

# DETERRENCE IN THE NORDIC-BALTIC REGION: THE ROLE OF THE NORDIC COUNTRIES TOGETHER WITH THE U.S. ARMY

---

Juha Pyykönen  
Stefan Forss





# The United States Army War College

---

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a “think factory” for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.



The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.



The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.



The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.



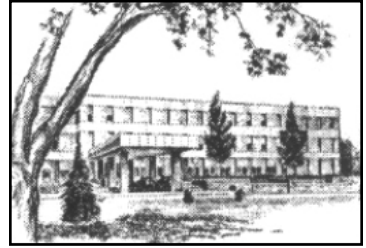
The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.



The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor Soldiers—past and present.



# STRATEGIC STUDIES INSTITUTE



The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;
- Regional strategic appraisals;
- The nature of land warfare;
- Matters affecting the Army's future;
- The concepts, philosophy, and theory of strategy; and,
- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.



**Strategic Studies Institute  
and  
U.S. Army War College Press**

**DETERRENCE IN THE NORDIC-BALTIC  
REGION: THE ROLE OF THE NORDIC  
COUNTRIES TOGETHER WITH THE U.S. ARMY**

**Juha Pyykönen  
Stefan Forss**

**June 2019**

The views expressed in this report are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. Authors of Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications enjoy full academic freedom, provided they do not disclose classified information, jeopardize operations security, or misrepresent official U.S. policy. Such academic freedom empowers them to offer new and sometimes controversial perspectives in the interest of furthering debate on key issues. This report is cleared for public release; distribution is unlimited.

\*\*\*\*\*

This publication is subject to Title 17, United States Code, Sections 101 and 105. It is in the public domain and may not be copyrighted.

\*\*\*\*\*

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5238.

\*\*\*\*\*

This manuscript was funded by the U.S. Army War College External Research Associates Program. Information on this program is available on our website, <https://ssi.armywarcollege.edu>, at the Opportunities tab.

\*\*\*\*\*

All Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications may be downloaded free of charge from the SSI website. Hard copies of certain reports may also be obtained through the U.S. Government Bookstore's website at <https://bookstore.gpo.gov>. SSI publications may be quoted or reprinted in part or in full with permission and appropriate credit given to the U.S. Army Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, Carlisle, PA. Contact SSI by visiting our website at the following address: <https://ssi.armywarcollege.edu/>.

\*\*\*\*\*

The Strategic Studies Institute (SSI) is the U.S. Army's institute for geostrategic and national research and analysis. SSI supports the U.S. Army War College (USAWC) curricula, provides direct analysis for Army and Department of Defense leadership, and serves as a bridge to the wider strategic community. SSI studies are published by the USAWC Press and distributed to key strategic leaders in the Army and Department of Defense, the military educational system, Congress, the media, other think tanks and defense institutes, and major colleges and universities.

ISBN 1-58487-816-9



## FOREWORD

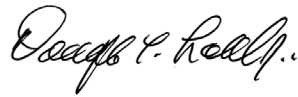
The Russian Federation continues to present a clear and unique security challenge to its European neighbor states all around its Western periphery. To the north, in the Nordic-Baltic region, the North Atlantic Treaty Organization (NATO) and its Nordic partner nations are acutely aware of the challenge which Russia's forceful and at times aggressive behavior can present to their security. The situation has been compounded by internal factors, such as a decade of shrinking defense budgets and a lack of local capacity to deal with potential military threats.

As the United States and NATO strive to craft a credible deterrence policy in the Nordic-Baltic region, which would serve both local and U.S. interests in safeguarding local allies and partners while limiting the need for permanent presence in the region, NATO's Nordic partner nations, Finland and Sweden, are well-placed to make a meaningful contribution to these efforts. Deeper defense cooperation with and among the Nordic countries, including NATO member state Norway, is an essential part of this solution. Regardless of dissimilarities between their defense concepts and capabilities, the Nordic nations as a whole share similar priorities and are faced with similar threats. It thus makes absolute sense for these nations to cooperate both mutually and more broadly.

This monograph, written by two highly experienced Finnish defense researchers with excellent knowledge of the problems posed by Russia as a neighbor, enhances our understanding of the possibilities and constraints of Nordic defense and Russia's regional offensive military potential. It illustrates possible avenues for enhancing defense cooperation, with specific

and actionable proposals. The role of the U.S. Army is considered vis-à-vis efforts to ensure stability based on credible deterrence in the region.

This monograph builds on the scope and analysis of the issues discussed in the Strategic Studies Institute and U.S. Army War College Press monograph, *Breaking the Nordic Defense Deadlock*, published in 2015. It further develops our understanding of opportunities for the United States to increase the effectiveness of defense cooperation with northern Europe, and is highly recommended to planners and policymakers as well as other experts working on European and NATO problem sets.



DOUGLAS C. LOVELACE, JR.  
Director  
Strategic Studies Institute and  
U.S. Army War College Press

## ABOUT THE AUTHORS

JUHA PYYKÖNEN is a security analyst and a retired brigadier general at the Finnish Defence Forces. His last post in service was the chairman of the North Atlantic Treaty Organization (NATO) partner think-tank the Partner Interoperability Advocacy Group in Brussels, Belgium, from 2014 to 2015. During his military career, he served in many posts in the field of international military cooperation in NATO, the European Union (EU), Nordic cooperation organizations, and Finland. For a decade, he served as a security and defense policy researcher as well as the head of a research institution. Brigadier General Pyykönen holds a Licentiate's degree in political science from the University of Helsinki.

STEFAN FORSS is a senior scientist and highly experienced defense researcher. Professor Forss joined the Finnish Technical Research Centre, where he eventually became chief scientist. In 2005, he moved to the Finnish Ministry of Foreign Affairs Policy and Research Unit, attached to the National Defence University (NDU), where he advised on arms control and the security policy implications of new weapons and weapon systems. After retirement from government service in 2012, he has continued to publish on defense and security topics, including a series of high-profile reports on the implications for the Nordic states of a newly resurgent Russia. His title of professor was awarded by the President of Finland in May 2014, in recognition of a distinguished career spanning 4 decades. Professor Forss holds a Ph.D. in physics from Helsinki University.



## SUMMARY

This monograph examines enhanced roles for Finland and Sweden as contributors to the efforts of the United States and the North Atlantic Treaty Organization (NATO) to forge a credible deterrence policy in the Nordic-Baltic region. The impact of these enhanced roles on the requirement for a U.S. military presence in the region could have both strategic and operational implications and might reduce the U.S.-Europe capabilities gap and enable fairer defense burden-sharing within the Euro-Atlantic community.

Over the last decade, there have been three security trends that have worsened the security situation in the region: all European states have drastically down-scaled their defense capabilities, the United States has shifted its focus away from Europe, and Russia has enhanced its capabilities and exhibited the political will to use force to promote its interests. In response, the United States and NATO have stressed that they are fully committed to defending all allied countries, particularly the Baltic States and Poland. However, these statements must be backed up by military resources and a credible deterrence posture that is respected by potential adversaries.

A consensus on the requirement for territorial defense is forming within NATO and allied nations. A visible and robust military presence in the region is an essential element of the credibility of deterrence. With the limited resources available for a commitment by all partners, including the United States, creative means must be found to maximize the deterrent potential of national forces through greater and deeper international cooperation and coordination. Consequently,

transforming and restoring member-state and allied capabilities is of paramount importance.

In the short term, more exercises on the present level and further cooperation within the region help achieve the aim of a more credible deterrence posture. Enhancing specific aspects of partnership militarily with nonaligned Finland and Sweden would improve the prospects for meeting these challenges. Both of these Nordic partner countries are deeply engaged not only in military cooperation with NATO collectively but also on a bilateral basis with the United States and regional allies such as Norway.

However, these three Nordic countries have widely disparate military capabilities, affecting interoperability and prospects for defense cooperation:

- Norway focuses on its collective responsibilities within NATO and invests accordingly in maritime military capabilities.
- Finland, bordering strategically important Russian military areas, is searching for reliable and capable partners for deeper defense cooperation. Finnish military capabilities are primarily land-heavy, reflecting its geographical position.
- Sweden is currently transforming the focus of its system back to territorial defense with additional capabilities.
- Regardless of dissimilarities in defense concepts and capabilities, common ground exists due to the recognition of a shared security environment and similarities of threats.

Likewise, the U.S. Army shares similar responsibilities—to defend the territorial integrity and sovereignty of allies in the region. This monograph illustrates possible avenues for enhancing defense cooperation with

specific and actionable proposals. This monograph also identifies some of the limits of defense cooperation and partnership. The role of the U.S. Army is assigned a special level of importance with respect to deterrence and striving for stability based on credible deterrence in the region.

While national defense authorities are already strengthening the synergies of military capabilities, lengthy political processes can proceed concurrently. The prerequisite that the U.S. pledge to uphold regional security is of sufficient plausibility to convince regional partners that if this security arrangement is challenged, the U.S. commitment will prevail. This monograph includes efficient and actionable proposals for specific measures to this end.

This monograph, completed in late 2018, broadens the scope and analysis of the issues discussed in the Strategic Studies Institute and U.S. Army War College Press monograph, *Breaking the Nordic Defense Deadlock*, published in 2015.





# DETERRENCE IN THE NORDIC-BALTIC REGION: THE ROLE OF THE NORDIC COUNTRIES TOGETHER WITH THE U.S. ARMY

## INTRODUCTION

This monograph, *Deterrence in the Nordic-Baltic Region*, examines possible roles for nonaligned Finland and Sweden as contributors to the efforts of the United States and the North Atlantic Treaty Organization (NATO) to create a credible deterrence policy in the Nordic-Baltic region. In addition, the potential strategic and operational implications of reconfiguring the U.S. military presence in the region—and that of the U.S. Army, in particular—are analyzed. Furthermore, possible ways of reducing the U.S.-Europe capabilities gap and enabling fairer burden-sharing are considered.

Three security trends have worsened the security situation in the Nordic-Baltic region over the last decade: European states have downscaled their defense capabilities, the United States has shifted its focus away from Europe, and Russia has enhanced its military capabilities and exhibited its political will to use force to promote its interests. Even before the conflict in Ukraine, and the war in Georgia before it, Russia had begun expanding its military activities in the Baltic Sea region.<sup>1</sup> This expansion involved not only regular exercises in the air and at sea but also large-scale exercises on land practicing offensive action and risky, even dangerous, behavior. Furthermore, the use of hybrid methods, including cyberattacks, has contributed to the loss of confidence in the region, creating an asymmetry between Russia and its rivals and

eroding stability and predictability. NATO has been far less active than Russia, and its limited responses to Russian actions have not had an escalatory effect.<sup>2</sup>

Nevertheless, in the aftermath of Russia's unlawful annexation of Crimea and war by proxy in Ukraine, the overall situation has drastically deteriorated. The United States and NATO have stressed that they are fully committed to defending all allied countries, particularly the Baltic States and Poland, which face challenges to their security and sovereignty. This commitment was emphasized by senior officials serving in the new U.S. Presidential administration at the Munich Security Conference in Germany in February 2017, **and has been reaffirmed later.**<sup>3</sup>

Political declarations of intent are, however, not enough to fulfill the core purpose of the Atlantic Alliance. They must be backed up by military resources and a credible deterrence posture that is recognized and respected by potential adversaries. NATO embarked on this path at the Wales Summit in Great Britain in 2014 and affirmed this direction at the Warsaw Summit in Poland in 2016 and the Brussels Summit in Belgium in 2018. To date, NATO's capabilities suffice for deterrence by punishment, but not necessarily for deterrence by denial in the Baltic Sea region. NATO's deterrence posture, as well as that of the U.S. Army, should be based on several pillars: contingency planning that prescribes the capabilities required to resist both sudden hostile actions and more subtle attempts to create protracted ("frozen") conflicts; guaranteeing that force levels in the conflict area are sustained, with reinforcements and follow-on forces forthcoming; protecting allied forces in the conflict area; and, preparing for the possibility of nuclear coercion.

It is increasingly clear that close partnership with militarily nonaligned Finland and Sweden would significantly improve the prospects for successfully meeting these challenges. As Enhanced Opportunities partners in the context of the Partnership for Peace (PFP), both countries are deeply engaged in military cooperation with NATO collectively and on a bilateral basis with the United States and regional allies, such as Norway. However, Nordic countries have widely disparate military capabilities that affect interoperability and prospects for defense cooperation. Streamlining these for an optimal joint performance, however desirable, is a profound, lengthy, political process for these countries.

In this monograph, the authors outline possible avenues for maximizing defense and security cooperation in the Nordic-Baltic region and identify the limits of partnership. The role of the U.S. Army is assigned special importance with respect to deterrence and establishing a military balance in the region.

The authors argue that building up military capabilities in coordination with the Nordic countries is essential and can be pursued concurrently with the lengthy political processes leading to greater integration. This option requires the United States to convince regional partners that it can be relied on if this security arrangement is seriously challenged by adversaries.

Now is the time for serious decisions on Nordic-Baltic security, as the erosion of defense capabilities has made all states in the region increasingly vulnerable. In the region's northernmost country, Norway, military manpower has been reduced to a minimum. Despite this deficit, Norway maintains only a limited focus on the exceptional capabilities that would be required to offset its limited manpower. Finland

has based its defense posture on territorial defense, while Sweden has counted on its expeditionary capabilities that are high-quality, yet low-strength. The three Nordic countries must converge on a commonly shared defense posture in the face of Russian pressure, intimidation, and coercion.

The first section of this monograph defines deterrence as a defense concept. NATO as a security structure with the activities that go with it is introduced in an appropriate context. The European Union (EU) has a minor role to play in military defense and is only addressed when relevant. In the second section, the security and defense policies of the three Nordic countries are introduced and analyzed in greater detail. Denmark is addressed only occasionally, as it expresses its defense commitments primarily through NATO and has distanced itself from Nordic-Baltic military cooperation. Russian military might is addressed in the third section, followed by a brief review of the defense aspects of the Baltics in the fourth section. The Baltic States are addressed only briefly, given the abundance of research produced on their affairs by other reputable institutions. However, since NATO could be the most prominent lead actor for promoting deeper cooperation and a further convergence of defense postures, quantitative levels of allied capabilities available to deter Russia and change the strategic calculus are provided.

These sections set the scene for options for enhanced deterrence that are possible within the cooperation structures that already exist, with the support of U.S. Army activities. An illustrative division of shared responsibilities among the actors and its limitations is provided in the fifth section. This section is followed by conclusions and recommendations for

the ongoing alignment of defense postures, bringing the Nordic and Baltic countries, as well as the United States, closer together. This section also discusses the role the U.S. Army should play in Nordic-Baltic defense and security to ensure deterrence.

The focus of this monograph excludes areas that do not directly fall within the purview of the U.S. Army.<sup>4</sup> This research seeks to contribute to the U.S. Army's understanding of the pros and cons of cooperation in the Nordic-Baltic region.

## **DETERRENCE AND MULTINATIONAL ACTORS IN THE NORDIC-BALTIC REGION**

The focus on expeditionary capabilities for out-of-area operations, a core function of NATO established after the end of the Cold War, is today widely regarded as obsolete. The emerging defense posture shared by every state in the region is territorial defense. For all but two nations, Finland and Russia, this has meant a paradigm shift in changing the focus of defense postures back to territorial defense from expeditionary and out-of-area operations.<sup>5</sup> In the case of Sweden, this shift in defense posture began as late as 2015. For Finland and Russia, no comparable change took place—only reductions in the size of forces, together with some modernization. Russia's military capabilities have recently substantially increased despite the military being smaller than it was during the Soviet and post-Soviet period. For NATO and allied nations, a focus on territorial defense is forming. However, maintaining a visible and robust military presence in the region to strengthen the credibility of deterrence policy while transforming and restoring member-state and allied capabilities is of paramount importance. In

the short term, more exercises and further cooperation would help achieve the aim of a more credible deterrence policy.

As a concept and a defense strategy, deterrence has made a comeback—or perhaps it should be said it has been rediscovered. Much of what was once considered basic knowledge regarding deterrence appears to have been unlearned. Two decades of contracting military capabilities in the West have reduced the risks associated with land grabs for Russia, whether those of Abkhazia and South Ossetia in 2008 or that of Crimea in 2014; only since the latter incident has the West seriously contemplated how to deter Russia.<sup>6</sup>

Deterrence is the act of discouraging an opponent from undesirable behavior. Deterrence can be achieved by creating conditions in which the opponent cannot achieve its war aims or threaten retaliation. In short, there are two ways to establish a functioning and credible deterrent. First, one's territory can be defended, provided one's military capabilities are enough to prevent the aggressor from achieving its goals (**deterrence by denial**). Second, a defender's capabilities can be strengthened in a way that makes the consequences of aggression too costly for the aggressor after the fact (**deterrence by punishment**). In other words, the aggressor may achieve territorial gains, but at an unjustifiable price. The most robust deterrence policy combines elements of both approaches.<sup>7</sup>

This simplistic definition often encourages the view that all it takes to deter is to put sufficient force on display. If both sides act "rationally" (i.e., according to a shared cost-benefit calculus) and consent to deterrence, and neither is suicidal, their military capabilities and the costs associated with those capabilities' deployment will keep each other in check. To succeed,

a strategy of deterrence must have three elements in place: capabilities that are visible to the enemy; a stated and credible commitment to responding to aggression; and, clear communication with the enemy so that it is aware of both of the above elements.

However, history offers many examples of failed deterrence—even in cases featuring a military balance favorable to the victim. Sometimes, the weaker side has counted on the element of surprise. This was the case with the Japanese attack on the Pearl Harbor Naval Base, which the Japanese hoped would destroy much of the U.S. Pacific Fleet and paralyze political decision-making. In 1973, Egypt and Syria attacked the militarily superior Israel, seeking to restore the geopolitical strength they had lost in the 1967 Six-Day War. Israel did not see the attack coming because it regarded its adversaries as inferior and its military strength as overwhelming. Consequently, Israel simply ignored the signs of an impending attack. Israel's military superiority failed to deter its enemies.<sup>8</sup>

The power of deterrence is predicated on all parties thinking and behaving rationally within a shared normative framework. When such a framework is tenuous or simply non-existent—as is the case when dealing with extremists, insurgents, or terrorists—deterrence may fail. In the Falklands War, when the United Kingdom (UK) undertook a large-scale counteroffensive against Argentinean forces to retake an occupied group of islands in 1982, the Argentinean leadership's rationale was based on two considerations. First, the UK had severely reduced its military presence on the islands, calling into question British resolve in the event of an Argentinian takeover. Second, the Argentinean Government was in the middle of a severe domestic crisis and at risk of losing power. To avert

collapse, it constructed narratives inflaming patriotic fervor, boosting popular support in the process, while setting in motion a series of events that forced it to occupy the islands. That act of aggression was about avoiding the loss of power, not winning territory—an insecurity that drove the Argentinean leadership to accept considerable risks.<sup>9</sup> The lessons of 1982 are worth reconsidering in light of Russian or Turkish domestic politics today: stirring nationalism to generate political support may lead to self-defeating military adventures.<sup>10</sup>

Deterrence is not only about a military balance but also about interests. If the aggressor's interest in achieving a certain objective is greater than one's own, deterrence may fail, as happened in the Cuban missile crisis of 1962. When it became clear that Washington was ready to defend its core security interests, the Soviet Union withdrew the missiles it had started to deploy in Cuba. During the Vietnam War, the United States was the militarily superior of the two belligerents, but, in the end, it withdrew its troops because the North Vietnamese were willing to make much greater sacrifices to achieve their goals than the United States was in support of South Vietnam. This asymmetry not only dooms deterrence but also makes great powers lose small wars.<sup>11</sup> This could bear relevance today in the Baltic Sea region, given the military imbalance that emerges when comparing Russian capabilities with those of other states. An additional and often overlooked contribution to deterrence against a post-conflict occupation is a well-prepared resistance structure, encompassing remnants of the defeated army as well as irregular forces. One historical example was a Finnish clandestine operation that saw weapons and other equipment hidden in an attempt to establish a



30-battalion-strong resistance force, to be activated in the event of a military occupation.<sup>12</sup> In a contemporary parallel, NATO is currently signaling to Russia that clandestine resistance and stay-behind forces akin to the “Forest Brothers” of the last century are planned for the Baltic States to help dissuade Russia from contemplating military occupation.<sup>13</sup> In this case, as in the historical case, the commitment is visible, and a clear signal of preparedness is being sent.

The ultimate deterrence effect is based on a nuclear arsenal. For the time being, the enormous destructive power of nuclear weapons has sufficed to ensure the success of nuclear deterrence. When a nation’s existence is at stake, the use of nuclear weapons constitutes a credible threat and consequently deters external aggression. However, there is a grave asymmetry between Russian and American perspectives on the use of nuclear weapons. Russia is prepared to deploy small-yield nuclear devices in the early stages of a crisis.<sup>14</sup> The United States enjoys far less flexibility when it comes to the deployment of its nuclear arsenal, which consists almost entirely of strategic nuclear devices and is managed through the nuclear triad. The U.S. Air Force, for instance, possesses only a small number of non-strategic nuclear armaments.<sup>15</sup> In practice, the forward-deployed nuclear weapons located in Europe are at present largely symbolic, and their inclusion in real operational plans is questionable, as their aerial delivery systems lack stealth and penetration capability. This will remain the case until more capable strike fighters are introduced in the 2020s. Unlike Russia, the United States and NATO view the use of tactical nuclear weapons as a last resort.

Since NATO’s establishment, observers have repeatedly speculated as to whether the United States

would be willing to risk nuclear escalation to protect an ally. One of the main challenges has been how to convince the Soviet Union that the United States would sacrifice itself to defend western Europe from Soviet aggression.<sup>16</sup> The message to be conveyed if this is to succeed is that Washington views the security of its allies as its own fundamental national security interest—that the security of one allied nation is part of the security of all allied nations.

Since the occupation of Crimea in 2014, Russia and U.S. allies alike have similarly speculated on the depth of the U.S. commitment to defending the Baltic States. As a response, NATO leaders have deployed multinational units to reassure their Baltic allies, but also to make burden sharing fairer. Consequently, the multinational military presence of one brigade-sized and four battalion-sized units in the region, among other capabilities, is probably regarded as convincing by Russia, especially when augmented by constant redeployments and large-scale exercises.<sup>17</sup> Russia apparently considers NATO's moves as a means of mitigating Russia's overwhelming local superiority and acts accordingly. Large-scale Russian exercises prompt further temporary increases in deployments to the front-line states, as with the case of Zapad in September 2017, where a lack of Russian transparency fueled speculation over the likely outcome of the exercise.<sup>18</sup>

After a relative absence of 2 decades, European geographical constants have returned to the fore in NATO planning. Persistent objective factors that already pertained in the Cold War have combined with new technologies, such as long-range and precision weapons systems. The Russian military build-up in the Western Military District (MD), including the

Northern Fleet in the Kola Peninsula, has been the most important and powerful concentration of capabilities in Russia.<sup>19</sup> In 2014, the Northern Fleet was hived off from the Western MD to form the Northern Joint Strategic Command (JSC), emphasizing the strategic importance of Russia's Far North.<sup>20</sup> Similarly, the economic, industrial, and political center that is the Saint Petersburg area is of existential importance for Russia. This is emphasized by the military build-up in the Kaliningrad exclave, situated between Lithuania and Poland, and regarded as a forward-based defensive outpost of Saint Petersburg itself.<sup>21</sup>

From a Euro-Atlantic viewpoint, the military concentration in the Kola area is of existential importance for Russia and vital for the United States to contain. Today, the potential use of the Greenland, Iceland, and UK passage, the final barrier keeping the Russian Navy from accessing the Atlantic Ocean and thus endangering support for Europe during a crisis or in wartime, has become a subject of interest once again.<sup>22</sup> Of all Nordic states, Norway has played the most significant role in this respect, with its strong navy safeguarding lines of communication between continental Europe and North America. The importance of these capabilities and prepositioned assets in Norway is also under re-evaluation, with modernization underway, after the post-Cold War closure of most local bases and depots.

