

Russia's Military Might – A Portrait of its Armed Forces

Niels Bo Poulsen and Jørgen Staun (eds.)



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PART I

What Does Russia Want?

CHAPTER 1

Introduction

By Niels Bo Poulsen and Jørgen Staun

The West was caught off guard when Russian special forces and pro-Russian factions speedily occupied the regional parliament in the Crimean capital of Simferopol in a matter of days at the end of February 2014. They blocked access roads to the peninsula, prevented all communication to and from the Ukrainian government and surrounded Ukrainian forces in their barracks. In a well-planned, carefully coordinated and deeply professional operation, the Crimea was occupied by ‘little green men’ – or ‘polite men’, as Russian media called the soldiers, who bore no national insignia¹ – nearly without the firing of a single shot. The contrast between the highly disciplined, professional soldiers under central command who carried out the Crimea operation and then the forces involved in the 2008 war against Georgia, where half of the hastily deployed Russian fighting vehicles broke down on their way to the South Ossetian border, and where Russian soldiers looted Georgian civilians and emptied Georgian military facilities of everything from American Humvees to military boots, could hardly have been greater (Golts, 2018, pp. 1-2).

All the Russian soldiers who participated in Crimea had their own means of communication. Some even had means to block or suppress enemy communication. During the war against Georgia, the Russian operation was characterised by ‘ineffective command and control organizations and systems; lack of inter-service coordination; failures of intelligence support’, and the Russian GPS system, GLONASS, broke down repeatedly (McDermott, 2009, p. 67), forcing the Russian commander in chief, General

1. These tactics were also used by Soviet forces during the Spanish Civil War in 1936 and during the Berlin Crisis of 1961 (Albright, 2018, p. 63).

Anatoly Khrulev,² to borrow a satellite phone from a reporter in order to get in touch with his subordinates (Golts, 2018, p. 2).

Of course, some reservations have to be taken into account. The Crimea operation was a well-planned surprise operation carried out by professional special forces, while up to a quarter of the forces used in the war against Georgia were ordinary conscripts. Georgia had initiated the fighting in South Ossetia in 2008, and Russia had been forced to hastily deploy forces and equipment already in the area, including a lot of vehicles that had been left abandoned and decrepit in depots. On the Crimea, special forces had been deployed to the peninsula well before the operation was launched. The peninsula was easy to cut off from the outside world, as there is only a single main road and one railway track leading from the Ukrainian mainland via the Isthmus of Perekop to the Crimea. In the Russo-Georgian War, it was the Russians who had to move a large part of their forces through a bottleneck, namely the Roki Tunnel, which leads through the mountain pass separating Russia and South Ossetia, creating long queues on the Russian side of the mountains. The operation in Crimea was also facilitated by a number of other factors: A large majority of the population there supported annexation. At the same time, the Ukrainian government was paralysed by revolution-like conditions in the capital and the sudden flight of President Viktor Yanukovych – as well as a Russian cyber operation – and Ukrainian forces in Crimea had no desire to engage their Russian colleagues in combat. Yet, Russia's successful use of military force is not just about fortunate circumstances, but also about improved capabilities. Russia's ability to deploy large forces in a very short time is particularly noteworthy. Under cover of a reaction exercise on 26 February, officially involving 150,000 personnel from the Western and Central Military Districts, Russia managed, according to NATO, to deploy no less than 40,000 personnel along the Ukrainian border in just 36 hours (Reuters, 2014). When relatively few Chechen paramilitary groups attacked Dagestan in 1999, it took weeks for the Russians to amass a force large enough

2. In this book, transliteration of Russian concepts and names follow the European Commission's rules for transliteration (see the transliteration table for Cyrillic in Annex 4 p. 113 of *English Style Guide – A handbook for authors and translators in the European Commission*, Eighth Edition, updated 13 April 2021). However, there will be exceptions, including – in military contexts – well-established, standard NATO transliterations of names of Russian military equipment, ships etc.

for them to dare attempt regaining control of the attacked areas (Golts, 2018, p. 4).

Since the 2008 war in Georgia, Russia has pursued a programme of radical reform and robust rearmament, which has significantly strengthened Russia's military capabilities. The first round of reforms from 2008 to 2012 headed by Minister of Defence Anatoly Serdyukov focussed on creating a smaller but sharper and more professional Russian military, whose main task was to safeguard Russia's interests in its neighbouring regions. Since 2012, though, the nature of the reforms has changed, and the continued modernisation of the armed forces now focusses increasingly on developing a capacity for countering threats from NATO and other actors in the region, as well as for supporting Russia's ambition to be a global great power. Such an ambition requires immense military investments. Since Putin took office in 2000, Russia has multiplied its military budget several times over, from 9.2 billion dollars in 2000 to 65.1 billion in 2019, peaking in 2016 at 69.2 billion dollars. In comparison, in 2019 the US spent 731.8 billion dollars, China 261.1 billion, Great Britain 48.7 billion and Germany 49.3 billion (SIPRI, 2020), measured in current prices (nominal). Measured in purchasing power instead – i.e. how much you can buy for a particular amount based on a standard index of civilian goods – the (converted) Russian defence budget amounted to 201 billion dollars in 2016 – more than Great Britain, Germany, France and Italy combined (192 billion dollars), whereas the US spent 601 billion and China 401 billion (Christie, 2017; Kofman & Connolly, 2019). According to Michael Kofman and Richard Connolly, 'Russia's effective military expenditure actually ranged between \$150 billion and \$180 billion annually over the last five years'. That figure is conservative, they estimate. If one takes into account hidden or obfuscated military expenditure, 'Russia may well come in at around \$200 billion', measured in purchasing power parity. In this context, please note that a purchasing power calculation based on civilian products does not take into account that payroll costs in the Russian Armed Forces are relatively low compared to the armed forces in many Western countries. The wages of Russian officers are thus significantly lower than those of Danish or other Western officers, around a fifth.³ And a large share of Russia's

3. According to Deputy Minister of Defence Tatiana Shevtsova, a Russian lieutenant (platoon leader) is paid an average of 66,100 roubles a month, equalling 6,200

defence spending goes toward procuring new equipment, in 2018 almost half the budget (Connolly, 2019). Since Putin came to power, a significant part of the resources have thus gone to equipment upgrades and military exercises instead of buildings and wages, contrary to what is the case for many NATO members. This has strengthened the Russian Armed Forces, relatively speaking, and NATO now considers the country's armed forces a potential peer opponent.

The Russian Armed Forces – An Integral Part of Society

The fact that Russia assigns a high priority to its armed forces is not new. The Russian Armed Forces is an institution that tsars, first secretaries and presidents all have relied on throughout history, whether for national defence, to assert themselves against other powers, or as a tool of internal repression. The armed forces have also constituted an important component of the economy as well as a source of pride and identity for citizens and rulers alike. It is therefore fair to say that the subject of this book constitutes the single most important sector of Russian society. Only in one context has defence rarely played a prominent role: Russian generals and admirals, its colonels and commanders, have more or less always danced to the tune of the politicians and rarely, if ever, possessed independent political power (Taylor, 2003).

When Putin delivered his annual speech to the Russian Parliament on 1 March 2018, he would soon be re-elected. The speech, which had been rescheduled from December to March, was the final shot in Putin's election campaign, and it is therefore safe to assume that Putin had carefully considered what he wanted to say. Aside from touching on topics that typically interest voters, such as education, health and infrastructure, Putin used the last third of the speech to present a number of new weapons systems, including a new hypersonic, nuclear missile (Avangard), which, due to its speed and unpredictable course, can evade even a fully developed US missile shield. Spending time on a long-drawn-out animation video

kroner (RIA-Novosti, 2017). According to the Danish Ministry of Defence, a Danish lieutenant is paid an average of 30,655 kroner a month (Danish Ministry of Defence, 2019). Similarly, a Russian lieutenant-colonel is paid an average of 88,700 roubles a month, equalling 8,300 kroner, whereas a Danish major in basic wage group 5 is paid 50,255 kroner a month.

and illustrated presentation of new 'super weapons' may seem like an odd choice in a country listed relatively low on the UN Human Development Index, and where the economy has suffered from low growth for several years. A country, where the voters in an almost simultaneous opinion poll declared that they wanted a president – whether one or the other – who would prioritise anything but defence and foreign affairs. Nevertheless, Putin's speech was in agreement with the public sentiment in that, when asked to identify the most significant results during his presidency, the respondents stressed that Russia's status as a great power had been restored, the situation in the conflict-ridden North Caucasus had been stabilised, and the risk that separatism would lead to the dissolution of Russia had vanished – all of them questions concerning defence and security affairs (Levada, 2018).

Military power and security policy also manifest themselves in the Russian political landscape in ways other than speeches. The most important festive day of the year, Victory Day on 9 May commemorates the anniversary of the defeat of the Nazis during Second World War and is characterised by grand military parades. Add to this the regular commemoration of a series of other anniversaries also revolving around military power and war. Just like May 9th, February 23rd, Defenders of the Fatherland Day, is one of seven national holidays where public offices are closed. Twelve of another 32 national flag days are related to military events or the armed forces – for instance, the Russian Navy as well as a series of other services and weapon types have their own official flag day. The extensive number of holidays and flag days associated with military affairs is closely connected to the prevailing perception of Russian history. As argued by American historian Gregory Carleton, Russian history is a 'story of war', which also means that its popular culture, including film and TV, is plentiful in works describing Russia as the eternal victim of foreign aggression or a great power whose armed forces secure justice and order wherever they go (Carleton, 2017). Putin himself regularly touches on the subject, as in 2003 when he declared that 'a country like Russia can only survive and develop within its existing borders if it stays as a great power. During all its times of weakness [...] Russia was inevitably confronted with the threat of disintegration' (Putin in Tsygankov, 2005, p. 1). On different occasions, Putin has argued that the outside world has always been lying in wait, ready to split up and exploit Russia if it did not provide a strong defence:

'Many of the world's powers are afraid of our strength [...]. That is why they seek to split us up into smaller parts; this is a well-established truth. Look at what they did to Yugoslavia: They cut it up into small pieces, and now they are trying their best to manipulate it [...]. It is clear that someone is trying to do the same to us'. (Putin, 2014)

Historian Timothy Snyder refers to this and similar Russian narratives of the outside world's eternal deceitfulness and Russia's constantly exposed position and victimhood as a 'politics of eternity', and he considers it key to the regime's legitimisation strategy (Snyder, 2018). So while Snyder always regards the idea of a Russia under constant threat as pure instrumentalisation of the past, others are more likely to find that such narratives reflect an objective reality and believe them to be deeply rooted in the perceptions of decision makers and the population of the outside world (Tsygankov, 2014).

No matter why, Russia assigns a high priority to its armed forces, as noted above. The government allocates significant sums to the armed forces: around four per cent of the country's GDP (Russian Military Capability in a Ten-Year Perspective, 2019) This makes military affairs one of the largest items on the state budget at 11.4 per cent (SIPRI, 2020). Add to this its impact on the rest of society: In 2009, for instance, the defence industry accounted for about 20 per cent of all industrial sector jobs (Sputniknews, 2020).

Russia has not only been strengthened militarily – its foreign policy also seems to have undergone a form of militarisation, with the use of defence becoming more important and more visible. The bulk of Russia's foreign-policy successes in recent years have thus involved the use of military force. This is true of the annexation of the Crimea in spring 2014 and Russia's participation in the conflict in eastern Ukraine that same year. This complex of events secured Russia a good grip on an important geostrategic location in the Black Sea, effectively prevented a Ukrainian membership of NATO and reduced the risk of a spillover effect of the regime change in Kiev on Moscow. Also, relevant in this context is the Russian intervention in the Syrian Civil War in 2015, where Russia managed to save its ally, Assad, from defeat. Today, thanks to its military intervention, Russia is emerging as a key player in the Syrian peace settlement and a major player in the Middle East in general. In the case of oil-rich Venezuela, Russia has been able to stabilise the regime through, among other things, the sale of arms and provision of military advisors, as well as symbolic support such

as visits by naval units and strategic bombers. Also significant to Russia's efforts to safeguard its own interests is the fact that Russian mercenaries – in accordance with the government's wishes, to all appearances – have been particularly active in the Central African Republic, one of several African countries where Russia in recent years, through a combination of military, financial and diplomatic means, has sought to gain increased influence (Stronski, 2019). Another recent venue for Russian mercenaries' involvement is Libya. Then there is Russia's 2016 cyberattack on the US Democratic National Committee (DNC), its SolarWinds cyberattack in 2020, and its active attempt to impact democratic processes in its European neighbouring countries. Arms trading constitutes one of Russia's main exports, which aside from the financial benefits, also represents a useful security policy instrument. Through the sale of the S-400 air defence system to Turkey, Russia has managed to drive a wedge between Turkey and the other NATO members. Naturally, Russia's foreign affairs toolbox also contains non-military instruments: energy exports, general trade and cultural campaigns, just to mention three. Nonetheless, the armed forces still play a main role, and even more important than the above-mentioned measures and initiatives are Russia's nuclear weapons arsenal and appertaining delivery systems. In this respect, Russia and the US are fairly evenly matched (Kristensen & Korda, 2019). This secures a unique position for Russia in relation to the only remaining superpower in the world. No other state possesses the same capacity for threatening the US (and the world).

However, the fact that the armed forces play such a main role in the country's foreign policy and rhetoric is not without problems for the Russian government. First, a series of countries consider Russia a threat. Due to its military build-up and actions in the region, Russia has a historically poor relationship with its neighbours to the west, just as it suffers from Western sanctions following its aggression towards Ukraine. Add to this Russia's domestic challenges. Not only do these sanctions impact its economy; Russia is also trapped in a rearmament spiral of continuous high military costs. Despite its reasonably healthy economy, all things considered, Russia faces very serious (for the country's long-term development) challenges that require political capital and financial resources. Such challenges include, for instance, the transition from a raw materials-based to an innovation-driven, knowledge-based economy, rendering Russia particularly vulnerable to fluctuations in energy prices, and the growing old-age dependency ratio and declining population, not to mention challenges

related to climate change. The higher the priority given to the armed forces, and the greater the connection between this prioritisation and the country's – at least partially self-induced – high level of conflict with the outside world, the more the Russian economy and societal development suffer overall.

Furthermore, the Russian Armed Forces are not likely to be as efficient or streamlined as they may appear on flag days, where ultramodern combat vehicles and missile systems parade across the Red Square in Moscow, while soldiers in glittering uniforms march in pace to the sound of passing fighters. First, large parts of the Russian Armed Forces are still operating outdated equipment. Second, the HR culture in the armed forces is largely characterised by low levels of education and motivation. In this context, it is also worth mentioning a third problem: the fact that the armed forces – like the rest of Russian society – are faced with extensive corruption and heavy bureaucracy. According to some observers, a few years back this meant that as much as 30 per cent of the military budget would simply 'disappear' (Klein, 2012, p. 42). However, this figure is probably much lower today, even though corruption continues to be widespread.

It is no wonder then that there is great disagreement as to Russia's actual military capacities. Nevertheless, there are also various suggestions as to the objective of the country's military build-up, and what we can learn from the Russian Armed Forces' historical development and the leadership's use of military power from the dissolution of the Soviet Union until today. Several of the contributors to this book explored Russia's use of military power and its intentions in this regard in the book *Kreml i krig*⁴ (in Danish) published by Djøf Publishing in the late summer of 2018 (Poulsen & Staun, 2018). One of its main points was that Russia's role in the conflicts it has been involved in since the dissolution of the Soviet Union and until 2018 has been changing and multifarious. In the first decade after the dissolution, where Russia was not only a weak military power, but also in many ways a weak state, the Russian leadership was often caught off-guard and pulled into conflicts it had not started or which, in the case of Chechnya, were caused by the fact that Russia looked like a failed state unable to control the state's monopoly on violence or provide its citizens with social benefits. The Nagorno-Karabakh War 1991-1994, for example, had for a long time been a low-intensity, intrastate conflict, which suddenly

4. The Kremlin at War.

unfurled with great intensity, becoming a state-to-state conflict between Armenia and Azerbaijan. Russia became involved in the war mainly owing to a Russian-initiated ceasefire and later through extensive organised crime, smuggling and arms trade with both parties. In the 1992 Transnistria War, Russian military personnel played a main role right from the start. To all appearances, though, its involvement was not dictated by Moscow, but instead instigated by the local, commanding General Aleksandr Lebed, who deployed units from the 14th Army, a former Soviet army still stationed in the area. Russia's involvement was thus mostly indicative of Moscow's general lack of control. In more recent wars – the Russo-Georgian War 2008, the Russo-Ukrainian War 2014 and the Syrian Civil War in 2015 – we have seen more deliberate military interventions from a strong Russian state and military power using military instruments to further its foreign affairs and security policies. The book thus painted a picture of a Russia which concurrently, with its political consolidation and success in boosting its economy (to some degree) and its armed forces, has also increasingly been willing to challenge the Western world and fight for its unique role as a great power as well as for Russian special rights within what is considered the country's sphere of influence. However, what *Kremli i krig* failed to explore in depth was what the Russian Armed Forces look like from the 'inside'. This means that the outside world is lacking a significant component if it is to fully assess the potential threat from Russia – the country's military capacities, including its abilities to project power outside its borders and close neighbouring region. This book attempts to provide a more complete picture of Russia as a military great power; though it should not merely be considered a piece of basic research, as the question regarding the capacities of the Russian Armed Forces is extremely relevant to society in general.

Denmark and the Russian Armed Forces

The US-dominated, Western-liberal world order is undergoing significant reconstruction these years, and new patterns of conflict and emerging "young" great powers may thus threaten Denmark's security and interests despite them being located far away. Contrary to these potential but also somewhat diffuse threats, Russia is located in Denmark's neighbourhood – both in the Baltic Sea and in the Arctic – and it borders on a number of

Danish NATO allies. For better or worse, its geographical location gives Russia a special access and opportunity to influence Denmark's national security. The distance between Denmark's easternmost point and Russia's westernmost point is just 300 kilometres. Danish territory is within range of a number of newly developed Russian missile systems capable of carrying both conventional and nuclear warheads. A few years back, Russian bombers in fact simulated an attack on the Danish island of Bornholm – which some military analysts have identified as a potential target for Russian occupation in the event of major military conflict in the Baltic Sea Region – at a time when large parts of the Danish political elite had convened on the island for the traditional annual people's meeting. In the eastern part of the Baltic Sea a series of smaller NATO member states – Estonia, Latvia and Lithuania – border on Russia, and just like other NATO members in Eastern Europe, Poland and Rumania in particular, they are extremely worried about Russia's level of armament and fear a potential invasion or subversive activity. Regardless of whether this fear has a basis in reality, Denmark as a NATO member must respond to the threat landscape facing these countries.

In the North Atlantic, the Faroese Islands are located close to the so-called GIUK Gap – the straits between Greenland, Iceland and United Kingdom – where NATO in the event of a great war must protect its sea-borne trade across the Atlantic Ocean from Russian submarines. From a Russian point of view, these waters constitute an important route to the region of Murmansk, which is home to a large part of the Russian nuclear force. In recent years, Greenland and the Arctic too have been affected by the deteriorating relationship between Russia and NATO (and by the increasing competition between the US and China). US security interests in Greenland are growing, just as Russia has significantly increased its military presence in the Arctic. The increased Russian military presence in the Arctic is likely to be predominantly defensive, but through the expansion of its network of bases, for example via the Nagurskoye airbase on Alexandra Land, it is now possible for the first time in recent memory for Russian fighter aircraft to attack the Thule base virtually without warning.

The Russian Armed Forces – and the potential military threat from Russia – thus affects the entire Danish realm. At the same time, though, it is important to discuss just how real this threat is, and how we should prioritise this in relation to other potential threats. This book is not intended to be alarmist. The authors are not of the opinion that Russia is currently

preparing an attack on Denmark or any other NATO member state. NATO's level of armament should by default be expected to have a deterrent effect on Russia. On the other hand, though, Russia is likely, in the event of a regular NATO collapse or a cancellation of the US security assurances enjoyed by the US' European allies, to use its military power to gain political influence in a series of Eastern European states and thus in fact expand its sphere of influence further west.

Likewise, it is important to discuss how the current high level of conflict may be reduced, and whether it is possible to make the Russian Armed Forces a partner rather than a threat. Despite tensions, Denmark and Russia are in fact collaborating in various areas, including visits and confidence-building measures under the auspices of the OSCE. As late as 2013, for example, Danish and Russian (as well as Chinese and Norwegian) naval vessels were responsible for jointly convoying chemical weapons out of Syria for destruction. If we should manage to re-establish good neighbourliness with Russia, such increased military collaboration might be relevant – particularly within the softer areas such as sea rescue, mine sweeping, ice breaking, emergency management etc. This discussion does not fall within the scope of this book, however.

Objective and Content of the Book

The research on which the book *Kreml i krig* was based mainly considered Russia's post-1991 military activities and contained no in-depth studies of its armed forces. The latter were thus analytically reduced to the role of pawns in the larger political game, and their capabilities and internal dynamics were not included in the analysis. This book is the result of a new research project conducted at the Royal Danish Defence College, which aimed to go a step further and examine the Russian Armed Forces in depth. The project thus differs from its predecessor precisely by focussing more on the Russian military: both in terms of analysing its capacities and capabilities and in terms of exploring what the structure of the armed forces and their exercise patterns, together with the country's strategic culture, may reveal about the possible deployment of its military instrument. In a Danish context, there is virtually no contemporary tradition for research on the Russian Armed Forces, and much of the existing research thus consists of security policy analyses rather than in-depth studies on defence

matters. To a considerable extent, it has been necessary to build this vital expertise from the ground up.

To this end, a research group has been set up, consisting largely of military analysts, but also including the college's own and external Russia researchers. The work has been characterised by the ambition not only to describe the Russian Armed Forces, but also to contribute to the discussion on how to do so in a professional manner. For this reason, the first chapter of the book, following this introduction, comprises a research survey partly providing a status on scientific knowledge of the Russian Armed Forces in general, partly shedding light on a series of the methodological and theoretical challenges facing the research collaboration. The scientific aim of the project was to study and outline current conditions and capabilities within the Russian Armed Forces using international relations theory (IR), strategic culture theory combined with theories of war and a focus on Russian history and culture.

In general terms, the project has revolved around the following research questions, which in part or in full have formed part of the individual research projects underlying the collective effort:

- What are Russia's military capabilities on land, in the air and at sea with regard to nuclear as well as cyber warfare?
- Which threats against Russia does the Russian military-strategic culture identity, and how does the political-military elite envisage future wars?
- Which military culture characterises the Russian Armed Forces, and how does Russian military culture affect the armed forces' capacities within innovation and strategic and operational flexibility?

As evident, some of the questions outlined above do not concern the Russian Armed Forces as such, but rather the country's political control and use hereof. These general research questions, which have permeated the entire project, are supplemented with a series of more focussed questions, all of which contain elements of the above general questions, and which have formed a basis for the individual subprojects of the overall project.

As already mentioned, the book opens with a discussion of how we methodologically and theoretically can study the Russian Armed Forces. This is not only about how to set up an appropriate analytical model – or models – but also about which normative and cultural elements may bias the study of the Russian Armed Forces and Russia in general. This chapter

is important among other things because the book is intended to be read by practitioners and may hopefully contribute to practice, both political and military, in civil service and among military exports.

At the same time, the chapter provides an outline of the main theoretical discussions in relation to studies of Russia and the Russian Armed Forces, as the book is also intended to serve as a textbook at the Royal Danish Defence College. Thus, studying Russia's contemporary defence is not a "free ride", but a subject that will inevitably lead the authors to take a position. Nevertheless, so will others, and they will launch relevant measures to counter the potential Russian threat against Denmark and its allies – or reject the idea that Russia constitutes a threat at all. No matter whether the reader subscribes to the one belief or the other, the consequences may be significant, and it is therefore important to be familiar with the premises of this book and the underlying research.

Chapter two deals with Russia's military-strategic culture – that is, the worldview held by its political and military elites, and the implications this worldview may have for Russia's deliberations when it comes to the use of its military force. What threats do they see looming in the horizon, and what does the future of war look like from Moscow's perspective? The following chapter also addresses Russian culture, though at a slightly lower level. Chapter three studies the Russian Armed Forces' "corporate culture" – also known as "military culture" – based on the assumption that Russia's military power can only be assessed adequately if quantitative elements such as budget size, quality of the equipment, number of soldiers etc. are supplemented with a study of the 'spirit' of the armed forces. Are Russian military personnel well motivated, capable, well trained in inter-weapon and inter-defence cooperation, and willing to sacrifice and engage in a major war if the government demands it? Such questions will characterise this chapter.

Chapter four of this book studies the militarisation of Russia seen in for example the paramilitary patriotic education introduced on a voluntary basis into the school system. The main question is whether the regime, through its various measures aimed at militarisation, has succeeded in increasing the possibility of mobilising the population in the event of war.

Whereas the above-mentioned chapters first and foremost frame the discussion and address either the societal context or the culture and mentality characterising the armed forces, the next set of chapters in the book focus on the individual services and capabilities of the Russian Armed

Forces. First, in chapter five we provide a brief overview of how to analyse Russian military strength. Then, this part of the book continues with the service that has traditionally played the largest role in the country – the land forces (chapter six). This is followed by the naval and air forces (chapters seven and eight), and Russia’s nuclear forces (chapter nine). These chapters review the organisation, equipment and doctrine of each individual service, thus providing a contemporary picture of the set of military components that has formed the basis of Russia’s Armed Forces since the Soviet era.

The book then moves on from describing individual and traditional services to focussing more on describing modes of action and practices as well as newer tools in the Russian military toolbox. First, chapter ten studies Russia as a cyber actor, and then follows a chapter on Russian private military companies (chapter eleven). The book ends with a summary and conclusion, synthesising the subject and addressing the question of how Denmark should relate to Russia as a military threat.

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The authors hope this book will contribute to drawing an updated and rounded, but also a nuanced picture of the Russian Armed Forces and its embeddedness in the country’s political system. With a subject as vast and extensive as this, choices had to be made. Hence, the book does not discuss a series of fully or partly militarised institutions such as the Russian Ministry of Emergency Situations (the disaster ministry), which is the institution that launched Minister of Defence Sergey Shoygu’s political career, and which in the event of war is responsible for a wide range of tasks. Nor will we be studying the security apparatus or the police, even though these also play an important role during wartime. These institutions are also characterised by their central role in fighting domestic political turmoil. This is particularly true of the relatively newly established national guard – of 340,000 individuals or more – headed by former bodyguard to President Putin Viktor Zolotov. It is also debatable whether the book should have had more of a comparative aspect to avoid presenting Russia as different from other military great powers, such as the US and China, in areas where the similarities overshadow the differences. Similarly, we have chosen not to include a chapter on the extensive Russian military reforms implemented since 2008; here the reader may consult Claus Mathiesen’s

chapter on the subject in *Kreml i krig*. Nor does the book contain chapters on Russia's multifaceted special operations forces. Another interesting chapter, which we also had to omit, is one on Russia's alliance relationships, in particular the question of a possible Sino-Russian defence alliance. We have also omitted the capabilities (and bottlenecks) of the Russian defence industry as a separate topic, even though such a chapter would have been able to identify the opportunities and constraints facing the Russian Armed Forces in the future. Many of the issues mentioned here will appear in passing in the individual chapters, though, or in the conclusion; so they are not entirely absent.

Even though we have not been able to fit everything into the book, it is our belief that it covers the most important aspects of the Russian Armed Forces and, by way of its structure, caters to a lot of different readers. Most people with a special interest in the Russian Armed Forces are likely to read the book from cover to cover. However, the chapters have been edited to make them accessible as separate texts, and the authors have striven to make at least parts of the book suitable for upper-secondary school students and up – even though some chapters will probably seem more abstruse and technical than others. In a book such as this, it is inevitable that a large number of military terms will appear or that technological and theoretical aspects of the subject will take up a great deal of space. However, great care has been taken in the editing to ensure that the material is presented as well as possible, so that a wider audience than just those with military knowledge or research interest in Russia can read along. We hope we have succeeded. At any rate, the subject is too important to be left entirely to a small group of initiated readers. We therefore hope the book appeals to anyone with an interest in Russian security and defence policy.

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CHAPTER 2

Studying Russian Security Policy and Defence

By Niels Bo Poulsen and Jørgen Staun

Introduction

Russia's defence and security policy represent – as applies to similar issues in any other country – a large and complex area of research. In this chapter, we discuss different ways of studying the Russian Armed Forces. We outline three possible approaches – which, of course, represent far from all possible approaches to the field. These three approaches are the country-specific (area studies), the political science (various types of international relations [IR] studies or studies of civil-military relations) and the war- and military theory approach (focussing on the phenomenon of war).

