coletta, and R. Nicholas Burns. *NATO's Return to Europe: Engaging Ukraine, Russia, and Beyond*. Washington, DC: Georgetown University Press, 2017.

Mueller, Karl. "Conventional Deterrence Redux: Avoiding Great Power Conflict in the 21st Century." *Strategic Studies Quarterly* Winter, no. 2018 (2018): 76–93.

Shlapak, David, and Michael Johnson. "Outnumbered, Outranged, and Outgunned: How Russia Defeats NATO." War on the Rocks, April 24, 2016. https://warontherocks.com/2016/04/outnumbered-outranged-and-outgunned-how-russia-defeats-nato/.

Shlapak, David, and Michael Johnson. *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*. RAND Corporation, n.d.

Stringer, Kevin D., Glennis F. Napier, and Mark C. Schwartz. *Resistance Views: Tartu Resistance Seminar Essays on Unconventional Warfare and Small State Resistance, 2014*. MacDill Air Force Base, FL: The JSOU Press, 2018.

Tsetsos, Konstantinos. "Colin Smith/Jim Townsend: Not Enough Maritime Capability. Washington, D.C.: Center for a New American Security, November 2019." *SIRIUS – Zeitschrift für Strategische Analysen* 4, no. 2 (2020): 211–12. https://doi.org/10.1515/sirius-2020-2014.

Troeder, Elizabth. *A Whole-Of-Government Approach to Gray Zone Warfare*. Carlisle Barracks, PA: United States Army War College Press, 2019.

Visan, George. "Crimea's Transformation into an Access-Denial Base." Black Sea in Access Denial Age by ROEC, July 14, 2015. http://bsad.roec.biz/portfolio-item/crimeas-transformation-into-an-access-denial-base/.

Wemyss, Matthew. "The Bear's Den: Russian Anti-Access/Area-Denial in the Maritime Domain." *AIR COMMAND AND STAFF COLLEGE*, May 2016, 1–18.