### **NATO as a Security Actor in the Region**

Since 1994, when NATO established its PfP program, cooperation among the countries of northern Europe has increased significantly. Finland and Sweden have benefited greatly from PfP cooperation

through inter alia, standardization, military planning, education, training, and exercises. To date, a great number of evolutionary programs for cooperation are ongoing, and many have been fully implemented.<sup>23</sup>

NATO has responded to the regional military imbalance by emphasizing operational planning, elevating readiness, and increasing military presence. These steps have translated into the drafting of new defense plans for the eastern member states of NATO, the rotating of military units, the updating of rapid response capabilities with higher readiness in mind, and the establishment of an assurance policy. Furthermore, cooperation with the Nordic partners, Finland and Sweden, is enhanced through decision-making exercises, elevated situational awareness, and host nation support (HNS) arrangements, as well as cooperation within key NATO institutions. In this context, the concept and capabilities of the NATO Response Force (NRF) have been updated to meet higher readiness, larger capacity, and enhanced capability requirements in accordance with decisions made at the Wales Summit.<sup>24</sup>

NATO has also strengthened its command structure in various ways. New cooperation arrangements are in force at NATO's multinational headquarters in Szczecin, Poland. This headquarters is responsible for planning in the Baltic Sea region and is, exceptionally, in permanent readiness. Finnish and Swedish military officers are present in most of the headquarters that pertain to the region. NATO has deployed four multinational battle groups to Estonia, Latvia, Lithuania, and Poland, with contributions from 17 allied countries, increasing deterrence by visibly strengthening the transatlantic bond. Furthermore, air policing has been stepped up over the Baltic and Black Seas,

in addition to four force integration units in the Baltic Sea region and a multinational brigade to be deployed in Romania.

The more than 100 military exercises conducted by NATO annually together with some 150 national exercises associated with the Alliance are an important element of readiness. In late 2018, Norway hosted the Trident Juncture high-visibility exercise with the goal of testing how NATO would reinforce Norway in a crisis or war and how Norway would manage HNS and logistics support for allied forces in turn. The main element to be tested for NATO was the NRF and its spearhead unit—the Very High Readiness Joint Task Force—when defending allied territory. For Norway, its entire national defense system was to be tested in an Article 5 situation. Finland participated with 2,400 soldiers from all three services. Sweden provided a framework brigade operating in both Finnish and Swedish territory. Nordic aircraft operated together in all three Nordic countries. Altogether, about 50,000 soldiers from 31 countries took part in the exercise; consequently, the Organization for Security and Co-operation was informed, and its member states were invited to send observers. Russia was informed about the exercise and its defensive nature, and was also invited as an observer.<sup>25</sup>

These exercises have ensured that NATO's comprehensive system has been adapted to an elevated state of readiness along with testing necessary HNS arrangements for a successful exercise.<sup>26</sup> At the political level, decision-making rehearsals (e.g., Crisis Management Exercises) are organized to improve dialogue, consultations, and leadership. At the military level, these demands are addressed through enhanced NRF exercises. In recent years, both Nordic partners have

regularly been participating, as they are quite often invited at the earliest stages of planning. Since the Warsaw Summit, these exercises have been organized in parallel and in coordination with the EU to improve the synchronization of crisis response activities.

Since NATO's Wales Summit in September 2014, all Western countries of the region have taken additional steps to deepen military cooperation. Offering the status of Enhanced Opportunities, NATO invited both Nordic partners to engage in closer and earlier planning of more demanding exercises (e.g., enhanced NRF) and related preparatory activities (e.g., HNS). In terms of reciprocity, the Nordic partners, Finland and Sweden, have been involved in evaluations of the Baltic Sea security situation based on deeper information exchange.<sup>27</sup>

Key takeaways from the Warsaw Summit in July 2016 indicated that there are opportunities for more extensive and deeper cooperation open to the Nordic partners. In general, the development of capabilities will be accelerated not only in magnitude but also by focusing more precisely on collective defense instead of crisis response operations. This collective defense, in turn, requires enhanced cooperation pertaining to situational analysis and operational planning, which, among other things, will indicate what type of capabilities will be needed in the future.

The new activities of NATO have had a stabilizing influence in the region. This view is widely shared between both the allied and Nordic governments of the region. From Finland's point of view, a dual-track approach, strengthening both defense and deterrence while continuing an appropriate dialogue with Russia, is preferred. In fact, NATO has left the door open for dialogue with Russia.<sup>28</sup>

## The EU as a Security Actor in the Region

All Western states around the Baltic Sea are members of the EU, which could represent an alternative avenue for enhanced security and defense cooperation. In practice, this has developed not according to the wishes of Finland (i.e., toward shared European defense); on the contrary, it has developed more according to Swedish attitudes emphasizing sovereignty. The Commission, the executive body of the EU, has no authority regarding military defense, which is unambiguously the responsibility of member states. Member states have not addressed common defense as an optional end-state for the EU. However, Article 42 of the Lisbon Treaty provides a legal basis for ad hoc measures in a situation where no other actor, such as NATO or the United States, is available to defend the EU and its member states.<sup>29</sup>

Currently, both Nordic partners remain outside NATO, commonly regarded as the ultimate guarantor of “hard” security. In December 2016, the European Council, the highest decision-making body of the EU, stated a higher level of military ambition, but no conceptual change or paradigm shift toward real military defense capabilities was discussed or reiterated. Despite diverse views on EU security and defense policy priorities, current proposals could help some member states coordinate, jointly finance through a common defense fund, and even procure defense materiel more efficiently. Similarly, the relaunch of the Permanent Structured Cooperation by the participating EU member states aims at enhanced capabilities for out-of-area crisis management activities, but not territorial defense as such. Another promising project for the EU and NATO is known as military mobility

(or “military Schengen,” after the Schengen area of the EU), which would improve logistics, legislation, and infrastructure for civilian and military purposes and be financially supported by the Commission. In the EU context, three related initiatives for expanding multinational cooperation among selected member states are in the making: the UK-led Joint Expeditionary Force (JEF), already operational; the German-led Framework Nation Concept; and, the French-led European Intervention Initiative. Both Finland and Sweden are taking part in the first two initiatives, and Finland in all three.<sup>30</sup> Furthermore, opportunities to promote transatlantic burden-sharing could be realized through multi-speed European defense collaboration. The current division between eastern and southern EU member states could also deepen.<sup>31</sup>

In light of the March 2017 Rome declarations, at least some potential for progress exists based on a step-by-step approach. In the future, the EU could also best serve the common interests of its members through enhanced external civil-military crisis management activities and resilience; and, furthermore, by building the civil capabilities of its partners and providing civil resilience support to EU citizens. Both Finland and Sweden, however, regard the EU as the primary foreign policy arena for the promotion of security and both Nordic countries support cooperation between the EU and NATO.<sup>32</sup>



## NORDIC DEFENSE SOLUTIONS IN TRANSITION

All of the Nordic states addressed in this monograph share a common history as part of the Swedish empire. To a significant degree, this accounts for numerous similarities among the three countries' governments, cultures, and societies. They are regularly featured in lists of the world's top 10 states in the categories of welfare, democracy, human rights, the rule of law, equality, education, transparency, and more.

History has deeply shaped the national identities of all four Nordic nations (including Denmark). Norway and Denmark were both rapidly occupied by Nazi Germany in early 1940 and liberated only in 1945. Finland and Sweden have never been occupied by a foreign state, but wartime experiences informed their conduct during the Cold War. Finland's neutrality could be described as externally imposed and stemming from an ambiguous political-military agreement with the Soviet Union—the Treaty of Friendship, Cooperation, and Mutual Assistance. Sweden's neutrality, on the other hand, is understood to be an independent choice, notwithstanding that country's close cooperation first with Nazi Germany in World War II, and later in secrecy with the United States, the UK, and Nordic NATO member states throughout the Cold War.<sup>33</sup> The tradition of more than 200 years of neutrality remains a prominent factor in Swedish policymaking.

## Norway—Collective and National Duties

### *Situation and Challenges*

Norway maintains small yet well-equipped and highly trained armed forces. As a NATO member state, it strictly observes collective responsibilities together with paying close attention to territorial defense issues. Norway's focus on its "High North" has grown, given its relationship with Russia. Norway, which does not regard Russia as an acute military threat, upheld good working relations with the Soviet Union, and upholds good working relations with Russia, based on a dual-track strategy of deterrence (*avskrekkning*) and reassurance (*beroligelse*), signaling no hostile intent. The combination of Russia's military modernization and its will to exert military power informs the Russian Federation's designation as a central factor in Norwegian defense planning.<sup>34</sup>

Areas in Norway's immediate vicinity are also central to Russian nuclear deterrence, while recent years have seen Russia's military presence and activities in the High North increase. Exceptionally, given recent European security developments, the High North is predominantly characterized by stability and cooperation. Furthermore, Russian strategies for the Arctic still emphasize international cooperation, rather than competition or rivalry, in the post-Cold War world. Nonetheless, Russia has pursued a vigorous remilitarization of the Arctic in recent years. Norway is not ruling out the possibility that Russia will consider using military force in the High North should it find itself in a conflict situation. In fact, the high-level military believes it is likely that Russian defensive action would include a limited ground operation against

Norway's northeastern region in order to reduce the risk of land-based threats to Russian bases in the Kola Peninsula.<sup>35</sup> This defensive action would obviously affect both Finland and Sweden.

More broadly, this can also be seen in the Baltic area, where the result has been Norwegian leadership's additional attention to the area. This focus indicates a new Norwegian approach involving the political will and military ability to provide units to the Baltic States for combat and protracted crises. In essence, the message is that the collective deterrent effect must be impressive enough on all fronts, not just in the High North.<sup>36</sup>

Norway recognizes that long-term challenges are not fully addressed by current plans for resisting external risks to its sovereignty and rights. It regards its responsibilities toward NATO as largely limited to the maritime domain, where Norway is chiefly responsible for surveillance, observation, and the identification of potential adversaries and their assets. Norway intends to take maximum advantage of the advanced weapons and technologies available to it. However, the proliferation of advanced technologies represents a dual challenge.

On the one hand, these have an impact on the region's threat environment, with the use of enhanced, long-range and high-precision weapons translating into, among other things, a short warning time. Modern missile and surveillance systems are developed in order to deny access to, or restrict freedom of movement inside, certain areas or spaces (a concept referred to as anti-access/area denial), but they can also be challenged with new long-range missiles, stealth, and other technologies, with the aim of degrading the performance of enemy systems in combat.<sup>37</sup>

New capabilities in the cyber and space domains pose an evolving threat against, among other targets, command, control, and communications systems.

On the other hand, these technological advancements require continuing the modernization of even small armed forces. While new equipment represents a qualitative improvement over outdated systems and platforms, it also costs more to acquire, maintain, and operate. Like other states of a similar size, Norway accepts that increasing costs can no longer be addressed simply by downscaling capabilities or through internal cuts.<sup>38</sup>

### *Priorities and Capabilities*

The main priorities of Norwegian defense are national defense, followed by the provision of a NATO-led collective defense, international crisis management, and the concept of total defense. These priorities strongly indicate that national responsibilities, such as readiness, logistics, presence, manning levels, and training, are paramount in relation to collective endeavors. The first three of the armed forces' seven tasks address collective activities, such as deterrence and defense, prevention, and management. The remaining tasks are related to national decision-making, sovereignty, multinational cooperation, public security, and crisis management.

Norway's authorities make it clear that enough resources will be invested to allow full implementation. In this respect, strategic capabilities—namely, intelligence, situational awareness, and fighting power—are prioritized. A measured response against any use of force is supported through NATO's forward presence. The role of the Norwegian armed forces in

collective defense is to affect strategic decisions made by a potential aggressor at a distance through detection and identification and to defeat appropriate targets in all situations. Norway, which is quite literally a front-line state, has the crucial role of containing Russian encroachment on NATO's area of responsibility.

Norway's defense concept provides for two main elements: national capabilities enabling Norway to respond in the early stages of a crisis and allied reinforcements arriving before the crisis escalates. To operationalize both elements seamlessly requires, among other things, a functioning HNS system and the ability to mobilize national resources on time. It is vital that an allied presence in Norway be sufficiently visible to strengthen the credibility of deterrence policy, even though there can be no permanent presence in peacetime.

In practice, the U.S. Marine Corps Prepositioning Program in central Norway facilitates operational capabilities for, among others, a high-readiness force consisting of an infantry battalion task force, combat logistics battalion, and composite aviation squadron. Interoperability and compatibility among allied forces are fostered in peacetime through standardized procurement, multinational exercises, and training events. HNS for such activities, together with full readiness to receive allied reinforcements, remains a precondition for a robust defense posture. The national capacity to resist an armed attack and to respond to aggression promptly, whatever its form, has been emphasized recently in Norway; however, this must be done independently from any NATO or allied actions. The system of conscription serves this goal, with one-third of eligible conscripts completing national service annually (8,000-9,000), adding up to a wartime pool

of approximately 60,000. Of these 60,000, some 45,000 belong to the Home Guard. The rest are professional soldiers.<sup>39</sup>

The strategic capabilities to be acquired include four strands. The first is a fleet of 52 F-35 Lightning II aircraft with an appropriate weapons suite, such as the Norwegian-developed Joint Strike Missile. Replacements of submarines and maritime patrol aircraft represent capabilities with a strategic reach. The fourth strand is Norway's ground-based air defense, with the current medium-range National Advanced Surface-to-Air Missile System-2, which will be upgraded and equipped with additional extended-range missiles. A new air defense system with long-range missiles and sensors will also be introduced. Ground-based air defense systems will be concentrated around the two air bases and around potential staging areas for allied reinforcements. All of this is reflected in the investment program. However, several smaller projects will also be implemented to modernize the overall joint force.

A government report detailing Norwegian defense acquisition plans was published in early 2018.<sup>40</sup> Further investments are needed, especially in intelligence, surveillance, survivability, and combat power, in order to strengthen Norway's and NATO's ability to prevent and deter the use of force. These changes will contribute to bolstering the overall deterrence policy of both Norway and the Alliance. Materiel maintenance, deficits, and stocks will be made good and increased activity levels in all services reached from 2018 onward, followed by a focus on new capabilities strengthening defense and situational awareness in the High North. The deployment from January 2017 onward of a 300-strong U.S. Marine Corps contingent to Vaernes and

Setermoen could serve as an opportunity not only for enhanced cooperation but also to strengthen the overall deterrent effect. Currently, there is one set of field artillery battalion equipment held in storage by U.S. European Command.<sup>41</sup>

The defense concept focuses on the northern half of the country and the High North. The army and the Home Guard, together with the Coastal and Special Forces, will enhance their focus on the High North, while the other two services retain their *modus operandi* with their modernized and incoming strategic capabilities. The government has requested a Landpower study (*Landmaktproposisjon*) to review future missions, concepts, and structures for the ground forces.<sup>42</sup> The premise is that modern Landpower has proven its relevance and value in recent crisis management operations and war. The readiness and availability of current ground units, together with aging equipment and systems, is also to be reviewed. This review will organically lead to updated land warfare concepts, force structures, basing systems, and training. Finally, the study is to be embedded into the common education and training system of the Norwegian armed forces.<sup>43</sup>

### *Operational Issues*

The army, located primarily in the northern half of the country, consists of one brigade headquarters and three battalions, together with six to seven battalion-size support units and the Border Guard. The navy has 5 frigates, 6 corvettes, 6 submarines, 6 mine-countermeasure vessels, 13 coast guard vessels, and support vessels. The air force operates 57 upgraded F-16 fighters (planned to be replaced by

52 F-35s), control and early warning systems, base defense battle groups, ground-based air defense units, 4 tactical transport aircraft, 6 maritime patrol aircraft, 3 electronic warfare aircraft, and a total of 44 helicopters. The Home Guard, as a service, operates 10 territorial district staffs, a rapid reaction force (3,000 personnel), and regionally structured follow-on forces (35,000 personnel). Special operations forces operate under their own command.

Each main service shares integrated tactical command facilities and has a logistics base of its own. As a new national defense tool, the Armed Forces Cyber Defense supports the armed forces with establishing, operating, and protecting networks at home and abroad. As one of the services, it is responsible for defending military networks against cyberattacks as well as developing network-based defense. Of the main services, the army is least capable of responding to probable ground-based threat scenarios. The Landpower study concludes that one brigade is insufficient for deterrence purposes or for the army to be able to repel offensive land units in the initial phase of a crisis or a war. However, it was decided that Brigade Nord, situated in central Norway, would continue as the major contingent of the army.<sup>44</sup>

## **Finland: Searching for a Reliable and Credible Partner**

### *Situation and Challenges*

During independent and sovereign Finland's first century of existence, it fought three wars against the Soviet Union. History has had a strong impact on the national identity of Finns, and is still visible in many



ways—for instance, in strong support for a nationwide defense concept and military non-alignment.<sup>45</sup>

As stated in the 2016 *Government Report on Finnish Foreign and Security Policy*, the primary areas for improvement concerning Finland's security include influencing the operating environment; intensifying foreign and security policy cooperation; preparing for global risks; and, on the other hand, taking advantage of emerging trends. Russia's illegal annexation of Crimea and its continuing military actions in eastern Ukraine constitute a major strategic shift and underline a great potential for rapid and unprecedented changes in European security. The Finnish Government has declared that the use or threat of military force against Finland cannot be ruled out and that it will prepare itself for threats accordingly. The Finnish model for comprehensive defense could be described as a combination of deterrence, resilience, and defensive as well as offensive actions to constrain adversaries' hybrid activities in all situations. From 2016 onward, defense budgets in absolute figures have seen a 4 to 10-percent increase in funding.<sup>46</sup>

The two factors primarily affecting Finland's geopolitical situation are the Kola Peninsula and Saint Petersburg. The peninsula's major military concentrations neighbor Finland, running along the northernmost one-third of the shared border, while the former Russian capital is situated near the southernmost parts of the country. The length of the shared border, running between the two strategic areas, is 1,340 kilometers.<sup>47</sup>

In Finland, the geopolitical situation has been traditionally described as an equation consisting of two factors: military capabilities and the political will to use force. Military capabilities are measurable in both

their quality and quantity, but they take decades to strengthen. Political will, on the other hand, is difficult to evaluate or map, but could change overnight. In simple geopolitical terms, Russia has emphasized an “inherent right” to influence neighbors’ internal affairs, just as the Soviet Union did. For the Nordic countries, and particularly Finland as the host of the 1975 Helsinki Summit of the Conference on Security and Cooperation in Europe (now known as the Organization for Security and Co-operation) and a staunch defender of the Helsinki Final Act, such an arrangement is unacceptable. Of all nonaligned neighbors of European Russia, only Azerbaijan, Belarus, and Finland have not lost parts of their territory to Russia since the end of the Cold War.

Geopolitical concepts such as spheres of influence have reappeared in the political lexicon. One factor is the Russian policy of protecting the interests of Russian nationals worldwide, reaffirmed since Russia’s war against Georgia in 2008. Given that tens of thousands of Russians hold dual citizenship in Finland, in addition to those with work permits and temporary visas, security-related concerns have been raised. In recent years, Russian leadership has warned both Finland and Sweden against joining NATO, lest this should result in countermeasures. Sweden has mostly ignored these threats, but, recently, Finnish leadership has interpreted harsh Russian rhetoric as designating Finland an “enemy” if it were to join NATO.<sup>48</sup> However, in both countries, the notion of potential NATO membership is gradually evolving, though not in unison.

A major challenge for Finland’s defense is the constant lack of a reliable partner with whom to cooperate in the long term on in-depth military planning,

preparations, and acquisitions, and on building a common defense system resulting in a more credible deterrence policy. Currently, Sweden is the principal partner, followed by the United States, but the solidarity and assistance clauses in the Treaty of Lisbon (Articles 222 and 42) make the EU another perceived source of enhanced security, even defense. A sign of this major challenge is Finland's eagerness to proceed with, first, a reluctant Sweden, and, second, the EU, using an even more ambitious interpretation of defense in mind than what is stated in the Lisbon Treaty.<sup>49</sup> Finland has been preparing itself for providing and receiving assistance since the early 2000s by improving national facilities and, more recently, by modernizing legislation. Bilateral framework-type agreements have been signed with Denmark, Estonia, France, Germany, Norway, Poland, Sweden, the UK, and the United States, for instance.

For the Finns, NATO membership is not at present a popular prospect, and this motivates Finland's political leadership to seek an alternative defense partner. Public opinion almost unanimously supports military cooperation with the Nordic countries, particularly with Sweden. Similarly, cooperation with the EU is supported by 87 percent, and with the United States by 64 percent. Some 60 percent are in favor of military cooperation with NATO, something one-third of Finns oppose. When asked whether NATO membership would increase or decrease Finland's security, the country is divided, with each option convincing one-third of Finns.<sup>50</sup>

Bilateral cooperation with Sweden is unbalanced for historical and identity-related reasons, but also because of differing ambitions. For Finland, cooperation should be wide-ranging, based on shared

interests, and unlimited. Finland would prefer much deeper defense cooperation, covering operational planning for all situations, including the defense of territorial integrity or the implementation of the inherent right to collective self-defense pursuant to Article 51 of the United Nations (UN) Charter. Establishing the joint use of civilian and military resources is also envisaged. For Sweden, two caveats apply: the planning should be complementary to, and separate from, national defense planning, and no binding commitments are acceptable. This discrepancy exists, even though, in a crisis, both states would probably be dragged into the same conflict.<sup>51</sup> The Swedish Government cherishes its freedom of action and is prepared to rely more on ad hoc decision-making in acute crisis situations.

Bilateral cooperation with the United States has been a great success, particularly since the introduction of U.S. F-18 Hornet fighter aircraft in the mid-1990s, through to the recent procurement of state-of-the-art air-to-ground low radar signature missiles (Joint Air-to-Surface Standoff Missile [JASSM]). After reaching operational capability in May 2018, JASSM has broadened the set of missions open to the Finnish Air Force.<sup>52</sup> Finland does not expect recent uncertainties about U.S. foreign policy toward Europe to affect practical-level cooperation in the Baltic Sea region. Finland appreciates regular political dialogue and practical cooperation with NATO, which has been based on mutually beneficial progress since 1994. Finland is an Enhanced Opportunities partner, together with Sweden, and cooperation in various formats (e.g., 28+2) is to be further enhanced in several areas.

## *Priorities and Capabilities*

As stated in Finland's *Government Report on Finnish Foreign and Security Policy*, the country's primary aim is to avoid becoming a party to a military conflict.<sup>53</sup> Despite the recent revival of power politics and an intense state of uncertainty, Finland's foreign and security policy relies on global interdependence. For a small country neighboring Russia, this is challenging and demands strong cooperation with like-minded actors. Interpretation of Finnish priorities is complicated because Finland is militarily nonaligned, but, in practice, it is an embedded ally in political, economic, and even military terms, given its EU membership and observance of inherent solidarity clauses.

The Finnish Government's *Defence Report to Parliament*, published in February 2017, contains the defense policy guidelines for the maintenance, development, and utilization of Finland's defense capabilities. The report was drawn up based on the previous parliamentary and government reports, published in 2014 and 2016. These reports evaluate Finland's operating environment and present focal points, policy objectives, and guidance on defense issues.<sup>54</sup>

The report proceeds from the premise of a shorter early-warning period for a military crisis and a lower threshold for using force. It also promotes higher readiness and the deepening of defense cooperation as well as the development of related national legislation. Consequently, defense-related demands have grown, and Finland must prepare for the use or threat of military force against it.<sup>55</sup>

The services' readiness, together with intelligence, cyber defense, and long-range strike capabilities, will be the subject of close attention. Naturally, the

aim is also to replace outdated capabilities. With an armed force that is overwhelmingly based on reservists, Finland's full mobilization of wartime forces requires supplementary materiel as well as additional resources possessed by other authorities, nongovernmental organizations, public organizations, and commercial and private owners. For decades, this has been enshrined in legislation providing for the total defense concept: a comprehensive approach to homeland defense.