While it is possible to combine insights and methods from all three approaches, it is important to stress that they are fundamentally different in their scientific theoretical foundations, taking either a nomothetic or an ideographic approach – that is, whether the researcher considers his field part of a greater (generalisable) whole or a unique phenomenon that should and can be studied separately, and which develops according to its own internal rules. However, there are also other differences between the three approaches, including differences related to the sociology of science, as different research communities assign different weight to different forms of argumentation and research. This involves asking different types of questions and applying different criteria for when something constitutes as knowledge and how knowledge can be applied, just as they publish and discuss their work in different fora. Hence, a fairly theoretical journal like

Political Science Quarterly (Barany, 2006), a relatively empirically (and geographically) oriented one like the *Journal of Slavic Military Studies* (McDermott, 2009) and the Swedish Defence Research Agency's (FOI) report on Russia's military capabilities, written by a combination of officers and civilians and published in the same format every three years (*Russian Military Capability in a Ten-Year Perspective*, 2019), may thus contain scientifically well-founded, but also very different studies of the Russian military reforms.

The second objective of this chapter is to introduce the reader to some relevant reflections with regard to the epistemological and normative challenges of studying the Russian Armed Forces. These issues will be addressed in connection with our area studies survey. The chapter's third purpose is to provide a research review of important literature on the Russian Armed Forces, demonstrating to the reader where the chapters of this book find their main points, but also where there are research shortages, and where the book contributes with new knowledge. However, the survey provided here first and foremost covers main tendencies in research on the Russian Armed Forces, as each of the other chapters of the book will account for the main research into the topic of that particular chapter.

The logic of this chapter is to begin with area studies, which was the form of research that very much influenced the Western world's view of the Soviet Union during the Cold War, and which was institutionally rooted in research institutions and think tanks specialised in the Soviet Union. Whether we like it or not, much of the expertise and the research traditions that continue to contribute to Russia studies today descend from that approach. However, from the 1960s onwards, the area-specific approach was increasingly challenged by social studies researchers who, instead of trying to explain Soviet behaviour in national and ideological terms, such as its unique historical heritage and communist ideology, believed it should be explained via theories that cut across national borders and cultural circles (Nørretranders, 1978). However, the opposite has also been true, as a significant interest soon emerged within the social sciences focussing on the impact of cultural characteristics. From the mid-1970s, this led, among other things, to the emergence of a unique group of IR theories – theories on strategic culture. These theories sought to explain why and how different cultures create different patterns of behaviour in terms of security policy in otherwise comparable countries. Just like IR theories, the third approach to the study of the Russian Armed Forces presented in this

chapter – military theory – also comprises general theories which as a rule are not country-specific, but focus on what constitutes war and how military organisations work immediately before and during wartime. The fact that we are nevertheless able to group them into one category is due to the fact that they represent a field which in many respects is unique and only to a limited extent practised by civilian universities and research institutions. At the same time, it claims to represent a unique branch of science – military science – whose objective is often more prescriptive and application-oriented (Møller, 2007).

Area Studies – from Sovietology to Russia Studies

The Danish dictionary defines area studies as the ‘cross-disciplinary study of the language, history, culture, politics, economy etc. of a geographic area’ (Den danske ordbog, 2021). The Department of Cross-Cultural and Regional Studies (TORS) at the University of Copenhagen, which conducts area studies on Russia, among others, describes the field as characterised by the fact that its subject is geographically and linguistically defined, while the scientific approach remains cross-disciplinary:

‘Defined by the area and language in question, area studies are by definition interdisciplinary and can in principle embrace all disciplinary approaches. Even though historical approaches as well as cultural and social analytical ones are likely to dominate ...’. (<https://tors.ku.dk>)

Whereas TORS is based at the Faculty of Humanities and thus takes a humanistic starting point to area studies, there are institutions where the field is instead rooted in the social sciences (Bates, 1997). Area studies can be many other things than Russia studies and are, as mentioned above, characterised by their focus on a particular cultural circle or political-geographical entity. Another characteristic is their cross-disciplinary approach in studying the area in question and aim to acquire as detailed and broad knowledge of the subject in question, which includes mastering the main language(s) spoken here.

Many of the present-day Russia studies conducted in the transatlantic region are historically and institutionally rooted in the 1917 Bolshevik coup d’état. The years of civil war and purges following the coup caused an exodus of intellectuals, and a lot of these people would come to constitute the

cadres of early studies of the Soviet Union, its political system, its foreign and security policy and its defence. The Cold War later saw an increase in the demand for expertise in the Soviet Union and its satellite states – a field of research which in Denmark was labelled Eastern European studies (Andersen, 2016). However, the chairs and institutes in Russian/Soviet/Eastern European affairs established in this period may also reflect a broader tendency, as particularly European universities had seen the emergence of an interest in non-Western cultures and their ‘otherness’ beginning in the late-19th century. Such studies were typically characterised by hierarchisation and dualisation, where European culture was considered modern and superior compared to non-European traditionalist, underdeveloped cultures, and concept pairs such as rational-irrational, reason-instinct etc. flourished.

Particularly in the US, this collided with another development. During the Second World War, the US forerunner to the CIA, the Office of Strategic Services (OSS), had a large number of academics analyse country-specific affairs in the warring and neutral countries. These people came from very different backgrounds and disciplines such as history, literary history, sociology and economics (Engerman, 2016). The Cold War saw the refocussing and institutionalisation of their research, which to a large extent made it more application-oriented as well as more politicised (Khosrowjahi, 2011). This built on a perception of the Soviet Union as an expansive state that threatened to consume all of Europe and challenge the US’ status as the leading power. At the same time, a new group of emigrants from the Soviet Union brought new knowledge of the Soviet-controlled area.

According to this research, the concept of ‘totalitarianism’ was key to understanding the Soviet Union as a social system. It built on the belief that fascist, Nazi and Stalinist states were defined shared a series of totalitarian characteristics.¹ They were political systems whose governance was based on a combination of mass mobilisation, ideological indoctrination and extensive use of violence against the population. They all strove for complete control over the public, which involved eliminating (or as a minimum, fully controlling) independent institutions such as the market, civil society, the family and religions. On that basis, the Soviet Union was represented as fundamentally different from Western liberal democracies. The

1. The classic work when it comes to totalitarianism theory and the Soviet Union is Carl J. Friedrich, Zbigniew K. Brzezinski, *Totalitarian Dictatorship and Autocracy*, Harvard University Press, 1956. For a Danish approach to the topic, see (Jensen, 1981).

country's foreign and security policies were considered as being based on internal political and ideological elements, not a result of structures within the international system or an understandable response to external elements and threats.

Even though the totalitarian school struggled from the 1960s onwards, once it became clear that the Soviet system was capable of internal reform and of adjusting its foreign policy to a much greater extent than predicted, one logic underlying the school's view of the Soviet Union remained more or less intact, namely the belief that domestic elements, including the country's culture and history, could explain its behaviour. However, especially from the 1960s onwards, rival schools emerged, challenging totalitarianism theory – partly in the form of a school that had existed since the formation of the Soviet Union and which insisted on taking the Soviet self-understanding and self-presentation seriously, and partly in the form of non-Soviet-loyal Marxist studies which, even though they did not accept the Soviet Union's presentation of itself, were critical of the idea that Western liberal, capitalist institutions were morally and practically superior to their socialist counterparts. At the same time, science saw increasing 'import' of more general politological theories, including so-called convergence theory, which argued that the general modernisation processes taking place in the Soviet Union would gradually cause the systems in the East and West, respectively, to become more and more alike (Nørretranders, 1978).

Whereas Soviet studies largely considered the political system as such, one branch focussed on the security policy and military resources of the Eastern Bloc. This led to a sub-discipline within international studies called security studies. Even though security studies developed into a much broader field of research after the end of the Cold War, its starting point is important as it too was based on the premise that studying the Soviet Union and other communist states required unique research methods and theories (Taylor, 2019, p. 202). Within this framework, the research spanned a broad range of topics, but was generally characterised, among other things, by great interest in Soviet nuclear weapons thinking and, on the whole, in the structure and expected deployment of the Soviet armed forces. The field thus saw close connections with practice, and researchers within the area were often security advisors or similar.

The dissolution of the Soviet Union led to a significant decrease in funding for Soviet and East European studies. It also prompted much reflection on what should constitute the fundamental and unifying element of the

field, as the states that emerged from the change of system began to take different paths, 'rediscovering' their historical and cultural roots (Kennedy, 2001; Orlovsky, 1995). Soviet and East European studies disappeared, and in their place emerged transition studies and Central Asia studies, among others. Many research environments and scientific journals changed names to *post-communist*, *post-Soviet* or *transitional studies*, testifying to the fact that researchers still considered the historical heritage from the socialist era key to understanding the ongoing development. From a more cynical perspective, though, one could argue that seeing as the expertise of this research environment stemmed from in-depth knowledge of Soviet institutions and the communist ideology, this manoeuvre also helped safeguard the work of the researchers. Nevertheless, many chose to change course and started to focus on what these countries had in common with other countries and cultures, for example comparing their politics to the populist democracies of South America and finding inspiration in the patron-client systems seen in Southern Europe, among other places (Barylski, 1998).

Concurrently with this development, area studies – Soviet studies in particular – faced increasing criticism. Many critics, for example, argued that Soviet studies was a political tool for the execution of power by the US. Such accusations were related to a broader criticism of area studies as such, which were being used, the argument went, to promote a Western instrumentalisation of knowledge about foreign cultures. In recent decades, this approach – that area studies produce authoritative knowledge about a foreign country, region or culture – has thus faced serious adversity. It is argued that the field conducts normative research that objectifies 'foreign peoples' and turn them into an object of a prejudiced Western point of view whose basic premise is: They are not like us. They lack our institutions and our logical and superior ways of doing things. The father of this criticism was the American-Lebanese, Middle East expert Edward Said, who in 1978 published the book *Orientalism* (Said, 1978). Here Said defined orientalism as the West's patronising representations of the 'Orient' – the societies and peoples of Asia, North Africa and the Middle East. Said's concept of orientalism has subsequently set a fashion and expanded to military studies, among others. On that basis, area studies have been accused of being epistemologically problematic, based in colonial projects and focussed on exploiting, understanding and mastering otherness only in order to control it (Mielke & Hornridge, 2017). Regardless of whether one agrees with this criticism or not, it is relevant to point out that one of the weaknesses of area

studies has been that it can be difficult, in the absence of a comparative approach based on theories that apply to an entire discipline, to identify the uniqueness of the object at hand and what positions it in more general contexts (Bates, 1997). Similarly, it has been argued that what appears to be a cross-disciplinary effort is usually just a single researcher's botanisation of results from various fields based on inadequate knowledge of the underlying methodical and theoretical deliberations (Kuijper, 2008). In conclusion, criticism of area studies can be grouped into three problems: the two mentioned above, namely the lack of academic consensus on how to conduct such studies scientifically and area studies' origins in the so-called 'global North' – that is, industrialised Western societies – and finally a third which focusses on the field's tendency to operate with too rigid geographical frameworks which fail to reflect the way goods, people and impulses travel the globalised world (Huat, Dean, Kong, Rigg & Yeoh, 2019).

As seen within anthropology, for example, it is therefore necessary to consider how a point of view that claims to analyse the essence of a country affects the observer: By shining a spotlight on Russia, do we risk focussing exclusively on the exotic, the otherness, the entertaining and the titillating, missing common characteristics between Russia and other countries, including Denmark? Do interpretations that explain Russian security policy with the country's alleged and, by the West, constructed culture cause us to overlook external elements' impact on – or even control over – this security policy? Such elements could be the US threat, the Syrian Civil War and the shifting of power in the Middle East these years. Do culture and national character risk overshadowing explanations based on structural aspects such as Russia's economic geography, the effects of globalisation and the resulting conflicts between social and identity groups – all of which can be seen in other countries too?

Russia researchers thus risk ending up with too crude and stereotypical a representation of the country, and this is further intensified by other elements:

- Russia is a successor state to the Soviet Union, which for four decades constituted the West's main enemy. The country appeared as an antipode to the West, and more or less all policy areas – from defence through social and economic welfare to sport and culture – developed in full or part in interaction with developments in the Soviet Union. The Eastern and Western Blocs constituted each other's 'other'.

- Russia actively strives to maintain its role as the ‘other’ of the West, the US in particular, as this places the country at eye level with the only remaining superpower (Leichtova, 2014). Add to this that Russian security thinking and communication often contains a strong narrative of an independent Russian civilisation separate from Europe and the US.
- The current confrontation between Russia and the West can easily cause one to overestimate the cultural, political and social differences between the two. This may in turn result in notions of constant antagonism between Russia and its Western neighbours – instead of a more accurate kaleidoscopic picture of Russia and its neighbours interacting, which historically has spanned both the exchange of ideas, collaboration, competition and confrontation.
- The lack of available complete and reliable information about public affairs in Russia, whose policy on freedom of information and compliance with it are very poor. This gives rise to myth making, makes non-verifiable stories, and rumours a strong presence in the information void. This problem is further intensified by the fact that a lot of information is available in Russian only, which means that the procurement of comprehensive and nuanced information requires specific language skills.
- The tendency in both Russian and Western media to focus on spectacular and stereotypical stories. This applies in particular to the more popular media (Kovalev, 2019).

There are several ways of remedying these problems:

- A comparative approach may help increase our understanding of what is uniquely Russian and what applies to comparable countries (e.g. great powers, industrialised countries, former East Bloc countries etc.).
- Reflective weighing of the analytical, explanatory value of structures over culture may cause researchers to consider both structural and cultural elements instead of ascribing all explanatory power to culture.
- Awareness of one’s own normative standpoint and the explicit and implicit interests and values associated with one’s research.

If applied in a reflective manner, the area studies approach holds great value, though (Graham & Kantor, 2007). Whereas comparisons shed light on patterns and thus common causes between countries, historical and culture-borne models of explanation may enable us to identify patterns and

fractures internally within a country and thus understand events and courses of development in their greater context. The area studies approach may help us understand how Russia's Soviet heritage impacts the country or even point to characteristics whose origins predate the Soviet era, and which still impact the way the country and its armed forces operate today (Kramer, 2019).

Furthermore, the area- and country-specific perspective may provide us with models, which generally seek to explain Russia's political system and its foreign and security policies from the perspective of Russia's unique national preconditions or, in some cases, the shared heritage of the former Soviet states. This applies to the government's own slogan for Russia as a 'sovereign democracy', and it applies to British political scientist Richard Sakwa's claim that Russia is a 'dual state' – a country where the regime combines (some degree of) observance of democratic processes and norms with administrative orders and manipulation behind the scenes, not because it does not want democracy, but because the size of the country, its ungovernability and diversity necessitate highly centralised decision-taking and control with the implementation (Sakwa, 2010). Whereas Sakwa explains what by other nations may be seen as an aggressive Russian security policy, based on a Russian experience of vulnerability, others argue that the regime's behaviour abroad is more a result of the need to divert attention away from domestic issues or even safeguard the regime by eroding Western norms. The most ardent proponent of the latter interpretation is Timothy Snyder, who in a recently published book argues that the Putin administration deliberately seeks to undermine and discredit Western institutions, for example through media manipulation and a conservative culture struggle, for instance against the rights of homosexuals and transsexuals. This undermines Western liberal democracies as the alternative and more attractive form of society and government (Snyder, 2018).

Like several others, Snyder points to the regime's extensive use of Russian history to create a unique 'Putinist history policy' (Enstad, 2011). This staging of the past may be seen as an example of Russia's use of history. Studies of the use of history do not find that the past shapes the present 'behind the backs' of the actors, but instead that it is used actively from a present-day perspective for a variety of purposes (Jensen, 2010). Such purposes span from scientific realisation through identity formation and identification of emotional needs to pure political manipulation. Paramount here are human communities' (so-called memory communities) subjective

understanding of the past (Warring, 2011). Use of history represents an important analytical tool, as it helps us understand that Russian use of history by itself does not provide a specific doctrine, but is instead ascribed a doctrine by various actors, and that the doctrine which derives from it originates from a number of sources, including history studies, popular cultural conceptions, norms and values as well as material and political interests. Hence, theories about the use of history also contribute to explaining how Russian strategic culture and Russian military culture are generated. They contribute to challenging an essentialist and rigid interpretation of Russian culture and history.

IR Theory and Russia

International relations theory – or IR theory – belongs to a set of political science theories that seek to explain developments and dynamics within the international system based on general assumptions about how states and international actors behave in general. IR theory mainly focusses on the behaviour of states – particularly the great powers' behaviour – and the causes of war and conflict. Among a variety of schools and sub-schools, three are the most significant and widespread: realism (including neorealism), liberalism (including neoliberalism) and constructivism.

The foremost realist school is neorealism. Its strength is first and foremost its focus on long term developments. Father of neorealism Kenneth Waltz' goal was to create an elegant theory on international politics. This meant a theory that dealt with few but important issues: changes in the relative distribution of power within the international system and the behaviour of the great powers. At the same time, the idea that there are some inherent features of great powers and of the international system that can be applied generally and over time is easily applicable and intuitively straightforward when analysing the foreign and security policy behaviour of a state like Russia – even if Waltz insists that his theory is not a foreign policy theory. Furthermore, its clear emphasis on the relative distribution of power in the system and on anarchy as the basic condition – that is, the idea that the international system is a self-help system, where all states are left to fend for themselves – helps the analyst identify the factors on which he should base his analysis. So, it might be true that Russian President Vladimir Putin is a fierce gentleman. However, if Russia were not militarily strong, and willing

to use its military muscle, the West would listen less attentively to what he said. Aside from the classic thinker in defensive neorealism, Kenneth Waltz (Waltz, 1979), the offensive neorealist John Mearsheimer (2014), may also be worth consulting, if only for his clear logic. Mearsheimer (2014), among others, has a keen eye for the fact that not all states want the same as the West (the US), and that great powers like Russia and China increasingly have the strength to do something about it. In addition, he focusses on the role of geography in international politics, something that seems intuitive when studying Russia.

Neorealism also provides an understanding of how differences in polarity impact states' policies – for example the shift from unipolarity to multipolarity that we seem to be witnessing these years. Neorealism has an eye not just for the insecurity associated with the shift itself, which carries with it the risk of great powers misaligning, but also for the inherent uncertainty that is a deeply ingrained part of any multipolar system, where several great powers compete against each other, each trying to push through their agenda – to which the small states are then forced to adapt. An issue that seems highly relevant in the Arctic these years.

Another main concept within neorealism is the 'security dilemma'. It builds on the assumption that the world is a dangerous place, as the international system is anarchic, and the states as a minimum seek to survive. This creates a tendency among states to mistrust their neighbours and to fear the worst, because when a given state (state A) wants to protect itself against expected external threats, for example by investing in more military equipment, it may be interpreted as threatening behaviour by the state's neighbour (state B), which now also wants to invest in more military equipment. This could in turn be interpreted as threatening behaviour by state A, which is once again forced to invest in more military equipment, prompting state B to interpret state A's behaviour as threatening, and so on. The point is that because the international system is anarchic, both states may, even with purely defensive intentions, launch an arms race, which eventually ends up weakening their own security. Classical thinkers on the security dilemma theory include John Herz (1950) and Robert Jervis (1978). Security dilemma theory may be particularly useful for shedding light on the dynamics of the military build-up occurring in both Russia and the Western world these years.

The general explanations of neorealism, which treat states and their behaviour alike and as unchanging may at times seem slightly crude, and

make it difficult to explain why states deviate from the behaviour dictated by the theory. Thus, the general behaviour of great powers like Germany and Japan, for example, is very different and less assertive than that of the economically much weaker power Russia. Here neorealism's primary explanation – changes in the relative distribution of power across the states in the international system – seems to fall short, at least for the time being. However, especially offensive neorealism's assumptions that a great power like Russia behaves the way it does because it is a great power, and because that is the way all great powers behave, can to some extent become a self-fulfilling prophesy. If this is the West's perception of Russia, well then it can only expect the worst, it seems – and act accordingly – which may trigger or intensify the very behaviour ascribed to Russia by the West, and vice versa. When (and if) Russian decision-makers look at the world from a neorealist perspective, they risk missing the calming effect of international regimes and the national political culture on, for example, Germany's governance of its status as a great power.

Some also criticise neorealism for not taking into account the systemic changes caused by globalisation and the subsequent increased interdependency of states, which in time is expected to weaken or moderate the anarchic system. Such criticism comes from IR liberalism in particular in the form of complex interdependence, a concept, which we will return to below. Neorealism neither has an eye for how a country's form of government – whether it is an authoritarian regime or a democracy, for example – impacts its foreign policy, just as it does not deal with how domestic affairs sometimes affect the country's foreign policy. And being as it is a theory that focusses exclusively on the structure of the international system, neorealism is neither interested in how the head of state (and elite) may have a hand in decisions to send the country to war.

However, classical realism is. Like neorealism, classical realism also has an eye for the relative distribution of power within the international system, though it does not assign as much weight to it. Instead decision-makers are key to classical realist analyses, as is the way in which the head of state is basically caught by the cross-pressure between other states' wishes and interests, on the one hand, and domestic limitations and opportunities, on the other (Kissinger, 1966). Some realist analyses focus on how the security policy elite and civil service affect the statesman's decisions. According to Graham Allison's (1999) classic study of the US decision-making process during the 1962 Cuban Missile Crisis, institutional affiliation affects

the advice given to the head of state: 'Where you stand, is where you sit' – that is, the traditions and routines of different ministries impact the recommendations given to the head of state Aboufadel, L. (2018).

Neoclassical realism – one of the newest branches within realism – strives to cover both of the above-mentioned realist traditions, though emphasising structural explanations: Historically, changes in the relative distribution of power within the system constitute the most important explanation. At the same time, though, this approach finds inspiration in a series of other IR traditions and makes it possible to include, for example, the role of institutions, learning from previous conflicts, domestic political pressure from different parties, interest organisations, just as it is open to the effect a country's strategic culture may have on its foreign and security policies. Critics have, despite the primacy given to changes in the relative distribution of power, referred to neoclassical realism's openness as a *smorgasbord* of good ideas. Two recommendable neoclassical studies of Russia's foreign and security policies are (Kropacheva, 2012; Mouritzen & Wivel, 2012).

IR liberalism has mainly criticised realism and neorealism in particular of being blind to the effect of the form of governance on a country's foreign policy. Whether Russia is a democracy or an autocracy is important, as this affects the country's foreign policy towards the West, liberalism argues. The so-called liberal democracy thesis thus finds that (established) democracies do not wage war against other democracies, first and foremost because the political culture in democracies is based on peaceful conflict resolution – you negotiate, and if you cannot reach agreement, you submit the case to the International Court of Justice and subsequently respect its verdict. Democracies also have a shared set of values, affecting national interests, and extensive economic cooperation, promoting their interdependency, and this makes war between democracies less likely (Jackson & Sørensen, 2013, pp. 99-126). On the other hand, Western democracies have, at least since the fall of the Berlin Wall, been eager to go to war with non-democracies, for among other reasons to support the spread of democracy and what is referred to as good governance. At the same time, the Western world seems to have been blind to the potential threat of Western demands of democracy to autocratic heads of state, who risk being unseated if the population suddenly demands political influence. The fact that economic cooperation agreements may also have geopolitical implications seems largely to have escaped Western politicians. Hence, many Western European governments were seemingly caught unawares, at least for a while,

by Russia's hostility in 2013-2014 against the EU's attempt to establish an association agreement with Ukraine.² Furthermore, Gunitsky and Tsygankov (2018) argue, especially American IR analyses of Russia's foreign and security policies have tended to emphasise the Russian form of governance. Under General Secretary Mikhail Gorbachev and President Boris Yeltsin, the typical assumption was thus that Russian governance was moving in the direction of a democracy and that this would make the Soviet Union's, and later Russia's, foreign policy more friendly and peaceful towards the West, while American IR analyses of Russia's foreign policy under President Vladimir Putin have typically found the Russian form of governance to be moving away from democracy and thus towards a more uncompromising and belligerent attitude to the West (Gunitsky & Tsygankov, 2018).³

Another characteristic of IR liberalism is its emphasis on the participation of other actors in international relations, aside from states. Hence, from the perspective of IR liberalism, international organisations also affect states' foreign policies. This is an important aspect to bear in mind in connection with Russia studies because the path to a less conflict-affected relationship between Russia and the West may well go through institutions – the OSCE could be a good place to start. Especially neoliberalism stresses the role of international institutions and their potential in reducing the effect of anarchy and eliminating the insecurity between states. Neoliberalism also assigns weight to the potential impact of inter-state trade on the relationship between states due to the interdependency resulting from economic cooperation agreements and trade between states. Especially significant in this context is the concept of complex interdependence. It argues that the cooperation between two states can be so intense and have so costly or critical consequences if broken that it may diminish the states' desire to go to war or come into conflict with each other. The interdependence between the West and Russia, which really gained momentum after the fall of the Berlin

2. Russia's unfavourable view of the EU-Ukraine association agreement is perhaps not surprising given that the deal prevented Ukraine from continuing its cooperation with Russia in the auspices of the Eurasian Economic Union, thus withdrawing Ukraine from the Russian sphere of influence.
3. Instead of focussing on the form of governance, the two analysts argue, analyses should concentrate on the underlying characteristics of Russian foreign policy, striving to resume its role as a great power and gain precedence in Russia's near abroad (Gunitsky & Tsygankov, 2018).

Wall, may thus help explain why the Ukrainian Crisis did not escalate and why conditions in the Arctic have so far been relatively peaceful, despite Russia's military build-up in the area (Byers, 2017) and the US' initial balancing of Chinese influence in the Arctic. Another strength of liberalism is its insistence on discussing power in absolute terms – rather than relative terms (as seen in realism) – this makes it easier to identify areas of potential cooperation between states. If you view the world solely from the zero-sum perspective, it is not enough for both parties to benefit financially from an economic agreement. Because from the perspective of Russia, an agreement with the US should make Russia relatively more rich, or at least not find itself in a worse position than the US. The same applies to the US, strictly speaking, thereby reducing the chances of cooperation. Here liberalism's focus on power in absolute terms paves the way for more inter-state trade based on the assumption that if the agreement makes both states richer, then both states benefit, even if one becomes richer than the other. The liberal concept of 'spillover' is key in this context. It argues, basically, that cooperation in a given area – if successful – can lead to cooperation in other areas as well. Therefore, cooperation between states may be launched in an area where there is little at stake, and where the states have mutual interests, and then one may hope this cooperation will become a stepping stone for cooperation in other, more important and complex areas. Hence, this concept too could inspire the relationship between Russia and the West.

The most recent school within IR theory is constructivism. Its strength with regard to Russia studies lies not least in the theorem: 'Anarchy is what states make of it'.

In connection with this theorem, which originates with Alexander Wendt (Wendt, 1992), and which argues that anarchy is not a law of nature, but (continuously) created by the actions of states, makes it logical to recall that even if relations between Russia and the West are bad right now, it is not a law of nature that it should be so. For, if one accepts the assumption that anarchy is socially constructed, then it stands to reason that it can also – at least in theory – be reconstructed, or moderated and mitigated. The same is true of relations of enmity and friendship between states.

One of the main concepts within constructivism is thus the concept of securitisation (Buzan, de Wilde & Wæver, 1998). It claims, in short, that threats are not objective but socially constructed ideas, which largely depend on how they are constructed by the actors involved and whether relevant recipients at home accept this threat perception. That Russia and the

West consider each other adversaries, if not enemies, is also a result of the fact that both parties act in a way that causes the other to feel threatened and thus launch initiatives which in turn are interpreted as threatening by the former, and so. As one might sense, there is a spiritual affinity between constructivism and the realist security dilemma. Securitisation theory can thus help make political actors in both the West and Russia more aware of the processes they unleash when they describe the other part as threatening.

A version of constructivism that is not too far removed from the culture-oriented approaches described earlier in this chapter is constructivist studies of strategic culture. Strategic culture theory is a kind of inside-out explanation of states' foreign policy. One of the main assumptions of strategic culture theory is thus that elites socialised in different strategic cultures will make different choices when faced with comparable situations. Foreign policy is something that state elites conduct based on socially and culturally determined assumptions about what is in the country's interest. States' identity and self-understanding thus shape their interests and views, influenced by learning from and collective memories of historical events, wars for example. This may help us understand why the Russian elite may not draw the same conclusions from a given event as the US or German elites do. One of the weaknesses of this approach is that it is better at identifying the realm of possibilities for a country's foreign or security policy than at saying something specific about a distinct foreign policy.

Military Theory

Military theory can be described as the social science-based study of war and military affairs focussing on how war can be prevented, fought and won (Angstrom & Widen, 2015, p. 5; Høiback & Ydstebø, 2013, p. xx). Milan Vego (2011) thus defines military theory as comprehensive analysis of all the aspects of warfare, its patterns and inner structure, and the mutual relationships of its various components/elements (Vego, 2011, p. 60). A scientific characteristic of military theory is the fact that it was largely developed by officers, and that studies within the field have often taken a prescriptive approach, striving to provide instructions on how to win wars (Lider, 1983, p. 15). At the same time, though, military theory is international, but also characterised by national characteristics and different

schools. Hence, a specific form of Soviet military theory based on Marxist-Leninist ideology existed during the Soviet era. From a Soviet perspective, this military theory constituted a science, as Marxism-Leninism was regarded an all-encompassing, true social theory. Because war was considered a social phenomenon, it was believed to hold answers to the nature, causes and conduct of war etc. Western military theory, it was argued, missed the point that war was a consequence of the capitalist system, and that military power in capitalist countries was an instrument of suppression wielded in the context of class war. Not only did Marxist-Leninist military theory realise this, it also provided socialist countries with a basis for building the strongest defence by mobilising the entire population (Lider, 1983). Even though modern-day Russian military thinking does not draw on the same ideological thinking, it maintains the vocabulary and taxonomy of the Soviet era. It also continues to take a more holistic approach to war and the use of military means than much Western military theory, as it always takes into account the surrounding society and its characteristics (Adamsky, 2010). We will be returning to the consequences of this unique Russian military theory below, but first some of the main problems of military theory require mention.

Military theory struggles with the fact that war as a social phenomenon is hard to define. Not least because war historically has taken countless forms, both in terms of intensity and duration, for example, but also in terms of the type of combatants, causes and motives (Angstrom & Widen, 2015). This has led to extensive debate on how to define and subdivide war, for example symmetric versus asymmetric, conventional versus unconventional. One example of this problem is the existence of many different scientific opinions as to whether hybrid war is a meaningful term for a specific type of war, or whether the concept merely describes a specific type of strategy (Sørensen & Poulsen, 2018). Not only does science provide different definitions of war and many different attempts at categorising wars, it usually also distinguishes between various levels of warfare – from the political-strategic and military-strategic through the operational to the tactical level. It also distinguishes between various domains (areas). The classical domains are the land-based and naval domains, which in the 20th and 21st centuries have been supplemented with air, space and cyberspace domains. Some even tend to add another domain, namely the cognitive (Schmidt, 2020).

Carl von Clausewitz (1864) is one of the leading military theorists. Among other things, he introduced into military theory the distinction between the unchanging nature of war and its constantly changing form. Clausewitz also stressed that war is characterised by incomplete knowledge of the intentions and capabilities of the opponent, and that any war exhibits what he refers to as friction. Any military plan is based on incomplete information, and its implementation will, due to the impact of friction, be impeded by unexpected and on occasion completely random events such as a change of weather, fear, exhaustion or misunderstanding. Also central to Clausewitz' (1864) authorship is the claim that war is always dynamic, because the opponents seek to counter each other through still new (and ideally unforeseen) countermeasures. According to Clausewitz (1864), the 'duel' that thus emerges is characterised by three interacting factors: War is a political and rational act, war induces and is driven by passion (hate and fear), and war is a game, where the outcome is open and the actors are forced to rely on probability and 'creative' solutions rather than on solid knowledge and fixed rules. The latter factor makes warfare an art form and the talented military commander one who is able to make good decisions under pressure based on experience and judgement. Though Clausewitz (1864) is not the only one who has sought to establish a general, universal theory on the phenomenon of war, he has formulated the (so far) most extensive and generic approach to studying this phenomenon (Gray, 2012). Furthermore, Clausewitz (1864) has greatly influenced Russian and Soviet military theory – especially through his emphasis on war as the long arm of policy (Jonsson, 2019). Thinkers like Clausewitz (1864), who argue that there are no stable, unchanging rules in war, are often distinguished from thinkers who do believe it is possible to formulate such rules. The latter approach, of which Swiss General Antoine-Henri Jomini is often considered the pioneer, claims that it is indeed possible to formulate a set of established principles of war, which makes war a question of resource 'management' rather than of 'art' (Høiback & Ydstebø, 2013).

The two above-mentioned schools also differ when it comes to the question of leadership in war. The Clausewitz school is usually associated with significant knowledge sharing and devolution of power to the greatest extent possible and as far down the military hierarchy as possible. This type of military command is usually referred to as *Auftragstaktik*. The ideal of the (mainly German) tradition which in the 19th century formulated *Auftragstaktik* is that military operational planning should be subjected to

enlightened peer review, and that the individual officer is entitled – obligated even – to voice any concerns he might have with regard to weaknesses in the plan. Against this, we find the Jominist understanding of military command, which, based on the idea that warfare is to a large extent controllable, represents a far more centralised approach, where higher-ranking officers who are expected to have a more or less panoptic view of the situation are in control. This is sometimes referred to as *Befehlstaktik*, and it builds on the perhaps somewhat caricatured idea that the lower levels should simply, without independent reflection or initiative, follow orders issued at a higher level. Jominist ideas have also enjoyed great influence in Russia – in many ways, to a greater extent than Clausewitz – and the Russian Armed Forces have traditionally been characterised by a high degree of centralisation and top-down control (Clemmensen, 2007; Ulfving, 2005), both due to the low level of education, but also because the country has more or less always been a dictatorship with authoritarian forms of control. This does not mean that the country has not from time to time seen lively military-theoretical debate, though, or that Russian military operational planning does not leave room for discussion – merely that the room for debate and dissenting opinions has been relatively small compared to many other countries, with Germany as the most remarkable antipode.

Especially the Jominist school has, as mentioned above, been intent on formulating a set of permanent principles how best to wage war, and this represented an important part of Soviet military science (Glantz, 1991). Awareness and utilisation of the principles of war were key to the profession, and reference to these form a regular part of Soviet war-theoretical discussions, as evident from the military-theoretical journal *Voennaya Mysl*, for example. Closely related to the formulation of war principles is the area of operational analysis, which aims to provide a set of quantitative norms for how and when deployment of a force will lead to victory. This area too has had great influence on Russian military thinking, as the idea is that the insight thus gained may be used within operational planning. Empirically verified ‘rules of thumb’ regarding the force ratio required in a given situation will make it possible to distribute the military forces in the most optimal way possible in the various parts of the front, the argument goes (Gareev, 2008).

The fissure between the Clausewitz and Jominist schools is often presented as a conflict between the view that war is an art form and the view

that war is a science, respectively. This is too crude a distinction, though, as both views may be present at the same time during war (Handel, 2001, p. 3). One could argue that while several aspects of war may be turned into a science and studied in a way that makes it possible to formulate relatively clear and often quantitative rules of war, it is in the complex context of warfare that war becomes an art form, where experience and creativity come into play, and the ability to see the whole as greater than the sum of its parts is key (Møller, 2007, p. 7).

Central to military theory is also the question of how and to which extent technological development affects the basic nature of war. In this connection, analysts often draw on the concepts of 'revolutions in military affairs' and 'military revolutions'. The former is the result of technological development and usually leads to changes in the way war is conducted at the tactical and operational levels, while the latter is usually the result of fundamental social changes, as when nationalism facilitated conscription-based mass armies (Rasmussen, 2003). As early as the 1980s, studies of the consequences of the new information technology, including precision weapons and improved forms of communication and control, led Soviet thinkers to predict the new battle forms the US would make use of during the First and Second Gulf Wars, and which gave the country a vital military head start (Adamsky, 2010). Though the US thus became the first country in the world to conduct an information technology-based 'revolution in military affairs', the military superiority demonstrated by the US both in 1991 and 2003 over Iraq did not give it an easy victory in the insurgencies in Afghanistan and Iraq. Neither the US' huge military strength in wars with conventional opponents nor its weaknesses in asymmetric wars went unnoticed in Russia. In recent years, a number of Russian military thinkers have been debating whether the radical changes prompted by modern information technology, among other things, are changing the fundamental nature of war and will eliminate the differences between military and non-military means and between war and peace. Far from everyone agrees that this is the case (Bukkvoll, 2011). However, the discussion has great implications both for Russia's approach to the task of modernising its armed forces, and for what it considers military means and hostile behaviour (Jonsson, 2019).

A Danish contribution to military theory is the 'warfare cycle' originating at the 1960s Royal Danish Military Academy (Jakobsen, 2020; Sjøgren, 2018). The model is used both implicitly and explicitly in several of the chapters of

this book, as it forms part of their analytical foundation. It divides military organisations into three elements with regard to their function in war: form of organisation, technology and doctrine. The model argues that the three elements interact, and that a combination hereof should ideally be established, thus ensuring that a form of organisation has been chosen and equipment been acquired to match the given doctrine (Jensen, 2004). It further stipulates that the organisation, technology and doctrine depend on the workings of the surrounding civil society. The warfare cycle thus has an outer ring where doctrine is said to interact with the ideology of the society, equipment with its economic development, and organisation with the political structure. There is no doubt that the model simplifies many fairly complex matters, though. A recently published special edition of the *Scandinavian Journal of Military Studies* subjects the model to critical, but also affectionate analysis. The conclusion is, among others, that many use the model without reflection, failing to understand that it is a model, not a theory. Hence, saying anything about the interrelation of the elements of the warfare cycle – and not just that such an interrelation exists – requires relevant theory (Jakobsen, 2020). For example, there is an extensive literature on doctrinal development, which establishes that doctrine is the result of many things; not simply an attempt to provide a template for best practice. Doctrinal development is not just about preparing for battle; it is also shaped by inter-service rivalry, access to resources, political decision-making and domestic policy, just as the development of doctrine, the procurement of equipment and the selected form of organisation of course build on difficult assessments of the likely opponent and battlefield (Høiback, 2016; Kier, 1997). Hence, doctrinal development cannot be reduced to a process where a given form of technology and a given form of organisation result in a given form of doctrine. It has been argued that education is a main component in the warfare cycle (Lund, 2017, p. 5), as education is what links the three elements, and it is through education and training that the three elements together can be converted into combat power. Modified, the model is thus useful for studying the combat power of a given country's armed forces.

Much military theory is based on the assumption that battlefield conditions are universal, and that it is therefore possible to a certain extent to analyse preparations for war and the deployment of military forces independent of the national context. Following Michael Handel, the principles of warfare are like the laws of physics or chemistry: the same from one

country to the next. However, Handel admits that countries may, for cultural reasons or owing to a particular political agenda, differ in their ability and will to acknowledge the laws of warfare:

'The universality of strategic logic does not, however, mean that strategy is something apart from specific geographic, economic, or other factors, or that all political groups or nations will be able to learn and implement the inherent "laws" of war with equal effectiveness or determination.' (Handel, 2001, p. xix)

It follows from this point of view that the Russian Armed Forces, much like the Danish ones, grapple with questions such as which leadership philosophy to choose, which new types of equipment are made possible by technological change, and how this affects doctrine and the form of organisation. Furthermore, the domains and levels applied in Danish and NATO contexts are central to Russian contexts too (though not necessarily similar). Not just because 'war will be war', but also because Russian military theory is organically linked with foreign military theories, as they build on the same fundamental works – and because Russian and Western analysts often study the same conflicts to gain knowledge about present-day and future wars (Revaitis, 2018). However, it is important to maintain here that especially when military theory, instead of being descriptive and abstract, becomes prescriptive, it often loses its universal quality. It is not surprising that only theories characterised by a high level of abstraction are to some extent able to transcend time and place, but much military history is nevertheless shaped by a failure to acknowledge that much war and warfare are to a great extent social constructs (Lynn, 2002).

There is thus an extensive literature on the 'ways of war' focussing on how different cultures have a preference for different types of warfare based, among other things, on different forms of military theory, but also on what they consider their main security challenges and the workings of society. For example, many have highlighted an American Jomini-inspired approach to war characterised especially by overwhelming amounts of material resources and extensive use of firepower, and which considers warfare a form of *management* of resources rather than an art form. Similarly, there is an extensive literature on the 'Russian way of war' and its intellectual roots in Russian and foreign military theories (Fasola, 2017; Klus, 2016; Thomas, 2019). In this book, military theory is applied not just as a tool for studying military forces and their deployment but also as an object of study in itself, as Russian military theory and

military thinking will inevitably shape the way Russian forces are organised and utilised (Jonsson, 2019). The aspect of Russian military theory that has been subject of the most public – and scientific – debate in recent years is Russia's apparent doctrine for a new form of war: hybrid war.

However, to infer the nature of Russian military theory and associated doctrinaire thinking solely from Russian practice in connection with the annexation of the Crimea and the Russian-orchestrated revolt in eastern Ukraine would be ahistorical and highly reductionist. Russian military-theoretical debate is much broader than that. As noted by Timothy Thomas, it would be wrong to 'put Russia's military thought in a box, as it is evolving and changing over time as various periods and experiences are integrated' (Thomas, 2016, p. 573). This applies to most countries' armed forces, but when this word of caution is particularly relevant in relation to Russia, it is due to the great and fairly one-sided focus of recent years' Western debate on Russia's special capacity for hybrid war.

Another focus point of military theory is assessment of military strength. It is vital to a country's defence that it is aware of its own strengths and weaknesses, but also of how its potential enemies are dressed for war. Assessment of strength may be conducted at a number of levels – from assessment of a country's military potential on the basis of its GDP, population figure and industrial power through assessment of its weapons systems to qualitative assessment of the motivation, professionalism and total capacity of its armed forces for conducting military operations (Trautner, 2018). Several chapters of this book provide assessments of the strength of the Russian Armed Forces, for example based on the number of fighters, the pilots' level of education and training and the technical capacity of the planes. Such assessments of strength are difficult to make and will always be relative; that is, they must be compared to the strengths of a likely opponent to be able to give an indication of the effect of a military deployment. In order to assess the nature of the threat of a potential military opponent, observable strength is usually combined with analysis of the opponents' likely intentions. Intention is harder to assess than strength, though, as it may change fast, and as the opponent's public statements may vary from its hidden intentions. A relevant example for this book is Hitler's attack on the Soviet Union in the summer of 1941. The Soviet Union had considerable knowledge of the size and capacities of the German Armed Forces, but when the Germans initiated a massive troop build-up along the Soviet border in the spring of 1941, there was disagreement as to the purpose hereof.

It did not help that Soviet dictator Josef Stalin had structured the intelligence services in such a way that only he had access to the total intelligence picture. Since he considered the idea of a potential German attack ludicrous, he ignored the many signs of an imminent attack, and the Nazi invasion therefore took the Soviet forces almost completely unawares. This example illustrates one of the main problems with threat assessment: that the assessing party will conduct 'mirror-imaging', that is, project its own forms of rationality and preferences onto the opponent (Witlin, 2008). In the context of this book, mirror-imaging may be found in assumptions that the Russian Armed Forces adopt the same military-theoretical concepts as NATO or that its willingness to take risks or accept casualties is the same as in NATO (Thomas, 2019, p. 1.1).

Pitfalls and Challenges – Concluding Practical-Methodological Reflections

Based on the above presentation of three different theoretical approaches to the topic of the Russian Armed Forces, we are able to identify three methodical challenges facing any study of the Russian Armed Forces:

- Availability of source material
- Interpretation of source material
- Basic assumptions about differences and similarities between 'us' and 'the Russians'

The first challenge, the availability of source material, is first and foremost a result of the fact that defence affairs are generally subject to greater secrecy than most other areas of state authority, and that a main aspect of military thinking is to keep critical strengths and weaknesses secret. While the public may be familiar with the location of specific bases or the existence of specific weapons systems, activities in these bases and the range, precision etc. of the individual weapons systems are typically confidential. For example, the exact range of the Russian Iskander missile is not publicly known, and it may therefore possibly violate the 500-kilometre limit of the INF Treaty (Forss, 2012). In the case of Russia, most of the authoritative documents outlining how war should be fought – what in NATO contexts is referred to as 'doctrines' – are also confidential. Only the very basic,

overall Russian military doctrine, primarily concerning the strategic level, is available. The source challenge is further aggravated by Russian legislation and legal practice, which leaves little room for debating defence affairs in the public domain. Defence-critical NGOs and independent think tanks thus have a hard time, and even Russian researchers can only gain limited insight into internal affairs of the armed forces. Foreign research into the subject is further limited by the fact that much source material is available in Russian only, which means that researchers with great military-analytical expertise, but who do not speak Russian have difficulties really plunging into the field.

The second challenge, the interpretation of source material, concerns for example the structure or syntax of the Russian language, which is very different from the Germanic languages. When combined with the in many ways different Russian writing and debate culture, which in military-theoretical journals typically takes the form of rather indirect argumentation and very discrete forms of criticism, researchers must be very careful to interpret statements correctly. Seeing, as the amount of data is often limited, researchers are forced to base their analyses on a combination of different forms of empirical material. In his inspiring study of Russian military thinking, Oscar Jonsson recommends using three types of source material: Russian doctrine, statements by the Russian political elite and the Russian military-theoretical debate (focussing on the general staff and leading Russian military journals) (Jonsson, 2019, p. 17f). Though such 'triangulation' is useful, necessary even, the result is subject to some uncertainty and often to some extent based on judgement or best assessment. This is an important point to make here, as it also applies to a lot of the analyses in this book. The secrecy of the Russian regime should not deter researchers from trying to do their job, though; it is simply necessary to point out to the reader that the results may be subject to uncertainty.

Furthermore, studying the Russian Armed Forces, researchers run the above-mentioned risk of mirror-imaging if they, without reflection, adopt theories that have been formulated in a society that is very different from the Russian one, or vice versa – if they base their work on a stereotypical notion of Russianness which creates very different ways of thinking and working than in the West. As argued above, many theories about the Russian Armed Forces and Russian society explicitly argue that the social structure together with the country's history and culture produce such 'otherness'. You could argue that the problem is not whether researchers

allow into their work perceived similarities (e.g. mirror imaging) or differences (e.g. explanations based on cultural differences), but when they fail to mention or even acknowledge these.

Literature Review

This book is one of the first Danish scholarly texts in recent times to deal with the Russian Armed Forces. In the international context, it is less than unique, though, as there is an extensive, multi-faceted international literature on the topic originating in research environments that have existed since the Cold War.

American political scientist Brian Taylor (2019) has identified five central developments within security studies since the Cold War (Taylor, 2019, p. 197f): 1) decentralisation, 2) transnationality, 3) mainstreaming, 4) comparativity and 5) loss of the military-strategic aim. Decentralisation here entails a shift in focus away from conventional, nuclear, centrally-controlled defence institutions towards decentral actors such as militias and warlords. At the same time, the research area has become more transnational, as it is no longer dominated by American researchers. The area has also seen increased integration into the general social sciences with increased adoption of their methods and theory. Furthermore, the area is seeing an increase in comparative studies, and finally, focus is less on issues that are applicable within strategic and military contexts.

Most of these elements also apply to studies of the Russian Armed Forces. Large parts of the literature now draw on theories and models that originate from general IR theory or which address military institutions through general theory on civil-military relations or military sociology and organisational theory. This is connected with the fact that the dissolution of the Soviet Union and the emergence of capitalist Russia changed the framework conditions: The unique elements that characterised the Eastern Bloc qua the socialist system either disappeared or were diminished. The same is true of the political attention afforded to the area, especially as new security issues emerged in the years following September 11th, 2001 – threats which in no way resembled those associated with the Eastern Bloc.

Nevertheless, much present-day research into the Russian Armed Forces is still characterised by policy-oriented studies conducted by American think tanks. Moreover, it is to a great extent relatively new, meaning

that interest in the Russian Armed Forces only re-emerged as a distinct field of research after the Ukraine Crisis of 2014. Until then, it was mostly haphazard.

The existing research is characterised by six main focusses: The longest-existing and most consistent research area has focussed on civil-military relations, including Russia's capacity for implementing (and funding) fundamental military reforms and thus for transforming the post-Soviet armed forces (Giles, 2011; Golts, 2019; Lannon, 2011; Mathiesen, Poulsen & Staun, 2018; McDermott, 2009; Pallin, 2008; Renz, 2018; Taylor, 2003). Until 2014, the underlying notion of much of this literature was that the reforms were circuitous and did not seriously manage to take root, as too many stakeholders benefitted from the large and unreformed armed forces characterised by non-transparent decision-making and opaque financial processes – a perspective which to some degree changed with Russia's successful deployment of military force first on the Crimea and later in Syria. Another focus has been identifying Russia's military capabilities, generally through a combination of quantitative and qualitative methods. This research area requires extensive resources and is performed most convincingly by the permanent research group established by FOI in Stockholm (Persson, 2016). An important aspect of this area is the study of a particular weapons system or the formation of a new command or other forms of specific capability development (Giles, 2011; Sliwa, 2018). Add to this – as a third focus – an interest in exploring Russia's military exercise patterns and what they can tell us about the country's level of readiness and its threat perceptions and possible offensive plans (Järvenpää, 2014; Norberg, 2018; Paitraitis, 2018). The fourth group comprises studies focussing especially on Russia's military capacities based on concrete operations – in Chechnya, Georgia, Syria and Ukraine (Howard & Pukhov, 2015).⁴ As a fifth approach is the research that studies Russian military thinking, including specific types of operations, for example hybrid warfare (Bukkvoll, 2011; Jonsson, 2019; Jonsson & Seely, 2015; Persson, 2017; Sørensen & Poulsen, 2018; Thomas, 2016). And finally, a sixth focus is the research which from a geographical perspective and typically based on a relative military power assessment seeks to establish the threat posed by Russia to

4. For more on Chechnya, see Martin Clemann Rasmussen's contribution on Chechnya in (Poulsen & Staun, 2018). For more on Georgia and Syria, see the contributions by Jørgen Staun on these conflicts in (Poulsen & Staun, 2018).

specific regions, for example the Baltic States, the Baltic Sea Region or the Arctic (Boulègue, 2019; Hooker, 2016; Mathiesen, Poulsen & Staun, 2018; Radin, 2017; Wither, 2018). Add to this a series of areas that have been studied more or less sporadically – for example, the culture of the Russian Armed Forces and its internal way of functioning (Baev, 2002) and the Russian Armed Forces' role in domestic politics and influence on Russian society.

Seeing as the field is characterised by dynamic empirical data and constant changes, in the form of new weapons systems or doctrines, for example, and seeing as a lot of the existing research is conducted by individuals or is characterised by a specific, set format (e.g. the FOI reports), this book seeks to contribute with knowledge which, compared to other research in the area, is up-to-date and touches on various aspects of the Russian Armed Forces. Combined with the fact that the book represents a cross-disciplinary research project with the participation of researchers with very different scientific backgrounds, this means that it can to a greater extent provide explanatory and explorative – as well as partially synthesis-oriented – research rather than theory-testing, hypothesis-based research with a joint theoretical foundation. That is why this chapter does not touch on the full range of approaches to the Russian Armed Forces compiled in this book. It is our hope, though, that it has enhanced the reader's understanding of the theoretical and methodical challenges facing anyone studying the Russian Armed Forces.

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CHAPTER 3

At War with the West – Russian Military-Strategic Culture

By Jørgen Staur

Introduction

Most nations are born in pain and hardened by war. However, looking back through history, this dictum seems particularly true of Russia.

War was never a distant phenomenon for the Russian state as it expanded over the centuries. With flat steppes on all sides, the challengers have almost queued up: the Mongols to the east in the 13th century; later, the Poles and Lithuanians to the west. Then the Swedes to the northwest, and the Turks to the southeast, only to mention a few. Napoleon managed to take Moscow, but not without the Russians soon setting the city ablaze. Hitler only made it to the suburbs before he was evicted and sent packing. The overall historical lessons for Russian military-strategic culture, in brief, is that the world is a dangerous place, and that history does not reward the weak and vulnerable. This historical lesson informs contemporary military debates, and it helps shape the Russian understanding of war.

Why is Russian military-strategic culture important in assessing Russia's military capability, one might ask? It is, firstly, because the choices one ends up making in the defence policy area do not emerge out of thin air, but follow from the way Russia's self-perception and threat perception have evolved over time. Second, because it says something about in what cases and against whom Russia envisages using military means; and how they imagine the future of war unfolding, and in which cases military means are considered an effective and legitimate solution to a given

problem. Third, the issue is important because military strength does not depend on the quality of steel alone. Russia's military capability is not determined only by the quantity, quality and technological nature of the equipment and manpower available to the Russian armed forces. The way in which the Russian armed forces use this equipment – military command – is also important. As argued by Bettina Renz, 'military success also requires doctrinal and strategic thinking that is able to translate available assets into a tool relevant for achievement of objectives' (Renz, 2018, p. 160). Moreover, strategic and doctrinal choices impact how defence resources are allocated in Russia and therefore have an effect on Russia's military capabilities over time. Furthermore, as Oscar Jonsson states, 'progress in the Russian military-theoretical debate often precedes the conduct of war'. A case in point is the 2014 annexation of the Crimea (Jonsson, 2019, p. 44). In other words, these debates are assumed to constitute a core element of an examination of Russian military-strategic culture, which is part of (the overall) Russian strategic culture. If Jonsson is right, debates about the future of war are perhaps the most important of all, as it is here that the framework of how war is imagined in Russia is created and maintained – that is, the framework for how Russia will wage war in the future.

Strategic Culture Theory

It is widely acknowledged that Jack Snyder's 1977 report for the American think tank RAND on the Soviet Union's use of nuclear weapons was the first to introduce and assign analytical value to the concept of strategic culture (Gray, 2006, p. 9; Johnston, 1995, p. 36; Lantis, 2005, p. 6).¹ Realising that the Soviet Union was conventionally superior to NATO, in the 1960s the US and NATO drew up a strategy for limited use of tactical nuclear

1. The idea that national character impacts a state's foreign and security policy was included in analyses long before Snyder coined the concept of strategic culture. Studies of cultural factors' impact on the use of military means thus increased in number especially after the Second World War. A main question then was whether it was possible to identify the unique national characteristics of the Axis Powers, which might explain why the states had acted the way they did, and whether their behaviour shared any common characteristics. Extensive studies of the 'national character' of Japan and Germany in the late 1940s formed the first basis for understanding how national characteristics impact a country's view on war and use of military power (Desch, 1998, p. 145).

weapons. The 'flexible response' strategy was based on the assumption that Soviet decision-makers would act just like Western decision-makers if faced with similar problems, and that they would act rationally – just like their Western opponents (were expected to do). Snyder challenged this assumption of rationality and claimed that 'neither Soviet nor American strategists are culture-free, pre-conception free game theorists' (Snyder, 1977, p. v). He thus argued that if the Soviet Union was confronted with new strategic problems, these would not be 'assessed objectively', that is, in accordance with Western assumptions of rationality; instead, they would be 'seen through the perceptual lens provided by the (Soviet, ed.) strategic culture' (Snyder, 1977, p. v). Snyder defined strategic culture as 'the sum total of ideas, conditioned emotional responses, and patterns of habitual behaviour that members of a national strategic community have acquired through instruction or imitation and share with each other with regard to nuclear strategy' (Snyder, 1977). Though Snyder focussed exclusively on Soviet nuclear strategic culture, the concept was not as such limited to this context. In another influential work of literature within strategic culture – which is part of or at least inspired by constructivist international political (IR) theory – Alastair Iain Johnston claims that most proponents of strategic culture would agree that elites socialised in different strategic cultures would make different choices when faced with comparable situations. 'Since cultures are attributes of and vary across states, similar strategic realities will be interpreted differently' (Johnston, 1995, p. 35).² Culture sets the standard for meaningful and appropriate behaviour. Essentially, strategic culture can, according to John Glenn, be described as 'a set of shared beliefs, and assumptions derived from common experiences and accepted narratives (both oral and written), that shape collective identity and relationships to other groups, and which influence the appropriate ends and means chosen for achieving security objectives.' (Glenn, 2009, p. 530)

2. In his study, Johnston identifies three generations or successive waves of strategic culture research. He considers Colin Gray and David Jones the main spokesmen of the first generation launched by Snyder. The second wave considered strategic culture a Gramscian-inspired political hegemony and is represented e.g. by Bradley S. Klein's study of the US' nuclear strategy (Klein, 1988). The third wave, which emerged in the 1990s and of which Johnston himself was a part, focussed its version of strategic culture studies on explaining deviations from the expected (neo)realist result (Johnston, 1995).

One of the problems facing the literature on strategic culture has been the widely accepted understanding of culture as ‘ideas plus behaviour’, based on Snyder’s definition (Lock, 2018, p. 4). In 1995, Johnston criticised this as an intermixture of ideas and behaviour, which, in this view, led to ‘claims, where strategic culture as “cause” cannot be distinguished from the effects it is said to produce. Such claims are problematic because they produce tautological reasoning’ (Lock, 2018, p. 4). Colin Gray responded to this in the so-called Johnston-Gray debate (Bloomfield, 2012, p. 442; Libel, 2018, p. 5), arguing that it is impossible to distinguish between strategic culture as ideas and strategic culture as behaviour (and artefacts), because they are by nature interwoven (Libel, 2018). Nevertheless, if you cannot distinguish between context and behaviour – or between structure and agent – you may have difficulties explaining change. Theoretically, this chapter is thus part of the continuation of the so-called fourth wave of strategic culture theory (Haglund, 2014, p. 317; Libel, 2018, p. 7) and, inspired by constructivism, follows the course charted by Edward Lock (Lock, 2018). It thus distinguishes analytically between ideas and behaviour and focusses on the ideas.