Traditionally, these reports have been described as threat based, with the exception of the 2015 report, which explored the possibility of spending cuts (of approximately 10 percent). The latest reports remedy existing problems by raising total wartime strength by 20 percent and committing to increasing the defense budget for readiness-related and acquisition reasons (approximately 8-percent gradual growth). For the two strategic projects' acquisitions, it is estimated that approximately US\$1 billion will be added annually to the current budget between 2019 and 2031.<sup>56</sup>

The current defense posture is based on sufficient national defense capabilities and capacity that are meant to constitute a credible deterrence policy encompassing the entire country (titled as "**credible national defense**"). Currently, Finland possesses a substantial number of trained combat units with the required military structures and holistic systems as a functioning defense system; this will continue to be the case in the coming decade. Previously, the primary deficit was an inadequate level of resources for training and exercises, but some improvement has taken place since 2014.

## *Operational Issues*

The political requirement for the armed forces is to defend all territory, including the Åland Islands, which are demilitarized in peacetime, and the sparsely populated northern half of the country. This has resulted in a land-heavy defense system with 280,000-strong armed forces (wartime strength) consisting of, among others, 2 mechanized brigades, 3 infantry brigades (*jaeger*), 6 light infantry brigades, 2 armored regiments, 1 special operations battalion, and 1 helicopter battalion, together with 12 combat support and combat service support units. Currently, the navy and its navy command operate the Coastal Fleet, possessing 8 missile vessels, 5 minelayers, and 10 mine-countermeasure vessels. For coastal defense, the Coastal Brigade (amphibious) focuses on conscript training, maritime surveillance, and special operations. The Nyland Brigade yields mobile coastal *jaeger* and combat support units. There are also capabilities for service support and transport tasks. The air force has 2 operational fighter aircraft wings with 62 F/A-18 C/D Hornet aircraft and 1 unit for reconnaissance, training, and transport, supported by 4 main air bases and surveillance systems.<sup>57</sup>

Following the 2017 *Defence Report*, the maximum wartime strength was expanded to 280,000 soldiers by adding, among others, existing mobilization organizations, trained conscripts, and some of the Border Guard's units, should they become necessary in a time of crisis. Several steps have already been taken to elevate readiness in all peacetime army units covering all parts of the country.<sup>58</sup>

While Finland's population is only five-and-a-half million, its territory is the seventh largest in Europe,

and its formal status of military non-alignment in addition to its shared border with a currently assertive Russia warrants its system of compulsory conscription, which facilitates the wartime mobilization of a sufficient number of units. Consequently, the defense structure in peacetime is designed primarily for training conscripts and thus preparing wartime units.<sup>59</sup> The conscription system is widely and strongly supported by citizens, with approximately 80 percent in favor. This system provides the majority of personnel for units and systems (an estimated 95 percent). However, professional staffing maintains the air force and the navy in a permanent state of high readiness so that it is ready to react to any potential violation of territorial integrity.

The major challenge for the Finnish Defense Forces stems from deficits in materiel, both in quality and quantity. This deficit resulted from a sustained period of reduced funding, which led to the reallocation of funds from procurement of materiel to operational costs. Since late 2016, this trend has been reversed and funding has increased, if only modestly. For instance, the army will receive additional funds for training and the achievement of higher readiness. Additionally, the majority of cuts to the defense budget overseen by the previous government will be revoked. Approximately US\$3 billion for army materiel procurement impacting mobility, readiness, and fighting power, among other things, has been earmarked for the 2020s. In previous years, however, the overall situation with materiel budgets hit the army hard.<sup>60</sup>

The second challenge is a new consideration following Russia's land grab in Ukraine—namely, army units' readiness for a surprise attack. While readiness is improving, Russia's dual-capable precision strike



systems, such as ballistic and cruise missile systems, have been deployed within striking distance of Finland and most countries in the Nordic-Baltic region.<sup>61</sup> New capabilities are needed to counter missile attacks because the current air defense system cannot prevent them. Missile defense assets, however important, are unfortunately not regarded as affordable for Finland.

Hybrid warfare capabilities have also become a prominent element in threat scenarios, further adding to the demands made of Finland's deterrence policy. In this respect, and as the third challenge, the national mobilization system is most vulnerable in the earliest phases of a crisis, an issue that has always been recognized. The major issue is making the decision to launch initial and vital activities initiating mobilization. These immediate activities can be commenced autonomously by the military or civilian authorities responsible, but later must be approved by Parliament. High-level exercises (or wargaming) to ensure preparedness for challenges in various crisis situations would alleviate the risks of delayed political decision-making and contribute to the credibility of the deterrence policy.

The tactical and operational levels of war, together with cold weather conditions that can be taken advantage of, are still a specific area of expertise nurtured by the military. Commanding brigade-size and larger units in exercises has been neglected for some years but has recently returned to the curriculum.

The defense concept and the defense system are both national and not integrated with NATO or allied defense systems in any way. This contributes to credibility but restricts the potential of foreign military assistance. Whether this would add to, or detract from, national security is not the topic of this report, though

it warrants further examination. Nevertheless, major parts of the Finnish armed forces, especially operational navy and air force units, are trained to meet most NATO interoperability requirements. All the units that were declared available for crisis response operations, NATO-led or otherwise, have already met the evaluation requirements of NATO standards. In many areas, the same requirements inform the training curriculum of units designated for national defense.

Like Norway, Finland has decided to promote strategic capabilities above others. The *Defence Report* ensures progress with the planned replacement of *Rauma*-class missile vessels and *Hämeenmaa*-class minelayers, together with the modernization of aging *Hamina*-class missile vessels. With four operational vessels, the current capabilities will be maintained in all seasons and weather conditions. The costs are estimated to total US\$1.4 billion. The F/A-18 Hornet aircraft will come to the end of their life cycle in 2025-2030, but there is a political consensus to ensure that their capabilities will be replaced in full. Procurement expenses are expected to total US\$7 billion to US\$10 billion. The potential for additional air defense capabilities will be assessed before deciding on the type and equipment of new aircraft.<sup>62</sup>

## **Sweden: Defense in Continuous Transition**

### *Situation and Challenges*

The deteriorating security situation in Sweden's vicinity has resulted in a drastic change in Swedish security policy, necessitating the prioritization of national defense and domestic readiness in addition to the downscaling of international missions. In and around the Nordic-Baltic region, Sweden is geographically central, while Norway and Finland

are situated further to the north and east. Southern Sweden, together with Gotland and Öland, are only some 300 kilometers away from the Russian exclave of Kaliningrad, directly across the Baltic Sea. For Russia, southern Sweden represents a direct route to the heartland of Europe—and, consequently, of NATO.

Geographically, southern Sweden is linked to the Baltic States, Poland, Denmark, and Germany. For Finland, this is not the case. Southern Finland's neighbors are Estonia to the south and Saint Petersburg to the east. The Kola Peninsula connects Finland to NATO member states Norway, Iceland, and the UK, and, more remotely, the Greenland, Iceland, and UK passage. In other words, Finland and Sweden share a common geopolitical situation with NATO and the allied nations of the region, but not their responsibilities. The combination of Norway, Finland, and Sweden is often seen as one group of countries with many similarities.

Sweden has enjoyed neutrality, or military non-alignment, for the last two centuries.<sup>63</sup> Its legacy of neutrality has permeated national identity. However, enhanced security cooperation within the EU—the United States and NATO, among others—enjoys strong popular support. Sweden has managed to influence its security environment through its political, economic, and cultural strength as well as through secret military cooperation with leading allied nations during the Cold War.<sup>64</sup> Today, with its central location, its heritage as a regional leader, and its national resources, Sweden is well positioned to influence the region.

For Sweden, the main challenge is its insufficient defense capabilities.<sup>65</sup> Swedish defense reforms in 2004 were based on the changing security environment,

emphasizing new threats, such as ethnic cleansing, failed states, genocide, terrorism, and the proliferation of weapons of mass destruction. Positive prospects suggesting a more democratic and liberal society in Russia, together with the accession of the Baltic States and eastern European countries to NATO and the EU, inclined Swedish policymakers to expect a more peaceful and stable coexistence. Territorial defense planning was suspended and the island of Gotland, situated in the middle of the Baltic Sea and facing the Kaliningrad exclave, was demilitarized. Many innovative solutions were abandoned due to this paradigm shift, with a network consisting of dozens of dispersed road bases for aircraft dismantled. Gradual defense reform drastically reduced the resources of the military, such as wartime strength, which fell from 800,000 to 50,000 personnel during 1990-2015. Cuts meant the reallocation of resources to modernization of hardware and making training and exercises more effective.<sup>66</sup>

For the military, a revolutionary change was needed, from the former reservist-based defense system, designed to repel large-scale offensives, to something more applicable to new threats. Internationalization and multinational cooperation were necessary for not only reform but also for strengthening the idea of a solidarity-based, common EU defense. In the long term, Pfp was the main vehicle for this transformation, but in the short term, Sweden focused on the EU's Battle Group concept (EUBG). Sweden assumed the lead nation responsibilities of the EUBG through three Nordic Battle Groups (NBGs) in 2008, 2011, and 2015. As part of defense reform, almost all Swedish peacetime garrisons, or regiments, were transformed through this process, resulting in a battalion-sized contribution to the NATO-led operation in Afghanistan.<sup>67</sup>

Currently, Sweden assumes that it can defend one of the five strategic areas (Stockholm, Gotland, Malmö, Gothenburg, and Boden) for a week before foreign military assistance and support become necessary.<sup>68</sup> The existing set of crisis management capabilities is regarded as inadequate by Sweden's current leaders as well as by the opposition. This viewpoint is clearly reflected in the security policy doctrine, referred to as "the solidarity security policy" ("*Den solidariska säkerhetspolitiken*"). Thus, cooperation with NATO and Nordic countries has grown far more important.<sup>69</sup>

In early 2014, after the wake-up call of the Ukrainian crisis, the Swedish Defense Bill for 2016-2020 was finalized. It increases the budget, raises the level of readiness, and facilitates more training exercises of higher quality and on a larger scale. Swedish defense expenditure has dropped more than two-fold in 30 years, to 1 percent from the previous level of 2.5 percent.<sup>70</sup> Fully equipping the country's armed forces would require substantial additional resources to make the new defense organization fully ready by 2023. An extra challenge is the magnitude of unfunded projects in the ongoing defense reform, worth some US\$5 billion and increasing in cost by several hundred million dollars annually. The Swedish Government began to address the deficit in March 2017, albeit committing only US\$50 million. Prior to the parliamentary elections of September 2018, virtually all political parties were willing to raise the budget from the total agreed upon, US\$5 billion in 2020, to US\$6.5 billion in 2021. Furthermore, an expansion of the conscript service from the current number of 4,000 personnel to 8,000 personnel is planned for the 2020s to make the defense system more robust.<sup>71</sup>

Cooperation with Finland has already started to increase and could be expanded to include common operational planning and preparations for the potential use of civilian and military capabilities in various scenarios.<sup>72</sup> The bill refers to various scenarios for bilateral cooperation in cases involving the violation of territorial integrity and the use of force based on Article 51 of the UN Charter. To date, for Sweden, as mentioned earlier, this planning can only be complementary to national duties, and no binding commitments are acceptable—contrary to Finnish policy, which states that no restrictions apply. In 2018, new targets were agreed on with the aim of creating prerequisites for combined, joint military action and operations in all situations. For instance, operational and tactical planning, procedures for the transfer of operational command and control authority, as well as HNS in the context of territorial surveillance and protection of territorial integrity are listed in the new memorandum of understanding. However, it does not contain mutual defense obligations, and the execution of bilateral military action and operations is subject to separate national decisions. One rationale behind progress is the shared assumption that if a crisis disrupts the region, both countries will probably be dragged into the conflict.<sup>73</sup>

Geographical facts motivate cooperation with the United States, too. The latest example, the trilateral Statement of Intent (among the United States, Sweden, and Finland) to promote regional security and stability, is a significant step forward. It aims at stronger dialogue, wider exchange of information, and strengthened military capabilities through enhanced trilateral training and exercises, while promoting cooperation between the EU and NATO. In Sweden,

public opinion has traditionally counted on effective military assistance (31 percent in 2011), but recent figures indicate a clear decline (15 percent in 2017).<sup>74</sup> Sweden elevates national and collective deterrence to preserve stability in its territory, and the United States and Finland have a significant role to play in this effort.<sup>75</sup>

### *Priorities and Capabilities*

Because of the deteriorating security environment, Sweden has decided to recalibrate its defense posture toward deterring the violation of territorial integrity and achieving a threshold effect (*skapa tröskeleffekt*), thus approaching the traditional Finnish defense paradigm (**deterrence by denial**). Evidently, the Swedish armed forces need larger operational army units to achieve greater operational flexibility and freedom of movement, both of which are essential for the defense of more than a handful of strategic areas. One way to improve this flexibility and freedom of movement is to reintroduce conscription in peacetime to make recruiting more effective and enlarge reserves. This congruence of territorial defense could lower the threshold of deeper defense cooperation even further between the two militarily nonaligned neighbors. One difference, however, is that Sweden expects others to find it in their interest to provide military support and assistance soon after a crisis has erupted—the Swedish-led Aurora 17 major exercise with the participation of almost 1,500 U.S. soldiers is a case in point.<sup>76</sup> In contrast, Finland relies on its military, national defense capacities, and preparations to respond to crises. The principle of solidarity is embedded into Swedish security and defense policy and, thus, Sweden pledges not to remain passive if another EU member state or Baltic or Nordic state finds itself under attack.<sup>77</sup>

Sweden has promoted solidarity in the context of the EU, but also within the Nordic-Baltic region. Solidarity as a security concept is a two-way street: one must be capable of receiving external support and open to providing support for others. The principle of solidarity is based on mutual confidence, trust, and reciprocity. Solidarity also indicates that cooperation is based on long-term relations. In the current security situation, regardless of some high-tech capabilities—such as Meteor long-range air-to-air missiles, Patriot (PAC-3 Missile Segment Enhancement) missile/air-defense systems pending U.S. acceptance, and Iris-T dual-purpose air-to-air and air defense missiles—Sweden does not possess sufficiently credible capabilities to defend multiple areas simultaneously. Consequently, it does not have an appropriate, preemptive military tool at its disposal or a credible deterrence policy to rely on in a conflict with Russia. These deficiencies should convince Russia that there is no military threat posed by Sweden. This logic applies to Finland as well. By contrast, for Norway, NATO's preemptive capabilities and ability to defend its Nordic ally are of paramount importance.

In such a situation, all three Nordic countries would serve as a single military complex. Consequently, they could increase planning and preparations for a potential crisis involving Russia in the Barents Sea, the High North, the Atlantic Ocean, and the Baltic Sea. How to manage this security complex is explained later.

### *Operational Issues*

Sweden's new military doctrine is based on the following assumptions: a credible threshold and deterrence policy; a sufficient level of readiness and



availability; high costs facing an aggressor; sustainability; combined operations with other nations; and re-established comprehensive defense (*totalförsvaret*). Geographically, the doctrine recognizes the Baltic Sea as a potential passage for both NATO and Russia, which emphasizes the importance of maritime and aerial control. The Arctic is described as an area which can potentially have a large impact on the North Atlantic. Sweden is situated in the middle of the region and thus has great geostrategic importance for both the West and Russia. Sweden has also prepared for the use of nuclear weapons by an aggressor. The doctrine addresses not only strategic nuclear weapons used for second-strike capability and for altering the military balance but also tactical nuclear weapons used to de-escalate conventional warfare or in special and clandestine operations.<sup>78</sup>

Tactical capabilities must meet operational and strategic demands. The total wartime strength of personnel currently numbers 50,000 soldiers, including the Home Guard (*Hemvärnet*), consisting of 40 battalions manned by reservists. The army units include two brigade headquarters and eight to nine battalions (mechanized, light infantry, cavalry, and airborne), together with field artillery, air defense, and command and control, as well as engineer, logistics, and special operations battalions. Of these, one could compose two brigade-sized task forces, depending on the operational requirements. The navy has 3 maritime fleets and 1 amphibious battalion equipped with 5 submarines, 9 corvettes, 10 vessels for mine countermeasures, and 11 landing craft and support vessels. The air force consists of 3 air fleets and 1 helicopter unit (equivalent) operating, among others, 97 Jas 39 C/D Gripen multirole aircraft in 2 wings and helicopters, in

addition to reconnaissance, anti-submarine, and transport aircraft. Currently, the army units are dispersed in the southern half of Swedish territory but are too few to cover all strategic areas simultaneously—in fact, only 1 unit of the 16 is deployed north of Stockholm. The naval and air force units are commonly regarded as capable of countering potential aggression and supporting partners' operations when necessary.<sup>79</sup>

As prescribed by doctrine, capabilities should be used in the full operational depth of national territory. The conduct of combined and joint operations with international partners must be possible, and military support from and to other states can be provided when needed. The aggressors' most valuable assets and capabilities should also be targeted and affected by Swedish offensive activities.<sup>80</sup>

New tactical thinking is the linkage between crisis management and waging war on Swedish soil. In other words, Sweden's well-functioning crisis management machine, developed for expeditionary and out-of-area operations, albeit smaller in size, will be adjusted for the task of national defense. Successfully recruiting more personnel is one of the main challenges, followed by updating military education in Sweden. The premise is promising since all three Swedish services, however modest in size, have met high standards with competent personnel, operational art, and interoperable units.<sup>81</sup>

The Swedish defense debate ran in high gear in 2017-2018. The government, as well as most of the political parties, essentially agreed that the present capabilities of the defense forces are insufficient in the changed security-political situation. The government has, however, yet to deliver on its strong pledges with any major increases of the defense budget.<sup>82</sup> The

Swedish Chief of Defense has repeatedly warned that, unless substantial new funding is forthcoming after 2020, the capabilities of the armed forces will decrease rather than increase.

Several investigations have been carried out to establish the needs of the defense forces in order to fulfill their tasks. A group of high-level defense experts, tasked by the Cabinet, concluded that a doubling of defense expenditure would achieve that purpose.<sup>83</sup>

The defense high command studied what kind of force structure was needed for a credible deterrent in a 5 to 15-year perspective. The proposal was for a roughly doubled force structure with a wartime strength of 115,000, as compared to 50,000 today, with most of the new positions to be filled by conscripts. The army would have four brigades plus a battlegroup on Gotland, long-range fires, rangers, and territorial units. The navy would have 24 surface combatants armed with medium-range anti-aircraft missiles and long-range cruise missiles, 6 submarines, and 4 amphibious battalions. The air force would have 8 squadrons with 120 aircraft, a resilient and expanded basing system, 1 squadron of unmanned aerial vehicles, missiles for the long-range attack of ground and sea targets, as well as radar-homing missiles. This was said to require an annual budget of US\$8.3 billion by 2025 and US\$13 billion by 2035—i.e., less than 2 percent of gross domestic product. This kind of force structure and funding level is roughly what Sweden had at the turn of the century.<sup>84</sup>

## **Nordic Capabilities and the Potential for Common Deterrence**

Certain conclusions can be drawn regarding how to unite and combine Nordic services' capabilities and units to strengthen combined defense or to enhance common deterrence. Subjective factors like national decisions, situation analyses, operational plans, and timelines are not considered here. Instead, the focus is on alternative ways to allocate national capabilities for enhanced efficiency and synergy to benefit the three Nordic defense forces. Later, these capabilities will be matched against the potential threat presented by Russia's Armed Forces, followed by considerations related to the role to be played by the U.S. Army.

Norway's comparatively modest army, which effectively has the capability of one brigade, already performs the demanding duty of territorial defense in the northernmost part of the country. On the other hand, Norway has the strongest navy of the three, but it plays no role in the Baltic Sea. The air force is capable and could operate all around the region, but its center of gravity is in the adjacent littoral and blue waters of Norway and the High North. Most probably, it would not be available to support the other two armed forces elsewhere in the region in a crisis or war. However, the three services' levels of interoperability suffice for common operations with the other two countries' armed forces.

Finland's strongest service is the army, both in comparison to other Finnish services, and even more so compared to the other two countries' armies. Its capabilities could be deployed elsewhere in the region. Operationally, this could be northern Norway, where the Finns could support their Norwegian

counterparts. The Finnish Navy is modest in comparison to the Swedish Navy with its submarines and several corvettes. The two navies could combine their forces for a joint effort, carving out a consequential role for themselves in the littoral Baltic Sea. However, the combined navies of NATO member states, if made to cooperate in the Baltic Sea, could also constitute a substantial counterforce against Russia. This would allow the Finnish and Swedish navies to concentrate on their national or bilateral responsibilities, such as securing lines of communication at sea. The Finnish Air Force operates along the same lines as Norway's, which means that there are only modest capabilities available for anything other than national duties. This calculus will also apply after future aircraft replacements. Combining forces is challenging because Norway's air defense is focused on different directions than its Finnish and Swedish counterparts are.

The capabilities of Sweden's Army, comprising two brigade-size battle groups, do not suffice to defend the most important areas of the country, which means that no capabilities can be released for joint operations abroad. In this respect, combining army units with Finland's would help Sweden secure relevant areas and contribute to the common defense. The Swedish and Finnish navies could combine their capabilities for better synergy. The Swedish Air Force, which is relatively strong in number, will be equipped with one of the most capable air-to-air missiles. Nevertheless, it is still short of long-distance standoff precision armaments. However, the air force can operate all over the Nordic-Baltic region utilizing foreign infrastructure and is highly capable of cooperating efficiently with allied units. This applies to all three air forces. However, cooperation between the Finnish

and Swedish units would be most effective, given a more convergent operational focus. Nevertheless, with more exercises, all three can achieve a high level of interoperability.

## **RUSSIAN ACTIVITIES RELATED TO DETERRENCE IN THE REGION**

### **U.S. Military Perceptions of Russia**

U.S. perceptions of Russia are crucially important for decision-makers in friendly and allied governments. Senior U.S. military officers have been outspoken about Russia. These include the Chairman of the Joint Chiefs of Staff (JCS), the Chief of Staff of the Army, and a former NATO Supreme Allied Commander Europe (SACEUR).<sup>85</sup>

Chief of Staff of the Army General Mark A. Milley has called Russia “the greatest threat to the U.S.,” also noting that senior Russian diplomats have voiced their desire to disrupt the established world order and dismantle NATO and the EU. Self-confident Russian hawks even claim that:

Russia can now fight a conventional war in Europe and win. Russia is the only country that will remain relevant forever. Any other country is dispensable, and that includes the United States. We are in the endgame now.<sup>86</sup>

Chairman of the JCS General Joseph Dunford has observed that Russia has gone down a path of rearmament and military modernization, achieving virtually unparalleled results. Russia’s long-range conventional strike capabilities; its modernized nuclear capabilities; and, its focus on developing a wide range of robust

cyber, space, electronic, and undersea capabilities, in particular, are all of concern to the United States.<sup>87</sup>

Former NATO SACEUR and commander of U.S. European Command General Philip Breedlove gave a bleak assessment of U.S.-Russia relations in February 2017. Breedlove said they were at their worst and were continuing to head in the wrong direction. A Europe “whole, free, and at peace” – as well as “prosperous” – is good for European nations, good for the United States, and good for Russia, Breedlove stated – for the security and stability of its leadership, and the prosperity, opportunity, and well-being of its people. That is a common goal to work toward, albeit with “no shortcuts, no grand bargain that can lay a foundation for an acceptable, sustainable future relationship.”<sup>88</sup>

U.S. Army General Curtis Scaparrotti, Head of U.S. European Command and the present SACEUR, concurs. According to him, Russia is the Western Alliance’s number-one national security threat. Russia is operating in domains below the level of outright war in a very aggressive way:

they are executing a destabilization campaign, based on a strategy that assumes if they can destabilize Western governments, it will be to Russia’s benefit. If you look at their military doctrine, that is part of what they call ‘indirect activity.’ They believe undermining Western governments without ever firing a shot achieves their ends.<sup>89</sup>

Scaparrotti notes that NATO’s eastern allies bordering Russia remain the focus of Moscow’s most malign activities and threats, including Poland and the Baltic States, Estonia, Lithuania, and Latvia. Scaparrotti said in May 2018 that deterring Russia is one of his central tasks. He is seeking more troops,

intelligence collection tools, and other resources to maintain U.S. military superiority and deter Russia as Moscow presses ahead with the modernization of its military.<sup>90</sup>

There also seems to be a general understanding between senior U.S. military officers and the Finnish Chief of Defense that war between different nation-states in the future is almost inevitable. In an interview in January 2017, the Finnish Chief of Defense said, "There will still come a day when war is waged on Finnish ground. That is an awful thought, but in light of history it is pretty certain."<sup>91</sup>

### **Russia's Armed Forces and Their Warfighting Capability**

Russia's military doctrine is often the starting point for analysis of the Armed Forces of the Russian Federation. Here we note, very briefly, only some key doctrinal matters pertinent to the discussion that follows.

Declared and real doctrines may differ from each other. This holds particularly true for nuclear weapons, but is also applicable to conventional forces. A distinguished, very senior nuclear weapons designer observed, "the weapon system defines the doctrine that exists in reality as opposed to the declared doctrine." One vital condition for conducting an effective national security policy is the absence of a gap between the real doctrines and the declared ones.<sup>92</sup> Russia undoubtedly adheres to this policy.

In 2013, the Department of Strategic and Defense Studies at the Finnish National Defence University (NDU) published an unusually detailed and frank general assessment of the development of Russia's military policy and capabilities.<sup>93</sup> In 2016, the NDU



published a comprehensive assessment of the Russian armed forces toward the 2030s.<sup>94</sup>

Here, we will draw extensively on the English-language report published by the Swedish Defence Research Agency (FOI) in 2016.<sup>95</sup> Unless otherwise indicated, the facts and assessments presented here can be found in this report.

It was indirectly confirmed in August 2012 that plans for the invasion of Georgia had been made well before August 2008 on Russian President Vladimir Putin's orders.<sup>96</sup> The brief war against Georgia fought in August 2008 was the first major case of Russia using overt military force against a neighboring state since the end of the Cold War. This was soon all but forgotten. Russia's surprise occupation of Crimea in 2014 has already been mentioned. Russia's war in eastern Ukraine continues today. In 2015, Russia intervened militarily in the Syrian conflict, with major regional ramifications. Russian military exercises and drills have increased in scope and frequency. Russian military aircraft and ships have exhibited further reckless or aggressive behavior, not least in the Baltic Sea. The likelihood of a military conflict with Russia has increased and, with that, so has the need for knowledge on the fighting power of Russia's armed forces. The term "fighting power," used in the FOI report, was adopted to denote Russia's available military assets for three overall missions: **operational-strategic joint interservice combat operations (JISCOs)**, **stand-off warfare**, and **strategic deterrence**.

A JISCO denotes the use of different military branches and services to control territory. Standoff warfare is the capability to strike enemy targets at distances of over 300 kilometers, beyond the operational depth of a JISCO. Here, we will focus mainly on the

Russian ground forces and discuss specific features of the other services where necessary.<sup>97</sup>

The overall mission of the ground forces is to repel aggression on land and protect Russia's territorial integrity. In a deepening crisis, the ground forces should be able to raise readiness and mobilize additional resources to fight alongside other services and arms of the armed forces.

The ground forces have eight service arms: motor rifle; tank; artillery and missile (surface-to-surface missiles [SSM]); air defense (surface-to-air missiles [SAM]); reconnaissance; engineer; chemical, biological, and radiological protection; and signal troops. The ground forces' higher-level (operational) large formations are 10 combined arms armies (CAA), 1 tank army, and 2 army corps.

The ground forces' core functions are operational and tactical maneuver and the ability to take, hold, or deny terrain. Motor rifle and tank units are the primary forces for these purposes. Among support functions, fire support—e.g., artillery, rocket artillery, SSM, SAM, and anti-tank units—striking at enemy forces in support of the maneuver stands out as a prominent form of support.

There are at least two higher-level, all-arms formations in each of Russia's four MDs, the nominal holders of assets for operations with—in addition to two higher-level operational formations—other lower-level formations from the support functions.

The most common maneuver unit is the motor rifle brigade (MRB), consisting of some 3,000-4,000 soldiers and about 100 main battle tanks, armored personnel carriers, or armored infantry fighting vehicles. The MRB's core consists of three or four motor rifle battalions and the maneuver function, plus units

for fire support, command and control, mobility, and sustainability.

Some brigades have been upgraded since 2013 to become divisions consisting of two maneuver regiments with three or four maneuver battalions in each, plus support units. In 2015, the Ministry of Defense announced plans to create another three divisions. The likely key reason for this is to increase the capacity for offensive operations. About half of the MRBs are equipped with 220-240 armored infantry fighting vehicles/armored personnel carriers—about 100 more than in 2014.

After the unimpressive performance of the Russian Army in the war against Georgia, Russia launched a broad effort to improve its general operational capability and readiness. A parallel effort has gone into improving the general living conditions within the armed forces, which has made the army more attractive and eased persistent manning problems.

FOI, citing official figures presented by the Russian Ministry of Defense, observes that plans for recruitment of contract soldiers have been over-fulfilled since about 2013. Moreover, both the quantity and quality of conscripts and contract soldiers have been boosted.

The notional number of soldiers in the armed forces in 2016 was one million. The number of contract soldiers (356,000) was expected to exceed that of conscripts (some 307,000) in 2016. The real strength of the armed forces was estimated at some 910,000-930,000. The target for 2016 of 93-percent staffing was overall met.

In addition to the peacetime Russian armed forces, there is a large pool of trained reserves to operate a much larger, perhaps two-million-strong, mobilized army.<sup>98</sup> The mobilization system itself has not been

well maintained, but there are signs of improvement. In one concrete example, the mobilization of 4,000 reservists near Petrozavodsk, Karelia, where the 216th Storage and Repair Depot is located, facilitated the first exercise of the fully manned 4th Motorized Infantry Brigade since 1993. The exercise was held in September 2012.<sup>99</sup>

Given that Russia has held several mobilization exercises involving diverse public sectors, an extension to the military sphere cannot be ruled out. Demonstrating the ability to mobilize unprecedentedly high troop strengths since the end of the Cold War, Russia would once again surprise the West, where this capability has largely been lost and would fit the general mindset of Putin's administration.

Zapad-2017 was a cause for concern long before the actual event in September 2017. Lithuanian President Dalia Grybauskaitė stated the Baltic perspective in February 2017:

We see that risks are increasing, and we are worried about the upcoming Zapad-2017 exercise, which will deploy a very large and aggressive force on our borders that will very demonstrably be preparing for a war with the West.<sup>100</sup>

The reconstituted 1st Guards Tank Army and its lead unit, the 4th Guards Kantemirovskaya Tank Division, upgraded from brigade back to divisional status in 2013, are particularly suited for the mission of closing the Suwałki Gap between Poland and Lithuania:

In previous exercises, we have seen a deployment pattern of this unit moving into Belarus to take up that mission. From Russian open press comments, it appears as if the unit has a five-day window to achieve movement into its position into Belarus.<sup>101</sup>

No feared, large-scale mobilization happened either during the Zapad-2017 exercise or during the Vostok-2018 exercise. Nevertheless, regardless of the exercise's scale, the goal set and the staff work involved were of primary importance.<sup>102</sup> In addition, the exercise fulfilled an important messaging function. A seasoned British analyst later observed:

To have Europe alarmed at the prospect of new Russian military adventurism is an entirely comfortable position for Moscow; it is the desired result of its consistent rhetoric and regular dropping of hints at direct military action against its neighbors or competitors further afield.

Overall, the exercise demonstrated Russia's preparation to counter any deterrence by punishment on the part of a global force capable of carrying out an aerospace attack—in other words, NATO led by the United States. Zapad also showed attention to maintaining escalation dominance.<sup>103</sup>

Whereas Russia claimed that the number of soldiers participating in Zapad-2017 was within the Vienna Document limits—i.e., less than 13,000—Vostok-2018 was hailed as the biggest exercise since Zapad-1981, involving about 300,000 service personnel. What this actually meant is uncertain, as a breakdown of the figures into specific categories has not been disclosed. Were they from the Ministry of Defense armed forces only, or were paramilitary and civilian participants included? Did all participants deploy to the field, or were support staff at bases included? What can be stated with confidence, however, is that Vostok-2018 was big.

A key command and control aspect of Vostok-2018 was to command and prepare interservice force groups for warfighting. Two-sided maneuvers were

conducted on all levels. There were two operational-strategic force groups; the Eastern MD and Russia's Pacific Fleet stood against the Central MD and the Northern Fleet. This enabled training with independently acting adversaries, a more realistic feature than that offered by a scripted exercise. Simultaneously assembling two force groups is a major command and control challenge. The attempt to do so indicates a high level of confidence in both command and control and the forces' abilities.

It can be concluded therefore that the Vostok-2018 strategic exercise was not about tactical-level shootouts. It was about preparing for protracted, strategic-level warfighting operations.<sup>104</sup>

Exercises clearly have a direct impact on both capabilities and readiness. Russian military exercises in the 2010s have focused on large-scale JISCO—i.e., launching and waging inter-nation-state wars, with the possible use of nuclear weapons. Exercises involved all branches of service and arms and all MDs. Two types of exercises stand out: annual strategic exercises like Zapad-2017 and Vostok-2018 and surprise combat readiness inspections, also known as snap exercises. Sweden's FOI has published a detailed account of the exercises that occurred between 2009 and 2017.<sup>105</sup>

Annual strategic exercises rotate among the MDs and give Russian forces opportunities to train where they may have to fight, FOI observes. Exercises involved all branches of service and arms from the host MD with reinforcements from other MDs or centrally controlled forces. They also involved ministries, services, and agencies engaged in defense, such as the interior troops or the Federal Security Service of the Russian Federation, reflecting the Russian notion of military organization.

Sometimes a parallel exercise for a joint inter-service force elsewhere in Russia accompanied the annual strategic exercises, enabling the central level to train for the command and control of two simultaneous operations.

Surprise inspections began in 2013 with the aim of preparing the armed forces for the transition from peace to war and in order to improve combat readiness systematically. Major surprise inspections can test forces from more than one branch of service or arm and often a whole MD. Subsidiary surprise inspections have involved either units or service branches.

Russia's military exercises have differed profoundly from the West's post-Cold War exercises, which have not focused on large-scale inter-nation-state wars or nuclear operations. The magnitude of the Russian annual strategic exercises, measured by the manpower involved, has increased roughly 10-fold since 2011, and will probably see further increases. Russia has skillfully exploited Western weaknesses, recognizing that quantity has a quality of its own.

The West has only recently begun to become aware of these new realities. Russia has come so far that catching up and "rebooting" Western armed forces to accommodate more traditional NATO tasks like territorial defense will not be easy and will take time. It should be recalled that Russia started to plan the operations in Georgia more than a year-and-a-half before the execution of the military campaign. FOI observes that Russia's military operations in Ukraine and Syria were preceded by few telltale signs, even though military preparations began weeks, probably even months, before operations began. An armed conflict may arise swiftly, but its duration is impossible to assess in advance.<sup>106</sup>

In evaluating the potential order of battle for a JISCO, a natural starting point is looking at initially available forces in each of the five main theaters of war—Eastern, Central Asian, Southern, Western, and the Arctic—and their associated five JSCs and MDs in peacetime. MD forces constitute an initial response force in contingencies.

In addition, it is prudent to assess the potential order of battle for a JISCO, given that Russia has reinforcements that can be deployed to any of the theaters of war. Russia has demonstrated an impressive ability during exercises in recent years to transport rapidly large military formations over thousands of kilometers.

This theme was further developed in an FOI report in October 2018. Building on the results of the surprise combat readiness inspections, FOI assesses that the Russian armed forces can launch operations involving forces from one MD in 1-2 weeks. Operations on the scale of a regional war, involving forces from several MDs, can be launched in 2-4 weeks, depending on, for example, the transport of reinforcements.<sup>107</sup>

FOI assumes that Russia's transport system is adequate for larger force deployments and does not restrict reinforcements between different theaters, at least for redeploying up to two army-sized formations. Russia has both strategic and tactical transport assets to ensure that such transport needs are handled properly, with adequate support from civilian agencies.

Keeping these factors in mind, we will primarily focus on the Western and Arctic strategic directions and the force dispositions in these regions. The increased Russian focus on the Western direction with its associated military build-up was identified in Finnish NDU reports as early as 2011 and 2013.<sup>108</sup>



Using official equipment serviceability figures, FOI estimates that two-thirds of all nominally available air force units (aircraft and helicopter units) are combat ready, as are practically all air defense units. Seventy-six percent of navy units are combat-ready. Serviceability in other forces is above 90 percent and, therefore, FOI assumes that all of these units are combat-capable.<sup>109</sup>

The Western MD's peacetime force disposition consists of four ground-force maneuver formations: the 1st Tank Army; the 6th and 20th CAAs; and, the 11th Army Corps, which has three maneuver brigades tied to Kaliningrad. Other formations include 12 maneuver brigades (or equivalents), 4 of which are organized into 2 divisions, probably to ensure stronger offensive capability. In addition, there are three air assault and airborne divisions in the Western MD.

Each CAA has support brigades for command and control, fire support, and sustainability, but not mobility. The 1st Tank Army has no sustainability field support units of its own, which could potentially impede resource-consuming armored maneuvers.

The aerospace forces' fire support is larger here than in other MDs, probably reflecting concern about NATO's collective air power. The 6th Air Army has 11 fighter/multi-role squadrons; 4 fighter-bomber squadrons; 7 attack helicopter squadrons; and, 4 air defense divisions, 2 of which primarily defend Moscow. Aircraft and helicopter transport assets are larger than those in other MDs. The navy's key role would be to support a maneuver with the naval infantry, primarily in the Baltic Sea. The interior troops' paramilitary support would be based on two divisions and nine brigades.<sup>110</sup>

The Arctic theater has received increased attention during the last few years. This area covers the northern

parts of Russia and Scandinavia, including Finland as well as the Arctic Ocean. The Arctic theater received formal recognition as an area of strategic interest in December 2014 with the creation of the Northern JSC and its associated MD, based on the Northern Fleet.

Two overall tasks for the Northern JSC are relevant here: to **ensure the nuclear strike capabilities** of the Northern Fleet's strategic submarines; and, to **ensure situational awareness and air defense** in Russia's Arctic regions. The first task requires assets for a JISCO to defend the Kola region. The Northern Fleet and the 45th Air Army are the units for that mission. A naval infantry brigade and two MRBs are the key ground-force maneuver units. They lack field units for fire support, mobility, and sustainability, which reduces the potential for combat operations. Instead, the 45th Air Army's assets for fire support include some two squadrons of fighter-bomber aircraft, a squadron of MiG-31 long-range fighter aircraft, and an air defense division. The navy's fire support would be a carrier-based squadron of multi-role aircraft and air defense from one destroyer and two cruisers as well as land attack cruise missiles from the *Yasen*-class submarine, *Severodvinsk*.

In 2015, the former head of the Main Operations Directorate of the Russian General Staff and commander of the Western MD, Deputy Defense Minister Colonel General Andrei Kartaplov, voiced Russia's concern that NATO could use Finnish and Swedish infrastructure in the north as a staging area for air operations, thereby threatening Russia's vitally important basing area in the Kola Peninsula.<sup>111</sup> In addition, Russia would probably have a clear incentive and interest to deny NATO this option in the context

of possible NATO plans for air operations in support of the ground forces in the Baltic States.

How large of a force could Russia deploy for a JISCO? FOI estimates that a large-scale JISCO would include some 150,000 servicemen. This roughly corresponds to the size of an annual strategic exercise and surprise inspections in the Western MD in 2014 and the Eastern MD in 2013.

A large-scale, ground-centric, Russian JISCO could consist of the following: one-third ground-force maneuver units; one-third ground-force support functions; and, one-third forces other than ground forces. This would mean a ground-force core in the JISCO of 3 to 4 CAAs with some 14-19 maneuver brigade equivalents, including airborne and naval infantry units. Each large formation would have additional support from one artillery brigade, one SSM brigade, and one air defense brigade. The CAA would also be supported by two to four engineer brigades as well as logistics brigades, as detailed. Such a force would enable a JISCO with ground-force formations operating in echelons, which facilitates fighting an adversary with similar forces and, indeed, theater-level offensive operations.<sup>112</sup>

Russia's ambitious State Armaments Program, known as GPV-2020 and covering the current decade, has produced mixed results. Heavy investment in the strategic nuclear triad, air defense, offensive standoff ballistic missile, and cruise missile systems has borne fruit, but problems remain with the provision of significant volumes of modern fighter aircraft and naval combat units.

The modernization of the Russian ground forces' equipment has not proceeded exactly to plan. The ambitious effort to introduce a new main battle tank,

the T-14 Armata, plus a host of other tracked and wheeled armored vehicles, has been delayed, and the entire program has been extended to 2025. It is therefore probable that the bulk of Russia's main battle tanks will consist of T-72B3 tanks well into the 2020s or longer, given an anticipated price tag three to four times higher than the cost of upgrading the T-72 to the T-72B3.<sup>113</sup>

After production of the T-90 main battle tank ceased in 2011, several hundred T-72s have been upgraded to the T-72B3 standard annually.<sup>114</sup> The refurbished and upgraded T-72B3 and its later version, the T-72B3M, are fitted with a new engine; a new gunner's sight, including a French night vision kit; a new fire control system; and a new main gun with significantly less dispersion than the original gun.<sup>115</sup> The T-72B3M's capability is comparable to the T-90's but costs only a fraction of the price.

Artillery has retained much of its traditional, prominent role in the Russian ground forces' warfighting. Although most of Russia's present artillery systems may have been regarded as outdated and as nearing the end of their service lives, the war in Ukraine has proven otherwise. In one example, a single Russian artillery "fire strike" almost destroyed two Ukrainian mechanized battalions in the span of a few minutes during the battle for Zelenopillya in July 2014.

Major General Robert Scales, former commandant of the U.S. Army War College, has warned of:

what might happen to U.S. artillery should we fight the Russians or a Russian surrogate. New Russian firepower systems now outrange ours by a third or more. They have improved on our steel-rain technology by developing a new generation of bomblet munitions that are filled with thermobaric explosives. These munitions generate an

intense blast wave of exploding gases that are far more lethal than conventional explosives. A single volley of Russian thermobaric steel rain delivered by a single heavy-rocket-launcher battalion will annihilate anything within an area of about 350 acres.<sup>116</sup>

Russian tactical drones, which seek out artillery, are both capable and numerous. In 2014, at the beginning of the battle for Debaltseve, the Ukrainians reported that as many as eight Russian tactical drones were in the air over their lines at any given moment.<sup>117</sup>

Additionally, the electronic warfare capabilities demonstrated by the Russians in Ukraine have been impressive. During the 240-day siege of Donetsk airport, the Russians were able to jam global positioning systems, radios, and radar signals. Their electronic intercept capabilities were good enough to cripple Ukrainian communications. Any Ukrainian radio transmission triggered a punishing barrage within seconds.<sup>118</sup>

FOI observes that data on Russian production of artillery systems is less readily available than data on other systems, making it more difficult to reconstruct exact figures. It is known that 108 howitzers, probably the 2S19M1 Msta-S, were delivered in 2012-2014. Procurement of a batch of 42 additional 2S19M2 Msta-S's is slated for 2016-2019.

The first deliveries of Russia's newest self-propelled howitzer, the Koalitsiya SV, were expected for the Western MD before the end of 2016. The deputy chairman of the Military-Industrial Commission said that the bulk of the Koalitsiya SVs would be delivered to the troops from 2019 onward. Over time, it should replace the 2S19 Msta-S.

The Tornado is a generic designation for modernized multiple rocket launchers, of which the Tornado

G passed into serial production in 2013. In 10-15 years, it should completely replace the BM-21 Grad system, which has been in service since 1963.<sup>119</sup>

Ballistic missiles have been an integral part of the rocket and artillery forces in Russia's ground forces, even after the implementation of the Intermediate Nuclear Range Forces (INF) Treaty in the early 1990s. The new Iskander-M (SS-26 Stone) missile system, which replaces the older Tochka-U (SS-21) short-range ballistic missile, was declared operational in July 2010 in Luga in what was then the Leningrad MD.<sup>120</sup>

The dual-capable Iskander-M has introduced a completely new dimension to ground-force standoff operations. From a military capabilities point of view, deployment of an Iskander brigade in Luga, some 100 kilometers south of Saint Petersburg, presented a real risk to several states in the Baltic Sea region, including Finland and Sweden, with the possibility of a decapitating attack only minutes away. Finland, however, maintained a low-profile attitude on this front and did not even ask the Russian authorities to clarify the motives behind this move. This issue attained prominence in European politics later after the missile system was deployed to Kaliningrad permanently. Two new Iskander brigade sets have been procured annually since 2013.

The operational performance and maximum range of the ballistic Iskander-M missile, estimated to be over 700 kilometers, seems to exceed the 500-kilometer range stipulated by the INF Treaty, but the United States has not yet issued a formal complaint.<sup>121</sup> An important operational feature of the Iskander-M units to consider is that both ballistic missiles and cruise missiles will be under the same brigade command.<sup>122</sup>

The cruise missile is the Iskander-K, NATO designation SSC-7. This cruise missile apparently possesses a range far above the INF-approved range ceiling. Judging from the dimensions of the missile and compared to the longer-range 2,000-kilometer-plus RK-55 (SSC-X-4 Slingshot), the range of the Iskander-K is probably 1,000-1,500 kilometers. The United States has voiced concerns about probable Russian violations of the INF Treaty since 2014.<sup>123</sup> The complaints have specifically concerned land-based cruise missiles—although, formally, these belong to a ground-launched version of the Novator 9M729 system which employs the Kalibr-NK cruise missile, not the Iskander system.<sup>124</sup>

Russia has invested heavily in land-attack cruise missile technology for at least a decade and has progressed significantly in this respect. New long-range cruise missiles have been deployed in the air force, the navy, and the ground forces. They can reach targets in western Europe, including the Baltic Sea region. In addition, Russian cruise missile force projection against the continental United States is no longer theoretical, even from land.

In February 2017, *The New York Times* broke the news that Russia had deployed two battalions of SSC-8 cruise missiles, evidenced by reports that U.S. officials had dropped the “X” from the original testing phase designation of the missile system, SSC-X-8. One of the battalions is believed to have been moved from the Kapustin Yar test site in December 2016 to an undisclosed location, probably a base in western Russia.<sup>125</sup>

The U.S. Vice Chairman of the JCS, General Paul Selva, confirmed this in a House Armed Services Committee hearing on March 8, 2017:

The system itself presents a risk to most of our facilities in Europe, and we believe that the Russians have deliberately deployed it in order to pose a threat to NATO and to facilities within the NATO area of responsibility.

In addition, Russia has violated the “spirit and intent” of the INF Treaty as a whole. “I don’t have enough information on their intent to conclude other than they do not intend to return to compliance.”<sup>126</sup> Russia immediately followed the U.S. decision to withdraw from the INF Treaty in February 2019, and has never admitted any treaty breach.

FOI assessed Russia’s available standoff assets quantitatively in the Western theater in 2016.<sup>127</sup> Realistic operational ranges of the various ballistic missiles and cruise missiles were obtained by reducing the nominal ranges by one-third.

The number of land-attack missiles available for a standoff strike has increased three-fold since FOI’s 2013 estimate, both with conventional and nuclear warheads. In 2016, the introduction of Kalibr missile systems in the navy and continued upgrading of strategic bombers and ground forces’ missile brigades (to the Iskander-M system in the latter) resulted in the availability of some 150-166 conventional long-range cruise missiles and up to 96 short-range land-attack missiles, enough for two powerful salvos.<sup>128</sup> In addition, a brigade set of presumably 12 Iskander-M missile systems and 60 Kalibr missiles were delivered to the Russian Armed Forces in May 2017.<sup>129</sup> The distribution of the Kalibr cruise missiles to the services was not disclosed, but a part may have gone to the rocket and artillery forces of the Russian Army.<sup>130</sup>

The number of available air-launched cruise missiles (ALCMs) is not known, but the current arsenal may allow for a standoff strike with over 100 missiles.



In late 2016, 97 ALCMs were known to have been fired as part of the Syrian operation. In addition, an undisclosed number of new, long-range Kh-101 ALCMs were used in February and July 2017.<sup>131</sup> However, it should be noted that none of the attacks with long-range weapons in Syria, perhaps with the exception of the Kh-101, were actual standoff strikes, as all targets were within the air operation area.