Here strategic culture is defined as consisting of ‘common ideas regarding strategy that exist across populations’ (Lock, 2018). Analytically, strategic culture is thus reduced to common ideas (discourses), rather than ideas plus behaviour, and hopefully this means that the chapter will avoid the above-mentioned problems of intermixture.³ Moreover, via the word ‘populations’, the chapter focusses on different groups or subcultures (here understood as power elites), and how they contend for the opportunity of setting the agenda and defining the content of the competing discourses. The chapter focusses exclusively on power elites within the same state, namely Russia. In this context, Lock defines ‘strategy’ as questions ‘pertaining to organized violence’, that is, the legitimacy and assumed efficiency of using military power (Lock, 2018, p. 2). We thus end up with the following definition of strategic culture: discourses found across central power elites, which concern questions of legitimacy and efficiency in the use of military power. The word ‘questions’ is vital here, and the main questions in the present chapter are: 1) What is Russia’s role in the world?

3. This is not to say that strategic culture is composed of ideas only. The effect these ideas have with time – the institutionalisation of culture – is a significant part hereof. However, for analytical reasons, the study on which the chapter is based is limited to ideas.

2) What is the nature of war? 3) What or who is threatening us (Russia/the Russian foreign and security policy elite)? 4) What can the Russian Armed Forces learn from this? Questions 1 and 3 – What is Russia’s role in the world, and what or who is threatening us? – follow from a general social constructivist reading of strategy, where the analyst looks for collective notions of the ‘self’ (that is, Russian notions of what Russia is and should be) and so-called conceptual constructions of ‘them versus us’, which many (though not all) discourses are constructed by (Laclau & Mouffe, 1985; Wæver, 1993). Questions 2 and 4 – What is the nature of war, and what can the Russian Armed Forces learn from this? – are specific to the study of *military*-strategic culture, which expects to find similarities between Russia’s and other countries’, especially Western militaries’, notions of the nature of war and its development, though also uniquely Russian perceptions hereof.

In this chapter, Russian military-strategic culture is considered a subset of sorts of Russian strategic culture, which has been discussed elsewhere (Poulsen and Staun, 2018; Staun, 2018). There is no clear separation between the overall strategic culture – or the political-strategic culture – and the military-strategic culture. It is a continuous battle between speech actors and groups of like-minded actors (subcultures) for the opportunity to define meaning and convince others that their interpretation of the above-mentioned questions is the right one. There is nothing strange in that. This is the nature of politics, including security and defence policy.⁴

The method of the present chapter follows from constructivist IR theory. Thus, it is argued here that a set of central assumptions – or worldviews (Wittgenstein, 1989, p. 174, § 122) – about defence and security policy systematically organises knowledge and delimits what can and cannot be meaningfully said about a given country’s defence and security policy. These discourses set the framework or limit to what is considered a politically or militarily logical and viable defence and security policy course of action.⁵ Furthermore, a discourse that has been structuring political or military behaviour for some time – for example, the notion of who

4. This, I believe, overlaps with what I have previously referred to as Russia’s (political) strategic culture (Poulsen & Staun, 2018). This is only natural, though, as this distinction between (political) strategic culture and military strategic culture is analytical and aims to establish a clearer picture of the military characteristics of Russian strategic and military-strategic cultures.
5. See Ole Wæver (2005) for a similar argument.

constitutes the main enemy – will create a pattern of behaviour that is difficult, though not impossible to change. Discourses are therefore considered structural layers, and the more sedimented or ‘mature’ discourses have been institutionalised and are thus more difficult to rearticulate – or politicise – and change (Bertramsen, Thomsen & Torfing, 1991; Wæver, 2005). In the context of Russia, these discourses can be explored by studying the most important official Russian documents on foreign and security policy issues as well as the many Russian debates on Russia’s role in the world, what or who threatens Russia, the nature of war in the past, present and future, and what can be done about it. What I seek to write here is a portrait of the worldview of the Russian military, and to some extent political, elite. Such a portrait comprises a number of key assumptions that thrive at the top of the Russian defence and political-military elite, and which have an impact on Russian defence and security policy from top to bottom. Please note that I do not distinguish between discourses for internal (Russian) and external (international) use, respectively – contrary to, for example, Ieva Berzina in her excellent analysis of Russian policy in the Arctic (Berzina, 2015). I neither seek to distinguish between instrumental use of a discourse and its actual or ‘real’ impact behind the scenes. Naturally, instrumental use of discourses and political statements is common, and some political statements are clearly meant for a domestic audience, while others target an international audience. However, such a distinction is difficult to maintain in a strict analytical manner, and I therefore will not attempt it here. That this is defensible is because it is theoretically assumed to be extremely difficult to maintain two or more markedly different meanings of a discourse – one that is secret and one that is public – without cracks and ambiguities in the argumentation appearing over time, as the attentive analyst should readily spot.

Literature Review

The literature on Russian military-strategic culture, Russian strategic thinking and related topics is extensive. The main work on which this chapter is built includes, first and foremost, Oscar Jonsson’s *The Russian Understanding of War. Blurring the Lines Between War and Peace* (Jonsson, 2019), which is a masterpiece of a detailed study of the many-faceted Russian (and Soviet) debates on the nature of war through the ages. A weakness of

Jonsson's book is the fact that its high level of detail to some extent blurs the overall argument. Also worth mentioning is the work of Dima Adamsky, for example his article 'From Moscow with coercion: Russian deterrence theory and strategic culture' (Adamsky, 2018), which is a fine, high-level article, but without much of a communicative aspect. This, however, is covered by Bettina Renz's book *Russia's Military Revival* from 2018 (Renz, 2018), which aside from the military-theoretical debates also explores the modernisation of the Russian Armed Forces since 2008. Add to this Jacob Hedenskog, Gudrun Persson and Carolina Vendil Pallin's contribution on 'Russian Security Policy' for the FOI report *Russian Military Capability in a Ten-Year Perspective* (Persson, 2016), which offers an elegant overview of Russia's threat perceptions. Also interesting are Timothy Thomas' two reports, 'Thinking Like A Russian Officer: Basic Factors And Contemporary Thinking On The Nature Of War' (Thomas, 2016) and 'Russian Military Thought: Concepts and Elements' (Thomas, 2019), both of which provide highly competent and detailed reviews of Russian military thinking. Then of course there is Stephen R. Covington's report *The Culture of Strategic Thought Behind Russia's Modern Approaches to Warfare* (Covington, 2016), which is slightly different from the above-mentioned works, as it is characterised by the fact that Covington, due to his long-standing position as an advisor to the NATO Supreme Headquarters Allied Powers Europe (SHAPE), is a practitioner rather than an academic, and unfortunately parts of his analytical "pillars" become somewhat blurred. Nevertheless, the report is extremely well-written and strong and clear in its analysis and therefore worth recommending. Another central work is Tor Bukkvoll's article 'Iron Cannot Fight – The Role of Technology in Current Russian Military Theory' (Bukkvoll, 2011). In his study of the Russian debate on the nature of war and the role of technology, Bukkvoll distinguishes between three traditions or "schools" in Russian strategic thinking with respect to their view on technology's (transformative) effect on war: traditionalists, modernists and revolutionaries – idea-based schools that cut across institutions, individuals and official statements and documents.

Russian Military-Strategic Culture. Who Holds the Power of Definition, and Who Are the Carriers of Culture?

At an overall strategic level, the main institutions when it comes to defining the central conceptions of Russia's role in the world and thus its security policy are, first and foremost, the presidential administration, the National Security Council and the Ministry of Defence, who are also extremely important when it comes to determining the overall understanding of what or who threatens Russia. The main institution with regard to conceptions of the nature of present-day and future wars is the Russian general staff. Stephen R. Covington even refers to Russian military-strategic culture as 'the assumptions and values of traditional Russian General Staff strategic culture', which constitute the 'brain of the army' (Covington, 2016, pp. 5, 3). According to Covington, Russian military-strategic culture is thus cultivated and safeguarded with the general staff as the 'the prime drivers of Russia's military modernization, reorganization, and behavior'⁶ and via the military academies' institutionalisation hereof in the Russian officer corps (Covington, 2016, p. 3).⁷ But also important are the general staff and its research institution, the Academy of Military Science (AVN), which is a sort of in-house think tank for the general staff (Jonsson, 2019, p. 18) complete with its own publicly available journal, *Voennaya Mysl*. Like many other researchers focussing on Russian military thinking and conceptions of war, Jonsson assigns great weight to analysing debates between Russian military thinkers, whether based in the ministry of defence, the general staff or elsewhere. And Timothy Thomas provides a picture of a very lively Russian debate on the nature of war and on whether future wars will change it (Thomas, 2016). Tor Bukkvoll on his part identifies three scenes of debate: the general staff, the Russian Academy of Military Science

6. Oscar Jonsson also considers the general staff the 'brain' of the army (Jonsson, 2019, p. 18).
7. We do not have a similar dominant, unified military-strategic culture in the Western world, Covington argues (Covington, 2016). Partly because NATO is an alliance of 28 countries, which hinders unification. Partly because Western societies' liberal-democratic, decentralised and pluralist cultures make it difficult to create a unified system of military-strategic thinking. According to Covington, Russia's military-strategic culture thus builds on the traditional, non-liberal, authoritarian Russian regime – drawing on traditions from the authoritarian/totalitarian former Soviet regime – which makes it possible for a simple, dominant form of military thinking to merge with the political elite and thus impact the government's decision process.

(AVN) in Moscow and ‘other’ military media and conferences (Bukkvoll, 2011, p. 686).⁸ This chapter adopts, with modifications, the approach taken by Oscar Jonsson in his study of the Russian understanding of war (Jonsson, 2019, p. 17). Hence, there is believed to be three main sources, whose ranking order reflects their importance:⁹ 1) Public Russian security doctrines, the most important being the national security doctrines, followed by the military doctrines and foreign policy concepts as equally important. 2) Then follows statements by the political elite, here first and foremost defined as the small circle of actors around President Putin, namely Minister of Defence Sergey Shoygu, Secretary of the Security Council of the Russian Federation Nikolay Patrushev, Foreign Minister Sergey Lavrov, the Vice Secretary of the national security council Dmitry Medvedev and other important voices in the Russian foreign and security elite. 3) Finally, military theoreticians also have a certain amount of influence on the ongoing Russian debates that take place in public and probably continue behind closed doors (and of course we only have access to the public part of a debate).¹⁰ These sources consist, as in Jonsson’s study, of official statements and documents (doctrines) and scientific articles. The present chapter mainly draws on material from *Voennaya Mysl* (in English: *Military Thought*), *Voенно-Promyshlennyyi Kurier* (VPK), *Krasnaya Zvezda*, *Nezavisimoe Voенное Obozrenie* (NVO) and books and news articles from the daily press (with a majority of articles from *Izvestia*, *Kommersant*, the government newspaper *Rossiyskaya Gazeta* and the state news agency Interfax) as well as reports of various kinds. The reading and selection of articles is largely based on the excellent research already conducted in the area, cf. the above research

8. He then goes on to discuss briefly to what extent independent voices in the public debate influence the military establishment, and he concludes that it is ‘fair to assume that they are not completely separate’ (Bukkvoll, 2009, p. 687).
9. There is thus believed to be a ranking order regarding the weight assigned to statements in the public debate, where doctrines and other central strategy papers rank above statements by ministers and central politicians, which again are assigned greater weight than statements by central and less central military theoreticians and commentators.
10. Assigning too much weight to official documents and doctrines can prove problematic. In the late 1980s, Bradley Klein argued that the official, defensive US nuclear doctrine, which he considered to be mainly declaratory and meant to provide culturally and politically acceptable justification of the operational strategy, differed greatly from the ‘real’ nuclear strategy, which first and foremost assigned weight to war fighting in order to defend US interests (Klein, 1988; Neumann & Heikka, 2005, p. 8).

review. The following section will examine, first, the debate (discourse) on Russia's role in the world, second, the debate on the nature of war, and third, the debate on who or what threatens Russia, and what the Russian Armed Forces can learn from this.

Russia's Role in the World: Being a Great power

If there is one Russian foreign policy ambition that has been constant under the leadership of Vladimir Putin, and which is shared not just by the elite, but also by large parts of the population, it is the ambition to once again see Russia become an influential international great power (Levada Centre, 2019; Neumann, 2008; Poulsen & Staun, 2018; Tsygankov, 2008). It is evident from a number of Putin's speeches as well as from speeches by other top men in Moscow, including Minister of Defence Sergey Shoygu, Secretary of the Security Council of the Russian Federation Nikolay Patrushev and Foreign Minister Sergey Lavrov.¹¹ The great power ambition has been present throughout Putin's term of office.¹² He thus published an article in the newspaper *Nezavisimaya Gazeta* the day before New Year's Eve 1999, where he, somewhat surprisingly, was appointed acting president by the ageing and alcoholic Boris Yeltsin. Putin wrote:

'Russia was and will remain a great power. It is preconditioned by the inseparable characteristics of its geopolitical, economic and cultural existence. They determined

11. See e.g. (Lavrov, 2016; Patrushev, 2015; Patrushev, 2014; Putin, 1999, 2007; Putin, 2014; Shoygu, 2018).
12. It was equally present in a series of speeches by former President Boris Yeltsin and by former Foreign Minister Primakov, among others. Under Yeltsin, the government also sought to secure Russia's position as an established great power. In April 1992, Yeltsin thus argued that 'Russia is a rightful great power due to its history, its position in the world and its material and spiritual potential' (Erickson, 1999, p. 255). Yeltsin's West-oriented foreign minister, Andrey Kozyrev, declared in 1993 that Russia was 'historically destined to be great' (Kozyrev, 1993). When Kozyrev was replaced by the more West-sceptical Yevgeny Primakov in 1996, he said: 'Russia's foreign policy cannot be the foreign policy of a second-rate state. We must pursue the foreign policy of a great state' (Blank, 2017).

the mentality of Russians and the policy of the government throughout the history of Russia and they cannot but do so at present.’ (Putin, 1999)

The great power ambition has also been evident from *all* significant Russian strategies over the years. In the national security strategy from 2000, for example, Russia’s national interests are claimed to be to maintain Russian sovereignty and to strengthen the country’s position as a ‘a great power and as one of the influential centres of a multipolar world’ (President of the Russian Federation, 2000b, p. II). In the 2000 foreign policy concept (FPC), Russia is referred to as a ‘great power, as one of the most influential centres in the modern world’ (The Ministry of Foreign Affairs, 2000), and the 2008 FPC claims that its ‘increased role’ in international affairs and its ‘greater responsibility for global developments’ make necessary a ‘re-thinking of the priorities of the Russian foreign policy’ (The Ministry of Foreign Affairs, 2008). This rethinking then followed in the 2009 national security strategy, where the pressure of being more than just a regional great power has increased significantly. Now Russia wants to be a ‘world power’ (*mirovaya derzhava*)¹³ (President of the Russian Federation, 2009a). And in the 2015 national security strategy, which is the most recent to date, Russia wants to become a ‘leading world power’ (Rossiyskaya Gazeta, 2015, p. 30).

An entire set of systematically interconnected discourses are linked to Russia’s great power identity. The world view of the Russian foreign and security policy elite is thus first and foremost what we would call a ‘Hobbesian view of the world’ (Legvold, 2007). This basically means that they consider the world a dangerous place. A place where the international system is characterised by anarchy, that is, the absence of a world government, and therefore each individual state is responsible for its own survival and must do everything itself; if it does not, it risks perishing.¹⁴ This makes the relative distribution of power in the international system extremely important, and Russia, as one of the great powers of this system, must ensure

13. Claus Mathiesen from the Royal Danish Defence College argues that the most precise translation of *mirovaya derzhava* is ‘great power with global influence’.

14. As Chief of the General Staff Yuri Baluyevsky said in 2007: ‘Russia’s transition to interaction with the West on the basis of common or close strategic interests has not contributed to the military security of our state – Russia should confess an immutable axiom – wars and military conflicts will follow unceasingly, for they are generated by unceasing rivalry between states’. (Baluyevsky, 2007).

that the other great powers, the US in particular, are not strengthened relative to Russia; at best, the US should be weakened. The unipolar world order dominated by the US and the rest of the Western world is often referred to as an instability-inducing factor.¹⁵ Hence, the ambition of the 'Western powers' to 'maintain their positions in the world' is claimed to lead to 'greater instability' and 'growing turbulence' in the international system (The Ministry of Foreign Affairs, 2016, p. #5).¹⁶ Furthermore, Russian foreign and security policy doctrines typically argue that the world already constitutes or is at least moving towards a 'multipolar' or 'polycentric' world order (President of the Russian Federation, 2000b, 2009b; The Ministry of Foreign Affairs, 2013, 2016). One of the Russian elite's preferred ways of safeguarding itself against anarchy is by structuring the international system in a so-called great power concert or great power order. According to Foreign Minister Sergey Lavrov, the world is most peaceful when the great powers manage to agree on securing the peace together, as with the Congress of Vienna in 1815 (which was more or less successful for the subsequent 40 years until the outbreak of the Crimean War, if not until the First World War). Or the decades following the Second World War, which 'were a surprisingly good time for Western Europe, which was spared the need to make its own major decisions under the umbrella of the US-Soviet confrontation' (Lavrov, 2016). Usually, small states, especially small states located within the sphere of interest of the great powers, can only pursue an independent policy for short periods at a time. The rest of the time they are forced to pursue a policy of adaptation to the greater powers. In this line of thinking, the world is divided into large regions centred around the great powers, which are considered the bearers of specific civilisations (Poulsen & Staun, 2018, p. 78). The great powers govern individual regions, in which the other great powers are not supposed to interfere. These ideas resemble the US Monroe Doctrine or the German, rightist

15. As argued by military theoreticians Chekinov and Bogdanov, the 'maniacal ambition of the United States to impose its will, approaches, values and unipolar model of the world on the members of international community is a most dangerous negative trend' (Chekinov & Bogdanov, 2016, p. 33).

16. According to A.A. Bartosh (2015), the Western world aims for 'global domination' (Bartosh, 2015). And this goal causes global instability, as the Western world seeks to achieve this goal by destabilising 'chosen countries and regions by means of artificial formation of internal conflicts, which are to be settled upon the conditions dictated by the West' (Bartosh, 2015).

constitutional law philosopher Carl Schmitt's concept of great power spheres (Grossraum), which foreign powers (raumfremde Mächte) are to stay out of (Schmitt, 1991). From the point of view of Russia, this gives Russia a unique precedence and role in what in the Russian debate is referred to as the 'near abroad' (blizhneye zarubezhye), mainly comprising the former Soviet region in Eastern and Central Europe and parts of Central Asia.

Also part of the country's great power identity is the demand that other great powers in the system take Russia seriously.¹⁷ Irritation or frustration with not getting the recognition they feel entitled to qua their great power status is also evident from the official documents. The 2000 national security strategy thus argues: 'Attempts to ignore Russia's interests when solving major issues of international relations, including conflict situations, are capable of undermining international security, stability' (President of the Russian Federation, 2000b). And in the 2008 FPC and 2015 national security strategy, the US and its allies' tendency to ignore Russia is interpreted as evidence of these states' attempt to 'contain' Russia in order to thus maintain Western 'control' over the international system. This is due mainly to Russia's 'independent foreign and security policy' (Rossiyskaya Gazeta, 2015, p. 12; The Ministry of Foreign Affairs, 2008, p. II).¹⁸ The debate on Russia's role as a great power regularly refers to conspiracies regarding especially the US' and NATO's alleged wish to reduce Russia to a second-rate state to be used merely as a resource base for Western states. As Putin said in the annual 'direct line' call-in show in 2014, '[t]here are enough forces in the world that are afraid of our strength, "our hugeness," as one of our sovereigns said. Therefore, they seek to divide us into parts, this is a well-known fact. Look at what they did with Yugoslavia: they cut it into small pieces and are now manipulating everything that can be manipulated there, which is almost anything. Apparently, someone would like to do the same with us' (Putin, 2014). And in his annual address to the nation on 4 December 2014, Putin claimed that if the Western world did not have the events in Ukraine and on the Crimea as an excuse to impose sanctions on Russia, 'they would have come up with some other excuse to try to contain Russia's growing capabilities'. 'The policy of containment was not invented yesterday. It has been carried out against our country for many

17. According to former Chief of the General Staff Yuri Baluyevsky, nuclear weapons constitute an important part of Russia's great power status (Baluyevsky, 2006).

18. See also (Nikolay Patrushev, 2014).

years, always, for decades, if not centuries. In short, whenever someone thinks that Russia has become too strong or independent, these tools are quickly put into use' (Putin, 2014).¹⁹ The containment metaphor was also used by Secretary of the Security Council of the Russian Federation Nikolay Patrushev in an interview for *Rossiyskaya Gazeta* on 15 October 2014 (Nikolay Patrushev, 2014). Here Patrushev calls the 'coup d'état in Kiev' in February 2014 the result of 'systematic activity by the US and its allies' to 'intensify the containment policy against us'.²⁰ A policy, which the US 'has pursued with resolve for decades; only the form of implementation and tactics are changed'. Or, in the words of military theoreticians Chekinov and Bogdanov, 'the perennial US dream' is to remove 'its chief rival in the world arena, weakening Russia, dismembering it, taking over its vast natural resources and ruling the world' (Chekinov & Bogdanov, 2016, p. 25).

Perceptions of the Nature of War

In addition to the debate on Russia's role in the world discussed above, Russian debates on the nature of war, past, present and future, also play an important role in shaping Russian military-strategic culture. These debates thus frame the armed forces' conception of the type of war they should be prepared for and able to fight today as well as in the future. One of the main subjects of debate in Russian military circles is thus the nature of war, including the question of whether technological advances will change or have already changed the nature of war, or whether the nature of war remains unchanged and only its character changes. This distinction between the nature and character of war originates with Carl von Clausewitz, who in his classic work, *On War* (Clausewitz, 1998), argued that while the character of war is constantly changing due to technological and societal

19. Or in the words of Lieutenant General A. V. Kartapolov in 2015, the US has adopted a strategy of 'systematic containment' of Russia in order to maintain its leading geopolitical position and to prevent the formation of new power centres that may challenge the superiority of the US. This began well before the war in Ukraine, which the US is using as an 'excuse' to lead an anti-Russian campaign against Russia (Kartapolov, 2015).
20. Sergey Markov, a political analyst close to President Putin, also voices the idea that the Western world was responsible for the riots in Kiev that led to the coup d'état against Viktor Yanukovich in late February 2014 (Markov, 2014).

developments, the nature of war remains unchanged. In 2002, building on Clausewitz, Pavel Kasarin defined the nature of war as the ‘properties or traits’ of war and the character of war as its ‘content’ (Jonsson, 2019, p. 3).²¹ This distinction was introduced into the Soviet debate by Vladimir Lenin and has since been a fixture of first the Soviet and later the Russian debate (Jonsson, 2019, p. 3).

And according to Tor Bukkvoll, this is an important distinction if you wish to categorise the Russian debate (Bukkvoll, 2011), because it very much constitutes the dividing lines of said debate. Bukkvoll thus categorises the debate according to the participants’ view of technology’s transformative effect on war: He distinguishes between traditionalists, modernists and revolutionaries. The traditionalists, he argues, do not believe the development in information technology and precision weapons will fundamentally change the character of war, and therefore troops cannot simply be reduced in number and replaced by new and presumably more effective high-technology weapons. Instead, traditionalists assign weight to mass and traditional combat power, giving greater priority to morale, willingness to fight and spirit of self-sacrifice than to technology, which is mainly considered a force multiplier. This perception of the nature of war is also based on the traditionalists’ general threat assessment, which identifies the US and NATO as the main enemy. One of the leading traditionalists, according to Bukkvoll, is former Chief of the General Staff and long-time President of the Russian Academy of Military Science Makhmut Gareev.²² The modernists also believe that the nature of war has not

21. This distinction is also common in German idealism, where a given concept or object is believed to possess underlying qualities or characteristics which remain constant over time, even if other aspects of the concept or object change. This idea probably originates from Aristotle, who believed that certain things have an essence, that is, specific characteristics, without which they would not exist or be what they are (Lübcke, 1983, p. 119).
22. In a series of articles and books, however, Makhmut Gareev expresses a somewhat broader conception of war than the one associated with the traditionalist school. In an article published in *Military Thought (Voenmaya Mysl)* in 2003, for example, he thus argues that non-military means, especially information resources, very much impact the armed conflict, even though armed forces and violence are the typical characteristics of any war. And in an article from 1998, describing the main approaches to fighting the enemy, he argued that ‘the main efforts in the struggle with the enemy will be directed not towards the physical destruction of each unit of weaponry, but towards the destruction of their common information space, sources of

fundamentally changed, but find that the changes do require more resources to be allocated from manpower to technology. This view is also related to the fact that, at least previously, it was a widespread view among modernists that Russia should rather prepare to fight in local wars in the neighbouring region than against the US and NATO, because local wars were far more likely to occur than global conflict. Moreover, the modernists believe Russia should copy Western military reforms which replace division-based structures with brigade-based ones. Leading thinkers within the modernist school are Alexei Arbatov and Vitaly Shlykov.²³ Finally, the revolutionaries believe the changes in modern technology are so fundamental and extensive that they impact the character of war, perhaps even the nature of war. Future wars will therefore be increasingly 'contactless', fought with long-distance precision weapons against which a traditional-type army would not stand much of a chance. The revolutionaries are thus in line with the Soviet military theoreticians who in the late 1980s debated the so-called Military-Technical Revolution (MTR) or Revolution in Military Affairs (RMA). One of the leading exponents of the revolutionary school is Vladimir Slipchenko (Jonsson, 2019, p. 46).²⁴

The contours of these three schools can still be discerned in the debate about the transformative effect of technology on war. But the belief that the US and NATO constitute Russia's main enemy is no longer the preserve of the traditionalists; it is now widespread, as the following discussion of threat perceptions will show. And in 2014-2015, according to Oscar Jonsson, the Russian military and political elite started believing that not only the character of war, but also the nature of war was (and is) changing fundamentally. These debates extend the Russian perception of war. First, because the changes in military technology, such as the proliferation and precision of long-range conventional missiles, are considered to be so significant that it changes the character of war. Second, because non-military means – particularly information warfare and colour revolutions – are

intelligence, channels of navigation, and control systems of communication and target acquisition in general' (Jonsson, 2019, pp. 45-46).

23. Many consider Shlykov to be the originator of the ideas underlying Minister of Defence Anatoly Serdyukov's military reforms from 2008 and onwards (Bukkvoll, 2011, p. 697).
24. For many years, Slipchenko was Vice President of the Russian Academy of Military Science side by side with his former teacher, traditionalist Makhmut Gareev, who was President of the academy (Bukkvoll, 2011, p. 691).

perceived to have such an impact that it changes the nature of war (Johnson, 2019, pp. 5, 124). The next three sections of this chapter will explore this change in the debate on the nature of war.

The Nature of War and Technology

One of the first to argue that technology has a transformative effect on the nature of war was former Chief of the General Staff Yuri Baluyevsky.²⁵ He claimed as early as 2006 that '[t]he ways and methods of using military power have changed. The very essence of "military power" has changed' (Baluyevsky, 2006).²⁶ Otherwise, the most widespread point of view is that the character, not the nature, of war is changing as a result of developments within military technology. Two more recent exponents of this point of view are S. G. Chekinov and S. A. Bogdanov, who in an article published in 2013 (Chekinov & Bogdanov, 2013) called the 1991 Gulf War the 'first war of a new age'. Here the Iraqi army relied on an old-fashioned, inflexible and rigid strategy that was no match for the US and its allies. The war, they argued, was 'a practical demonstration of the truth that technological superiority in weapons could cancel the enemy's numerical advantage in weapons long come of age'. Therefore, even though the Iraqis had half a million men in prepared defence positions, they did not really stand a chance. The First Gulf War was thus characterised by 'new-generation warfare', Chekinov and Bogdanov claimed. The inspiration from Vladimir Slipchenko, one of the leading thinkers of the revolutionary school, is evident from their analysis. In a series of speeches, articles and books from the late 1980s and throughout the 1990s, Slipchenko thus developed the idea that the world was seeing a new generation of war, the so-called 'sixth generation of war'.²⁷ Thinkers belonging to the revolutionary school thus

25. Mark B. Schneider argues that Baluyevsky was probably the most important and influential Russian general of the last two decades and has had an enormous impact on Russian military policy (Schneider, 2018, p. 362).

26. In 2012, Putin thus said that 'we must remember that technological progress in many varied areas, from new models of weaponry and military hardware to information and communications technology, has dramatically changed the nature of armed conflicts' (Putin, 2012).

27. In short, Slipchenko distinguishes between six generations of war: A first generation from 500 BC to 900 AD, where people fought hand to hand and used primitive weapons. A second generation from 900 to 1700, which saw the introduction of firearms. A third generation from 1700 to 1800, where wars were fought with increased

began to articulate a compelling 'need to have all modern weapons including the high-tech kind, to win' a modern-day war, as the character of war was changing (Kiselyov, 2017, p. 10). For example, Chief of the Russian General Staff Valery Gerasimov argued in an article in 2016 that the rapid development in technology 'is changing the character of armed struggle' (*kharakter vooruzhennoy borby*) and that the world is now seeing mature high-tech warfare. The main way of fighting militarily today is through non-contact engagement with the enemy using massive amounts of high-precision, long-range weapons from the air, sea and space – Gerasimov is here referring to the US Prompt Global Strike system, which he denotes as a '21st-century type of Blitzkrieg' (Gerasimov, 2016b).

The Nature of War and Colour Revolutions

The changes in the Russian perception of war are caused not only by the transformative effect of military technology. Non-military instruments are increasingly believed to have just as great an effect as military means – and the belief is that they affect not only the character of war, but also its nature. This perception is likely the result first and foremost of lessons learned from the first wave of colour revolutions in 2000-2005 – Serbia, Georgia, Ukraine, Kyrgyzstan – followed by the upheaval of the Arab Spring in 2010-2011 – Tunisia, Libya, Egypt, Syria – and especially, the protests in Moscow and other Russian cities during the election year of 2011-2012 and, finally, the Euromaidan Revolution in Kiev in Ukraine in 2013-2014. According to A. N. Belsky and O. V. Klimenko, Russia was the ultimate target of the colour revolutions: 'The color revolutions that succeeded and those that failed in their attempts sought to split the countries on the post-Soviet territories from one another and to hem in Russia with neighbors far from friendly to it' (Belsky & Klimenko, 2014, p. 21). In and around the Kremlin and in the military elite, the learning taken from these revolutions is that

firepower, in trenches and naval battles. A fourth generation from 1800 to 1945, which saw the introduction of automatic weapons, combat vehicles and air forces. A fifth generation from 1945 and onwards, which included nuclear weapons. Finally, a sixth generation, which according to Slipchenko began in 1990-1991, that is, with the First Gulf War, where wars are fought with long-distance, precision weapons, information warfare and electronic warfare (Jonsson, 2019, p. 46). Please note that Slipchenko referred to the First Gulf War as a 'prototype' sixth-generation war. It did not fully qualify for the label sixth-generation war because only one of the warring parties used sixth-generation means. Vladimir Slipchenko's war taxonomy continues to be used by many Russian military thinkers today (Jonsson, 2019, p. 29).

opposition movements' use of non-violent means, supported by the Western world, can topple governments just as effectively as violent revolutions. Thus, the Russian elite began to consider the Western world's support of foreign opposition movements an act of non-military warfare. As argued by Gerasimov in 2016, non-military means, including 'informational' measures, are often more effective than military means (Gerasimov, 2016a, p. 24). Because from his point of view, extensive use of informational measures can in a matter of days radically change the situation in a country. The 'broad use of political, economic, informational, humanitarian, and other nonmilitary measures' are supplemented with secret military operations, for example with the help of extremists and terrorist organisations. '[I]ndirect and asymmetric actions and hybrid warfare allow for the deprivation of actual sovereignty of the opposing side without the capture of state territory' (Gerasimov, 2016b).²⁸ This perception seems to have changed the perception of war: War is no longer defined exclusively by the use of armed force – which has been the cornerstone of international law and of Russian defence legislation – it also includes, for example, information war and support of or control over colour revolutions. The expanded concept of war, which also thrives in large parts of the political elite, means that a number of prominent politicians, for example Putin and Patrushev, consider Russia to be effectively at war (of a sorts) with the West (Jonsson, 2019, p. 2).²⁹

One of the central concepts of the debate on colour revolutions is 'controlled chaos'. In 2011, Thus, Makhmut Gareyev argued in 2011 that the threats associated with information campaigns and other subversive acts, as well as the creation of controlled chaos with the aim of provoking unrest in various countries and overthrowing the existing countries, are quite real.

28. Kartapolov provides a variant of this argument when he claims that a characteristic of the Western world's initiation of coups in foreign countries is that they often involve first an active information-psychological campaign targeted at the population in the victim state followed by extensive deployment of special forces. This development also constitutes a 'threat' against Russia, Kartapolov argued in an article in 2015 (Kartapolov, 2015). Such actions are 'different from classical forms of warfare' and have been denoted 'indirect' warfare. Its 'essence' is hidden influence aimed at promoting conflicts of interest internally within the state. It is dangerous not least because confrontation at this early stage is not considered an act of war by the masses; these measures are often presented as attempts to avoid war.
29. For similar perceptions in the military debate, see Baluyevsky (2017), Gerasimov (2016b), Interfax (2017), Kartapolov (2015), Zarudnitsky (2014).

This is what happened in 'Georgia, Ukraine, Kyrgyzstan and is being carried out in the Middle East these days' (Interfax, 2011). Chekinov and Bogdanov also referred to 'wars of controlled chaos' as a new type of warfare pursued by the US (Chekinov & Bogdanov, 2016, p. 24). 'In its craving for world hegemony the White House is purposefully causing global instability to weaken its strategic rivals, above all China, Russia, and the European Union' (Chekinov & Bogdanov, 2016). A. A. Bartosh, a member of the Russian Academy of Military Science, has called the dissolution of the Soviet Union the first successful application of controlled chaos theory (Bartosh, 2014). And Putin has also used the concept several times, for example in an article published in *Rossiyskya Gazeta* in 2012, where he in a discussion of future wars talks about the US' wish to trigger 'deliberately managed chaos' (Putin, 2012, p. 4). In the Russian debate, Robert Seely argues, the concept of 'controlled chaos' denotes 'a policy by which one state destabilises another state, or part of a state, but retains enough influence so as not to lose control of the situation' (Seely, 2017, p. 55, endnote 5).³⁰ Baluyevsky thus finds that 'the defense against mass disturbances in our cities' streets should also be conducted in terms of a war (Baluyevsky, 2017), and for the National Guard, this means that 'Our actions are aimed at protecting citizens, maintaining public order and public security, and, ultimately, preventing color revolutions' (Baluyevsky, 2017).

The Nature of War and Hybrid Means

After the Russian invasion of the Crimea in the beginning of 2014, one concept in particular became almost synonymous with the Russian

30. According to A. A. Bartosh, the idea of controlled chaos originates from CIA programmes during the Cold War. Allan Dulles, Bartosh claims, thus sought to promote programmes that would trigger chaos in Russia and thus gradually replace traditional Russian values with fake values (Bartosh, 2014). According to Bartosh, the leading ideologists behind this policy were Zbigniew Brzezinski, Gene Sharp and Stephen Mann. Yuri Baluyevsky and Andrew Korybko also consider Gene Sharp the originator of colour revolutions (Baluyevsky, 2017; Korybko, 2014). Belsky and Klimenko trace a direct line from the dissemination of chaos theory in the US in the early 1990s via various conferences, among other places at the University of Santa Fe, to the colour revolutions, which the opposition in Yugoslavia, Georgia, Ukraine and Kyrgyzstan was able to instigate. They also assign weight to the American Professor Gene Sharp and his book *From Dictatorship to Democracy. A Conceptual Framework for Liberation*, which they consider a 'true guidebook for modern "revolutionaries"' (Belsky & Klimenko, 2014, p. 21).

combination of conventional and untraditional approaches to achieving its political-military goals, namely 'hybrid war'. The concept gained currency mainly due to NATO's decision at the 2014 Wales Summit to designate the Russian operations on the Crimea and in Eastern Ukraine as cases of 'hybrid war'.³¹ In the concluding document, hybrid threats were defined as 'a wide range of overt and covert military, paramilitary, and civilian measures are employed in a highly integrated design' (NATO, 2014, p. 13). Hence, it has become common in Western debates to consider Russian hybrid war synonymous with ambiguous, non-attributive operations consisting of cyberattacks, disinformation, political and economic pressure, public denial and "little green men", who may be armed, but never seem to fire a single shot. Please note that the debate thus to a large extent focusses on actions "below the level" of what international law refers to as 'armed attack' or 'armed conflict' (Güntelberg, 2014) and thus below the threshold of NATO's Article 5.

Conversely, the concept of hybrid war is used in Russian debates first and foremost to describe how the US and NATO, from Russia's point of view, actively use NGOs, supporters of the opposition and fifth-column agents in other countries to, via colour revolutions, destabilise and topple the governments.³² Initially, the concept did not gain much currency, but it has become gradually more widespread today (Persson, 2020). An often used example hereof is the Euromaidan Revolution in Ukraine in 2013-2014 which, according to many Russian analysts, was merely the dress rehearsal before the US would aim the big guns at Russia (Bartosh, 2018; Belsky & Klimenko, 2014).

In 2016, the Chief of the Russian General Staff Valery Gerasimov provided an assessment describing the types of wars we will see in the 21st century – based on an analysis of how NATO has waged war in recent years. One of the main characteristics of future wars, Gerasimov argues, is that they will no longer be 'declared and, having begun, [will] proceed

31. The concept of hybrid war was first developed by Frank Hoffman in an article on Hezbollah's war against Israel (Hoffman, 2007).

32. Timothy Thomas states that 90 per cent of Russian military thinkers refer to hybrid war as something the Western world is waging against Russia (Thomas, 2019, paragraph. 12-1).

according to an unfamiliar template' (Gerasimov, 2016a).³³ Modern war is moving towards a situation where non-military means play an ever-increasing role in relation to military means. Thus, the ability of the state to deliver a coordinated effect, in all domains and at the same time by synchronising all available non-military and military means, will determine the outcome of the war.³⁴

That popular uprisings are not popular but are instead de facto coups organised by outside forces, above all the United States and NATO, was reiterated by Gerasimov at a conference at the Academy of Military Sciences (AVN) on 27 February 2016, where he described colour revolutions as an essential component of the West's "hybrid warfare", which may also come to target Russia (McDermott, 2016).³⁵ He repeated this observation in 2017 in an analysis of the Western world's support of the opposition forces during the Syrian Civil War (Gerasimov, 2016b).

Thus, the driving force of colour revolutions does not come from below, from a discontented opposition that seeks of its own accord to overthrow the government in power by peaceful means. Instead, it is believed, colour revolutions constitute a calculated tool in an externally initiated coup launched with hybrid means.³⁶ In an article from 2018, Bartosh thus argued that through hybrid warfare, 'conditions are created for a colour revolution involving a coup d'état and the overthrow of the government by a

33. In this article, Gerasimov quotes one of the great Russian theoreticians of war from the inter-war period, Georgii Isserson, who besides being the father of the above-mentioned hypothesis, is also one of the fathers of the contemporary concept of "deep battle" – which focusses on the need to attack deep behind enemy lines and thus prevent him from defending his own front. Gerasimov goes on to argue that if Russia had only listened to Isserson prior to the Second World War, it might have spared the country 'great quantities of blood'. With this reference to Isserson, Gerasimov indirectly supports the revolutionary school in the debate against the traditionalists.

34. For a similar argument, see (Chekinov and Bogdanov 2012, p. 29).

35. V. A. Kiselyov and I. N. Vorobyov support this point of view in an article from 2015, where they on the subject of hybrid war operations claim that 'the underlying principles of these operations were developed by NATO's Joint Forces as a fully effective way of achieving its military-strategic goals' (Kiselyov & Vorobyov, 2015, p. 29).

36. V. A. Kiselyov and I. N. Vorobyov even believe that NGOs can be compared to private military companies. In an article published in 2015, they thus argued that private military companies in 21st-century wars will 'develop into non-governmental political and military agents' (Kiselyov & Vorobyov, 2015, p. 33).

controlled mob, presented as a popular uprising' (Bartosh, 2018). This notion leads Bartosh to propose breaking with Clausewitz and changing the definition of war in official Russian military doctrines and reference works. 'In the modern context, however, war does not necessarily have to be linked to the outbreak of hostilities, and the continuation of a policy can be pursued by violent means, not only military but also non-military (Bartosh, 2018).³⁷

A more cautious voice in the debate belongs to Makhmut Gareev.³⁸ He argued in 2013 that we should, even if we are currently seeing the 'increased role of non-military means' in war, think twice before revising the concept of the 'essence of war' (*sushchnosti voyny*).³⁹ 'The main feature of war is still the use of violent means' (Gareev, 2013b). 'Confrontation in any domain without weapons is struggle (*borba*), but with weapons, violent means, it is war' (Gareev, 2013c). According to an article published by Makhmut Gareev in 2013 titled 'Anticipate changes in the Nature of War', threats against the security of the state, both military and non-military, have become more complex and diverse (Gareev, 2013c). However, he warns, 'if all these actions are considered a declaration of war, then a situation of continuous war of all against all could arise' (Gareev, 2013c). Therefore, the definition of war, according to Gareev, should for principled reasons continue to be the 'extension of politics by violent means combined with other formally non-military means, so-called soft power' (Gareev, 2013c). Then again. In an article from 2017, Gareev, together with Major General Nikolay Ivanovich Turko, argued that even if armed conflict continues to be the very essence of war, the first phase of modern conflicts is not characterised by armed conflict, but by the 'active use of "hard" "non-military" means

37. Lieutenant General A.V. Kartapolov too believes that the nature of armed conflict may indeed be changing, mainly as a result of the Western world's use of 'hybrid operations'. From his point of view, classical war, like the ones fought in the 20th century, thus consists of 80 per cent violence and 20 per cent propaganda, whereas the new types of conflict consist of 80-90 per cent propaganda and 10-20 per cent violence (Kartapolov, 2015).

38. Another traditionalist voice in the debate is Sergey Chvarkov from the Russian Academy of Military Science. In an article from 2020 he argues that even the increasing use of robots and drones will not change the character of war (Chvarkov, 2020).

39. The concept of the 'essence of war' is considered comparable to the concept of the 'nature of war', as both originate from German idealism and were probably introduced into the Russian debate via Clausewitz.

combined with “soft” non-destructive means (primarily information means)’ (Gareev & Turko, 2017). That is, there are two phases in war: a non-military ‘lower’ phase and a ‘higher’ military phase. Gareev and Turko thus expand the concept of war, even though they maintain that its essence is armed struggle.

Who or What Is Threatening Russia? And How Should the Russian Armed Forces Respond to These Threats?

Russian threat assessments, as expressed in the national security strategy, Russian military doctrine and, to a lesser extent, the foreign policy concept (FPC) – and in the defence policy debates on it – one can list since the mid-1990s a number of general dangers (*opasnosti*),⁴⁰ which are related to the West, especially the US and NATO:⁴¹ 1) Dangers associated with the expansion of NATO, including dangers associated with NATO as such. 2) Dangers associated with the US’ and NATO’ nuclear arsenal. 3) Dangers associated with the technological superiority of the US and NATO, especially in connection with the introduction of new weapons systems such as Prompt Global Strike and the US and NATO missile shields which, from a Russian point of view, threaten Russia’s nuclear retaliatory capacity. 4) The danger of Western-initiated and/or supported colour revolutions in countries close to Russia and in Russia itself, including the danger to the information space. These dangers and related debates, including the question of how Russia can and should respond to these dangers, will be described below.

Dangers Associated with NATO and Its Expansion

Throughout the 1990s and 2000s, many observers of Russia’s military reforms tended to characterise Russia’s continued focus on NATO as a conventional threat, a legacy of unreformable conservative voices at the top of

40. Russian military doctrine and military parlance in general distinguish between threats (*ugrozy*) and dangers (*opasnosti*), which under certain circumstances can develop into actual threats. Therefore, threats are worse than dangers.

41. There are other dangers too, including for example the spread of weapons of mass destruction, missiles and missile technology and the ‘increasing danger of global extremism (terrorism)’, but they are only to a lesser extent related to the Western world and therefore not discussed here.

the Russian military. For while post-Cold War NATO countries regarded large-scale conventional inter-state warfare between peers as a thing of the past, and converted their forces on a large scale to battalion- and brigade-sized expeditionary forces for use in counter-insurgency operations in NATO's southern periphery, Russia long maintained its focus on divisional-size and mobilisation warfare. However, the Russian retention of mass mobilisation forces was not merely the result of the continued influence of non-reformed powers. It was also a 'reflection of the threat perceptions' in Russia, where the 'traditional Western threat', as a central element of the Russian threat perception, had already returned in the mid-1990s (Renz, 2018, pp. 172-173) – if it had ever really disappeared. Ever since the publication of the first Russian (post-Soviet) military doctrine in 1993, the expansion of NATO into what has traditionally been considered the Russian sphere of interest, right up to the Russian borders even, has thus been a fixture in Russian military doctrine as a potential threat against its national security. In the 1993 doctrine, the potential expansion of NATO is thus considered an 'external danger', which under certain circumstances may develop into an actual threat. However, the wording in 1993 was still somewhat general and does not mention NATO specifically; instead it is referred to as the 'expansion of military blocs and alliances to the detriment of the interests of the Russian Federation's military security' (The President of the Russian Federation, 1993, p. 2.1).⁴² This is repeated in the 2000 doctrine (The President of the Russian Federation, 2000a, p. 5). In just a few years, though, the threat posed by NATO's expansion to the east gained more weight,⁴³ and the language of the 2010 and 2014 military doctrines

42. The 1997 national security strategy calls NATO's expansion to the east 'unacceptable' (President of the Russian Federation, 1997).

43. In 2006, Chief of the General Staff Yuri Baluyevsky argued that even though the risk of a major war, including nuclear war, was vanishingly small, many other dangers had emerged, some of which were less predictable. One of the main threats, according to Baluyevsky, was the threat of a long-standing military presence and build-up in areas close to Russia and thus within the Russian sphere of interest. He thus referred to a potential 'zone of instability', which might emerge in areas bordering on Russia (Baluyevsky, 2006). The following year he claimed that one of the main dangers facing the Russian Federation was the direction of US foreign policy, which sought to maintain the US' global leadership, was building a political, economic and military presence in areas over which Russia had traditionally held great influence and was 'implementing plans for the further expansion of NATO' (Baluyevsky, 2007).

was thus more to the point, now referring directly to NATO. Here the expansion of NATO and the alliance's 'military infrastructure' close to the Russian borders is thus mentioned explicitly as one of the 'main external military risks' facing Russia. Add to this NATO's increasing 'power potential' and the NATO member states' tendency to take on 'global functions carried out in violation of the rules of international law' (The President of the Russian Federation, 2014, p. 12).⁴⁴

Dangers Associated with the US' and NATO's Nuclear Arsenals

The threat posed by the US' and NATO's nuclear arsenals constitutes a permanent focus point in the Russian security debate as well, especially the concern that the US and NATO are seeking to expand their nuclear capacity, making them superior to Russia. The 1993 military doctrine thus refers, at a general level and without specific mention of NATO or the US, to the 'danger' associated with the 'possibility of the use (including the unsanctioned use) of nuclear and other types of weapons of mass destruction which a number of states have in service' (The President of the Russian Federation, 1993, p. 2.1). The 1997 national security strategy allows for the use of nuclear weapons only 'if the unleashing of armed aggression results in a threat [*urgroza*] to the actual existence of the Russian Federation as an independent sovereign state' (President of the Russian Federation, 1997). The 2000 military doctrine then introduces the rule that Russian nuclear weapons may be used not only in response to 'the use of nuclear and other types of weapons of mass destruction against it and (or) its allies', but also in response to 'large-scale aggression utilising conventional weapons in situations critical to the national security of the Russian Federation' (The President of the Russian Federation, 2000a, p. 8). The 2010 and 2014 doctrines are more specific in this regard. They argue that Russia reserves the right to use nuclear weapons in response to aggression with the use of conventional weapons if the 'very existence of the state is under threat' (The President of the Russian Federation, 2010, p. 16, 2014, p. 27). The wording has led to Western debate about whether this formulation also covers a situation in which the survival of the Putin regime is threatened, and not just all

44. Already in its 2000 national security strategy, Russia criticised NATO's new out-of-area concept introduced in 1999: 'NATO's transition to the practice of using military force outside its zone of responsibility and without UN Security Council sanction could destabilize the entire global strategic situation' (President of the Russian Federation, 2000b).

of Russia as a state (Persson, 2016, p. 112). Uncertainty about official doctrine is reinforced by public statements which give the impression that there is an unofficial acceptance – if not an outright unofficial doctrine – that Russia may well use nuclear weapons in exceptional circumstances other than those officially declared. For instance, Secretary of the Security Council of the Russian Federation Nikolay Patrushev said in 2009 that the Russian nuclear doctrine allows for first use of nuclear weapons in a ‘regional or even [a] local’ war: ‘In conditions critical for national security one should not also exclude a preventive nuclear strike on the aggressor’ (Reuters, 2009).

Up to and after the publication of the Russian nuclear doctrine in 2020, which is basically a continuation of already existing provisions from the 2014 military doctrine, there was some debate regarding the interpretation of the doctrine. Of particular interest was an article by Major General Andrey Sterlin, Chief of the Operational Directorate of the General Staff, and Aleksandr Khryapin of the Academy of Military Sciences, which stressed that Russia would consider any ballistic missile – whether conventional or nuclear – heading towards its territory or that of its allies as nuclear, and would therefore reserve the right to retaliate in a nuclear manner. (Isachenkov, 2020; Sterlin & Khryapin, 2020).

Changes to the wording concerning the use of nuclear weapons and especially the at times extensive use of nuclear threat rhetoric have thus triggered much debate among Western defence experts on whether Russia is indeed operating with a so-called escalate-to-deescalate doctrine and first-use strategy – despite official statements to the contrary (Adamsky, 2018; Johnson, 2016; Schneider, 2018; Zysk, 2018, p. 6).⁴⁵

Part of the Russian debate, in turn, is about whether the US and NATO are seeking to achieve a first-strike capability. In 2013, Makhmut Gareev argued that the US nuclear strategy in recent years had sought to build up

45. Hence, Dave Johnson, for example, finds that Russia’s nuclear strategy is a combination of assured retaliation and the possibility of asymmetric escalation for employment in regional conflicts. In this context, it is worth mentioning that the US has such a nuclear doctrine (Ryan, 2020) which argues: ‘Employment of nuclear weapons can radically alter or accelerate the course of a [military] campaign. A nuclear weapon could be brought into the campaign as a result of perceived failure in a conventional campaign, potential loss of control or regime, or to escalate the conflict to sue for peace on more-favourable terms’ (U.S. Department of Defence, 2019, p. V-3).

means that could secure against or disrupt a nuclear attack aimed at the US:

‘First of all, the creation of high-precision strategic weapons in conventional equipment is being forced, an extensive system of missile defence and space assets capable of intercepting strategic missiles are being created, special units tasked with penetrating into the rear of the enemy and destroying his strategic nuclear assets before and after the outbreak of war.’⁴⁶ (Gareev, 2013b)

In order to counter the threat from US and NATO nuclear weapons, Russia should, according to Makhmut Gareev, build conventional, strategic high-precision missiles that can be part of the strategic deterrent, along with Russia’s nuclear weapons (Gareev, 2013b).⁴⁷ In addition, the ability of Russia’s nuclear strike force to circumvent enemy missile defences should be improved, and diplomatic means should be used to limit the spread of missile defence systems that could reduce the effectiveness of Russian nuclear weapons (Gareev, 2013d). Moreover, the funding structure has for many years focussed first and foremost on ensuring that the Russian nuclear strike force is maintained and continuously developed (Bruusgaard, 2016; Poulsen & Staun, 2018, p. 154). This means that, in terms of nuclear weaponry, Russia has parity with the US (Kristensen & Korda, 2019).

Dangers Associated with the Technological Superiority of the US and NATO

In the Russian political and military leadership, according to Covington, there is a fundamental sense of geostrategic and technological vulnerability (Covington, 2016, p. 13). The geostrategic vulnerability, in his understanding, stems partly from the fact that the vast Russian territory – over 17 million km,² a land border of just under 20,000 km and a coastline of over 37,000 km – is difficult to defend, everywhere, at the same time.

But this sense of vulnerability is probably also the result of experience drawn from the (last) three existential wars that Russia, including the Soviet Union, was involved in, and where the enemy in all three cases came from the west across the plains of Ukraine and Belarus: the Poles and Lithuanians (1612), Napoleon (1803-1815) and Hitler (1941-1945). Covington

46. A. V. Kartapolov argued in 2015 that the US’ and NATO’s missile defence plans constitute ‘an actual threat to the Russian Federation’ (Kartapolov, 2015).

47. Kartapolov agreed with this and claimed in 2015 that conventional high-precision missiles would come to play a greater role in future wars (Kartapolov, 2015).

believes this to have resulted in a view of Russia as strategically vulnerable to surprise attacks.⁴⁸ This is evident from Russian debates on the technological superiority of the Western world. Hence, military theoretician Viktor Vinogradov argued in 2013 that the element of surprise and the initial phase of war, which have always been essential in war, have gained increasing importance due to the expected extensive use of new advanced conventional weapon types, and, in the longer run, ‘weapons based on new physical principles’ (Vinogradov, 2013, p. 34). This seems strongly inspired by Soviet military thinking, which, after careful analysis of the two world wars, had concluded that the initial phase of the war had had an increased influence on the outcome of the battle in World War II, due in particular to Nazi Germany’s ability to mechanically transport troops, aircraft and tanks, to deploy large, concentrated troop formations unexpectedly and effectively in a short period of time, and to achieve strategic effect early in the fighting – unlike the First World War, where they had to mobilise and build up forces first, and then march troops forward on foot. Soviet military thinking was similarly convinced that as the destructive capability and range of modern weapons and the mobility of troops increased, so would the possibilities of achieving increasingly important strategic results from operations in the initial period (Yevseyev, 1985).

In the doctrines, the fear of US and NATO technological superiority is primarily about threats to Russian nuclear retaliatory capability. In the 2000 doctrine, disruption of ‘the functioning of the strategic nuclear forces, missile-attack early warning, antimissile defence’ are thus presented as an ‘external threat’ (The President of the Russian Federation, 2000a, p. 5). The 2010 doctrine lists as ‘external threats’ the ‘establishment and deployment of strategic missile defence systems’, the ‘militarisation of outer space’ and the ‘deployment of strategic non-nuclear systems of high-precision weapons’ (The President of the Russian Federation, 2010, p. 8d). And while the 2014 doctrine repeats the former, it also specifically mentions the ‘implementation of the global strike concept’ (President of the Russian Federation, 2014, p. #12d), which testifies to the increasing concern among the Russian political and military elite with respect to these new non-nuclear weapon types.⁴⁹ Thus, the sense of vulnerability is also about a perception that Russia is lagging behind in its ability to wage conventional war against

48. For a similar viewpoint, see McNab (2019) and Tsygankov (2008).

49. See e.g. (Alyoshin, Popov & Puchin, 2016, p. 16).

an adversary like the US and NATO, due to a perceived technological backwardness on the Russian side.⁵⁰ This feeling of uncertainty has grown as military technology's transformative effect on warfare has gained more weight in debates on the nature of war (see above).

The 2010 doctrine thus finds that modern-day war is characterised by 'the massive utilization of weapons and military equipment systems based on new physical principles that are comparable to nuclear weapons in terms of effectiveness', and that the world is seeing increased deployment of troops and resources that operate in the air or in outer space (President of the Russian Federation, 2010, p. #12b,c). In an interview to *Kommersant*, Makhmut Gareev listed the threats caused by the 'accelerated qualitative development' in weapons systems in the technologically leading countries in the world as 'mainly information, unmanned drones, robotics' (Gareev, 2013d). And in an article published in *Rossiyskaya Gazeta* in 2012, Putin too mentions the threat of weapons based on what is known as the new physical principles. He argues that '[s]uch hi-tech weapons systems will be comparable in effect to nuclear weapons but will be more "acceptable" [to use] in terms of political and military ideology' (Vladimir Putin, 2012, p. 4). The 2014 doctrine repeats the characterisation of the 2010 doctrine, adding words like 'massive use' of 'high-precision and hypersonic weapons, means of electronic warfare', 'drones and autonomous marine vehicles, guided robotic weapons' (President of the Russian Federation, 2014, p. #15b).