In addition, Tu-22M3 medium-range bombers, primarily assigned to anti-ship missions, in a secondary role, could have 42-58 long-range cruise missiles and 66-78 short-range or medium-range missiles available for a non-strategic nuclear standoff strike.

In the assessment of the potential order of battle for a land-centric JISCO and standoff warfare, FOI sums up the following main conclusions about the armed forces' fighting power in 2016:

First, the fighting power of Russia's Armed Forces has continued to increase. The ability to carry out JISCOs and stand-off warfare as well as strategic deterrence has improved. This has been made possible by the introduction of additional units and weapons systems, through increased readiness and—primarily where the Ground Forces are concerned—a higher proportion of combat-ready units.<sup>132</sup>

Regarding JISCOs, the key quantitative factor is that manning levels have increased to a point where most nominally available units have adequate manning (above 75 percent). This increased manpower allows for more combat-capable units than in 2013. In addition, a few additional brigade-size maneuver units have been set up.

Standoff warfare capabilities have grown thanks to significant deliveries of launchers and missiles. The number of available land-attack missiles—with both

conventional warheads and non-strategic nuclear warheads—has tripled since 2013. However, the lack of command, control, communications, computer, intelligence, surveillance, and reconnaissance capabilities may restrict standoff warfare mainly to fixed targets.

FOI's second main conclusion is that Russia can launch two large operations simultaneously. The armed forces can generate enough units for two large-scale JISCOs while retaining a strategic reserve and a small interservice force group in each theater. Russian annual strategic exercises have often featured a second, parallel—albeit smaller—joint interservice exercise. Since late 2015, Russia has run two operations in Syria and Ukraine simultaneously. A possible order of battle for two JISCOs with some 150,000 servicemen in three or four ground force formations plus navy and aerospace force support for each is feasible.

It seems that the armed forces are developing from a force primarily designed for handling internal disorder and conflicts within the former Soviet Union toward a structure configured for large-scale operations beyond that area. The armed forces were more capable of defending Russia against foreign aggression in 2016 than they were in 2013. They are also a stronger instrument of coercion than before.

FOI's third main conclusion is that the armed forces have improved their fighting power primarily west of the Urals. The Western MD has received the most new command structures and units, including two MRBs from the Central MD. Russia has also set up a joint interservice force group on the illegally annexed Crimean Peninsula. The creation of larger formations of armed forces improves offensive capabilities and has been more pronounced west of the Urals.

## Nuclear Considerations

After the establishment of the INF Treaty, in which Presidents George H. W. Bush (United States), Mikhail Gorbachev (Soviet Union), and Boris Yeltsin (Russian Federation) agreed upon limited U.S. ground-launched cruise missiles and the implementation of legally non-binding unilateral Presidential Nuclear Initiatives, the nuclear capability of the U.S. Army ended.<sup>133</sup> Thereafter, U.S. nuclear deterrence posture and the custody of operational nuclear weapons have rested with the U.S. Air Force (Minuteman III strategic missiles, strategic bombers with air-launched strategic cruise missiles, nuclear bombs, and dual-capable multirole aircraft carrying non-strategic nuclear bombs) and the U.S. Navy (Trident D5 strategic submarines and missiles). An important additional fact is that all of the U.S. Tomahawk Land Attack Missile-Nuclear sea-launched nuclear missile warheads have been dismantled.<sup>134</sup>

Russia, on the other hand, has never abided by the unilateral presidential agreements. All services still employ nuclear weapons, and Russia tries to capitalize on this asymmetry. Therefore, it is important to understand Russian nuclear thinking and, particularly, how it relates to non-strategic nuclear weapons and the very controversial doctrine of nuclear de-escalation, which Russian military thinkers began to develop after the end of the Cold War.<sup>135</sup> To understand what is happening now in Europe in the field of non-strategic nuclear weapons, we need to go back 40 years in time.

NATO's prime concern in the late 1970s was the ongoing heavy build-up of a family of Soviet intermediate-range nuclear missiles. Re-establishing the

equilibrium of military forces in Europe demanded a Western counterweight of in-theater nuclear forces should arms control fail. German Chancellor Helmut Schmidt played a pivotal role in internal deliberations with U.S., British, and French leaders that led to NATO's dual-track decision in 1979 to develop, produce, and deploy nuclear-tipped U.S. cruise and Pershing II missiles in Europe if the Soviet Union declined to negotiate reductions in this missile category. The Soviets did not yield, and deployment eventually took place.

Schmidt understood the risks well, as non-nuclear West Germany would carry the main risk of nuclear annihilation in war. This risk, however, had to be weighed against the risk of nuclear decoupling which the U.S. "Euro-strategic" weapons addressed, and which saved Germany from possible Soviet intimidation and extortion. Schmidt eventually lost his position as chancellor, but, in 1987, the Soviet Union yielded. The INF Treaty was born.<sup>136</sup>

The present situation in Europe closely resembles that which was described earlier. Russia has come far in its efforts to regain what was lost with the implementation of INF.<sup>137</sup> This time, a new deployment of U.S. land-based medium-range nuclear weapons in Europe is highly unlikely. More importantly, from a practical point of view, such a decision would come all too late, as developing suitable weapons to match Russia's new systems typically takes a decade. For the non-strategic nuclear deterrence role, NATO has no choice but to rely on present U.S. nuclear non-strategic capabilities—primarily, the B-2 stealth bomber and available, low-yield B61 gravity bombs. Early introduction of the new, variable-yield B61-12 nuclear bomb would be desirable. The deterrent value of NATO's fourth-generation, dual-capable fighter

aircraft deployed in Europe is highly questionable. A turn for the better may be expected when the new U.S. F-35 fighter assumes its nuclear role and arrives in quantity in Europe.

The life cycles of the Russian and U.S. nuclear weapons systems are essentially out of step at a time when the prospects for further arms control measures are poor. The United States is only in the early stages of renewing its nuclear forces. The Defense Science Board and prominent nuclear weapons professionals have described the steps necessary to preserve nuclear deterrence.<sup>138</sup>

In October 2018, President Donald Trump announced the U.S. intention to withdraw from the INF Treaty.<sup>139</sup> Turning the clock back and reintroducing land-based, non-strategic nuclear weapons to the U.S. Army is not a decision that should be taken lightly. It would come with substantial political, organizational, and economic costs.<sup>140</sup> Given the developments in INF-category weaponry, particularly in the Russian and Chinese armed forces, the U.S. Army may feel outgunned. This concern is understandable. Possible conventional compensatory measures have been outlined.<sup>141</sup>

However, the U.S. Army already fulfills an important related role—providing extended air defense and missile defense with its land-based defensive systems, such as Patriot and Terminal High Altitude Area Defense, essential for protection against conventional and non-strategic nuclear threats. Strengthening U.S.-NATO missile defense capabilities in Europe is a legitimate means of blunting the non-strategic nuclear threat facing Europe.

## COMMON DETERRENCE IN THE REGION

### Potential Russian Military Offensive Against the Baltic Republics

Russia's aggression against Georgia and Ukraine has disrupted peace, stability, and relations between Moscow and its Western neighbors. Further activities and deterioration of cooperation have raised concerns about Russia's intentions to divide, distract, and deter Europe from challenging Russia's activities in the region. In order to provide deeper knowledge and more profound understanding, several research institutions have published reports that examine the threat Russia may present to the three Baltic States, Estonia, Latvia, and Lithuania: all of the countries are former Soviet republics and NATO member states that border Russia. The research questions considered the consequences of Russian attempts to reclaim territory belonging to the three Baltic States as well as the steps NATO could take to prevent or mitigate such a scenario.<sup>142</sup>

The key finding shared by numerous research reports was that NATO at present could not successfully defend the territory of its most vulnerable member states. This cannot be regarded as a surprise for those who have analyzed regional operational issues during and after the Cold War. Conclusions in the research reports describing potential NATO responses can be divided into three categories. The first consists of responses preferring deterrence by denial—in other words, striving for a military balance using, for instance, rotational armored brigade combat teams or permanent trigger units. The second prefers deterrence by punishment, emphasizing a solution

short of establishing full parity with the opposing side in peacetime. The third category combines elements of the other two. In the majority of the reports, additional military capabilities are the key factor, followed by questions such as permanence, prepositioning, restrictions, and rotations, among other issues.

Probably the most devastating finding of the multiple two-sided wargames conducted by the RAND Corporation was that Russian forces could reach the outskirts of the Estonian and Latvian capitals and the coastline of the Baltic Sea in less than 60 hours. Consequently, such a rapid defeat would leave NATO with severe challenges to its unity and reactivity.

Based on the cases described across the many wargames, several alternative approaches could be foreseen as a NATO reaction. These can be grouped into two categories. First, NATO could “conceal,” at least temporarily, its defeat. However, this approach risks recognizing severe consequences for cohesion and the Alliance’s commitment to collective defense. These unwanted consequences could be mitigated through the imposition of political and economic sanctions on Russia. Second, NATO could react by launching a rapid counteroffensive to liberate the Baltic States, with a high risk of escalation and enormous expenses. In addition, there exist various combinations of these two approaches.

Deterrence could be established to avoid such a scenario with relatively acceptable expenses, in comparison to the catastrophic consequences of a prolonged war between Russia and a far wealthier and more powerful coalition. Further gaming indicated that a force of some seven brigades, including three heavy armored brigades—adequately supported by air power, land-based firepower, and other enablers

on the ground and ready to fight at the onset of hostilities—could suffice to prevent the rapid conquest of the Baltic States. This set of capabilities would not suffice for a sustained defense of the region or to achieve NATO's Article 5 requirement, but it could fundamentally change the strategic calculus in Moscow.<sup>143</sup> In addition, it would deter Russia from maintaining its present overwhelming force correlation numbers, politically important tools of intimidation and extortion. Such a large military force, in the eyes of the Russians, could be credible enough to preempt direct military aggression, which would drag allied contingents, especially those of the U.S. Army, into the conflict. However, unambiguously deterring—namely, deploying and sustaining a credible force—would require up to 21 maneuver brigades with the necessary enablers and NATO's defense infrastructure, logistics, and legal arrangements. It is expected that up to 12 of those brigades would come from the U.S. Army.<sup>144</sup> In this context, the figures are clearly based on cautious calculations.

More importantly for NATO, this force of seven brigades could delay the advance of the aggressor's units and prevent the enemy from seeking a relatively quick and inexpensive victory based on the belief that it can rapidly achieve its objectives and establish a fait accompli situation on the ground. Thereafter, Russia would aim to dictate terms to the Alliance, including possible threats of nuclear escalation to divide the allies and complicate decision-making. Such a strategy would demonstrate Russia's belief that it may be able to offset the conventional military and economic strength of NATO and the EU, respectively.<sup>145</sup>

Creating this deterrent force of seven brigades could be deemed expensive, with annual costs of



approximately US\$2.7 billion. On the other hand, these expenses should be balanced against the alternative of a devastating war, the failure to defend one's most exposed and vulnerable allies, the implicit failure of deterrence, and the potential disintegration of NATO.<sup>146</sup>

### **NATO as a Regional Transformer for Enhanced Deterrence**

Deeper cooperation is the norm today, and new offers are introduced frequently. In February 2017, the UK invited Nordic-Baltic nations to take part in the 2017 JEF, where the UK operated through the JEF as the framework nation for the Very High Readiness Joint Task Force—the spearhead unit of the NRF. For 2018-2019, Trident Juncture, a highlight of High Visibility Exercise 2018, hosted by Norway and organized in northern Europe and the northern Atlantic, constituted the next phase toward effective common use of military capabilities. As planning began, the North Atlantic Council invited Finland and Sweden to take part in the preparatory modules and exercise in October-November 2018.

All of the allied armed forces train together. However, both Nordic partners also participate in dozens of NATO exercises annually, implementing allied standards. For the U.S. Army, in spring 2016, a U.S. Stryker company conducted training exercises together with its counterparts in Finland for the first time. Since then, U.S. Army units have been exercising in Finland annually (Arrow 17 and Arrow 18) as well as in Sweden (Aurora 17). Exercising together not only promotes allied standards but also draws on lessons learned from crisis management operations. Since the

Balkan wars, casualty avoidance has been a dominant characteristic of Western armed forces.

As a result, risk aversion and the political requirement to avoid both casualties and collateral damage lead friendly forces to deliver effects from greater and safer distances. This requirement has clearly reduced the overall efficiency of capabilities, even that of standoff and precision-guided weaponry, given the extended ranges and higher launch altitudes involved. Since the start of the war in Ukraine, the use of missiles and rockets, as well as aircraft, helicopters, and drones, must be re-evaluated in the larger context of warfare. Similarly, infiltration and clandestine operations targeting society must be analyzed in detail in order to identify efficient counteractions in all domains, including hybrid and cyber. This kind of cooperation is already ongoing within NATO and with the Alliance's partners.<sup>147</sup>

The framework for a regional grouping could be based on regular, NATO-led exercises attended by both Finland and Sweden. Currently, the JEF is the UK's main contribution to the enhanced NRF, emphasizing its role in collective defense, but the arrangement is neither NATO-led nor permanent. The UK-led NRF contribution is rotational and temporary, jointly with the largest of European allied nations. Both Finland and Sweden decided to join the JEF activities in 2018. For continuity, NATO could be the most appropriate agency for coordination, using its regional command and force structures.<sup>148</sup>

The participation and interoperability goals could remain PfP-oriented as earlier, but the regionally focused structures and tasks should enhance participants' common defense capabilities. Exercises should contribute to the territorial defense efforts and

deterrence policies of participating countries. Finally, the exercised force should then be available for territorial defense in the region. The deeper one proceeds with territorial and common defense issues, the more useful an official governmental agreement between participants becomes. Such an agreement is primarily designed to encompass administrative and legal responsibilities, ensuring accountability, for instance, in the context of information exchange and various security tasks. Practical obstacles could also be alleviated with initiatives such as military Schengen when operating with military units on European soil.<sup>149</sup> The main benefit could be interlinked operational planning, capabilities-related exercises, and advanced preparation for the use of force in the region. Whether this is feasible without all participants possessing NATO membership remains to be seen. Similarly, NATO as a collective should accept terms for Norway's deeper cooperation with the Nordic partners of the Alliance. These arguments apply to the provision of foreign military assistance as communicated in the Lisbon Treaty or the Swedish solidarity declaration.

Another NATO-related observation is that the recent convergence of defense postures seems to strengthen the roles, privileges, and responsibilities of partners, blurring the line distinguishing partnership from membership. Cooperation with Nordic states has also called into question the status of collective defense as the exclusive domain of NATO member states. The crucial political question is how partners can proceed further without entering the domain of member states, as NATO finds itself increasingly involved in military efforts featuring coalitions of the willing and requiring outside partners. This question gains more relevance

when addressing digitalization, cyber defense, or hybrid threats.

## **COMMON DETERRENCE—GRADUAL PROGRESS WITH THE U.S. ARMY**

Building deterrence in the Nordic-Baltic region is a high-priority issue involving all countries in the region, including the United States and other NATO members and partners. This is taking place against the background of serious possible scenarios. One of the most often cited scenarios was restated in September 2018 with a warning that—as mentioned earlier—it is:

not only a possibility, but indeed quite likely, that Russian bastion defense would include a limited ground operation against Norway's northeastern county of Finnmark in order to reduce the risks of land-based threats to the key Kola bases.<sup>150</sup>

The Trident Juncture exercise held in October through November 2018, particularly its classified wargaming command post exercise, addressed these issues.<sup>151</sup> A military conflict in the High North is, of course, not to be seen in isolation, but, rather, in a broader context involving the Baltic Sea area as well. Led by the Finnish Navy, exercise Northern Coasts 18, with “4,000 people, more than 40 surface vessels and multiple aircraft” from 13 countries, including the United States, was held simultaneously in the Baltic Sea area. Northern Coasts, which started as the German Navy's exercise, has been conducted annually since 2007.<sup>152</sup>

Finnish and Swedish participation in international exercises of this nature proceeds from the sober recognition that the countries could not possibly avoid being

drawn into a conflict between Russia and NATO.<sup>153</sup> The final report of the Royal Swedish Academy of War Sciences dealing with the challenges to the Swedish total defense concept also included results from wargames. The four scenarios developed—strategic influence operations against Swedish decision-making, a hybrid war against Gotland, limited military attacks against southern Sweden as a prelude to Baltic invasion, and limited military attacks through Finland to northern Sweden—illustrate the thinking among senior Swedish military officers and defense analysts.<sup>154</sup> These considerations may serve as an illustration of the framework for further development of defense cooperation aimed at providing common deterrence.

The approach described next is based on the experience of 2 decades of military cooperation between NATO and partners Finland and Sweden. Norwegian contributions are encouraged whenever possible. The approach identifies the military means of enhancing deterrence together or separately and within currently existing frameworks of cooperation, most of which could be supported by the U.S. Army. The recent reports produced by the Finnish and Swedish defense ministries contain illustrative examples, but these will be extended and developed further.<sup>155</sup>

Potential areas of cooperation include exercises, education and training, situational awareness and surveillance, the common use of infrastructure, materiel support, and combined units. Good examples are many but are also quite often related to naval or air force cooperation. For instance, the future end-state insofar as Finnish-Swedish naval cooperation is concerned could be defined as a standing, binational naval task group.<sup>156</sup> This force could establish sea control and protect the use of sea lines of communication

in the Baltic Sea, shaping the impact of anti-access/area denial. In another example, the Nordic air forces could establish a common air operation or a combined unit for operations. The end-state would cover the full spectrum of air operation capabilities, help achieve regional air supremacy, and provide air support for land and maritime operations. The Nordic air forces would address the anti-access/area-denial problem much as the Nordic navies do. To sum up, cooperation could significantly contribute to strengthening the common deterrence policy of participating countries.

Aspirations for the Finnish and Swedish armies have been markedly modest, leaving room for improvement at a bilateral level. However, the same applies to thinking about the role to be played by the U.S. Army. An example of a more ambitious goal could be a joint Finnish-Swedish brigade. This would include enhanced force integration and interoperability via a common advanced training and exercise platform which would prepare units for deployment—potentially for national and common defense purposes. The units and components of the brigade should be trained and exercised in both Finland and Sweden to provide a broad-based knowledge of both countries regarding operational practices and the concept of operational depth. For instance, the brigade could be used to protect designated assets and capabilities of value for Finland and Sweden and, perhaps, even Norway. In this context, early planning of exercises with U.S. Army participation would certainly add value to future operations.

Similarly, the common use of training and live firing facilities in both Finland and Sweden would benefit the U.S. Army as it enhances its operational effectiveness in the region's Arctic conditions. Many of

these activities could benefit from the existing NATO training and exercise program, enhanced NRF contributions, and the Trident Juncture Exercise, the latter two of which already involve Finland and Sweden, and the last of which was hosted by Norway, which adds to overall synergy.<sup>157</sup>

Utilizing some less inclusive arrangements, such as the NBG training concept, involving only the selected countries could bolster results. This would mean enhanced opportunities and fewer expenses for all participating countries and the U.S. Army. Other areas for enhanced cooperation are logistics, including transport and maintenance of prepositioned materiel for regular exercises, as well as outsourcing.

Joint capabilities are essential for all exercises. Command and control systems in particular, including secure communications and properly functioning logistics, must be fully available from the very start to all participants to ensure operational efficiency (e.g., the concept of Day-One Connectivity developed by the NATO Partnership Interoperability Advocacy Group). The possibility of testing and evaluating command, control, communications, computers, and intelligence capabilities in the Nordic and Arctic operational environment should be explored with relevant NATO agencies, such as the NATO Consultation, Command, and Control Agency. The so-called military Schengen agreement, or the military mobility concept, which was repeatedly called for by U.S. Army Europe, serves as a good example of a practical and quick remedy to overcome a vital obstacle.<sup>158</sup> For this to materialize, NATO can draw from existing logistic, maintenance, out-sourcing, and other arrangements, such as the NATO Procurement and Supply Agency, to support

exercises and operations that would be useful for Nordic armed forces as well as the U.S. Army.

In sum, cooperation with the U.S. Army could serve as a vehicle for transformation, much as the NRF and EUBG concepts discussed earlier do. If preferable, the U.S. Army could also support the military integration of smaller units into a multinational formation. Furthermore, enhanced exchange of information, researchers, and students with U.S. military educational institutions, to include the U.S. Army War College (especially the Peacekeeping and Stability Operations Institute), would efficiently promote strategic understanding.

Multinational cooperation as such is not only highly efficient but also sends a significant signal to decision-makers in NATO capitals as well as to Moscow. Probable benefits could include operational effects and improved quality rather than increased cost-efficiency and savings, at least in the short term. For further utility, these ideas for enhancement should be extended from exercises to wartime actions, including, at a minimum, territorial defense based on Article 51 of the UN Charter. In Finland and Sweden, this approach has produced progress since mid-2016 and state leaders have expressed strong support for the idea. However, commitments to the defense of one another are vague, if not non-existent.<sup>159</sup>

Adding Norway to the equation would support Norwegian defense capabilities and deterrence policy, which focus on collective responsibilities toward the northwest. Similarly, Finland is more interested in the eastern direction and Sweden in the southeastern direction toward the Baltic Sea. Naturally, this division of interests could be redefined into shared responsibilities resulting, for instance, in the following:



- Norway's focus on the High North, supported by Finnish ground capabilities;
- Finland's focus on the east and nearby Russian territory, supported by Swedish aerial capabilities; and,
- Sweden's focus toward the Baltic States and the sea, supported by Finnish naval capabilities.

This is only one example of a possible division of geographical responsibilities among the three Nordic countries. No official or other governmental agreements to strengthen commitments are forthcoming, but preemptively allocating capabilities to support one another's defense would add to that. What exists today is quite the contrary. Norway focuses first on NATO obligations, second on national responsibilities, and third on potential Nordic cooperation. Notably, this may be changing, as Norway too lacks sufficient reserves and boots on the ground for defense and deterrence.

Finnish policy focuses on how to avoid entanglement in any military crisis in the region. In its political rhetoric, Finland has traditionally ruled out defending the Baltic States, regardless of the obligations laid out in the Lisbon Treaty. From a Finnish perspective, NATO carries this responsibility, and Finland is content to defend its own territory. However, this may be gradually changing if Finland could rely on credible EU security commitments through the Lisbon Treaty (§42).<sup>160</sup> Of course, Finland and other EU member states have other means of supporting the Baltic States and could be useful for regulating some of the Baltic Sea lines of communication, supporting the Baltic States militarily, and even defending the coastal region of Scandinavia. In this context, cooperation with the U.S.

Army is of great importance and has a lot of mutually beneficial potential.

Swedish policy has been focused on staying militarily nonaligned in peacetime and remaining neutral in wartime. Controversially, neutral Sweden would rely on foreign military support in the event of aggression against it. Sweden abides by the solidarity clause within the EU, and has even committed to militarily supporting the Baltic States. However, its current, grossly undersized defense capabilities and capacities, given its national needs, are at odds with the message of reciprocal solidarity. Some policy changes are taking place through the slow growth of defense spending, the reimplementing of conscription, and the improvement of military training.<sup>161</sup> Logically, there is a strong need for broader and deeper cooperation with the U.S. Army to meet potential threats. One strong signal of enhanced cooperation was the Swedish-led, multinational Aurora 17 exercise on and around Gotland, with the significant U.S. contribution of 1,000 service members and a Finnish contingent, both tasked to defend Swedish territory.<sup>162</sup>

With all three national viewpoints taken into account, there is no guaranteed military support available to these countries (apart from allied Norway). However, some issues should be negotiated and agreed upon to increase visibility and contribute to common deterrence. In other words, in a regional crisis too minor for NATO to react to in the early stages but beyond the national capabilities of any of the Nordic countries, proper regional defense arrangements could lead to sufficiently credible common deterrence. Taking advantage of the recent convergence of defense postures, a regional grouping of armed forces based

on a NATO-led framework could strengthen common deterrence.

A deeper commitment to strengthening common deterrence would serve the cause, but how could it be brought about without formal and official agreements or a defense alliance? In the current situation, it is prudent to assume that no formal military alliance is forthcoming for Finland and Sweden. As an alternative one could, together with the U.S. Army, simply promote deeper and broader information sharing and jointly plan the operational use of military capabilities. For an informal military alliance such as this to be successful, it must be based on mutual benefit, trust, and transparency, and could contribute to the achievement of an effective deterrent.