Dangers Associated with Colour Revolutions Initiated by the West

Throughout the 2000s, the US and the West increased their support for democratic opposition movements in Eastern Europe and Central Asia, thereby influencing threat perceptions in Russia. Hence, from a Russian perspective, the Western world's support for democracy movements and regime changes in foreign states has – at least since the Orange Revolution in Ukraine in 2004-2005 – come to constitute an increasing threat, especially

50. This belief is widespread in Russian military debates. E.g., in an article from 2012, Chekinov and Bogdanov describe how the increasing globalisation of international policy and economy is motivating heads of state in the technologically advanced parts of the Western world to take unprecedented steps to prepare their military forces for the 21st century: 'These countries have effected a breakthrough in military technologies to create a large number of new threats to Russia's national security' (Chekinov & Bogdanov, 2012, p. 22).

when it has taken place in states geographically close to Russia. Relatively quickly a perception spread in the circle around Putin that these protest movements were controlled from the outside, from the West. In the 2010 Military Doctrine, this debate primarily affects the description of the way wars are fought today and in the future, arguing that the main characteristic of modern-day war is the 'integrated utilization of military force and forces and resources of a non-military character' concurrently with the 'intensification of the role of information warfare' (President of the Russian Federation, 2010, pp. 12a, d). There is no mention, though, of a direct threat to the Russian Federation.⁵¹

In the 2014 military doctrine, 'subversive information activities against the population, especially young citizens of the State, aimed at undermining historical, spiritual and patriotic traditions related to the defense of the Motherland' are considered a potential 'risk' (President of the Russian Federation, 2014, p. #13c). It goes on to argue that modern-day war is characterised by 'integrated employment of military force and political, economic, informational or other non-military measures implemented with a wide use of the protest potential of the population and of special operations forces' (President of the Russian Federation, 2014, p. #15a). As mentioned above, this shift in threat perception from 2010 to 2014 was prompted, among other things, by the feeling of unease, which at least for a while spread through the political elite during the large-scale demonstrations at the end of 2011 and beginning of 2012. When Putin returned to office in 2012 after four years as prime minister, swapping seats with Dmitry Medvedev, large demonstrations broke out in Moscow and other major Russian cities. Putin argued in this context that the protesters were controlled by the US Secretary of State Hillary Clinton: 'She set the tone for

51. In a report to the General Staff in 2011, the new Chief of the General Staff, Nikolay Makarov, claimed that a number of countries continue to use 'technology of "colour revolutions"' to promote their strategic interests by thus removing unwanted political regimes, by force if necessary (Libya, Egypt, Tunisia, Yemen). The report, reproduced in the newspaper *Kommersant*, further stressed that these technologies are also aimed at Russia. A month earlier, at the height of the Arab Spring, Makarov had asked the Army to prepare to counter a similar scenario in Russia (Safronov, 2011).

some opposition activists, gave them a signal, they heard this signal and started active work' (Gutterman & Bryanski, 2011).⁵²

Conclusion

Russian military-strategic culture, as presented in this chapter, consists of a set of shared ideas about strategy across the central factions of the Russian political-military elite, and which effect all parts of the Russian Armed Forces. Ideas or worldviews concerning Russia's role in the world, notions on the nature of war and of who or what threatens Russia, and how the Russian Armed Forces should respond to these threats.

Russia Considers Itself a Great Power

The main Russian foreign and security policy objective is to be an internationally recognised great power. This has been a firm ambition of Vladimir Putin ever since he took office in 2000. It is an ambition supported by both the elite and large parts of the population, and it is present in all major Russian strategy papers over the years. A whole set of values and ideas about the nature of the world belongs to the Russian great power discourse. First of all, that the international system is characterised by anarchy, where each state must look out for itself and ensure its own survival. This gives rise to a strong focus on the relative distribution of power in the international system. The elite is therefore highly critical of the unipolar world order, in which the US, together with the rest of the West, is wielding the baton – some, such as the influential Secretary of the National Security

52. In the ensuing debate the tone seemed to become harsher. In 2015, Lieutenant General A. V. Kartapolov, who was appointed Deputy Defence Minister in 2018, called the colour revolutions a 'hidden external invasion' (Kartapolov, 2015). Chief of the General Staff Valery Gerasimov appears to agree and thus in an article from 2016 described colour revolutions as an 'externally organised coup d'état' (Gerasimov, 2016b). In 2017, Viktor Zolotov, Chief of the National Guard (Rosgvardiya), referred to them as an act of 'undeclared war' (Interfax, 2017). And as Baluyevsky put it in a 2017 article, the West has gone from trying to influence politicians in other countries to now wanting to target the most unprotected part of the Russian population – students, university students and 'even schoolchildren' (Baluyevsky, 2017). 'Today, it is not the Armed Forces that are being attacked, but the civilian population, as the part of society that is less resistant than the military to the forces and means of psychological warfare' (Baluyevsky, 2017).

Council, Nikolay Patrushev, even consider the US to be striving for world domination. A phrase echoed in the National Security Doctrine, which states that the US and its allies are trying to ‘contain’ Russia and ‘retain their dominance’ in the international system (President of the Russian Federation, 2014, p. #12). Instead, in the eyes of the Russian elite, the world is multipolar, divided into regions dominated by great powers – some even talk of individual civilisations – with which the other great powers must not interfere.

Being recognised as a great power is a main aim of the Putin regime. In their point of view, Russia has a historical right to be a great power, ‘predestined by the integral characteristics of its geopolitical, economic and cultural existence’, in the words of Putin. Many of Russia’s disagreements and points of contention with the West – over Ukraine, for example – are explained in the Russian debate by the unwillingness of the US and the West to recognise Russia’s position as a great power. For example, that the Western sanctions against Russia after the annexation of the Crimea in 2014 would have come in any case. If they had not had Ukraine as a ‘pretext’, they would simply have come up with another excuse, precisely because the West has always sought to ‘contain’ Russia every time it became too ‘strong or independent’, as Putin put it in a speech in December 2014.

Blitzkrieg: The Initial Phase in War Is the Most Important, and It Has Become Even More Important

One of the common features observable across the debates on the nature of war is that the time and speed of war are estimated as becoming increasingly important in the future. As Chief of General Staff Valery Gerasimov puts it, the way the West fights is characterised by a massive deployment of long-range, high-precision weapons from the air, sea and space. And he speaks of the need to be able to counter this ‘21st-century Blitzkrieg’. The Chief of General Staff’s concern, which is widespread among the Russian political-military elite, is directed not least against the US Prompt Global Strike system, whose overall goal is for the US to be able to attack targets anywhere in the world within an hour. NATO, especially the US, is seen as having the ability to deploy modern weapons to achieve decisive strategic and political results in a very short time and with minimal preparation. A future war with the US and NATO will thus, in the eyes of Russian military theorists, be a war of great speed and extensive use of satellites, drones, information networks and hypersonic weapons, which many fear will

enable the US to attack faster and in more locations than previously, deep within Russian territory. This leaves Russia vulnerable, especially in the early stages of a conflict. The threat posed by US and NATO nuclear weapons, including the anti-ballistic missile system initiatives, which are widely seen in the Russian debate as a deliberate attempt to circumvent Russian retaliatory capabilities, is also a regular feature of the Russian defence debate.

However, the sense of vulnerability – which is central to Russian military-strategic culture and evident from much of the public debate – concerns not only Russia's assumed military-technological inferiority to the US and NATO. The West's ability to use 'colour revolution' techniques to overthrow selected, non-democratic and non-pro-Western states within a short period of time has also raised Russian concerns. In the words of Gerasimov, 'a perfectly thriving state can, in a matter of months and even days, be transformed into an arena of fierce armed conflict' (Gerasimov, 2016a). This perception is associated with the traditional Russian (and Soviet) assumption that the initial phase of war is the decisive one. After thorough analysis of the two world wars, traditional Soviet military thinking had concluded that technological and doctrinaire breakthroughs in the inter-war period had made the initial phase in war more important – and even more so following the military-technological developments of the Cold War period. Furthermore, as the buffer zones of Eastern Europe have shrunk significantly following the dissolution of the Warsaw Pact – and do not provide nearly the same degree of protection as before, due to military-technological developments – it is estimated that the buffer zones will not protect Russia, let alone give it any special warning. At the same time, the expansion of NATO has further eroded this buffer zone, causing great concern among the Russian elite.

Focus, Initiative and Asymmetry

To compensate for this perceived vulnerability, technological superiority has been sought by focussing the available means of defence. Thus, Russia has thus sought to maintain a comprehensive missile programme, and Putin has made a point of mentioning some of its recent achievements in public speeches, e.g. the Kinzhal missile, a conventional, air-launched, hypersonic missile that can be armed with a nuclear warhead, but which is difficult to counter due to its great speed (up to Mach 10) and the kinetic energy it releases. In addition, the Russian Armed Forces have sought to

ensure strategic initiative by focussing on training rapid reaction capabilities. Since 2013, it has thus conducted four to six annual response training exercises involving both conventional and nuclear forces from all services. The largest of these exercises have involved up to 150,000 troops (Johnson, 2018; Norberg, 2018). And through large-scale military reforms Russia has focussed on improving its command and control, from strategic to operational levels, best symbolised by the large-scale command centre in central Moscow from which Putin, flanked by Defence Minister Shoigu, is regularly seen leading major operations and exercises. The emphasis of Soviet and later Russian military thinking on ensuring initiative, tactical as well as operational, is also regularly advanced as ways to compensate for perceived Western technological superiority (Thomas, 2019, pp. A1–A6). A term used by many in this context is asymmetry. Gerasimov, for example, highlights ‘asymmetric hybrid warfare’ as a way of depriving a stronger opponent of his ability to maintain control. Chekinov and Bogdanov consider it expedient to wage asymmetric warfare by placing increased emphasis on combining political, economic, informational and technological means (Chekinov & Bogdanov, 2013). Other voices emphasise promoting the use of special operations units and private military companies as way of reducing the expected superiority of the US and NATO. But common to them all is the emphasis on alternative – and broader – military thinking, focussing where the adversary is weakest, if Russia is to successfully counter the threat from the US and NATO.

War in All Domains

Characteristic of the public debate is also the fact that war, in Russian military thinking, is being fought in all domains; they think holistically when they think about war. War thus involves everything from nuclear weapons to conventional weapons to non-conventional weapons and non-military means. A not unimportant concept in Russian military-strategic thinking, which appears to capture this unique Russian approach to hybrid war, is ‘strategic deterrence’ (*strategicheskoye sderzhivaniye*), which covers the Russian understanding of the entire spectrum of means: non-military operations, defensive and offensive conventional military operations as well as nuclear military operations (Bruusgaard, 2016). Modern war, according to Russian military thinking, is moving towards a state in which non-military means play an ever-increasing role in relation to military means, thus making it more and more important to be able to effectively coordinate non-

military and military means for combined effect. Hence, the increased Russian focus on command and control.

Perpetual War: Unclear Boundaries between War and Peace

This leads us to the final and perhaps most important topic: The boundary between war and peace in the Russian perception of war is becoming increasingly blurred. Thus, over a number of years, a shift has occurred in the Russian perception of war, in which the use of civilian means is increasingly considered to be the first phase of a war – preceding armed struggle. Hence, a view spread among the Russian political-military elite, that colour revolutions are not, contrary to what we like to imagine in the West, the result of the people's determined and fully legitimate rebellion against despotic tyrants. On the contrary, they are conceived, controlled and initiated by the US and the West with the aim of 'destabilising and destroying Russia'. Colour revolutions are simply 'externally organised coup d'états', as Gerasimov has put it. This, together with the spread of the concept of hybrid warfare in Russian military discourse, has led to a change in the concept of war. The 2014 doctrine thus finds that modern war is characterised by the 'integrated employment of military force and political, economic, informational or other non-military measures implemented with a wide use of the protest potential of the population and of special operations forces' (President of the Russian Federation, 2014, p. #15a). In order to protect itself against this type of warfare, the doctrine argues, Russia must be particularly attentive to 'subversive information activities against the population, especially young citizens of the State' to thus prevent the 'undermining' of 'historical, spiritual and patriotic traditions' (President of the Russian Federation, 2014, p. #13c). The threat from colour revolutions has also had a domestic effect, most recently with the formation of the Russian National Guard, Rosgvardiya, in April 2016 with at least 340,000 under arms, the majority drawn from the interior ministry troops. The objective of the National Guard is to protect Russia against the threat from colour revolutions, and it reports directly to the president, not the defence minister.

In plain language, the expanded concept of war also means that large parts of the Russian political-military elite believe Russia to be at war with the Western world. An undeclared, low-intensity conflict, yes, currently limited to information warfare and non-military hybrid means, but war

nonetheless.⁵³ This is something the West should take note of. For it greatly increases the risk of misunderstandings and mistakes during unrest in countries bordering on Russia – or in Russia itself – if what the West sees as a perfectly legitimate political struggle worthy of Western support is seen by the Kremlin as a (non-armed) attack on Russia.

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CHAPTER 4

Russian Military Culture – the Achilles Heel of the Reform Process?

By Michael Gjerstad and Niels Bo Poulsen

Introduction

Explanations for military success or failure have often been based on material factors. This is also true of research into the 2008 Russian military reforms and their ability to increase the combat power of the armed forces. Researchers have to a large extent focussed on the implemented budget increases, the acquisition of new equipment and organisational changes, and Russia's successful deployments of its armed forces on the Crimea in 2014 and in Syria in 2015 have been explained by improvements within these areas. Immaterial factors, on the other hand, including relationships and norms, i.e. the culture of the Russian Armed Forces in general, have not been studied in detail.¹ This lack of focus on Russian military culture is problematic for several reasons: partly because the Russian Armed Forces comprise a very important and large state institution affecting the everyday lives of many Russian citizens as well as the norms of society, just as the armed forces in turn are influenced by society; partly because military culture plays a key role in processes of change, as it helps set the framework

1. A good example of this is Bettina Renz' (2018) authoritative study of the reform process of the Russian Armed Forces. Its attention to the HR aspect of the forces is limited, and the study offers almost no reflection on their internal functioning and general 'spirit'.

for innovation and change and affects the course of how and intensity at which reforms are implemented. Finally, there is the issue of the Russian Armed Forces' combat power. Most researchers of military combat power agree that the morale of the military forces constitutes a key component when it comes to predicting their performance during battle.

In this chapter, we will first discuss military culture as a concept and then how it can be used as an analytical device. Subsequently, we will study the military culture of the Russian Armed Forces before establishing the relationship between Russian society and the military. We will then determine who is recruited for the Russian Armed Forces and discuss the Soviet armed forces, exploring how the then existing values were challenged by the great societal changes of the 1990s, though they continue to thrive today. We will then proceed to a study of the military culture of the armed forces under Putin, focussing, among other things, on inverse indicators of well-being such as rates of suicide, homicide and abuse among servicemen. Finally, we seek to determine the effect of Russia's latest wars on its military culture, and to which extent the latter affects the Russian Armed Forces' capability for ongoing development and its implementation of new ideas and doctrines.

Military Culture as a Concept and Analytical Device

Because military organisations, like other manmade institutions, are characterised by culturally determined behaviour, we can identify their workings and response to challenges and opportunities by studying their organisational culture. More or less synonymous with military culture are concepts such as *esprit de corps*, *ways of war* and *élan* (fighting spirit). Research on military culture is to a great extent cross-disciplinary and draws on empirical data and insight from fields such as psychology, sociology, organisational theory, international relations, military history, political science and strategic studies (Finlan, 2013, p. 2). This is both a weakness and a strength. The obvious weakness is found in the broadness of the conceptual framework, along with the lack of consensus regarding the concept's degree of explanatory force and which fundamental analytical reference points to apply in attempts to describe military culture.

The concept of military culture should denote the organisational culture of a country's armed forces. However, several researchers apply a broader

understanding of the concept. For example, in his introduction to a book on the topic, Alastair Finlan popularised the concept as ‘the human dimension of the armed forces’ (Finlan, 2013, p. 1), whereas D. L. Snider takes the concept to represent a military organisation’s collective notion on ‘how we do things around here’ (Snider, 1999, p. 12). A more formal and complex definition of military culture is provided elsewhere by Finlan:

‘An all-embracing social environment, infused with an explicit martial orientation, in which material and non-material accoutrements, actions, discourses, practices symbols and technologies revolve around the sustenance of specific identities, histories and traditions.’ (Finlan, 2013, p. 3)

This definition by Finlan stresses the way military organisations via their orientation to warfare create a unique organisational culture. Not only does the objective of the armed forces contribute to shaping their culture and to defining the applied norms and patterns of behaviour; seeing as military organisations, as pointed out by sociologist Erwin Goffman, are absolute organisations which control most of the soldiers’ waking hours and zealously seek to shape their behaviour, they also greatly influence people in their vicinity. It is therefore safe to assume that military culture is distinct from civilian culture in important respects, and that it has such a strong effect on the personnel of the armed forces that it can explain certain behavioural patterns. According to Isabel Hull, analysis of a country’s military culture thus provides ‘a way of understanding why an army acts as it does in war’ (Hull, 2005, p. 93). Finlan too finds that through studies of military culture, it is possible to ‘predict with a fair degree of accuracy, how such [military ed.] organisations will fight in combat’ (Finlan, 2013, p. 15). Allan English, who argues that military culture may hold greater explanatory power with respect to military behaviour than analyses focussing on equipment or doctrine (English, 2004, p. 5), shares this view. Peter Mansoor and Williamson Murray even describe military culture as the most important of all the factors on which military effectiveness is based (Mansoor og Murray, 2019, p. 3).

However, anyone attempting to apply the concept analytically will face several obstacles. One of the main issues is defining ‘culture’ and explaining how a culture can provide a set of more or less established patterns of behaviour, yet allow different forms of behaviour, and nourish processes of change. According to Jeremy Black, ‘[o]ne of the major challenges of culture-driven analysis is to account for change and not to stretch culture

either in the direction of becoming all-inclusive or in the direction of being totally static' (Black, 2012, p. 1ff.).² The problem is aggravated by the fact that different nations, services and units may have very different military cultures. In the words of D. L. Snider, '[...] some [military ed.] organizations will have no overarching culture because they have no common history or have frequent turnover of members. Other organizations can be presumed to have strong cultures because of a long shared history or because they have shared important intense experiences' (Snider, 1999, p. 12). He goes on to stress that 'the content and strength of a culture have to be empirically determined' (Snider, 1999, p. 12).

Applying the concept analytically therefore requires identifying the factors that create, reproduce and change military culture. Based on the literature, we thus list the factors, which we consider central in this respect below.

English suggests that we study military culture on two axes: 1) the relationship between the armed forces and the surrounding society; and 2) the professional ethos of the armed forces (English, 2004, p. 41). On this basis, we will focus on the Russian Armed Forces' roots in and interaction with Russian society and seek to establish which force-internal mechanisms create a specific military culture and how this differs from the civilian culture. We find that Russian society may influence the armed forces through three different channels:

1. Military-strategic culture, which has a top-down impact on the armed forces, seeing as the forces' top management is also part of the country's security leadership. Its impact is evident from the deployment of military power in general, threat perceptions, and the armed forces' relative status in the political system and the allocation of resources to the forces. Russian military-strategic culture is covered in chapter 2 of this book and will not be explored further here.
2. Russian culture in general, which helps shape and influence the behaviour and norms of the armed forces, and which is assumed to have a specific impact on newly arrived personnel, who have not yet been socialised by the armed forces. Similarly, the civilian culture is vital here,

2. Also see Stuart Griffin's criticism of culture as an explanatory factor in "Military Innovation Studies: Multidisciplinary or Lacking Discipline?", *Journal of Strategic Studies*, Vol. 40, No. 1-2, 2017, pp. 196-224.

insofar as it can either promote or challenge military norms and patterns of behaviour.

3. Finally, the general economic, demographic, socioeconomic and political situation in Russia may be considered a structural factor that influences Russian military culture, for example through the size of a year group, the level of education, the material and technological level etc.

In the interaction between society and the armed forces, the professional ethos of the latter plays a main role. According to J. Burk, the force-internal driving forces of Russian military culture are discipline, professional ethos, ceremonious etiquette and team spirit (Burk, 1999, p. 448, p. 454). Raymond Williams, on his part, believes military culture to be made up of three factors: a material dimension shaped by technologies, artefacts and work procedures; an intellectual dimension comprising key documents, including doctrines, as well as the debates and deliberations characterising the armed forces; and finally, a spiritual dimension shaped by the ethos and *esprit de corps* of the armed forces (Williams in Finlan, 2013, p. 3). Another main point of the literature is that the officer corps, in particular, produces and reproduces military culture (Finlan 2013, p. 15, Soeters, Winslow & Weibull, 2006, p. 239f). The main focus of this analysis will thus be on leadership within the Russian Armed Forces.

Data and Methodological Reflections

This chapter draws on sources compiled through a number of approaches. However, it should be mentioned at this point that it is difficult to depict in detail the 'spirit' of the Russian Armed Forces. As mentioned above, culture is never static, unambiguous or monolithic, and the Russian Armed Forces have seen a lot of change since the implementation of the extensive 2008 military reforms. Add to this the potential differences between the individual services and departments, and that the Russian Armed Forces have over the last 20 years increasingly managed to keep the public out of its internal affairs. Existing research on this topic is fairly sparse and not up-to-date. The perhaps only researcher to refer explicitly to the concept of military culture in this context is Pavel Baev (Baev, 2002). He distinguishes between a period of decline from the late Soviet years to the first years of

Russian independence, where the armed forces lost their warrior ethos, and a period of gradual revival of this ethos following the deployment of the armed forces in the conflict in Chechnya and other parts of the post-Soviet region. Through his research on the Soviet armed forces' approach to innovation, Dima Adamsky indirectly describes the military culture (Adamsky, 2010). Most recently, he has contributed to the field with an article on the Russian Armed Forces' learning from the conflict in Syria (Adamsky, 2020). Here he traces an emerging military cultural change towards more delegation of top-down decision-making competences to the lower levels. Though a great deal of the literature is not explicitly concerned with Russian military culture, it does focus on aspects hereof, including the relationship between the society and the armed forces (Webber & Mathers, 2006), the human dimension of the military reforms (Klein, 2012), the issue of abusive treatment of recruits (Lowry, 2008), ethnic relations (Sieca-Kozłowski, 2009) and women in the armed forces (Lysak, 2016).

In this chapter, the existing research and relevant secondary literature is supplemented with data collected from various Russian and foreign journals and websites. Not surprisingly, Russian military journals and websites are characterised by a strong normative-prescriptive tone, and their willingness to shed critical light on actual social practices – if they go against the accepted ideals – seems to be limited. Another problem is that it is difficult to determine the 'spirit' of the armed forces, as there are no available and consistent data on matters such as suicide, murder and other criminal offences, including property crimes and unlawful absences. The reason for this is mainly systemic: The Russian Armed Forces are not subject to institutionalised civilian control, and the parliament, press, ombudsman and other authorities are therefore only allowed insight into the most rudimentary matters, just as recent years have seen an increase in the types of information kept under wraps by the Russian authorities (Douglas, 2017, Mukhamedzhanov, 2018). However, as Paul Goode argues, the secretive-ness of the authorities should not keep researchers from asking important political and social questions (Goode, 2010). The chapter also draws on statements by foreign military personnel who have first-hand experience of the Russian Armed Forces, including the journal of a Danish officer who studied at a Russian military academy in the early 2000s. Of course, these sources are relatively old and episodic as well as influenced by the cultural standpoint of the author, but they, nevertheless, offer a perspective on certain aspects of Russian military culture.

Russian Society and the Military

As pointed out by Burk, the relationship between Russian military culture and the surrounding society is characterised by close interaction (Burk, 1999, p. 1249). Therefore, this section will offer a brief characteristic of a series of fundamental aspects of Russian culture, thus defining the unique national framework of Russian military culture. It will take as its starting point Geert Hofstede's definition of the culture of a given group or nation as 'the collective programming of the mind which distinguishes the members of one group (nation) from another (nation).' (Soeters, 1997, p. 8). There is thus a risk that the applied definition of Russian 'national character' becomes essentialist and orientalist, and this section will therefore focus on studies that are comparative and which consider culture and national identity to be (somewhat) plastic, pluralistic and dynamic – rather than monolithic and unchanging.

Since 2006, Russia has been included in the European Social Survey, which is a value-based survey comprising a broad spectrum of countries from the Mediterranean, the Balkans, Eastern and Central Europe, as well as Western Europe and the Nordic countries. According to Vladimir Magun and Maksim Rudnev's utilisation of data from the 2008 and 2009 surveys, Russia takes a distinctive position, as the Russian population is among the most tradition-rich, conformist, security- and authority-oriented in Europe. At the same time, Russians are highly status- and power-oriented (Magun & Rudnev, 2015), and Russian society is therefore characterised by traditional gender roles and widespread dissociation with non-traditional family and sexuality forms, even though the country has seen some change in recent years towards increased tolerance (Levada, 2010; Levada, 2019).

Russian writer Andrey Konchalovsky argues that Russia is characterised by a 'rural mentality' – as opposed to the 'bourgeoisie mentality', which he believes characterises the Western world. According to Konchalovsky, Russians only trust their immediate family and friends, which gives rise to nepotism and corruption and a lack of civic spirit. According to the Russian mentality, power is a legitimate path to personal riches and preferential treatment of family and friends. The Russian attitude towards innovation and hard work is characterised by a view of wealth as a zero-sum game: If some have more, it is because others have less (Konchalovsky, 2015; Tikhonova, 2015). Such views are based in the

feudalism of the Tsarist era and the totalitarianism of the Soviet period. If they are more than just a vanishing relic, it is because this heritage is supported by the country's present-day socioeconomic structures. Russia is characterised by a very strong state, a weak civil society and a corporate geography dominated by large (partly state-owned) companies – to such an extent that the prosperity of an entire town may depend on a single business (Arutunyan, 2014). Vladimir Shlapentokh even considers Russia to be a neofeudal type society, where public and private resources are controlled by individuals close to the president and his 'court'; this is copied further down the system, he argues, in a client-benefactor structure (Shlapentokh, 2007).

The public's view on the Russian Armed Forces has changed significantly over the past 20 years. Next to the presidential office, the armed forces are the institution that enjoys the most trust – a development, which really picked up speed after the annexation of the Crimea (Levada, 2019). Whereas only 68 per cent of the population in 1999 felt that it was the duty of Russian men to perform military service, in 2019 the number had increased to 84 per cent (Levada, 2019). When asked in 2017 what made them proud of being Russian, the three most popular answers were the military, the country's natural riches and its history (Levada, 2017). This development should be seen through the light of the employment of history and the identity policy pursued by the Russian government since the early 2000s, which not only stresses traditional, conservative values, but portrays Russia as a country that is constantly threatened by the outside world, and which is able to safeguard the prosperity and stability of its population only by maintaining a strong state and an extensive military (Poulsen, 2016; Carleton, 2017). In this context, individual freedoms are less important. Furthermore, several researchers have referred to a so-called post-Crimean consensus, arguing that the annexation of the Crimea and the heightened level of conflict with the Western world has led to increased support of the regime and its norms (Schwartzbaum, 2019). However, it should be mentioned here that the 'defence nihilism' of the 1990s in many ways constitutes an exception, as the Russian population has traditionally been characterised by a high degree of 'defence awareness', which has contributed to the militarisation of society (Douglas, 2017, p. 110).³

3. For more in-depth information on militarism in Russia, see chapter 5 of this book.

Studies of Russian social conventions suggest that most workplaces are characterised by a fairly steep hierarchy, clear demonstration of power and passive behaviour of the staff (Levene & Higgs, 2018, p. 5ff.). In several analyses, Ledeneva has pointed to the existence of informal practices supplementing formal work procedures. Among other things, it is a matter of distinguishing between genuine statements by leading figures and mere declamations, and in this connection, formulating strategies for handling the large gap between words and actions in public administration (Ledeneva, 2013). This is not to say, though, that passivity is a general characteristic of the Russian people, but instead a deliberate strategy for minimising risk in an unsafe and dynamic environment characterised by a low tolerance for error. The fact that informal practices and personal relations greatly influence the action strategies of individual Russians is evident from the high level of corruption in Russia (Ledeneva, 2013).

With respect to Russian military culture, the above suggests that the average Russian, even before he enters the armed forces, holds fairly value-conservative norms,⁴ has a relatively positive attitude towards the armed forces and brings along a series of tools for interacting with the authorities, which includes acceptance of steep hierarchies, but also the ability to promote own interests by making use of connections and bribery or responsibility avoidance.

Who Serves in the Armed Forces?