In practice, all of this could be done piecemeal by relevant officials and with the long term in mind. A workable example of this kind of practical method is the PfP, which saw Finland and Sweden shift from the status of neutral, small, and militarily isolated countries to that of well-recognized and closely embedded, even if militarily nonaligned, NATO partners. Such progress is achievable with only a minimal degree of official or binding agreements between the respective nations. Deeper and broader military cooperation would not be in vain, even in the absence of military alignment by Finland or Sweden, as it would benefit all participants and contributors and strengthen common deterrence.

## **RECOMMENDATIONS FOR ENHANCED COOPERATION WITH THE U.S. ARMY**

Since 2014, NATO has once again focused on collective defense. The commonalities between the

Finnish and Swedish armed forces and convergence on the main task coincide with NATO's understanding of the security situation, regional threat scenarios, future plans, and required capabilities. The main conclusion is that this alignment of defense postures could bring NATO's allied nations and all Nordic countries closer together. Wider cooperation in itself sends a significant message to all observers. Consequently, these developments could strengthen common deterrence and help tilt the regional military balance between NATO and Russia in NATO's favor.

The main recommendation is to promote deeper and broader, yet gradual, cooperation through steps taken in the form of practical activities as described in the previous section, such as information sharing and jointly planning the operational use of capabilities, thus establishing a common basis for exercising. The current programs for military exercises constitute a solid basis for consolidated activities in wartime, as mandated in Article 51 of the UN Charter. As described earlier, and recognizing that Denmark is a special case with its main interests in the southern Baltic Sea area and the Danish Straits, there are relevant and mutually beneficial roles and divisions of responsibilities for the three Nordic armed forces. The role of the U.S. Army is of crucial importance, but reciprocal gains are evident, reducing the U.S.-Europe capability gap.

In this context, deeper and broader military cooperation would contribute to common deterrence through improved situational awareness, readiness, fighting power, and long-range standoff capabilities. Consequently, the following actions should be considered by the U.S. Army and Department of Defense:

1. Maintaining current international exercises strongly focusing on actions and operations informed by real-life threat scenarios and contingency plans for the Nordic-Baltic region. Tactical details should follow principles such as environment familiarization and maximization of the technical potential of equipment from participating units (close air support, target designation, drones, cyberspace groups, etc.). Exercises should be closely linked to the most probable areas of actual operations, thus responding to the most challenging exercises of the other side, such as Zapad-2017. No major, additional expenses are foreseen, as the resources for national and multinational exercises are already in the budgets. These simply require reallocation.
2. Using joint communications technology facilitated through commonly procured systems. The first area in which full interoperability (and compatibility) should be achieved is command and control. In other words, the concept of full access to “operational” information (Day-One Connectivity) is of vital importance for successful exercises and maneuvers in a crisis.
3. Prepositioning of materiel in key operational areas, which should be used annually within related planning, training, and exercising. For instance, one battle group from each country should regularly attend an operationally motivated, medium- or large-scale exercise in each country. Similarly, air wings and naval task groups should deepen current exercise programs in a multinational and coordinated fashion. Most of the materiel already exists in

concentrated storages or can be procured, but may not be optimally located to serve operational or readiness requirements.

4. Using capabilities in the full operational depth of the region. Just as Finland could benefit from greater operational depth in Swedish and Norwegian territories by utilizing naval and air bases and other support infrastructure instead of deploying or basing its units near the Russian border, so too could the U.S. Army utilize the whole depth of the Nordic region. For Sweden, utilizing the Finnish maritime and air spaces would clearly add to the efficiency of its capabilities. This would apply to U.S. capabilities too, pending national acceptance and appropriate legislation, such as the military Schengen agreement. For all participants, logistics require permissive legislation, in-depth coordination, and linkages with local providers to ensure effectiveness and efficiency in a crisis.
5. Defining the borderlines between areas of responsibility for all services or for joint operations in search of reciprocal support to cover deficits of national and allied defense capabilities. Today this applies especially to air force and navy cooperation but could be implemented in land activities as well.

Cooperation with the U.S. Army could be based on a balancing act, first, with respect to the additional army capabilities required in the region. The focus should be on protecting southern parts of Sweden to ensure the use of infrastructure and services for NATO activities. In addition, northern Norway should be secured by army capabilities, including missile

defense, to ensure NATO's freedom of movement in the northern Atlantic and the High North. Arrangements for NATO reinforcements could include a brigade-size force with support elements; in addition, their use should be coordinated with possible U.S. Army contributions. Similarly, possible prepositioning of materiel and exercises must be integrated into relevant parts of defense plans and related international exercise programs.

Second, cooperation with the U.S. Army could be based on enhanced deterrence, including anti-access/area denial. This cooperation could be established on a strengthened front line; made to bolster relevant capabilities, such as missile defense near Russian territories; and made to include strategically important areas in Norway, Finland, Sweden, and the Baltic States. Recently published analyses and reports related to the defense of the Baltic States provide useful case studies, such as a rotational armored brigade combat team or permanent trigger units for more detailed consideration.

While none of these measures need necessarily involve the permanent stationing of substantial U.S. combat forces in the front-line states, it is essential that this option be kept open and prominent in the debate on policy options for a U.S. presence in Europe. This debate in itself constitutes a deterrent measure since such stationing would constitute an immediate, major security concern for Russia and, consequently, an eventuality which Russia would seek to avoid.

Finally, as widely recognized, the security situation in the Baltic Sea region concerns the common interests of NATO as well as NATO partners Finland and Sweden. These common interests will not fade and will remain on the agenda for the foreseeable future.

This reinforces the importance of the two Nordic partners in the eyes of NATO and its member states. Similarly, NATO will remain a critically important actor for the two partners, situated as they are in the middle of the region. The key issue is to make both Nordic partners part of a holistic approach and net contributors to the shared deterrence that protects vital U.S. interests in Europe.

## ENDNOTES

1. Ronald D. Asmus, *A Little War that Shook the World: Georgia, Russia, and the Future of the West*, New York: Palgrave MacMillan, 2010.

2. For instance, Peter Stenlund, "The security situation in the Baltic Sea region," *Baltic Rim Economies BRE Review*, Iss. No. 6, Expert article No. 2083, December 19, 2016, p. 7.

3. Mike Pence, "Remarks by the Vice President at the Munich Security Conference," The White House, February 18, 2017, available from <http://www.whitehouse.gov/briefings-statements/remarks-vice-president-munich-security-conference/>, accessed November 7, 2018; Jim Mattis, "Remarks by Secretary Mattis at the Munich Security Conference in Munich, Germany," U.S. Department of Defense, February 17, 2017, available from <https://dod.defense.gov/News/Speeches/Speech-View/Article/1087838/remarks-by-secretary-mattis-at-the-munich-security-conference-in-munich-germany/>, accessed March 8, 2019.

4. The issues excluded consist of hybrid, cyber, and "soft" capabilities; civilian-military cooperation; and, comparisons between national military systems. Further relevant historical considerations are available in Stefan Forss and Pekka Holopainen, *Breaking the Nordic Defense Deadlock*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, February 20, 2015, available from <https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=1253>, accessed March 8, 2019.

5. For instance, "Chapter 4: Europe," in *The Military Balance 2017*, London, UK: International Institute for Strategic Studies,



2017, pp. 75-76, available from <https://www.iiss.org/publications/the-military-balance/the-military-balance-2017>, accessed March 11, 2019.

6. Marcel H. Van Herpen, *Putin's Wars: The Rise of Russia's New Imperialism*, Lanham, MD: Rowman & Littlefield, 2014; Michael Rühle, "Deterrence: what it can (and cannot) do," *NATO Review Magazine*, 2015, available from <https://www.nato.int/docu/review/2015/Also-in-2015/deterrence-russia-military/EN/index.htm>, accessed December 28, 2016. For more on deterrence in the region, see Kalev Stoicescu and Henrik Praks, *Strengthening the Strategic Balance in the Baltic Sea Area*, Tallinn, Estonia: International Center for Defence and Security, March 2016, pp. 4-6. Also see Kęstutis Paulauskas, "On Deterrence," *NATO Review Magazine*, 2016, available from <https://www.nato.int/docu/review/2016/Also-in-2016/nato-deterrence-defence-alliance/EN/index.htm>, accessed December 28, 2016.

7. C. Dale Walton, "Weapons of mass destruction," in David Jordan, James D. Kiras, David J. Lonsdale, Ian Speller, Christopher Tuck, and C. Dale Walton, eds., *Understanding Modern Warfare*, New York: Cambridge University Press, 2008, pp. 322-326.

8. Rühle, p. 2.

9. David J. Lonsdale, "Strategy," in Jordan, Kiras, Lonsdale, Speller, Tuck, and Walton, eds., *Understanding Modern Warfare*, p. 51.

10. Rühle, p. 2; Johanna Vuorelma, "Ulkopolitiikalla rakennetaan omakuva" ("With foreign policy nation's self-image is built"), *Ulkopolitiikka*, April 2016, pp. 42-43.

11. Rühle, p. 2.

12. Matti Lukkari, *Asekätkentä (Covert Weapons Hiding)*, Helsinki, Finland: Otava Publishing Company, 1984, p. 251. The final number of weapons hidden in the Home Guard Districts was enough to equip 35,000 men, which equated to more than 30 battalions in the Finnish system.

13. North Atlantic Treaty Organization (NATO), "Forest Brothers - Fight for the Baltics," YouTube video, 8:07, July 11, 2017, available from <https://www.youtube.com/watch?v=h5rQFp7FF9c>.

14. Hans M. Kristensen and Robert S. Norris, "Russian nuclear forces, 2017," *Bulletin of the Atomic Scientists*, Vol. 73, No. 2, 2017, pp. 115-126. Also see Fredrik Westerlund, "Ryssland och kärnvapen för slagfältet" ("Russia and battlefield nuclear weapons"), in Martin Goliath, Mattias Waldenvik, Fredrik Westerlund, Mike Winnerstig, Niklas Granholm, and John Rydqvist, eds., *Kärnvapen för slagfältbruk och europeisk säkerhet—en strategisk faktors regionala betydelse* (*Nuclear weapons for battlefield use and European security*), FOI-R--4430--SE, Stockholm, Sweden: Swedish Defence Research Agency, May 2017, pp. 28-32, available from <https://www.foi.se/rapportsammanfattning?reportNo=FOI-R--4430--SE>, accessed August 9, 2017.

15. Hans M. Kristensen and Robert S. Norris, "United States nuclear forces, 2017," *Bulletin of the Atomic Scientists*, Vol. 73, No. 1, 2017, pp. 48-57. Around 500 B61 bombs remain in stockpile, 150 of which are deployed in Europe. Also see Leo Michel, "NATO as a 'Nuclear Alliance': Background and contemporary issues," FIIA working paper 93, Helsinki, Finland: Finnish Institute of International Affairs, February 23, 2017, available from <https://www.fii.fi/en/publication/nato-as-a-nuclear-alliance>, accessed March 3, 2017.

16. Lonsdale, "Strategy," pp. 50-51.

17. Stoicescu and Praks, pp. 8-13.

18. Rachel Ansley, "Zapad: A Window into Russia's Military Mind?" Atlantic Council, July 11, 2017, available from <https://www.atlanticcouncil.org/blogs/new-atlanticist/zapad-a-window-into-russia-s-military-mind>, accessed August 10, 2017.

19. Thomas Nilsen, "Satellite images reveal Russian navy's massive rearmament on Kola Peninsula," *The Barents Observer*, September 16, 2018, available from <https://thebarentsobserver.com/en/node/4370>; "Why Russia is Strengthening Its Arctic Northern Periphery," Sputnik, July 14, 2016, available from <https://sputniknews.com/politics/201607141042966843-russia-arctic-military/>, accessed October 8, 2018. Also see Aleksi Korpela, "Of Fire and Ice: Russia's Militarization of the Arctic," NATO Association of Canada, February 4, 2016, available from <http://natoassociation.ca/of-fire-and-ice-russias-militarization-of-the-arctic/>, accessed October 8, 2018.

20. "Northern Fleet," Russian Ministry of Defense, n.d., available from <http://structure.mil.ru/structure/okruga/north/history.htm>.

21. For further details, see "Chapter 5: Russia and Eurasia," in *The Military Balance 2017*, pp. 210, 218-219.

22. New technology has offered advanced methods for exerting an impact on foreign soil and seas through long-distance and precision weaponry. This applies to both defender and aggressor.

23. For a full narrative on this evolutionary development, see Juha Pyykönen, *Nordic Partners of NATO: How similar are Finland and Sweden within NATO cooperation?* FIIA Report 48, Helsinki, Finland: Finnish Institute of International Affairs, October 2016, available from <https://www.fia.fi/so/publikation/nordic-partners-of-nato>, accessed January 3, 2017. For illustration purposes, the relevant NATO Partnership for Peace (PfP) programs are: PfP Planning and Review Process; Individual Partnership and Cooperation Programme; PfP Training and Education Enhancement Programme; Military Training and Exercise Programme; PfP Partnership Goal; and, for training and exercises, Operational Capabilities Concept and NATO Response Force (NRF), among many others.

24. The enhanced NRF consists of 40,000 personnel, compared to the previous 13,000. In 2016, the United States proposed two new brigades—in addition to the previously planned two—to provide high readiness in the Baltic and Eastern-Central European member states and to assure them of NATO's support. For the same purpose, the United States was allocating US\$3.4 billion for additional reassurance measures in 2017 and over US\$5 billion in 2018, which was tentatively followed by approximately US\$7 billion in 2019. However, based on a RAND wargame study and as currently postured, NATO cannot balance Russian potential in the region or successfully defend the territory of its most exposed members. David A. Shlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming the Defense of the Baltics*, Santa Monica, CA: RAND Corporation, 2016, available from [https://www.rand.org/pubs/research\\_reports/RR1253.html](https://www.rand.org/pubs/research_reports/RR1253.html), accessed April 13, 2016; Lauri Nurmi, "Yhdysvallat asettaa Baltian suojaksi kaksi prikaatia" ("United States provides two brigades to protect the Baltic States"), *Turun Sanomat*, May 8, 2016, p. 12; "Peter Hultqvist participated in the Munich Security

Conference,” Government Offices of Sweden, updated February 14, 2016, available from <https://www.government.se/articles/2016/02/peter-hultqvist-participated-in-the-munich-security-conference/>, accessed May 15, 2016.

25. Jens Stoltenberg, *The Secretary General's Annual Report 2016*, Brussels, Belgium: North Atlantic Treaty Organization, 2017, available from [http://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2017\\_03/20170313\\_SG\\_AnnualReport\\_2016\\_en.pdf](http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_03/20170313_SG_AnnualReport_2016_en.pdf), accessed March 21, 2017; Lauri Nurmi, “Suomi siirtyi Naton kartoilla” (“Finland has a new location in NATO’s maps”), *Turun Sanomat*, April 10, 2016, pp. 12-13; “Military briefing on NATO Exercise Trident Juncture 18,” NATO Press Release (2018)078, June 11, 2018, available from [http://www.nato.int/cps/en/natohq/news\\_155075.htm](http://www.nato.int/cps/en/natohq/news_155075.htm), accessed September 26, 2018; “Briefing by Admiral James Foggo, Commander of Joint Force Command Naples and Vice Admiral Ketil Olsen, Military Representative of Norway to the NATO Military Committee on Exercise Trident Juncture 18 (NATO HQ, Brussels on 11 June 2018),” audio file, 28:14, June 11, 2018, available from [https://www.nato.int/nato\\_static\\_fl2014/assets/audio/audio\\_2018\\_06/20180611\\_180611b.mp3](https://www.nato.int/nato_static_fl2014/assets/audio/audio_2018_06/20180611_180611b.mp3). See also “Facts and information: Exercise Trident Juncture 2018 (TRJE18),” Oslo, Norway: Norwegian Armed Forces, 2018, available from <https://forsvaret.no/en/Forsvaret/Documents/Facts-English.pdf>; and “Trident Juncture 18,” NATO News, updated October 31, 2018, available from [http://www.nato.int/cps/en/natohq/news\\_158620.htm](http://www.nato.int/cps/en/natohq/news_158620.htm).

26. “Itämeren alueen turvallisuus esillä Suomen ja Naton kumppanuusyhteistyössä” (“Security of the Baltic Sea region addressed in the context of Finnish-NATO partnership”), Mission of Finland to NATO, updated February 17, 2016, available from <http://www.finlandnato.org/public/default.aspx?contentid=339365&nodeid=39170&culture=fi-FI>, accessed January 29, 2016. The host nation support (HNS) memorandum with NATO was signed in 2014, simultaneously with Sweden. The idea is to secure national capacity to receive external assistance as one element of defense. It is essentially a political framework document and not a treaty with compulsory responsibilities or acceptance of assistance or forces. The host nation, as a sovereign, will decide whether it will initiate an activity in which HNS is needed. HNS is a tangible result of the increasing integration of higher preparedness in any crisis replacing previous ad hoc or case-by-case agreements.

27. Stoltenberg, pp. 35, 62-64; Ibid.

28. Prime Minister's Office, *Government Report on Finnish Foreign and Security Policy*, Helsinki, Finland: Prime Minister's Office, Government of Finland, September 2016, pp. 16, 19, available from <http://valtioneuvosto.fi/documents/10616/1986338/VNKJ092016+en.pdf/b33c3703-29f4-4cce-a910-b05e32b676b9>, accessed February 3, 2017; Stenlund; Stoltenberg, p. 6.

29. "Interview of Jyrki Katainen, Vice-President of the European Commission on 27.7.2018," *Maanpuolustus*, No. 125, September 2018, pp. 4-10; Johan Strang, "Minkäläistä on Ruotsin EU-politiikka?" ("How is Swedish EU policy?"), interview, August 22, 2018, Yle Puhe, Brysselin kone, podcast available from <https://areena.yle.fi/1-4462305>, accessed September 15, 2018.

30. "Announcement of the signing of a Framework paper on Defence Cooperation between France and Finland, in the margin of the NATO ministerial meeting, in Brussels, on October 4th, 2018," Ministry of Defence of Finland, October 2, 2018, available from [http://www.defmin.fi/en/topical/press\\_releases/announcement\\_of\\_the\\_signing\\_of\\_a\\_framework\\_paper\\_on\\_defence\\_cooperation\\_between\\_france\\_and\\_finland\\_in\\_the\\_margin\\_of\\_the\\_nato\\_ministerial\\_meeting\\_in\\_brussels\\_on\\_october\\_4th\\_2018.9484.news](http://www.defmin.fi/en/topical/press_releases/announcement_of_the_signing_of_a_framework_paper_on_defence_cooperation_between_france_and_finland_in_the_margin_of_the_nato_ministerial_meeting_in_brussels_on_october_4th_2018.9484.news).

31. For further details, see Tuomas Iso-Markku and Niklas Helwig, "Europe's New Defence Agenda: Major hurdles still remain," FIIA briefing paper 211, Helsinki, Finland: Finnish Institute of International Affairs, December 2016, available from <https://www.fiaa.fi/sv/publikation/europes-new-defence-agenda>, accessed January 3, 2017. See also the *State of the Union and the Implementation Plan on Security and Defence*, Brussels, Belgium: European Union, 2016. As an example, the concept of pooling and sharing, similar to NATO's concept of Smart Defense, could be further promoted, as emphasized at both the European Council meeting in December 2016 and the NATO Summit in Warsaw, Poland, in July 2016. About the three initiatives, see Håkon Lunde Saxi, "British and German initiatives for defence cooperation: the Joint Expeditionary Force and the Framework Nations Concept," *Defence Studies*, Vol. 17, Iss. 2, 2017, pp. 171-197; Nick Witney, "Commentary: Macron and the European Intervention Initiative: Erasmus for

soldiers?" European Council on Foreign Relations, May 22, 2018; and Ibid.

32. Pertaining to Finland, see Prime Minister's Office, *Government Report on Finnish Foreign and Security Policy*, Helsinki, Finland: Prime Minister's Office, Government of Finland, June 17, 2016, pp. 12, 16, available from [https://um.fi/publications/-/asset\\_publisher/TVOLgBmLyZvu/content/government-report-on-finnish-foreign-and-security-policy](https://um.fi/publications/-/asset_publisher/TVOLgBmLyZvu/content/government-report-on-finnish-foreign-and-security-policy), accessed March 24, 2017. For Sweden, see Margot Wallström, *Regeringens deklaration vid 2017 års utrikespolitiska debatt i riksdagen onsdagen den 15 februari 2017 (Foreign policy declaration)*, Stockholm, Sweden: Government Offices of Sweden, p. 2, available from <https://www.regeringen.se/49192e/contentassets/b7cf8b05ddad4781883354c1c9bb2481/utrikesdeklarationen-2017-svenska.pdf>, accessed March 12, 2019; and Margot Wallström and Peter Hultqvist, "Vi vill agera för att stärka EU:s försvarssamarbete" ("We will take action to strengthen EU's defense cooperation"), *Dagens Nyheter*, June 20, 2017.

33. Secret military cooperation between the United States, the United Kingdom (UK), Norway, and Denmark, on the one hand, and Sweden, on the other, was authorized by the Swedish Government and lasted until the mid-1980s. Preparations withered after the mid-1960s simultaneously with emerging declaratory doctrine on neutrality policy. Robert Dalsjö, *Life-Line Lost: The Rise and Fall of "Neutral" Sweden's Secret Reserve Option of Wartime Help from the West*, Stockholm, Sweden: Santérus Academic Press Sweden, 2006.

34. "Long Term Defence Plan adopted," Government.no, updated November 18, 2016, available from <https://www.regeringen.no/en/topics/defence/ltp/ny-langtidsplan-for-forsvarssektoren/langtidsplanen-for-forsvarssektoren-er-vedtatt/id2520659/>, accessed February 2, 2016. See also Håkon Lunde Saxi, "Norwegian Perspectives on Baltic Sea Security," in Ann-Sofie Dahl, ed., *Strategic Challenges in the Baltic Sea Region: Russia, Deterrence, and Reassurance*, Washington, DC: Georgetown University Press, 2018, p. 107.

35. Lieutenant General Kjell Grandhagen in Hæren, "Strategic Deterrence in the High North," Facebook live video, 1:17:28, September 18, 2018, available from <https://www.facebook.com/Norwegianarmy/videos/1212006438937573/>. See also Atle Staalesen, "Former defense chief sees a serious Russian threat

against Norway's Finnmark region," *The Barents Observer*, September 19, 2018, available from <https://thebarentsobserver.com/en/security/2018/09/former-norwegian-defense-chief-sees-serious-russian-threat-against-norways-finnmark>.

36. Saxi, "Norwegian Perspectives on Baltic Sea Security," pp. 108-109.

37. See *Capable and Sustainable: Long Term Defence Plan*, Oslo, Norway: Norwegian Ministry of Defense, 2016, available from <https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/rapporter-og-regelverk/capable-and-sustainable-ltp-english-brochure.pdf>, accessed February 1, 2017.

38. Haakon Bruun-Hanssen, Chief of the Armed Forces of Norway, speech in the National Defense Course Association, National Defence University, January 12, 2017; "Yhteistyötä!" ("Cooperation!"), *Maanpuolustus*, No. 119, March 2017, p. 59.

39. *Capable and Sustainable*. The requirement to maintain national defense capability is fundamental for all allied nations, as stated in Article 3 of the Washington Treaty, but currently not all allied armed forces fully maintain that capability. For details about Pre-Positioning Program - Norway, see "Marine Corps Pre-Positioning Program - Norway (MCPN)," Marines: The Official Website of the United States Marine Corps, n.d., available from <https://www.candp.marines.mil/Organization/MAGTF/Marine-Corps-Pre-Positioning-Program-Norway-MCPN/>, accessed October 5, 2018. The Marine Corps Pre-Positioning Program - Norway serves as the first echelon of equipment and supplies required for standing up a Maritime Expeditionary Brigade.

40. The Royal Norwegian Ministry of Defence, *Future acquisitions for the Norwegian Defence Sector 2018-2025*, Oslo, Norway: Norwegian Ministry of Defence, March 2018, available from <https://www.regjeringen.no/globalassets/departementene/fd/dokumenter/rapporter-og-regelverk/faf-2018-2025-english---final.pdf>.