One of the central characteristics of the Russian military in the 1990s and early 2000s was its high staff turnover, in part due to its transition from a huge mobilisation army towards smaller standing forces. According to Solovyov, from the early 1990s and the next decade or so around 50,000 – mainly younger – officers left the armed forces each year (Solovev, 2005, p. 48). Add to this the staff cuts in connection with the 2008 military reforms, where around 220,000 officer-level jobs were abolished, corresponding to one in three. Even though the majority of these cuts took the form of early retirements, the process did include termination of service schemes for a number of officers (Renz, 2018, p. 64). At the same time, the cuts have

4. More so, as the Russian Armed Forces to a disproportionate extent recruit personnel from the rural areas.

changed the rank composition in the Russian officer corps, which used to be shaped like an “egg”, if presented graphically, but now rather takes the form of a “pyramid”. Whereas the lieutenant corps has grown significantly, three fourths of all majors have disappeared, as have two thirds of the colonels (Klein, 2012, p. 36).

The staff cuts were part of a large-scale reduction of the armed forces, which are now down to a staff of one million, though the force is really believed to have a strength of just 800,000 (Renz, 2018, p. 67). Furthermore, compulsory military service has been reduced to one year, and the number of conscripts has dropped significantly. In most of the period dealt with here, the Russian Armed Forces have suffered from extensive draft evasion, which has further reduced the quality of the men who show up for service. Surveys conducted in the military districts of Leningrad and Volga-Ural in the early 2000s showed that a very large share of the conscripts were underweight, suffered from mental problems, had never been in employment, were uneducated and generally did not wish to enter military service. In the Leningrad district, this was true for 80 per cent of those drafted in the fall of 2002 (Nekhai & Batmazov, 2003, p. 121). In 2005, a general claimed:

‘[M]ost of those who join the armed forces [these years] represent the strata worst hit by liberal reforms, they have a weak civil awareness and there is ideological chaos in their minds and perceptions.’ (Serebryannikov, 2005, p. 160)⁵

The issue of soldier quality – at least as experienced by the authorities – is not limited to conscripts, though. In 2008, the Russian ministry of defence stated that the attempt to attract more contract soldiers suffered from the problem that those who did sign up ‘do not represent the best segment of the youth of the country’, but are individuals who ‘did not manage to get on in civilian life’ (Klein, 2012, p. 38). The group of Russian privates therefore includes a disproportionately high share of physically unfit individuals from peripheral regions with little education (Klein, 2012, p. 39), one of the reasons being the relatively low wage level and poor housing which have characterised the conditions of employment of military contract staff. Since

5. For a similar assessment, see Volchok (2006, p. 104), who finds that Russian conscripts today, due to draft evasion, are characterised by ‘more and more young people from low-income households, in many cases from marginalized families, with extremely inadequate legal outlook’.

then the relative income level in Russia has increased, but as for many other groups in the country, recent years' increase in inflation has resulted in a stagnant wage level among military personnel.⁶ Their wage level is somewhat below that of the private sector, where the average wage of common wage-earners was around 42,500 roubles in 2018 (or around USD 638) (fin-can n.d.). In general, a Russian contract soldier is paid between 23,000 and 43,000 roubles a month (including various increments). Only at squad commander/sergeant level do military personnel reach the wage level of the civil sector (Ministry of Defence of the Russian Federation, 2019). In 2008, a third of all contract privates, non-commissioned officers and junior officers had a household income that placed them below the poverty line (Klein 2012, p. 39f.). In the following years the problem was reduced, somewhat paradoxically, by the financial crisis and the still increasing wage level in the military, which together made the armed forces a relatively more well-paid place to work. Renz therefore finds that Russia has now solved its recruitment problem, as 'military service again became an attractive career option, particularly so in poorer Russian provinces' (Renz, 2018, p. 65). This relative increase in income is believed to have contributed to making serving in the armed forces more attractive.

Up until 2009, the armed forces had a female staff of around 10 per cent, but since then the proportion of females has been reduced to around seven per cent. There is evidence to suggest that the female staff consider themselves as fulfilling a different – gender-determined – role than their male colleagues, just as their motives for serving in the forces are typically more down-to-earth (Eifler, 2006; Lysak, 2016). For some of these women, their employment with the Russian Armed Forces appears to be determined by the fact that they, due to their husband's employment with the military, live in an area with few jobs, making a job with the armed forces their only option (Mathers, 2006, p. 222). Even though the women who were recruited for the Russian military in the 1990s stood out positively in a number of areas (education, motivation, diligence and few offences while in service), their male colleagues, according to a survey conducted in the early 2000s, rejected the possibility that these women could fill other roles than mere support functions (Eifler, 2006). Interestingly, the military reforms, instead of increasing the share of women, have caused it to drop.

6. However, Keir Giles stresses that it is difficult for an outsider to calculate precisely the wage of Russian military personnel (Giles 2007).

There is no publicly available statistics on the share of ethnic and religious minorities represented in the Russian Armed Forces. Seeing as ethnic and religious minorities mainly live in rural areas and in regions with limited economic development, it is natural to assume that they are over-represented in the armed forces, which mainly recruit personnel from low-income and rural areas. We do know, though, that at least some Muslim, ethnic groups from Caucasus, especially Chechens, were excluded from the armed forces as late as 2014 (Aliyev, 2014). Especially the officer corps seems to comprise mainly Russians and other Slavs (Obraztsov, 2012; Mathers, 2003). There are thus certain ethnic differences between the top and bottom of the armed forces, though we are unable to determine the extent hereof and whether it affects the community cohesion of the forces. But according to several observers, conscripts with a Muslim background suffer from significant discrimination (Mathers, 2003; Sieca-Kozlowski, 2009), just as many conflicts and skirmishes between privates are believed to be the result of differences in ethnic backgrounds (Petraitis, 2011, p. 169). The fact that the armed forces consider ethnic and religious tensions to be a problem is evident from its experimentation in the early 2000s with grouping conscripts in units according to religion (Sieca-Kozlowski, 2009).

We will now be turning from Russian society and the population groups who serve in the armed forces to a discussion of how military personnel are influenced by the culture of this institution and what it consists of. We will begin with a look back to the Soviet armed forces.

The Historical Context – Soviet Roots and the Late 20th Century

In the years following Stalin, the Soviet armed forces were characterised by solid political control, but also by great autonomy with regard to internal affairs, including operational planning, and a high degree of prestige and a right to dispose of a very large share of the societal resources (Mathers, 2002). At the same time, the surrounding society was thoroughly militarised, and the officer corps enjoyed great recognition and good material conditions (Solovev, 2005). The conscripts, however, received rough treatment, and Soviet warfare reflected a much greater tolerance for losses than contemporary Western forces. The huge Soviet military was designed to fight conventional superpower wars and, to a large extent, was structured

on the basis of experiences from the Second World War. Focus was on redundancy and robust equipment in large quantities. Whereas the elite general staff-trained officer enjoyed a high quality of education, decentralisation of decision-making was scant, and the lower levels were controlled through *Befehls-* rather than *Auftragstaktik* (Ulfving, 2005, p. 158). It is fair to describe the Soviet military system as characterised by a zero-defects mentality, though it was also a culture increasingly characterised by 'bureaucratic spirit' rather than 'fighting spirit' during the long period of stagnation from the late 1960s and up until Gorbachev's reforms (Baev, 2002).

The dissolution of the Soviet Union saw the beginning of a period of decline for the new Russian Armed Forces, which suffered from being deprioritised, both economically and politically, as President Yeltsin was not interested in maintaining a cordial civil-military dialogue. The situation was worsened by the withdrawal of forces from the former Warsaw Pact countries in the 1990s, often to be rehoused under very poor conditions. Add to this the deployment of the armed forces in domestic political conflicts, first against the political opposition in 1993 and then from 1994 onwards in the unpopular and loss-making war in Chechnya. Lack of wage payments, widespread corruption, abusive treatment of recruits and a poor image led to staff defection, and draft evasion became more and more common (Solovev & Obratsov, 1997, p. 377). Due to the economic chaos characterising the period, many military units would resort to 'alternative' ways of covering operational expenses. This led to contracts with companies and criminals with whom these military units did business, either through the sale of fuel and equipment, for example, or by having conscripts perform various forms of work for them. Stephen Blank thus describes the Russian Armed Forces of the 1990s as consisting of regiments that had turned into small-scale fiefdoms ruled by an autocratic group of commanders, which only to a very limited extent had to answer to higher authorities. This meant that they were able to do as they pleased with their subordinates without risk of punishment (Blank, 1999, p. 82ff.).

When Putin took over the presidency in 2000, the political opinion of the military changed significantly, resulting in more sophisticated political application of the armed forces – in the relatively more successful Second Chechen War – as well as rapidly increasing resource allocation (Herspring, 2009). Also relevant here is the fact that the military qua Putin's view on Russia's international role and Russian identity has come to constitute an important national institution. At the same time, the living

standards of members of the armed forces have improved significantly, even though they are still not as high as during the Soviet era (Solovev, 2005).

Despite the serious problems facing the Russian Armed Forces in the 1990s, they remained relatively depoliticised and completed the domestic and international operations they were tasked with (Solovev and Obraztsov, 1997, p. 355; Obraztsov, 2012). Since then the armed forces have generally been subjected to more political control and are now considered loyal to the political leadership, regardless of the legislative and constitutional framework (Golts, 2019). In another respect, the armed forces have proven slightly less politically manageable, though. Up until 2008, they successfully managed to counter all serious attempts at reform. The reform process that was launched in 2008 was no doubt helped along by the fact that it took place concurrently with the allocation of immense resources to the armed forces and that it focussed more on organisational changes than on breaking with the existing institutional culture. In one respect, though, the reforms very much challenged existing views on how the armed forces should be run: the transition from a mainly conscription-based military, which was really just a down-sized version of the Soviet armed forces, to a military characterised by a large share of contract employees at all levels and standing forces ready for rapid deployment.

While it can thus be argued that the transition from the Soviet to the present-day Russian Armed Forces has seen much continuity in terms of norms, it is also worth noting that Russian society in the same period has been characterised by a development that in several ways has challenged the armed forces' view of society and humanity. This became evident in a series of articles published in military journals like *Voennaya Mysl* expressing concern that the civilian population apparently lacked a will to serve and that the country was seeing the disintegration of 'important values' (Serebryannikov, 2005, p. 155f). At the same time, the development in society was said to explain the Russian military's many internal problems. In 2000, a colonel described the situation in the military-theoretical journal *Voennaya Mysl*:

'There is real confusion in the minds of many of our citizens. Vacuity and immorality are rampant. The country's culture, history, our manners and customs, age-long wisdom of the peoples of Russia are opposed with the cult of violence, cruelty, cynicism, plain ignorance and stupidity. Such notions as duty, honor, patriotism, service to the Fatherland and other motivations of military service are becoming

devaluated. Extremist, nationalist and anti-army sentiments are on the rise among a considerable proportion of the population and especially among the young people.' (Zelenkov, 2000, p. 51).

In the same journal, another writer largely blamed the media and accused them of using sensation-mongering and subversive stories 'causing great harm to public morale and the country's fundamental values, not least its military security' (Serebryannikov, 2006, p. 116). In line with this, it was claimed that increased patriotic instruction and more control with the mass media were key to solving the social problems facing the armed forces (Zelenkov, 2000). Such externalisation of the blame for the armed forces' HR issues was based on the conception that there was little need for reforms and that these certainly did not have to concern staff conditions. In the early 2000s, *Voennaya Mysl* published several requests for the formation of a state military ideology to secure the population's support for the military (Kiselyov & Shimanovskiy, 2005; Serebryannikov, 2005). These requests were heard, and military-patriotic instruction was introduced in Russian schools. This instruction is non-compulsory but is only one of several initiatives introduced by the Russian authorities these past decades to increase the population's support for the military and their sense of patriotism. The military-patriotic instruction adopts a highly conservative approach, and seeing as it is meant to prepare the youth for entering the armed forces, it is thus evidence that the Russian Armed Forces continue to be characterised by extremely traditional virtues.

The Human Factor in Russian Military Thinking

Within Russian military thinking, the notion of strict morals, a strong sense of community and self-sacrifice as a main component in war dates far back, and the great 18th-century general, Aleksandr Suvorov, is often believed to be the father hereof (Hackard, 2014). Even though it clearly distinguished between theory and practice, the Soviet period focussed on keeping up the fighting spirit through a combination of physical stimuli and moral measures. Whereas the former were generally associated with the bottom of Maslov's hierarchy of needs, soldiers were subjected to extensive ideological schooling at all levels – and corresponding dispositional control (Reese, 2000).

This was the heritage from the Soviet era, and even after Russia got its own forces in 1991, the focus was very much on the military personnel, especially from the late 1990s onwards. One of six fundamental principles for the development of the armed forces presented in the military doctrine approved by Putin in April 2000 was to ensure the 'implementation of servicemen's rights and freedoms and safeguarding of their social protection and appropriate social status and living standard' (Arms Control, n.d.). The author of another official document from the same period claimed that 'the armed forces' main problem is their personnel' (Serebryannikov, 2005, p. 160). Here the military news outlet *Krasnaya Zvezda* was quoted for stating in 2005 that 60-75 per cent of the armed forces' problems were a result of the poor quality of the personnel. The following year a writer published in *Voennaya Mysl* claimed that forces which had prioritised personnel over equipment had historically been successful in war (Kirillov, 2006). Serdyukov's military reforms from 2008 thus pointed to education and the living conditions of the military personnel as main focus areas (Medvedev, 2009; Klein, 2012).

The Russian Armed Forces' interest in their 'human material' is a result not least of the conviction that present-day and future wars make still greater and more complex demands on the individual soldier, who must therefore demonstrate a similar degree of motivation and training (Zhi-kharsky, 2000, p. 95). At the same time, though, the majority of the armed forces mainly tasked with obeying orders and observing doctrines, are distinguished from the smaller elite of general staff-trained officers, who are entitled to think for themselves and create military innovation.

According to Steve Covington:

'The Russian military leadership is very conscious of its culture of strategic thought, and the Russian military as a whole has a common understanding of what this strategic culture is built upon. It is the role of the General Staff as the 'brain of the army', the General Staff Academy, and other academies to institutionalize this culture of strategic thought into their officer corps. They cultivate it and reinforce it in almost every sphere of their education, thinking, planning, assessment, and decisionmaking' (Covington, 2016, p. 3).

In the Russian Armed Forces, the distance from top to bottom within the Armed Forces is thus significant, and anyone wanting to understand the norms and codes of conduct in force would be advised to begin by looking at the training of the officer corps and work his way 'down' from there.

Contrary to many Western countries, which have seen increased interaction between military and civil education, Russia has maintained a model where all officer training is conducted internally within the armed forces. However, as part of the 2008 reforms, a lot of military academies were either closed or merged and the curriculum updated (Barabanov, 2015, pp. 105-106). This process triggered fierce debate on whether Russia should approximate 'Western' educational models, which focussed less on imbuing students with factual knowledge and procedures and more on promoting creativity and analytical competences. The opponents of such a development stressed the importance of providing military students with extensive factual knowledge, including sound knowledge of military history, both as an foundation of experience and as a set of ideals for them to live up to (Ilyichev, 2006). The debate in the years leading up to the reforms testified to the fact that the existing understanding of the profession is relatively traditional, which the following contribution from 2000 illustrates well:

'Because a command officer is [...] above all a military serviceman and commander [...] such qualities can only be developed in a military environment: at a military higher educational establishment. Only military educational establishments with their strictly regimented daily routine, daily training exercises, well organized individual training facilities, and annual field practice in military units or at sea, are in a position to train a career officer [...]' (Mikhaylovsky, Skok, Malyarchuk & Gruzdev, 2000, p. 98).

Emphasis on acquisition of specific knowledge in a teacher-controlled environment is the norm not just at the lower levels, but also at the highest military academy, the Military Academy of the General Staff of the Armed Forces of the Russian Federation. Courses at the Military Academy of the General Staff consists of reproduction of existing knowledge and the existing curriculum. The great emphasis on rote learning and 'fingertip' knowledge follows from what Soviet strategist Aleksandr Svechin considered to be the essential characteristic of any general staff officer: being a walking military encyclopaedia (Adamsky, 2010, p. 49). As a concrete example, as highlighted by a foreign observer, the students were not allowed to take their lecture notes home with them. Instead, they were locked in a safe at the end of the day, just as each page of notes had to be numbered and recorded by the academy. While this testifies to a specific learning paradigm, it also says something about the great focus on control and security

characterising Russian military culture (Forsberg, 2013, p. 13).⁷ Another foreign student at the academy also noticed the great focus on rote learning and noted in connection with an excursion that the Russian students ‘are being led around like recruits. They are constantly hurried and scolded’.⁸ At one point, the student attended a class by the then Chief of the General Staff:

‘The pedagogical principles he used in class would have caused a Danish sergeant, doing the same, to be relieved of his command. Everyone was paralysed with fear. If someone was unable to answer the questions he asked of them directly, he would threaten to throw them out of the Army!’⁹

The objective was first and foremost to teach the students the ‘correct’ fundamental principles of military science and operational art. In the final examination, an operational-tactical plan, the students were expected to offer suggested solutions based on historical examples from Russian history and, if possible, the Great Patriotic War. The learning criterion being that the student was able to recite detailed examples supporting established norms and procedures. The students were thus asked to acquire and use an already established mindset, not to challenge it.¹⁰

Even though the aim is largely to imbue the students with factual knowledge and procedures, renewal of the Russian military-pedagogical approach to learning has become the subject of debate through the introduction in 2016 of a journal dedicated to military training and education, *Vestnik voyennogo obrazovaniya*. A recurring theme in the journal is how military instruction should be brought up-to-date and new learning techniques integrated (Stolyarevsky & Sivoplyasov, 2019, pp. 30-35). Other contributions highlight, for example, teaching stress management for general staff officers during deployments (Zhikharev & Charkov, 2018, pp. 14-

7. Interview with Colonel Pär Blid, alumnus from the Military Academy of the General Staff of the Armed Forces of the Russian Federation (1998-2001) and former Swedish army and defence attaché in Russia (2005-2010), Chief of J2 – Joint Forces Command, Swedish Armed Forces Headquarters, conducted in August 2019.

8. Journal made available by a Danish officer.

9. Ibid.

10. Interview with Colonel Pär Blid, alumnus from the Military Academy of the General Staff of the Armed Forces of the Russian Federation (1998-2001) and former Swedish army and defence attaché in Russia (2005-2010), Chief of J2 – Joint Forces Command, Swedish Armed Forces Headquarters, conducted in August 2019.

17) or how to cultivate creative officers for ‘non-standard problem solving’ (Ishmov, 2020, pp. 36-42). Though the latter often concerns technical matters, it also includes tactical and operational problem solving. There is thus evidence of an effort to change the Russian learning model, but based on the available data it is difficult to determine whether these discussions will indeed lead to a change in practice. However, some parts of the traditional learning model are clearly changing. The academy has thus been digitising textbooks and been asked to shift to electronic teaching resources (Sosnin, 2018, pp. 30-35).

The officer corps of the Russian Armed Forces is – at least when we look at data from the late 1990s and early 2000s – very self-conscious about being a unique caste with its own norms, professional standards and demands for a specific position in society (Solovev, 2005). Preparation for and execution of operations is considered central to the Russian Armed Forces (Baev, 2002), and professionalism and command of the profession you have trained for thus represent two of the core values. Add to this endurance and courage, patriotism and love of the motherland – components of Russian military culture, which Putin emphasised in a speech on 23 February 2015 on the occasion of the Defender of the Fatherland Day:

‘Our soldiers and officers have shown that they are ready to act decisively, with coordinated precision, professionalism and courage to carry out even the most difficult and novel missions, as befits a well-trained and experienced modern army that preserves its traditions and military spirit and is constantly improving and setting the highest modern standards as its benchmark.’ (Putin, 2015)

So on the one hand, Russian military culture contains an element of adaptability and of embracing and mastering the challenges of modern warfare, and on the other, a foundation made up of the historical traditions and spirit. Even though the armed forces also draw on other historical sources than those of the Soviet era, especially the conduct of the Soviet forces during the Second World War is presented as the historical ideal (Golts, 2019, p. 23). These values are reproduced through a series of mechanisms. For example, the main medals refer to historical Russian war heroes, just as the units nurture a large set of traditions. Central at all levels is the Great Patriotic War, though wars like the Patriotic War of 1812 and the Chechen Wars also form part of the Russian military’s Culture of Remembrance. The overall message of this use of Russian history is, in line with the above, that

the Russian soldier should be noble, patriotic, courageous and self-sacrificing but also talented (Golubev, 2007, p. 116).

Another way of identifying the basic norms of Russian military culture is to look at the factors that enter into the evaluation and promotion of officers. According to the 2002 guidelines for these processes, the criteria for recommending personnel for promotion are:¹¹ formal and verifiable competencies, the ability to switch from peace to war contexts, personal appearance (disciplined and correct conduct), job capability (orderliness, systematic approach, initiative and sense of priorities), condition of the commanded unit, moral and psychological qualities (creative and capable of self-criticism, popular among peers, security awareness) and good health (Belozertsev, 2007, p. 298f.).

That at least the officer corps has internalised the above norms is indicated by a survey of the backgrounds and motivations of students at the Military Academy of the General Staff. The majority of those surveyed indicated being driven in their work by pronounced values such as a sense of duty and love of the motherland and a desire to perfect their professional skills. As a motivational factor, the respondents assigned significantly less value to the material goods associated with completed training (Solovev, 2005, p. 45f.; Obratsov, 2012).

If we move further down the ranks, it is clear that the Russian Armed Forces do not settle for the norm dissemination performed by officers. In the summer of 2018, a directorate was established under the Ministry of Defence responsible for military-patriotic instruction of the armed forces (and to some extent civil society) (Tass, 2018).¹² The new directorate for military-political affairs is headed by Lieutenant General Andrey Kartapolov, who has been a leading thinker with regard to information operations and served as Commander of the Western Military District and Commander of the Russian forces in Syria from December 2016 to April 2017. Appointing a man like Kartapolov responsible for patriotic instruction testifies to the importance attached to this area (Kartapolov, 2015; Lenta, 2017). Furthermore, the Russian Armed Forces have close ties with the Russian Orthodox Church and the other state-recognised religious communities. And in December 2009 a new system introduced clergy from the four

11. Cf. MOD order no. 100 / 2002: Instructions concerning procedure for organization and conduct of evaluation of officers and warrant officers (Army, Navy) of the Armed Forces of the Russian Federation. Quoted in Belozertsev (2007).

12. For more information on the topic, see chapter 5.

state-acknowledged religions into the Armed Forces (Petraitis, 2011, p. 169), just as regimental imams have been installed in units with a relatively large number of Muslims (Brovkina, 2016). The Russian Armed Forces consider this a means for solving the soldiers' social and mental problems, and especially close is the connection with the Russian Orthodox Church (Goble, 2019). The concrete impact of this affiliation is difficult to determine, though, but as the following will show the Russian Armed Forces have nevertheless seen their share of problems.

Abusive Treatment, Bullying and Accidents

In her critical study of the basic norms and beliefs of the US Armed Forces from 1994, Karen Dunivin described the underlying paradigm as 'combat masculine warrior' (Dunivin, 1994). She claimed that the US Armed Forces based their definition of normality on a 'macho culture' and on 'operations' and the 'warrior profession', explicitly or implicitly marginalising the people and functions that failed to live up to this norm. It is fair to argue that something similar applies to the Russian military today.

A result of the ideals of masculinity and toughness in Russian military culture is the prevalence of various forms of abusive treatment of recruits – a phenomenon known in Russia as *dedovshchina* (directly translated: the grandfathers' regime) (Daucé & Sieca-Kozłowski, 2006; Lowry, 2008, p. 89).¹³ The mechanisms and practices of *dedovshchina*, which ranges from systematic humiliation and theft through beating and rape to murder (in its extreme form), are found in nearly all forces in the world, where the adaptability and toughness of the newly arrived is tested through more or less brutal and transgressive rites of passage. The Russian variant dates back to the Tsarist era, outside the military system, especially in the prison system, but its present-day form is the result of the 1967 conscription reform which partly changed the duration of compulsory military service, partly allowed conscripts with a criminal background. At the same time, the Soviet military lacked a corps of professional non-commissioned officers able to instil discipline. This allowed the oldest conscripts (and thus NCOs doing compulsory military service) to bully and abuse the younger

13. The word 'grandfather' (*dedushka*) is Russian military slang for the oldest conscripts at a given unit.

ones (Solovev & Obratsov, 1997, pp. 339-345). In the Soviet era, the subject was never raised, but there is no doubt that it was widespread (Aleksijevitj, 2016). When brought up in the 1990s, the Russian Armed Forces argued that it was a spillover from the surrounding society, meaning that the real problem was the lawlessness and moral decay of society in general which via the conscripts manifested in the armed forces. Even though this is undoubtedly true to some extent, little was done to prevent bullying and abusive treatment within the forces, and in the early 2000s the number of victims of murder, suicide or mutilation due to *dedovshchina* counted hundreds each year. Even though the past decade seems to have seen a significant drop in the number of people severely abused or killed in the Russian Armed Forces as a result of *dedovshchina*, the phenomenon still exists.

When a Russian conscript, 18-year-old Andrey Sychyov, had to have both legs and several other body parts amputated after having been abused by a group of eight older recruits on New Year's Eve 2005, the case triggered great debate in the media – after the local military authorities had tried to hide it. It is indicative of the system, though, that some military actors defended the actions of the older conscripts, arguing that newly arrived soldiers had to complete various initiation rituals to be hardened for military service. Furthermore, the solution to 'excesses' like this one was the introduction of a military police and more discipline in the units, which would make it possible to return to the seemingly normal conditions predating the chaos of the 1990s (Lowry, 2008). Hence, the Russian political and military management did not find the Sychyov case to be evidence of a problematic Russian military culture. This is also evident from the fact that while the Russian military authorities did manage subsequently to reduce the number of assaults leading to invalidation or death, the event did not lead to systematic changes. In 2015, a sociological survey based on interviews with officers pointed out that various forms of less severe abuse were still tolerated or even facilitated by the officers with a view to preparing soldiers for military service, disciplining or hardening them (Surkova, 2015).

Furthermore, the Russian Armed Forces often see other forms of violence too, which partly overlap with *dedovshchina*. The number of reported cases of assault in the armed forces in 2005 alone was more than 7,000. The number dropped to 2,000 in 2009, only to rise significantly the following year (Klein, 2012, p. 37). Recent years seem to have seen a downward-sloping development, though. According to the independent Russian media,

Meduza, the number of cases that fall within Article 335 of the Russian criminal code, which concerns violence between servicemen, has dropped from 1,128 in 2013 to 547 in 2018, but it is uncertain whether these figures actually reflect a decline in *dedovshchina* (Zelenskiy, 2019). It is also worth mentioning that there have been three shooting incidents with three or more killed the past decade, the most severe of which occurred in late October 2019, where conscript Ramil Shamsutdinov killed one officer and seven privates on a military base in eastern Russia (Tass, 2019). According to the Russian media Lenta, Shamsutdinov was not mentally fit for service, but was, nonetheless, drafted to meet the desired quota of conscripts, which, together with *dedovshchina*, made him suffer a breakdown (Frolova, 2019).

Another indicator suggesting that the military culture of the Russian Armed Forces causes severe mental strain among parts of its personnel is the relatively large number of suicides. In recent years, the armed forces have reported an increasing number of suicides. The increase, it is argued, follows a period with very low suicide rates. However, looking further back, i.e. to the early 2000s, the suicide rate was also relatively high with 337 incidents in 2003 and 554 in 2006 (Mukhamedzhanov, 2018).

Finally, the Russian Armed Forces appear to be characterised by a significant lack of risk awareness and lots of occupational accidents. This is evident from the number of accidents occurring in Russian military workplaces and on board Russian vessels, which sometimes kill 10-20 people per incident. The most famous being the Kursk submarine disaster in 2000 (Kuznetsov, 2019). The number of accident-related deaths in the Russian military was more than 400 a year in 2008 and 2009; though we cannot expect these statistics to be accurate either (Klein, 2012, p. 37).

Differences between the Services and Military Subcultures

Seeing as the three services – the Ground Forces, the Aerospace Forces and the Navy – and the two independent arms of service – the Strategic Missile Troops and the Russian Airborne Forces – enjoy great autonomy and cover anything from recruit training in basic infantry tactics to strategic operations involving sophisticated nuclear missile systems, there are various subcultures within the Russian Armed Forces. Whereas the Ground Forces

have traditionally constituted the main pillar of the armed forces, the Airborne Forces are considered to be the elite and the service with the highest degree of *esprit de corps*. However, other troops on high alert are also believed to enjoy great internal cohesion.¹⁴ These units see the largest share of contract personnel and the lowest number of conscripts (Grau & Bartels, 2016, p. 281), creating therefore more enduring and deeper relationships between the officers and their troops.