41. The Norwegian Government recommends additional funding over the course of the coming 20 years of kr165 billion (US\$21 billion, or €19 billion, at the exchange rates of February 2, 2017), also including future cost growth. By 2020, the gradual increase of the current defense budget will be close to US\$1 billion.

For strategic capabilities in 2021-2026, an additional investment funding is proposed by the Norwegian Government. For further details, see “Long Term Defence Plan adopted.” For details of the main priorities of services and headquarters, see “The Norwegian Armed Forces,” PowerPoint presentation, Oslo, Norway: Norwegian Ministry of Defence, updated November 15, 2013, available from [http://www.regjeringen.no/globalassets/upload/fd/temadokumenter/det-norske-forsvaret\\_engelsk\\_20131115.pdf](http://www.regjeringen.no/globalassets/upload/fd/temadokumenter/det-norske-forsvaret_engelsk_20131115.pdf), accessed February 1, 2017; and “Chapter 4: Europe,” pp. 142-144.

42. *Capable and Sustainable*, p. 13.

43. “Prop. 2 S (2017-2018): Videreutviklingen av Hæren og Heimevernet—Landmaktproposisjon” (“Prop. 2S [Propositions to the Storting, the Government, the Ministry of Defense] (2017-2018): the further development of the Army and the Home Guard—National Power Proposition”), Government.no, n.d., available from <http://www.regjeringen.no/no/dokumenter/prop.-2-s-20172018/id2575441/sec1>, accessed September 30, 2018.

44. *The Military Balance 2017*, pp. 142-144. See also Lea Peuhkuri, “Epäluulo tuli aseiden mukana Itämerelle” (“Suspicion entered the Baltic Sea with armaments”), *Turun Sanomat*, February 18, 2017, p. 14.

45. History is described in Forss and Holopainen, p. 5.

46. Prime Minister’s Office, *Government Report on Finnish Foreign and Security Policy*, Helsinki, Finland: Prime Minister’s Office, Government of Finland, September 2016, pp. 16, 19; Prime Ministers’s Office, *Government’s Defence Report*, Helsinki, Finland: Prime Minister’s Office, Government of Finland, July 2017, available from [http://www.defmin.fi/files/3688/J07\\_2017\\_Governments\\_Defence\\_Report\\_Eng\\_PLM\\_160217.pdf](http://www.defmin.fi/files/3688/J07_2017_Governments_Defence_Report_Eng_PLM_160217.pdf), accessed July 10, 2017; Discussions with Petteri Kajanmaa, former student of U.S. Army War College, on August 10-11, 2017.

47. The borderline could also extend to 2,450 kilometers, pending a more accurate assessment. Finland’s border is a total of 2,654 kilometers long: with Norway, 727 kilometers; Sweden, 614 kilometers; and, Russia, 1,313 kilometers. *The World Fact Book*, Washington, DC: Central Intelligence Agency, available from



<https://www.cia.gov/library/publications/resources/the-world-factbook/fields/281.html>, accessed March 12, 2019.

48. "President Niinistö: Russia 'would see enemies' if Finland joins Nato," Yle, updated September 16, 2018, available from [https://yle.fi/uutiset/osasto/news/president\\_niinisto\\_russia\\_would\\_see\\_enemies\\_if\\_finland\\_joins\\_nato/10406775](https://yle.fi/uutiset/osasto/news/president_niinisto_russia_would_see_enemies_if_finland_joins_nato/10406775), accessed October 2, 2018.

49. Marjukka Liiten, "Niinistö Ylelle: EU:n yhteispuolustus vietävä mahdollisimman pitkälle" ("Niinistö to Yle: Common defense of the EU must go as far as possible"), *Helsingin Sanomat*, January 15, 2017, p. A16; Saska Saarikoski, "Niinistö: Epävarmuus luo turvattomuutta" ("Niinistö: Uncertainty creates insecurity"), *Helsingin Sanomat*, September 28, 2018, p. A23.

50. Maanpuolustustiedotuksen suunnittelukunta (The Advisory Board for Defense Information [ABDI]), *Suomalaisen mielipiteitä ulko- ja turvallisuuspolitiikasta, maanpuolustuksesta ja turvallisuudesta* (Finns' opinions on foreign and security policy, national defense and security), Helsinki, Finland: Ministry of Defence of Finland, 2016, pp. 20-22, available from [http://www.definin.fi/en/tasks\\_and\\_activities/media\\_and\\_communications/the\\_advisory\\_board\\_for\\_defence\\_information\\_abdi/bulletins\\_and\\_reports/finns\\_opinions\\_on\\_foreign\\_and\\_security\\_policy\\_national\\_defence\\_and\\_security.8091.news](http://www.definin.fi/en/tasks_and_activities/media_and_communications/the_advisory_board_for_defence_information_abdi/bulletins_and_reports/finns_opinions_on_foreign_and_security_policy_national_defence_and_security.8091.news), accessed February 27, 2017.

51. *Regeringens proposition 2014/15:109: Försvarspolitisk inriktning—Sveriges försvar 2016–2020* (Defense policy directive—Defense of Sweden 2016-2020), Stockholm, Sweden: Ministry of Defense, Government of Sweden, April 23, 2015, pp. 23-24, available from <http://www.regeringen.se/contentassets/266e64ec3a254a6087e9e413806819/proposition-201415109-forsvarspolitisk-inriktning-sveriges-forsvar-2016-2020>, accessed April 11, 2016; Peter Hultqvist, Minister of Defense, presentation at the Royal Swedish Academy of War Sciences, December 3, 2014, available from <http://www.regeringen.se/tal/2014/12/anforande-krigsvetenskapsakademien/>, accessed April 5, 2016, hereafter Hultqvist, presentation, December 3, 2014; Lauri Nurmi, "Raaka oma voima ja länsisuhteet turvaavat rauhan" ("Brute national force and Western relations secure peace"), *Turun Sanomat*, February 17, 2017, p. 13.

52. "Stealthy JASSM Cruise Missiles for Finland's Hornets," *Defense Industry Daily*, June 10, 2013, available from <https://www.defenseindustrydaily.com/finland-to-buy-cruise-missiles-for-its-hornets-05370/>, accessed March 27, 2017; "Lockheed Martin Receives \$34 Million JASSM® Contract for Additional Integration Onto Finnish Air Force F-18," *Lockheed Martin*, June 10, 2013, available from <https://news.lockheedmartin.com/2013-06-10-Lockheed-Martin-Receives-34-Million-JASSM-Contract-For-Additional-Integration-Onto-Finnish-Air-Force-F-18>, accessed March 11, 2019.

53. *Government Report on Finnish Foreign and Security Policy*, p. 7.

54. *Summary to Long-Term Challenges Of Defence: final report of the parliamentary assessment group*, Helsinki, Finland: Parliamentary Office, May 2014, available from [http://www.eduskunta.fi/FI/tietoaeduskunnasta/julkaisut/Documents/ekj\\_5+2014.pdf#search=Parliamentary%20Office%20Report%203%2F2014](http://www.eduskunta.fi/FI/tietoaeduskunnasta/julkaisut/Documents/ekj_5+2014.pdf#search=Parliamentary%20Office%20Report%203%2F2014), accessed February 20, 2017. See also *Parliamentary Assessment Group, Parliamentary Office Report*, Helsinki, Finland: Parliament of Finland, March 2014.

55. Prime Ministers's Office, *Government's Defence Report*, p. 5.

56. *Ibid.*, p. 31.

57. Official websites of the following: Finnish Defense Forces, available from <http://puolustusvoimat.fi/en/frontpage>; The Finnish Army, available from <http://maavoimat.fi/en/frontpage>; The Finnish Navy, available from <http://merivoimat.fi/en/frontpage>; The Finnish Air Force, available from <http://ilmavoimat.fi/en/frontpage>; and, The Finnish Air Force Materiel (Equipment of the Finnish Air Force), available from <https://ilmavoimat.fi/en/materiel1>. See also "Chapter 4: Europe," in *The Military Balance 2017*, pp. 108-110; Arto Nokkala, *Kyky ja Tahto, Suomen puolustus murroksessa (The Capability and the Will, Finland's defense in transition)*, Jyväskylä, Finland: Docendo, 2014, pp. 258-259; and Peuhkuri, p. 14. For comparison, at the end of the Cold War, Finland had 27 brigades, and the number of Finnish Army soldiers who could be mobilized was 285,000. However, performance has improved.

58. Prime Ministers's Office, *Government's Defence Report*, p. 21; Eeva Palojarvi, "Jussi Niinistö tiuhentaisi kutsuntoja" ("Jussi Niinistö would add drafts for conscripts"), *Helsingin Sanomat*, February 22, 2017, p. A10; Jussi Niinistö, "Ministeri Niinistö: Puolustuksen alamäki on katkaistu" ("Minister Niinistö: Defense cutbacks stopped"), Ministry of Defence of Finland, Press Release, February 21, 2017 available from [http://www.defmin.fi/ajankohtaista/tiedotteet?9\\_m=8257](http://www.defmin.fi/ajankohtaista/tiedotteet?9_m=8257), accessed February 22, 2017.

59. "Tutkija: Asevelvollisuus tulee Suomelle kalliiksi" ("Professor: Conscription will be expensive for Finland"), *Yle*, updated April 8, 2012, available from <http://yle.fi/uutiset/3-5513799>, accessed February 22, 2017. Expenses vary drastically, nourishing the domestic debate (e.g., from US\$0.264 billion, or €11,000 for each conscript, up to US\$2.9 billion, equating to the defense budget since 2013). See also Elisabeth Braw, "The Return of the Military Draft," *Issue Brief*, Washington, DC: Brent Scowcroft Center on International Security, Atlantic Council, February 2015; Maanpuolustustiedotuksen suunnittelukunta.

60. Jarmo Lindberg (Chief of Defense of Finland), Opening remarks at the 221st National Defense Course on March 6, 2017, available from <http://puolustusvoimat.fi/221.-valtakunnallisen-maanpuolustuskurssin-avajaiset>, accessed March 10, 2017.

61. Jarmo Huhtanen, "Tuhat varusmiestä saa erikoiskoulutuksen" ("One thousand conscripts receive special training"), *Helsingin Sanomat*, February 23, 2017, p. A14; Ahti Lappi, "Monitoimihävittäjiä vai ohjuksia?" ("Multirole aircraft or missiles?"), Suomen Sotilas 1-2017, Helsinki, Finland: Kustannus Oy Suomen Mies, pp. 18-19.

62. Prime Ministers's Office, *Government's Defence Report*, pp. 24-25.

63. Since 1945, for Sweden, the term "neutral" has been interpreted as "non-alignment in peace aiming at neutrality in war." For Finland, the term "neutral" has been constantly debated for many reasons, one being the Agreement of Friendship, Cooperation, and Mutual Assistance with the Soviet Union. Mike Winnerstig and Pekka Sivonen, "A Comparative Perspective," in Bo Huldt, Teija Tiilikainen, Tapani Vaahtoranta, and Anna Helkama-Rågård, eds., *Finnish and Swedish Security, Comparing National*

*Policies*, Stockholm, Sweden: Swedish National Defence College, 2001, p. 106; Bo Huldt, "Foreword," in Bo Hugemark, ed., *Friends in Need*, Stockholm, Sweden: Royal Swedish Academy of War Sciences, 2012.

64. Mikael Holmström, *Den dolda alliansen. Sveriges hemliga NATO-förbindelser, Fjärde uplagan. Utökad med Det nya kalla kriget (The secret alliance. Sweden's secret NATO connections)*, 4th Ed., Falun, China: Atlantis AB, 2015.

65. The state and military leadership have declared on several occasions since December 2012 that the national defense capability is insufficient. In addition, the public opinion indicates very little reliance on national defense (10 percent has a strong reliance on defense, whereas 66 percent has only a little or very little reliance). Pekka Mäkelä, "Maailmalta" ("World"), *Suomen Sotilas*, 1-2017, p. 36.

66. Pyykönen, *The Nordic Partners of NATO*, pp. 63-64; Holmström, *Den dolda alliansen*, pp. 604-605; Krister Andrén, *Krigsanhållande tröskelförmåga. Det svenska försvarets glömda huvuduppgift? (War retarding threshold ability. The Swedish Defense's forgotten main task?)*, FOI-R--3852--SE, Stockholm, Sweden: Swedish Defence Research Agency, February 2014, pp. 9-10. For further information on the functioning of the former Swedish total defense system, see Karlis Neretnieks, "När kriget kommer" ("When the war arrives"), *Dagens Nyheter*, Tema/Axess nr 3, 2016, pp. 46-49. His estimate is that it would take double the current defense budget and 1 decade to establish a credible and sufficient defense for Sweden.

67. Michael Claesson, "Sveriges deltagande in Natoleda operationer," Karlis Neretnieks, ed., *Nato—för och emot (NATO— for and against)*, Stockholm, Sweden: Kungliga Krigsvetenskapssakademien, 2014, p. 57; Pyykönen, *The Nordic Partners of NATO*, pp. 75-76.

68. Holmström, *Den dolda alliansen*, p. 604; Andrén, p. 10.

69. For comparison, the defense reform planned a force of two brigades for the Swedish Army. Frank Rosenius, "Foreword," in Sven Christer Nilsson and Göran Larsbrink, eds., *Swedish National Security beyond 2014*, Stockholm, Sweden: The Royal

Swedish Academy of War Sciences, 2013, p. 8; Mats Bergquist, "NATO-frågan i Finland och Sverige" ("NATO issue in Finland and Sweden"), *Nordisk Tidskrift* 1/2016, Söderköping, Sweden: Tellogruppen AB, January 2016, pp. 66-67.

70. Forss and Holopainen, p. 21.

71. "Regeringen täpper till miljardhåll i försvarsbudgeten" ("The government adds billions to defense budget"), *Dagens Nyheter*, April 1, 2014, available from <http://www.dn.se/ekonomi/regeringen-tapper-till-miljardhal-i-forsvarsbudgeten/>, accessed February 24, 2017; "Ny överenskommelse om ytterligare pengar till försvaret" ("New agreement on additional funding for the defense forces"), Government Offices of Sweden, March 13, 2017, available from <http://www.regeringen.se/artiklar/2017/03/ny-overenskommelse-om-ytterligare-pengar-till-forsvaret/>, accessed March 13, 2017; Mikael Holmström, "S lovar försvarsbudget på över 60 miljarder" ("Social Democrats promise defense budget of over 60 billion"), *Dagens Nyheter*, updated August 24, 2018, p. 12, available from <https://www.dn.se/nyheter/politik/s-lovar-forsvarsbudget-pa-over-60-miljarder/>.

72. Examples of deepening cooperation in various areas are illustrated in the *Nordic Defence Cooperation: NORDEFECO Annual Report 2015*, Stockholm, Sweden: Ministry of Defence, Government Offices of Sweden, January 2016, available from [http://www.government.se/4903e5/globalassets/regeringen/dokument/forsvarsdepartementet/rapporter/nordefeco-annual-report-2015\\_webb.pdf](http://www.government.se/4903e5/globalassets/regeringen/dokument/forsvarsdepartementet/rapporter/nordefeco-annual-report-2015_webb.pdf), accessed July 16, 2017. See also *Nordic Defence Cooperation: NORDEFECO Annual Report 2016: "Promoting security through cooperation,"* Copenhagen, Denmark: Danish Ministry of Defense, 2016, available from <http://www.finn.dk/nyheder/Documents/NORDEFECO-annual-report-2016.pdf>, accessed July 16, 2017. For example, the Alternate Landing Base technical agreement approved in 2015 (see p. 9 and p. 6 of the reports, respectively) to allow unarmed military aircraft to access each country's bases involves Finland, Denmark, Norway, and Sweden. The possibility to extend the agreement to armed aircraft is under preparation.

73. *Regeringens proposition 2014/15:109*, pp. 23-24; Hultqvist, presentation, December 3, 2014; Memorandum of Understanding between the Government of the Republic of Finland and the

Government of The Kingdom of Sweden on Defence Cooperation, July 9, 2018.

74. Charly Salenius-Pasternak, "The Defense of Finland and Sweden: Continuity and Variance in Strategy and Public Opinion," FIIA briefing paper 240, Helsinki, Finland: Finnish Institute of International Affairs, June 2018, pp. 6-7.

75. Mikael Holmström, "USA skulle hjälpa Sverige militarily in crisis" ("U.S. would help Sweden with military in a crisis"), *Dagens Nyheter*, May 20, 2018, pp. 14-16.

76. "No island as important as Gotland, says US military chief," *The Local*, July 24, 2017, available from <https://www.thelocal.se/20170724/no-island-as-important-as-gotland-says-us-military-chief-ben-hodges-europe-nato-russia-sweden>, accessed August 10, 2017.

77. *Militärstrategisk doktrin för Sveriges militär försvar MSD 16, Bilaga 1 (Military strategic doctrine for the military defense of Sweden MSD 16, Annex 1 Swedish Armed Forces)*, FM2016-7616:1, Stockholm, Sweden: Swedish Armed Forces, 2016, pp. 26, 32-33, 35, hereafter MSD 16.

78. *Ibid.*, pp. 20-21, 26. See also *Regeringens proposition 2014/15:109*.

79. For further details, see unit compositions, equipment, and descriptions at "Organisation," Swedish Armed Forces, n.d., available from <http://www.forsvarsmakten.se/sv/organisation/>, accessed February 25, 2017; *The Military Balance 2017*, pp. 161-163; and Peuhkuri p. 14. See also "Organisational Structure and Responsibilities," Swedish Armed Forces, n.d., available from <http://www.forsvarsmakten.se/en/about/organisation/organisational-structure-and-responsibilities/>, accessed February 25, 2017.

80. MSD 16, pp. 39-40.

81. For instance, demonstrated in Libya (Operation UNITED PROTECTOR), Afghanistan (International Security Assistance Force), and in the Indian Ocean and the Gulf of Aden (naval Operation ATALANTA). See also Pyykönen, *The Nordic Partners of NATO*, pp. 76-77.

82. Robert Dalsjö, "Sweden and its deterrent deficit—Quick to react, yet slow to act," in Nora Vanaga and Toms Rostoks, eds., *Deterring Russia in Europe: Defence Strategies for Neighbouring States*, Abington, UK: Routledge, 2018, pp. 100-102.

83. Ibid. See also the English summary of "Försvarsmaktens långsiktiga materielbehov" ("Long-term materiel needs of the Defense Forces"), SOU 2018:7, Stockholm, Sweden: Ministry of Defense, Government of Sweden, pp. 17-23, available from <http://www.regeringen.se/492372/globalassets/regeringen/dokument/forsvarsdepartementet/sou/sou-7-2018.pdf>.

84. Dalsjö, "Sweden and its deterrent deficit," in Vanaga and Rostoks, eds., *Deterring Russia in Europe*; see also *Tilloväxt för ett starkare försvar—Slutredovisning av Försvarsmaktens perspektivstudie 2016-2018 (Growth for a stronger defense—final report of the Defence Forces' perspective study 2016-2018)*, Stockholm, Sweden: Swedish Armed Forces, February 22, 2018, available from <http://www.forsvarsmakten.se/siteassets/4-om-myndigheten/dokumentfiler/perspektivplan/slutlig-redovisning-av-perspektivstudien-2016-2018.pdf>.

85. Barack Obama, *National Security Strategy*, Washington, DC: The White House, February 2015, available from <http://nssarchive.us/wp-content/uploads/2015/02/2015.pdf>, accessed August 11, 2017.

86. "Hearing to Consider the Nomination of General Mark A. Milley, USA, to Be Chief of Staff of the Army," Stenographic Transcript before the United States Senate Committee on Armed Services, Washington, DC: Alderson Reporting Company, July 21, 2015, available from [https://www.armed-services.senate.gov/download/15-64\\_-7-21-15](https://www.armed-services.senate.gov/download/15-64_-7-21-15); Kristina Wong, "US Army keeping wary eye on Russia," *The Hill*, October 24, 2016, available from <https://thehill.com/policy/defense/army/302466-us-army-keeping-wary-eye-on-russia>.

87. Joseph Dunford, Jr., "Posture Statement of 19th Chairman of the Joint Chiefs of Staff Before the 115th Congress Senate Armed Services Budget Hearing, June 13, 2017," Washington, DC: U.S. Senate Committee on Armed Forces, June 13, 2017, available from [http://www.armed-services.senate.gov/imo/media/doc/Dunford\\_06-13-17.pdf](http://www.armed-services.senate.gov/imo/media/doc/Dunford_06-13-17.pdf).

88. Philip Breedlove, "Getting Russia right," *The Washington Times*, February 14, 2017, available from <http://www.washingtontimes.com/news/2017/feb/14/getting-russia-right/>.

89. James Kitfield, "NATO Ops Center Goes 24/7 To Counter Russians: Gen. Scaparrotti," *Breaking Defense*, October 1, 2018, available from <https://breakingdefense.com/2018/10/nato-ops-center-goes-24-7-to-counter-russians-gen-scaparrotti/>.

90. Ibid.; Andrea Shalal, "U.S. top commander in Europe wants more resources, forces to deter Russia," *Reuters*, May 24, 2018, available from <https://www.reuters.com/article/us-europe-security/us-top-commander-in-europe-wants-more-resources-forces-to-deter-russia-idUSKCN1IP3IG>.

91. Tommi Nieminen, "Jos Suomi joutuisi sotaan, olisi hyökäys täynnä yllätyksiä, arvioi Puolustusvoimien komentaja Lindberg—ja kertoo, mikä on tilannekuva nyt" ("If Finland was dragged into war, the attack would be full of surprises, Chief of Defense Lindberg assesses—and tells what the situational picture is like now"), *Helsingin Sanomat*, updated January 30, 2017, available from <http://www.hs.fi/sunnuntai/art-2000005063993.html>.

92. Andrei Kokoshin, *Ensuring Strategic Stability in the Past and Present: Theoretical and Applied Questions*, Cambridge, MA: Harvard Kennedy School, Belfer Center for Science and International Affairs, June 2011, p. 4, available from <http://www.belfercenter.org/sites/default/files/legacy/files/Ensuring%20Strategic%20Stability%20by%20A.%20Kokoshin.pdf>. Here Dr. Kokoshin, a renowned Russian defense intellectual, referred to views presented by academician Yuri Trutnev.

93. Stefan Forss, Lauri Kiiänlinna, Pertti Inkinen, and Heikki Hult, *The development of Russian military policy and Finland*, Series 2: Research Reports No. 49, Helsinki, Finland: Finnish National Defence University, Department of Strategic and Defence Studies, 2013, available from <http://urn.fi/URN:ISBN:978-951-25-2442-6>, accessed March 13, 2017.

94. Pasi Kesseli, ed., *Venäjän asevoimat muutoksessa—kohti 2030-lukua (The Russian Armed Forces in Change—Towards the 2030s)*, Series 1, Research Publications No. 5, Helsinki, Finland:



Finnish National Defence University, 2016, available from <http://urn.fi/URN:ISBN:978-951-25-2782-3>.

95. Gudrun Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, FOI-R--4326--SE, The Swedish Defence Research Agency, Stockholm, Sweden: Swedish Defence Research Agency, December 2016, available from <https://www.foi.se/rapport-sammanfattning?reportNo=FOI-R--4326--SE>, accessed January 2, 2017.

96. Studiya "Al'fa," g. Tver (Studio "Alfa," City of Tver), "Poteryanny den': vsya pravda o Voynе 08.08.08g" ("The lost day: the whole truth about the war of 8 August 2008"), YouTube video, 46:59, August 7, 2012, available from <https://www.youtube.com/watch?v=sYQeeFXhOQw>, accessed March 13, 2017; "Former Generals Slate Medvedev Over Ossetia War," RIA Novosti, August 8, 2012, available from <https://sputniknews.com/world/20120808175066806/>, accessed March 13, 2017; Pavel Felgenhauer, "Putin Confirms the Invasion of Georgia Was Preplanned," *Eurasia Daily Monitor*, Vol. 9, Iss. 152, August 9, 2012, available from <https://jamestown.org/program/putin-confirms-the-invasion-of-georgia-was-preplanned/>, accessed March 13, 2017; Stephen Ennis, "Russian film on Georgia war fuels talk of Kremlin rift," BBC News, August 10, 2012, available from <https://www.bbc.com/news/world-europe-19213891>, accessed March 13, 2017.

97. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, chs. 2-3.

98. Forss et al., p. 32.

99. Ibid.

100. Andrius Sytas, "Baltic states seek more NATO help ahead of Russian exercise," Reuters, February 9, 2017, available from <http://www.reuters.com/article/us-baltic-nato-russia-idUSKBN15O2HZ>, accessed March 13, 2017.

101. "Tamanskaya i Kantemirovskaya brigady snova stali diviziyami" ("Taman and Kantemirovskaya Brigades become divisions again"), RIA Novosti, May 4, 2013, available from <https://ria.ru/20130504/935791082.html>, accessed August 10, 2017.

Additional personal information provided by Colonel (Ret.) Sam Gardiner, August 9, 2017.

102. Johan Norberg, *Training for War—Russia’s Strategic-level Military Exercises 2009-2017*, FOI-R--4627--SE, Stockholm, Sweden: Swedish Defense Research Agency, October 2018, pp. 25, 74, available from <https://www.foi.se/rapportsammanfattning?reportNo=FOI-R--4627--SE>.

103. Keir Giles, “U.S.-Russia Insight: Russia Hit Multiple Targets with Zapad-2017,” Washington, DC: Carnegie Endowment for International Peace, January 25, 2018, available from [https://carnegieendowment.org/files/Giles\\_Zapad\\_web.pdf](https://carnegieendowment.org/files/Giles_Zapad_web.pdf).

104. Johan Norberg, “Vostok-2018: about the Russian military’s brain, not its muscles,” *RUFSS Briefing No. 43*, FOI Memo 6470, Stockholm, Sweden: Swedish Defence Research Agency, September 2018.

105. Norberg, *Training for War—Russia’s Strategic-level Military Exercises 2009-2017*.

106. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, p. 67.

107. Norberg, *Training for War—Russia’s Strategic-level Military Exercises 2009-2017*, pp. 48-49.

108. Forss et al.; *Ibid.*

109. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, p. 70.

110. *Ibid.*, p. 80.

111. Dmitry Gorenburg, “Moscow Conference on International Security 2015 Part 4: Russian views of NATO,” *Russian Military Reform*, May 19, 2015, available from <https://russiamil.wordpress.com/2015/05/19/moscow-conference-on-international-security-2015-part-4-russian-views-of-nato/>; accessed November 7, 2018.

112. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, p. 84.

113. Ibid., p. 171.

114. *The Military Balance 2017*, p. 190; Ibid., p. 171.

115. Dave Majumdar, "Russia's First Post-Syria Move: Stronger T-72 Battle Tanks," *The Buzz*, blog of *The National Interest*, March 15, 2016, available from <https://nationalinterest.org/blog/the-buzz/russias-first-post-syria-move-stronger-t-72-battle-tanks-15500>, accessed March 13, 2017.

116. Robert H. Scales, "Russia's superior new weapons," *The Washington Post*, August 5, 2016, available from [https://www.washingtonpost.com/opinions/global-opinions/russias-superior-new-weapons/2016/08/05/e86334ec-08c5-11e6-bdcb-0133da18418d\\_story.html?noredirect=on&utm\\_term=.d7eb7207e7c4](https://www.washingtonpost.com/opinions/global-opinions/russias-superior-new-weapons/2016/08/05/e86334ec-08c5-11e6-bdcb-0133da18418d_story.html?noredirect=on&utm_term=.d7eb7207e7c4), accessed March 13, 2017.

117. For a discussion of new Russian unmanned aerial vehicle capabilities as displayed in Ukraine and Syria and on the Estonian border, see Keir Giles, "Assessing Russia's Reorganized and Rearmed Military," Washington, DC: Task Force On U.S. Policy Toward Russia, Ukraine, and Eurasia, Carnegie Endowment for International Peace, 2017, available from [http://carnegieendowment.org/files/5.4.2017\\_Keir\\_Giles\\_RussiaMilitary.pdf](http://carnegieendowment.org/files/5.4.2017_Keir_Giles_RussiaMilitary.pdf); and, Kim Hartmann and Keir Giles, "UAV Exploitation: A New Domain for Cyber Power," in N. Pissanidis, H. Rõigas, and M. Veenendaal, eds., *2016 8th International Conference on Cyber Conflict*, Tallinn, Estonia: North Atlantic Treaty Organization Cooperative Cyber Defence Centre of Excellence Publications, 2016, available from [https://www.academia.edu/25921967/UAV\\_Exploitation\\_A\\_New\\_Domain\\_for\\_Cyber\\_Power](https://www.academia.edu/25921967/UAV_Exploitation_A_New_Domain_for_Cyber_Power).

118. Scales.

119. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, p. 174.

120. Stefan Forss, "The Russian operational-tactical Iskander missile system," Series 4, working paper 42, Helsinki, Finland: Finnish National Defence University, Department of Strategic and Defence Studies, 2012, p. 1, available from <http://urn.fi/URN:NBN:fi-fe201210029314>, accessed March 13, 2017.

121. Stefan Forss and Igor Sutyagin, private communication on November 1, 2016.

122. "Konstruktorskoye byuro mashinostroyeniya sozdayet novuyu raketu dlya 'Iskander-M'" ("Mechanical Engineering Design Bureau working on a new missile for the 'Iskander-M'"), Tass, February 10, 2014, available from <http://tass.ru/politika/951804>, accessed March 13, 2017.

123. Mark Schneider, "Russian Violations of the INF and New START Treaties," *Information Series*, No. 410, Fairfax, VA: National Institute for Public Policy Press, August 15, 2016, available from <http://www.nipp.org/2016/08/15/schneider-mark-russian-violations-of-the-inf-and-new-start-treaties/>, accessed March 13, 2017. See also Douglas Barrie and Henry Boyd, "Slingshot redux: Russia's alleged ground-launched cruise missile," *Military Balance Blog*, March 27, 2017, available from <https://www.iiss.org/blogs/military-balance/2017/03/russia-missile>.

124. Dave Majumdar, "Novator 9M729: The Russian Missile that Broke INF Treaty's Back?" *The Buzz*, blog of *The National Interest*, December 7, 2017, available from <https://nationalinterest.org/blog/the-buzz/novator-9m729-the-russian-missile-broke-inf-treatys-back-23547>.

125. Michael R. Gordon, "Russia Deploys Missile, Violating Treaty and Challenging Trump," *The New York Times*, February 14, 2017, available from <https://www.nytimes.com/2017/02/14/world/europe/russia-cruise-missile-arms-control-treaty.html>; Michael R. Gordon, "Russia Has Deployed Missile Barred by Treaty, U.S. General Tells Congress," *The New York Times*, March 8, 2017, available from <https://www.nytimes.com/2017/03/08/us/politics/russia-inf-missile-treaty.html>; Foreign Military Studies Office, "Iskander Turns Ten, Modernization Scheduled," *OE WATCH*, Vol. 7, No. 2, March 2017, p. 40.

126. Idrees Ali, "U.S. general says Russia deploys cruise missile, threatens NATO," *Reuters*, March 8, 2017, available from <http://www.reuters.com/article/us-usa-russia-missiles-idUSKBN16F23V>, accessed March 13, 2017; Colonel (Ret.) Sam Gardiner, "The Dilemma of the Security Policy of the New U.S. Administration—Clarity on the Not-So-Clear," presented at the *Strengthening Societal Resilience against Hybrid Threats in the Baltic*

*Region Conference*, held by the National Defence Foundation and the National Security and Defence Committee of Lithuania, in Vilnius, Lithuania, March 3, 2017.

127. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, pp. 86-92.

128. *Ibid.*

129. "Russian Army Receives Iskander Missile System, Kalibr Cruise Missiles," Sputnik, July 26, 2017, available from <https://sputniknews.com/military/201707261055886057-russia-iskander-kalibr-missiles/>, accessed August 11, 2017.

130. Mark B. Schneider, "The Nuclear Posture Review and the Future of the INF Treaty," Real Clear Defense, August 8, 2017, available from [https://www.realcleardefense.com/articles/2017/08/08/the\\_nuclear\\_posture\\_review\\_and\\_the\\_future\\_of\\_the\\_inf\\_treaty\\_111994.html](https://www.realcleardefense.com/articles/2017/08/08/the_nuclear_posture_review_and_the_future_of_the_inf_treaty_111994.html), accessed August 10, 2017.

131. "'High Reliability': Putin Praises Performance of Kh-101 Cruise Missiles in Syria," Sputnik, July 6, 2017, available from <https://sputniknews.com/russia/201707061055289184-syria-x-101-cruise-missiles/>, accessed July 10, 2017.

132. Persson, ed., *Russian Military Capability in a Ten-Year Perspective—2016*, p. 92.

133. "The Presidential Nuclear Initiatives (PNIs) on Tactical Nuclear Weapons at a Glance," *Fact Sheets & Briefs*, Arms Control Association, July 1, 2017, available from <http://www.armscontrol.org/factsheets/pniglance>, accessed March 12, 2019.

134. "B&W Pantex: FY 2012 Performance Evaluation Summary," Amarillo, TX: B&W Pantex, October 23, 2012, p. 24, available from [https://nukewatch.org/importantdocs/resources/Pantex\\_Final\\_FY12\\_PER.PDF](https://nukewatch.org/importantdocs/resources/Pantex_Final_FY12_PER.PDF).

135. Elbridge Colby, "Russia's Evolving Nuclear Doctrine and its Implications," Note n°01/2016, Paris, France: Fondation pour la Recherche Stratégique, January 12, 2016, available from <http://www.frstrategie.org/publications/notes/russia-s-evolving-nuclear-doctrine-and-its-implications-2016-01>; Mark B. Schneider, "Escalate

to De-escalate," *Proceedings*, Vol. 143, No. 2, February 2017, available from <https://www.usni.org/magazines/proceedings/2017/february/escalate-de-escalate>, accessed March 21, 2017.

136. Kristina Spohr, *The Global Chancellor: Helmut Schmidt & the Reshaping of the International Order*, Oxford, UK: Oxford University Press, 2016, ch. 4.

137. For a detailed account, see Stefan Forss, "Russian Nuclear Policy, Doctrine and Strategy," in Glen E. Howard and Matthew Czekaj, eds., *Russia's Military Strategy and Doctrine*, Washington, DC: Jamestown Foundation, 2019. See also Schneider, "The Nuclear Posture Review and the Future of the INF Treaty."

138. *Seven Defense Priorities for the New Administration: Report of the Defense Science Board*, Washington, DC: The Defense Science Board, December 2016, ch. 2, available from <https://fas.org/irp/agency/dod/dsb/priorities.pdf>; Franklin Miller and Keith B. Payne, "Trump's Nuclear Deterrence Challenge," *The Wall Street Journal*, November 20, 2016, available from <https://www.wsj.com/articles/trumps-nuclear-deterrence-challenge-1479680000>, accessed March 21, 2017.

139. Tal Axelrod, "Trump confirms US will withdraw from key arms control treaty," *The Hill*, October 20, 2018, available from <https://thehill.com/homenews/administration/412401-trump-confirms-us-will-withdraw-from-key-arms-control-treaty>.

140. Steven Pifer, "Why America Must Stop Russia from Violating the INF Treaty," *The National Interest*, April 23, 2017, available from <https://nationalinterest.org/feature/why-america-must-stop-russia-violating-the-inf-treaty-20310>, accessed August 10, 2017.

141. Sydney J. Freedberg, Jr., "What Weapons Will The US Build After The INF Treaty?" *Breaking Defense*, October 22, 2018, available from <https://breakingdefense.com/2018/10/what-weapons-will-the-us-build-after-the-inf/>.

142. Shlapak and Johnson; Wesley Clark, Jüri Luik, Egon Ramms, and Richard Shirreff, eds., *Closing NATO's Baltic Gap*, Tallinn, Estonia: International Centre for Defence and Security, May 2016, available from <https://icds.ee/closing-natos-baltic-gap/>,

accessed March 11, 2019; Stephen J. Cimbala, "Russian Threat Perceptions and Security Policies: Soviet Shadows and Contemporary Challenges," *The Journal of Power Institutions in Post-Soviet Societies*, Iss. 14/15, March 13, 2013, available from <http://journals.openedition.org/pipss/4000>; Andrew Radin, *Hybrid Warfare in the Baltics: Threats and Potential Responses*, Santa Monica, CA: RAND Corporation, 2017, available from [https://www.rand.org/pubs/research\\_reports/RR1577.html](https://www.rand.org/pubs/research_reports/RR1577.html), accessed April 22, 2019; Robert Dalsjö, *Brännpunkt Baltikum (Baltic Flashpoint)*, FOI-R--4278--SE, Stockholm, Sweden: Swedish Defence Research Agency, 2016, available from <https://www.foi.se/rapportsammanfattning?reportNo=FOI-R--4278--SE>; Edward Lucas, *The Coming Storm: Baltic Sea Security Report*, Washington, DC: Center for European Policy Analysis, June 2015, available from <https://www.cepa.org/the-coming-storm>, accessed March 22, 2017.

143. Shlapak and Johnson, p. 1.

144. David A. Shlapak, "Deterring Russian Aggression in the Baltic States: What it Takes to Win," Testimony presented before the Committee on Armed Services, Subcommittee on Tactical Land and Air Forces, United States House of Representatives, Washington, DC: U.S. Government Printing Office, March 1, 2017, p. 3.

145. Stoicescu and Praks, p. 6.

146. Shlapak and Johnson, p. 2. Viewed in the context of an alliance with an aggregate gross domestic product of more than US\$35 trillion and a combined yearly defense spending of more than US\$1 trillion, it is affordable at least in practice, if not politically.

147. The total number of multinational exercises attended by Finland reached 100 in 2016, with participation in 84 multinational exercises in 2017. See "Kansainvälinen koulutus- ja harjoitustoiminta" ("Finland's participation in international training and exercises"), Ministry of Defence of Finland, n.d., available from [http://www.defmin.fi/puolustushallinto/kansainvalinen\\_koulutus\\_ja\\_harjoitusyhteistyö](http://www.defmin.fi/puolustushallinto/kansainvalinen_koulutus_ja_harjoitusyhteistyö), accessed March 5, 2017. Finland maintained a similar amount of multinational exercises in 2018 as in previous years. Figures for Sweden are at the same high level. See MSD 16, pp. 42-43. Also see Juha Pyykönen, "Sotilaallisen kriisinhallinnan

kuvan muutos” (“Transformation of military crisis management”), in Jyri Raitasalo and Joonas Sipilä, eds., *Sota—teoria ja todellisuus, näkökulmia sodan muutokseen (War—theory and reality, perspectives to transformation of war)*, Maanpuolustuskorkeakoulun Strategian laitos (School of Defense, Department of Strategy) Publication Series 1, No. 24, Helsinki, Finland: Edita Prima, 2008. For the list of exercises attended by Finland during 2018, see “Examples on international training and exercise events in which Finland will participate or which will be organised by Finland in 2018,” Helsinki, Finland: Ministry of Defence of Finland, n.d., available from [http://www.defmin.fi/files/4105/Finland\\_participation\\_in\\_international\\_training\\_and\\_exercises\\_2018.pdf](http://www.defmin.fi/files/4105/Finland_participation_in_international_training_and_exercises_2018.pdf), accessed September 28, 2018.

148. In 2017, the Joint Expeditionary Force (JEF) consisted of units from the UK, the Netherlands, Denmark, Norway, and the three Baltic States. Currently, the force has an autonomous capability possessed by the UK and does not depend on contributions or participation from any other allied nation. Ville Seuri, “Niinistö: Suomi brittien kriisinhallintajoukkoihin” (“Minister of Defense Jussi Niinistö: Finland joins British crisis management unit”), *Helsingin Sanomat*, February 6, 2017, p. A8. See also “Sweden and Finland join UK-led response force (UK MOD press release),” Press Releases 2017, Helsinki, Finland: Ministry of Defence of Finland, available from [https://www.defmin.fi/en/topical/press\\_releases/2017/sweden\\_and\\_finland\\_join\\_uk-led\\_response\\_force\\_\(uk\\_mod\\_press\\_release\).8601.news](https://www.defmin.fi/en/topical/press_releases/2017/sweden_and_finland_join_uk-led_response_force_(uk_mod_press_release).8601.news), accessed July 10, 2017.

149. Marcin Zaborowsky, “‘We need a military Schengen zone’—General Ben Hodges,” CEPA: Center for European Policy Analysis, November 26, 2015, available from <http://cepa.ecms.pl/ind/ex/?id=54cb487d58110b0869e7e435175ebad8>, accessed July 8, 2017.

150. Lieutenant General Grandhagen quoted in Staalesen. For Lieutenant General Grandhagen’s address presented at the Norwegian Army Summit 2018, see Hæren, “Strategic Deterrence in the High North.”

151. “Trident Juncture 18,” Norwegian Armed Forces, last updated October 27, 2018, available from <https://forsvaret.no/exercise>.



152. "Exercise Northern Coasts 18 will be arranged in Finland between 25 October and 8 November 2018," The Finnish Navy, October 17, 2018, available from [https://merivoimat.fi/en/article/-/asset\\_publisher/northern-coasts-18-harjoitus-jarjestetaan-suomessa-25-10-8-11-2018](https://merivoimat.fi/en/article/-/asset_publisher/northern-coasts-18-harjoitus-jarjestetaan-suomessa-25-10-8-11-2018).

153. Lauri Nurmi, "Presidentti Niinistö: Jos Venäjän ja Naton välille syttyy konflikti, Suomi ei jää ulkopuolelle" ("President Niinistö: If a conflict between Russia and NATO starts, Finland cannot remain outside"), *Kaleva*, May 18, 2016, available from <https://www.kaleva.fi/uutiset/kotimaa/presidentti-niinisto-jos-venajan-ja-naton-valille-syttyy-konflikti-suomi-ei-jaa-ulkopuolelle/728045/>. For Swedish views, see Dalsjö, *Brännpunkt Baltikum*.

154. Björn Andersson and Tommy Jeppsson, eds., *Ett trovärdigt totalförsvar—Slutrapport från projektet KV21 (A Credible Total Defense—Final Report of Project KV21)*, Stockholm, Sweden: Royal Swedish Academy of War Sciences, 2018, pp. 111-132.

155. Finnish Defense Forces and the Swedish Armed Forces, "Final reports on deepened defense cooperation between Finland and Sweden," February 23, 2015, available from <http://www.regeringen.se/internationella-organisationer-och-samarbeten/forsvarssamarbetet-sverige-finland/>, accessed April 11, 2016. For the related statement, see "Statssekreteraren undertecknade uttalande om det fördjupade finsk-svenska försvarssamarbetet" ("The State Secretary signed a statement on deepened defense cooperation between Finland and Sweden"), Government Offices of Sweden, May 26, 2015, available from <http://www.regeringen.se/pressmeddelanden/2015/05/statssekreteraren-undertecknade-uttalande-om-det-fordjupade-finsk-svenska-forsvarssamarbetet/>. See also the Ministers of Defense of both countries addressing the details of the activities, "Anförande tillsammans med Finlands försvarsminister Carl Haglund, Rikskonferensen 2015" ("Common statement with the Finnish Minister of Defense Carl Haglund, The National Conference 2015"), Government Offices of Sweden, updated April 2, 2015, available from <http://www.regeringen.se/tal/2015/01/anforande-tillsammans-med-finlands-forsvarsminister-carl-haglund-rikskonferensen-2015/>, accessed May 25, 2016.

156. "Standing" means that the task groups are fully trained and equipped and have promulgated and implemented all necessary standard operating procedures to carry out an operation (in

this case, protection of shipping operations). “Standing” does not specify a certain state of readiness; this will be decided later based on political and military ambitions.

157. The army projects are proceeding with the planning of a headquarters for a brigade consisting of some 3,000 soldiers. See Riina Kasurinen, “Ruotsin ja Suomen maavoimien komentajat: Puolustusliittoon ei olla liukumassa” (“The Army Commanders of Sweden and Finland: No edging to a military alliance”), *Yle*, June 22, 2016, available from [http://yle.fi/uutiset/ruotsin\\_ja\\_suomen\\_maavoimien\\_komentajat\\_puolustusliittoon\\_ei\\_olla\\_liukumassa/8976722?ref=leiki-uup](http://yle.fi/uutiset/ruotsin_ja_suomen_maavoimien_komentajat_puolustusliittoon_ei_olla_liukumassa/8976722?ref=leiki-uup), accessed June 23, 2016.

158. Ben Hodges, “Complex continent sees unprecedented changes,” U.S. Army, September 12, 2016, available from [https://www.army.mil/article/174962/complex\\_continent\\_sees\\_unprecedented\\_changes](https://www.army.mil/article/174962/complex_continent_sees_unprecedented_changes).

159. See *Regeringens proposition 2014/15:109*, pp. 23-24; “Government’s Foreign and Security Policy Report Published,” Ministry for Foreign Affairs, Press release 122/2016, Finnish Government, June 17, 2016, available from [http://valtioneuvosto.fi/en/article/-/asset\\_publisher/valtioneuvoston-selonteko-korostaa-syvenevaa-yhteistyota-ja-aktiivista-ulko-ja-turvallisuuspolitiikkaa](http://valtioneuvosto.fi/en/article/-/asset_publisher/valtioneuvoston-selonteko-korostaa-syvenevaa-yhteistyota-ja-aktiivista-ulko-ja-turvallisuuspolitiikkaa), accessed June 28, 2016; and Hultqvist, presentation, December 3, 2014. For Kultaranta discussions on June 19, 2016, see Pia Johansson, “Finsk-svensk säkerhetspolitik lockade höjdare till Gullranda” (“Finnish-Swedish security policy discussions brought high-level people to Kultaranta”), *Yle*, updated June 21, 2016, available from <https://svenska.yle.fi/artikel/2016/06/19/finsk-svensk-sakerhetspolitik-lockade-hojdare-till-gullranda>, accessed June 27, 2016.

160. “Tasavallan presidentti Sauli Niinistön puhe 227. maanpuolustuskurssin avajaisissa 5.11.2018” (“President of the Republic of Finland, Mr. Sauli Niinistö’s speech at the opening of the 227th National Defense Course, November 5, 2018”), President of the Republic of Finland, n.d., available from <https://www.presidentti.fi/puheet/tasavallan-presidentti-sauli-niiniston-puhe-227-maanpuolustuskurssin-avajaisissa-5-11-2018/>, accessed November 12, 2018.

161. “Sweden re-activates conscription: The Swedish government has decided to re-activate conscription from January 1

2018,” Government Offices of Sweden, March 2, 2017, available from <http://www.government.se/articles/2017/03/re-activation-of-enrolment-and-the-conscription/>, accessed March 3, 2017.

162. Regarding exercise Aurora 17, see “Aurora 17: Stronger Defence Together,” Swedish Armed Forces, n.d., available from <https://www.forsvarsmakten.se/en/activities/exercises/aurora-17/>; and “USA skickar 1000 militärer till Gotland” (“The United States sends 1,000 military personnel to Gotland”), Helagotland, April 23, 2017, available from <http://www.helagotland.se/samhalle/usa-skickar-1000-militarer-till-gotland-14022930.aspx>, accessed July 10, 2017.

**U.S. ARMY WAR COLLEGE**

**Major General John S. Kem  
Commandant**

\*\*\*\*\*

**STRATEGIC STUDIES INSTITUTE  
AND  
U.S. ARMY WAR COLLEGE PRESS**

**Director  
Professor Douglas C. Lovelace, Jr.**

**Director of Research  
Dr. Steven K. Metz**

**Authors  
Brigadier General Juha Pyykönen  
Dr. Stefan Forss**

**Publications Assistant  
Ms. Denise J. Kersting**

\*\*\*\*\*

**Composition  
Mrs. Jennifer E. Nevil**





U.S. ARMY



FOR THIS AND OTHER PUBLICATIONS, VISIT US AT  
<https://www.armywarcollege.edu/>

ISBN 1-58487-816-9



9 781584 878162

9 0000 >



This Publication



SSI Website



USAWC Website