The 2008 military reforms and lowering of the compulsory military service period to one year is assumed to have had some impact, as the resulting job cuts and merging of units and duty stations must have challenged traditional service and regimental cultures. These mergers did indeed cause an uproar in the armed forces (Giles & Monaghan, 2014, p. 12). So when the present Minister of Defence, Sergey Shoygu, took over the ministry after Serdyukov in 2012, some of these mergers were rolled back, the division was reintroduced as a tactical organization, and a series of regimental symbols and the honorary title *gvardiya* (guard) were reinstated, which testifies to a return to some of the service identities that were (almost) lost during the reforms (Barabanov, 2015, p. 118, p. 121).

Even though the Russian Armed Forces stress the necessity of joint problem solving and have designed their operational structure accordingly, with a joint command centre (*Natsionalny tseñtr upravleniya oborony*) and joint military districts, there is, however, no aspect of Russian military training that supports such an ambition. Instead, the educational system assigns great weight to specialisation, and there are no joint educational institutions, aside from the General Staff Academy. Add to this the importance of personal relations and networks in Russian workplaces and the armed forces, and it is uncertain to which extent the various services and arms of service are capable of working together. However, former Commander-in-Chief of the Russian Air Force, Pyotr Deynekin, stressed that the operations in Syria proved that the degree of integration between the services has improved, even if there is still room for improvement (Suraev, 2016). The need to strengthen the cross-service collaboration has also been presented as one of the reasons why Lieutenant General Sergey Surovikin, who has a background in the Ground Forces and experience from Syria,

14. Interview with a retired Swedish officer in August 2019.

was appointed Commander-in-Chief of the Air Force in 2017 (Petrov, 2017).

Military Culture Meets the Battlefield – Learning and Changes Since 2014

As noted by Patrick Porter, the relation between military culture and battlefield experience is dialectical, as soldiers take their culture with them to the battlefield, but they and their enemies also change each other (Porter, 2009, p. 15f.). How then, you might ask, have the operations in Ukraine and Syria affected Russian military culture?

Both the Russian military press and leading senior officials have emphasised the need to include recent years' operational experiences into the teaching provided at the various military academies. Therefore, selected instructors and teachers have undertaken 'vocational training' in Syria in order to ensure that the latest new insight is disseminated to the students (Krasnaya, 2018, p. 7). In 2017, Gerasimov himself described the learning vis-à-vis the lower ranks of the officer corps as being:

'Incorporation of experiences from military operations [in Syria] into practical training of the personnel entails teaching them to operate under difficult conditions and to infuse into them qualities such as a strong offensive spirit, initiative, courage, determination, willingness to take risks, robustness, endurance and the ability to overcome any challenge at all times.' (Gerasimov, 2017)

Gerasimov's emphasis on enterprise and drive in the broader officer corps in many ways constitutes a breakthrough in the strong top-down culture of the Russian Armed Forces, where only operational commanders have the authority to make independent decisions (Ulfving, 2005, p. 158). According to Adamsky, the military elite seek to change the organisational culture towards allowing the lower levels more freedom of action (Adamsky, 2018, p. 31f.; Adamsky, 2020) by using experiences from Russia's latest military engagements actively. This assessment is shared by Michael Kofman, who believes experiences from Ukraine and Syria will set the standard for Russian officers in the future, resulting in an increased focus on 'non-standard decision-making' and greater tactical flexibility (Kofman, 2020, pp. 57-59). When experiences from Syria are likely to have a greater impact on development processes in the Russian Armed Forces than

experiences from Ukraine, it is because the forces deployed in Syria fought both local insurgents and (indirectly) the US, and these experiences are therefore assigned weight with respect to future conflicts with such high-technology opponents (Kofman, 2020, p. 60 ff.).

Ensuring that the culture of the Russian Armed Forces promotes the development of new strategic and operational concepts has been a recurring topic in Chief of the General Staff Valery Gerasimov's texts since 2013. Gerasimov's well-known article from 2013 focussed more on the armed forces' capacity for innovation than on hybrid war. He pointed to a possibility of improvement within Russian military science, especially when compared to the many innovative ideas of the interwar period. Between the lines, the article argued that the emergence of a bolder and more innovative culture was being impeded by the 'old guard'. The fact that Gerasimov emphasised Soviet military theoretician Georgii Isserson is not unimportant, as Isserson in many respects broke with the conventional military conceptions of his day.¹⁵ This leads us to another main point of the article, as Gerasimov argues that the contemptuous attitude of some practitioners towards new ideas and unorthodox approaches is unacceptable (Gerasimov, 2013). Here the article testifies to the (probably continued) existence, from his perspective, of elements in Russian military culture that inhibit the capacity for innovation. For Gerasimov, the goal has since 2013 been to develop the officers' ability to think 'out of the box' in an environment which still to a large extent associates military learning with experiences from the Second World War (Main, 2016, pp. 71-72).

However, in the words of Harald Høiback, things happen during military operations which those involved 'would not dream of revealing to people back home', and that is why 'a lot of information and experiences we could have learned from, and [which] could be highly relevant for our doctrine, is not put forward because of vanity and the fear of personal consequences' (Høiback, 2016, p. 194). The question then is how the Russian Armed Forces report home their experiences from operations and how they are evaluated. The Russian Armed Forces clearly faced problems during the Chechen Wars and the 2008 Russo-Georgian War, and they have obviously learned from these conflicts. In recent years, they have been

15. For more on Georgii Isserson, see Main, Steven J. (2016) "'You Cannot Generate Ideas by Orders": The Continuing Importance of Studying Soviet Military History – G. S. Isserson and Russia's Current Geo-Political Stance', *The Journal of Slavic Military Studies*, 29:1, pp. 48-72.

more successful, but also affected by the media's limited ability to openly discuss military issues and by a foreign policy that gives priority to military success for prestige-related reasons. Therefore, these may be ordered successes, where the military elite do not care much for the details as long as the overall result is satisfactory. As concluded by Roger McDermott, the Russian Armed Forces – and their Soviet predecessor – have been inhibited by poor planning capacity and a lack of reliable statistics (McDermott, 2014, p. 16f.). According to McDermott, this also includes the methods and operation analyses applied by the General Staff to extract learning, including evaluation of forces and weaknesses in connection with changes to the organisation, training, procurement and improvement of equipment. From a historical perspective, this is also true of the interwar period, where the Soviet experiences from e.g. the Spanish Civil War led to significant learning errors (Kokoshin, 1998, p. 100ff.).

Conclusion

It is difficult to say exactly how the 2008 reforms have affected Russian military culture and its development, and the same applies to recent years' combat experiences. A lot of the available empirical material dates from before the implementation or completion of the mentioned reforms, and it may therefore draw an outdated picture of Russian military culture. However, several observers have pointed out how norms and practices from the Soviet era have been strengthened rather than phased out in this period, regardless of the reforms. In 2012, Klein thus found that the main obstacle to continued development in the Russian Armed Forces is their 'deep-rooted institutional culture and mindset' (Klein, 2012, p. 44).

Add to this that it may be too early to say which mental effect the change has had on the forces. Klein estimates that the actual effect of Serdyukov and his successor, Shoygu's, reforms will not be evident until the mid-2020s when the higher positions are filled by a new generation of officers who have been cultivated by the reforms (Klein, 2012, p. 36). In that connection, we can conclude that a main issue in the context of the post-2008 transformation of the Russian Armed Forces is the HR dimension, an area, which still struggles with social problems. On the other hand, though, Keir Giles, in his evaluation of the Russian Armed Forces, notes:

'[...] in terms of equipment, experience, attitude, confidence, and more, the Russian military is a radically different force from the one that began the process of transformation in 2008.' (Giles, 2017)

As is evident from his evaluation, the fighting morale of the armed forces has increased significantly. At the same time, though, Giles agrees with McDermott:

'Russia's Armed Forces still confront a variety of real challenges, ranging from military manpower issues to military culture and education producing a system where individual initiative is a rarity. [...] Many of these challenges serve to mitigate or limit Russian military capability, while the defense ministry PR serves the opposite purpose: to heighten, exaggerate and spread fear.' (McDermott, 2016)

On a general level, we can conclude that the military culture of the Russian Armed Forces is subject to significant continuity, though we have also seen signs of incremental change since 2008. Whether the highest authorities' demand that the armed forces, from top to bottom, should learn from past and ongoing operations merely concerns the tactical and material aspects hereof, or if this demand also includes the military culture as such, is uncertain. The preconditions for creating officers full of initiative and vigour still seem to be limited, though initiatives aimed at creating officers who are willing to take risks, in e.g. Syria, seem to suggest that the armed forces are seeking to promote a new personality profile. Such changes are likely to be associated with the subcultures in particular, as elite units like the Airborne Forces probably have a better basis for changing their military culture than conventional ground troops.

Should the Russian Armed Forces find themselves facing NATO forces, including Danish ones, we are likely to see a significant clash of military cultures. Based on the analysis provided in this chapter, the main differences between the Russian and Danish forces, for better or worse, appear to be as follows: Russian military personnel are probably more robust and willing to accept high casualty rates, just as the officer corps is very well-trained and competent, though mainly within the framework of the individual officer's position or function. Their main challenges are likely to be their limited capacity for deep integration of soldiers and thus the greater distance between top and bottom. Add to this the Russian forces' reluctance to delegate assignments, their tendency to adopt a control and zero-defects culture, and their limited ability to conduct joint operations. The

deployment of Russian conscripts is also likely to cause problems related to low fighting morale due to *dedovshchina*, though hardly more so than on the opposite side of the front line (but for different reasons). Hopefully, though, these final remarks will remain mere hypotheses and never to be tested in practice.

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CHAPTER 5

Militarism and Patriotism in Russia – the Culture behind Russian Combat Power

By Flemming Splidsboel Hansen

In one of his latest books, Russian researcher Vladislav Inozemtsev describes Russia as characterised by ‘an extensive militarisation in the minds of the public ... which is rapidly spreading through society’. He points to a clear example of this development: the annual Victory Day parade on 9 May, which Russian politicians in the 2000s turned into the country’s main holiday (Inozemtsev, 2018, p. 233). Victory Day is just one of the 17 official Russian flag days celebrating ‘military glory’ (President of the Russian Federation, 1995). Such celebrations span from Prince Alexander Nevsky’s victory over the German army in the Battle on the Ice in 1242 through the Russian victory over the French in 1812 to the battle between Soviet and German tank forces at Kursk in 1943. This idolisation of the armed forces and historical military achievements, among other things, made Inozemtsev adopt the phrase a ‘non-modern country’ for the title of his 2018 book on present-day Russia.

And even the occasional observer of Russian society is likely to have noticed a change or two: The idolisation of the armed forces – the pre-revolutionary, the Soviet as well as the present-day – has become more visible in anything from political statements and speeches through memorial policy and popular culture to school books and even nursery education (e.g. Daily Mail, 2019). The well-known Russian expert in political influence, Gleb Pavlovsky, has thus asked rhetorically, ‘What is Russia if not the Russian language and its armed forces’ (Golts, 2019, p. 306).

After Putin had presented several new weapons systems in his annual speech to the Federal Assembly on 1 March 2018, the Russian Ministry of Defence (2018) decided to let the public help name three of these systems. This was done online via the ministry's website, and during the first round, the ministry received as many as 245,000 suggestions. The ministry then selected the 50 most frequently suggested names for each system before the actual voting began. In the following three weeks, just under eight million people voted, and the final result was: the laser complex *Peresvet*, the nuclear-powered missile *Burevestnik* and the underwater drone *Poseidon*. The process was undoubtedly a success for the Russian Armed Forces, and it shows not only a society characterised by a relatively short distance between the armed forces and the general public, but also a culture that is very different from that of most Western states.

This chapter will analyse the militarisation of Russian society. I will adopt Michael Mann's classic definition of militarism as a 'set of attitudes and social practices which regards war and the preparation for war as a normal and desirable social activity' (1987, p. 35). The degree of militarism varies between countries and over time within the individual country. For most countries in the world, the main question is not whether it has a militaristic or non-militaristic culture, but rather to which extent militarism characterises the society of that country at a given point in time. Militarism can be described as the *will* to go to war. Closely connected to this is the build-up of military capacity, including the 'relative weight and importance of a country's military apparatus in relation to its society as a whole' (Mutschler and Bales, 2018, p. 2). This can be described as the *ability* to go to war.

These definitions distinguish between the cultural and physical aspects of war – or between will and ability. This volume includes several chapters focussing on the physical aspects as evident e.g. from the defence burden, the military personnel and weapons systems (Mutschler & Bales, 2018, p. 4). These chapters analyse the available military capacities, whereas militarism helps translate these capacities into capabilities. Among other things, militarism can tell us something about a state's ability to mobilise the population – or parts of it – in order to deploy these capacities.

However, the relation between militarism and military capacities is not clear-cut. Robust militarism may e.g. be a prerequisite for efficient mobilisation and general social acceptance of the cost-intensive build-up of military capacities, whereas the extensive and not least visible presence of

troops and weapons can create or strengthen the degree of militarism. The Russian Victory Day parade is both. On the one hand, the parade offers the Russian Armed Forces an opportunity to present both new and well-known weapons systems and to let its troops march and stand at attention in front of the audience present in the square and those watching on TV. In 2019, the Moscow parade included 132 different weapons systems and 13,000 troops, and during the live transmissions, the Russian media describe everything in detail (e.g. *Rossiyskaya Gazeta*, 2019).

On the other hand, the parade – with its prevalence throughout the country, its scale in the different cities and not least its great popularity among the population – is a main driving force when it comes to strengthening Russian militarism (Fond Obshchestvennoe Mnenie [FOM], 2019a). It marks the end of the Second World War, but via its dramaturgy it links the past and present and thus points to the continued as well as future necessity of being ready to fight. As noted by the Russian government paper, *Rossiyskaya Gazeta* (2019) covering the parade in 2019, ‘it once again convinced us that Russia not only has someone to defend, but also something to defend them with’.

The build-up of military capacities in Russia is considered one of the most extensive in the world. E.g., since 2001 the country has been among the top 10 countries on the Bonn International Center for Conversion’s (BICC) Global Militarisation Index. In 2018, it came in sixth between South Korea (fifth place) and Greece (seventh place) among a total of 155 countries. The BICC calculates the degree of military build-up by combining various aspects of defence expenditure, military personnel and weapons systems and by comparing these to the country’s health expenditure, number of doctors and the population as a whole. The calculation is based on the weight assigned to each of these factors (Mutschler & Bales, 2018, p. 4). In other words, the BICC measures to which extent the state spends more money on its armed forces than on other areas of society.

A quick look at just one of these factors can say something about the possible connection between military capacities and militarism. According to the International Institute for Strategic Studies (IISS) (2018, p. 192), Russia had 900,000 active troops as well as 554,000 paramilitary forces and two million reservists in 2018. In a country of 147 million people (including the population on the Crimea), the active troops alone thus constitute 0.6 per cent of the population. The same figure is 0.3 per cent for Denmark, 0.4 per

cent for the US and 2.1 per cent for Israel (IIS, 2018). Together the three personnel categories make up 2.3 per cent of the Russian population.

And when we add the Russian men – and they can be counted in the two-digit millions – who have done compulsory military service in Russia or the Soviet Union, there is a great probability that the average Russian is in close, frequent contact with people with direct military experience. These may be family, friends or neighbours, who are either active in the armed forces, reservists or previous conscripts.

During the second half of the 2010s, the Immortal Regiment, a public celebration of Soviet soldiers who fought mainly in the Second World War, grew in size. The annual event is used by e.g. the political level to maintain a broad public commitment to celebrating the victory in the Second World War, as the generation of veterans is now dying. In 2019, 10 million people are believed to have participated in the event throughout Russia. The first time Putin participated in the march for the Immortal Regiment was in 2015, and since then he has participated each year. Among other things, his participation marks a form of official takeover and control of the event, which started out as a relatively small-scale private initiative in 2012 (Radio Free Europe/Radio Liberty, 2017).

A relevant hypothesis in this connection is that the great presence of the armed forces in public as well as private life helps to turn war and preparations for war into a relatively ‘normal and desirable’ activity in Russia.¹

Method

A study of militarism in Russia faces two main methodological challenges, a general and a more specific one. The first of these challenges is the fact that Russia is an authoritarian regime characterised by extensive control and secrecy (Hansen, 2019a). Consequently, the public debate is largely confined to a centrally defined arena. There are topics that *cannot* be discussed (e.g. casualty rates for the Russian Armed Forces) and some that *are not* discussed (e.g. corruption in political and military managements). Generally, the dominant political narratives are repeated by the media, and

1. It is important to remember, though, that the influence of e.g. old conscripts may increase the general opposition to war and war preparations, e.g. due to experience with *dedovshchina* (bullying in the armed forces, see chapter 3) or negative experiences from fighting in Afghanistan or Chechnya.

they are rarely criticised. This means that the idolisation of the military in Russia is mirrored and supported by the media, which only on rare occasions criticise this policy or refer to elements opposing this idolisation (e.g. opposition from parents of children in nurseries and schools).

The Russian culture of control and secrecy makes it difficult to work with the sources. Some material is simply not available because it is not shared with the public, while another part is available, but only in distorted form. Politically sensitive topics, of which there are many in present-day Russia, are not reported openly and honestly. This culture applies specifically to the mass media, though Russian research is also limited in its choice of subjects and conclusions, just as public-opinion surveys must be conducted in accordance with a politically defined framework (Gudkov, 2018). When the leading Russian opinion poll institute, Levada, failed to observe this rule in 2016 and reported relatively low voter support for the ruling political party, United Russia, it was immediately recognised as a 'foreign agent' by the Ministry of Justice (Levada, 2016). Sources are therefore often silent (Koch, 2013, p. 393).

The consequence hereof for observers of Russian society is that the overall picture must be pieced together from various smaller parts. When all comes to all, this may show that some of these parts are missing or cannot be located or that they present a distorted scene or colour composition. These are the terms when researching non-democratic societies with a relatively high degree of control with the flows of information and the public opinion (Morgenbesser & Weiss, 2018; Jenanova, 2019). The observer is left with collecting data under the given circumstances and using his or her insight into the context-specific circumstances to analyse them and, on that basis, present as complete a picture as possible.

This chapter relies on opinion polls produced by Levada and FOM. Whereas the former is generally considered independent – hence its designation as 'foreign agent' – the latter has close ties to the state. Surveys conducted by state-controlled institutions should be used with caution due to the underlying political control. Typically, it is safe to trust them when they report *negative* trends, e.g. declining support for Putin. Though they are likely to 'underreport' in such cases, what is important is that they do describe a development that can no longer be ignored or silenced. This was what happened to the institute *Vserossiyskiy tsentr izucheniya obshchestvennogo mneniya* (VTsIOM) when it reported declining voter support for Putin in May 2019. The Kremlin was displeased with the new figures, and Putin's

spokesman declared publicly that they were waiting for an explanation from the sociologists responsible for the survey. After giving it some thought, VTsIOM changed the questions in the questionnaire, and the new result thus showed far greater voter support for Putin (RBK, 2019a).

The second, more specific methodological challenge facing the study is the fact that states would rather not talk about militarism – especially with regard to domestic matters – but prefer patriotism. I therefore use debates and measurements of patriotism as a proxy for militarism. This methodological shortcut is not ideal, as patriotism and militarism are two different things, even if there is a significant intersection. Below I therefore present both definitions, as well as the Russian public's understanding of patriotism, and I will show how patriotism is generally a broader term than militarism. There is no simple solution to this problem, and I would like to stress that this approach constitutes a compromise between what would have been ideal and what was actually possible. I will return to this discussion in the final section.

Sources

Clearly illustrating the latter comment is the existence of an extensive Russian literature on patriotism and the general absence of one on militarism. Russian journalist and expert in military affairs Aleksandr Golts explains that the Soviet era too was characterised by the absence of a debate on militarism; militarism was considered a negative phenomenon, and as such belonged to the Western world (2019, p. 288).

Golts (2005, 2018 and 2019) has conducted in-depth studies of Russian militarism in the past and present. The long-term perspective enables him to draw the big lines and e.g. claim that the Russian state for the past three centuries, with few, short breaks, has had as its 'main, if not only ... objective to support a mighty military machine' (Golts, 2019, p. 302). According to Golts, this continues to be the case in the years following 2014.

Golts argues that Russian militarism was strengthened after the 1990s, and is now propelled by the country's political elite. This elite – personified by Putin and his career – has created a militarised regime with its own command structure, a widespread culture of secrecy and great centralisation of military power (Golts, 2019, p. 319). This development has benefited the regime on several levels, he argues: First, militarism and the

underlying story of a country under pressure can act as a form of national idea for lack of an alternative. Second, militarism can help legitimise the special regime established by Putin through referring to external threats against the country. Third, and finally, Golts points out that the Russian Armed Forces are presented as a model state institution. The armed forces are characterised, among other things, by discipline, order and a sense of duty and thus represent some of the norms that Putin wishes to highlight and have characterise Russian society (Golts, 2019, pp. 323-327).

In Golts' opinion, the regime's attempt to strengthen Russian militarism has by and large been successful. Among other things, he refers to the general acceptance of the underlying story of a Russia under pressure as well as of the relatively large defence burden (Golts, 2019, p. 284). The regime has managed to re-establish in the minds of the public a readiness to go to war, Golts explains, which is evident e.g. from the belief that 'to all foreign as well as many domestic policy issues there is above all a military answer' (Golts, 2019, p. 321; 284). It is unclear, though, whether this readiness to go to war is felt by the individual Russian or rather expresses a general willingness to engage Russia *as a whole* in military conflicts.

Patriotism as a Goal

Since the dissolution of the Soviet Union, a main political ambition has been to strengthen the patriotism of the Russian public. The Constitution of the Russian Federation (1993, art 13 (2)) prohibits the adoption of a state ideology in Russia, but the general view is that patriotism *de facto* is the new ruling ideology of the Russian state (Lipatnikov & Grigorev, 2017, p. 52). Putin even confirmed this in an interview to the Russian news agency TASS (2020b) in connection with Victory Day 2020, when he was asked to identify a 'national idea' characterising modern-day Russia. 'Patriotism, I believe, there is no other option', Putin replied, before adding that 'patriotism involves committing oneself to the country's development, its future transformation'.

We find examples of the goal of strengthening Russian patriotism in all the Russian military doctrines (1993, 2000, 2010 & 2014) which since 1993 have governed the armed forces. Part of the political backcloth for this goal has been a widespread narrative of how basic Russian norms are under pressure, among other things due to the information warfare waged by the

Western world against Russia (Hansen, 2019b). The current military doctrine (2014, art 13c) thus points to the danger of ‘subversive information activities against the population, especially young citizens of the State, aimed at undermining historical, spiritual and patriotic traditions related to the defense of the Motherland’.

The words used to describe patriotism as a goal have varied, but the message has not, when Russian military doctrines have pointed to the necessity of:

- ‘the creation and improvement of a system of military-patriotic upbringing and pre-draft training’ and ‘the shaping in citizens of moral and psychological readiness to protect the fatherland’ (1993, art 2.2),
- the ‘development of a conscious attitude among the population toward safeguarding the country’s military security’ and ‘preparing Russian Federation citizens for [military service]’ (2000, art 10a; 16),
- the ‘development and implementation of initiatives intended to increase the effect of the military-patriotic training of the Russian Federation citizens and their readiness for military service’ and ‘to boost the prestige of military service and to prepare citizens of the Russian Federation for it in every way’ (2010, art 21e; 35l)
- ‘military-patriotic education of citizens’ (2014, art 39t).

In its ‘military encyclopaedia’, which is available on its website, the Ministry of Defence (n.d.) defines patriotism as ‘love of one’s motherland’ and adds that patriotism consists specifically of a ‘moral-psychological readiness in the population to repel external aggression ... and society’s solicitude towards the country’s armed forces’.

The first national action plan for the ‘patriotic training of the citizens of the Russian Federation’ (2001-2005) identified as its overall goal the ‘creation of great patriotic consciousness, a feeling of loyalty to the Fatherland, a readiness to fulfil one’s duty as a citizen as well as the constitutional obligations to safeguard the interests of the Motherland’ (Government of the Russian Federation, 2001, II). The action plan did not provide an explicit definition of the concept of ‘patriotism’, but the last part of the above quote refers to article 59 (1) of the Russian constitution (1993), according to which ‘[d]efence of the Fatherland shall be a duty and obligation of citizens of the Russian Federation’.

Though these definitions mainly focus on direct will, there also seems to be an element of indirect will, when the Ministry of Defence refers to ‘solicitude towards the country’s armed forces’. This may e.g. take the form of acceptance of the growing and perhaps even relatively large defence burden which can be a prerequisite for strengthening the available capacities, or of the special privileges enjoyed by military personnel, their families and retired servicemen. This is evident from a press release issued by the Russian Ministry of Defence in December 2019 on the construction of 155 new hospitals specifically for these groups of people (TASS, 2019).

The allocation of funds for the armed forces is the result of political prioritisation. The same funds could just as well have been allocated to other parts of Russian society. A possible reinterpretation of the concept of ‘patriotism’, as evident from the two official texts presented here, would therefore include acceptance both of a direct will (to fight) and an indirect will (to accept political prioritisation of the armed forces), though emphasis is clearly on the former.

The Substance of Russian Patriotism

Patriotism can be hard to define (e.g. Kodelja, 2011; Kleinig, Keller & Primoratz, 2015). Even official Russian texts are therefore expected to contain slightly obscure formulations. In its least binding form, the official Russian understanding of patriotism outlines a general will of the individual citizen to act in the best interests of the state in a way that may involve making personal sacrifices. Such sacrifices could be of a financial nature and be the result of the relatively large defence burden. The majority of the international Academic literature on patriotism touches on this element, and there is general agreement that a patriot must as a minimum meet this requirement (e.g. Kleinig, Keller & Primoratz, 2015).

In its most binding form, on the other hand, the official Russian understanding of patriotism outlines a more extensive and specific will to undertake military action for the benefit of the state, i.e. ‘to die and to kill’ (Kodelja, 2011, p. 128). The international Academic literature generally rejects this requirement, considering it as too extreme (e.g. Pavkovic, 2007; Gilbert, 2009; Kleinig, Keller & Primoratz, 2015; Kleinig, 2016). At the same time, though, we find in this literature the almost universal acknowledgement that patriotism has for centuries been closely connected to the will to go to

war; 'to speak of patriotism was to think of war', as argued by the American philosopher John Somerville (1981) in a famous article. Here *pro patrio mori*² describes the desired order of things. By undertaking military action, the individual citizen puts his or her life at stake, and it is the possible, ultimate sacrifice linked to such action that makes it the conclusive test of a person's patriotism (Gilbert, 2009, p. 333).

The demand for military action for the benefit of the state is a basic condition in many countries with compulsory military service. This currently includes just under a third of all countries in the world (Pew Research Center, 2019), including both Denmark and Russia. Compulsory military service is such an integral part of the modern state that e.g. the European Court of Human Rights finds that this duty, if necessary, to undertake military action for the benefit of the state is in accordance with the European Convention on Human Rights (Council of Europe, 1950). At the same time, though, the court finds that article 9 of the convention on the 'right to freedom of thought, conscience and religion' in principle gives the individual citizen the right to oppose such compulsory military service.

Acknowledging this, the Russian constitution (1993, art 59 (3)) grants citizens the right to 'replace military service by alternative civilian service', while at the same time maintaining general compulsory military service. The specific Russian law on conscientious objection came into force in 2002 (Hansen, 2006). Currently, the duration of general compulsory military service in Russia is 12 months, whereas conscientious objection service is either 18 or 21 months (serving in or outside the armed forces, respectively). The European Court of Human Rights finds that the extended service time is in accordance with Russia's obligations under the European Convention on Human Rights (Council of Europe, 1950).

Patriotism is hard to define, and it can therefore mean different things to different people. When Putin in his interview to TASS (2020b) identified patriotism as the core of a Russian national idea, the news agency added a link with a detailed description of the concept. The link was to a TASS analysis of opinion polls – the same method as the one used here – and the subheading of the article read, among other things, that patriotism 'is first and foremost associated with love for the Motherland, and those who take bribes cannot be considered patriots' (TASS, 2020a).

2. 'To die for one's country'.

The Russian population is relatively divided in their perception of what constitutes a 'patriot'. A survey conducted by FOM (2019c) attempted to capture the public understanding of the concept via a catalogue of possible characteristics. Quite telling of the political unification of Putin's Russia (Hansen, 2019a), the first question was whether you can be a patriot if you 'criticise the establishment of your country'. In 2019, 61 per cent answered in the affirmative, while 34 per cent dismissed the idea. The figures were, respectively, 64 and 31 per cent in 2018 and 58 and 31 per cent in 2006. The period thus saw a slight increase of three percentage points in the number of respondents who find that you can be a patriot *and* criticise the regime. At the same time, in 2019, just over a third of all Russians considered this form of behaviour unpatriotic.

Obviously, in Russia, patriotism, as it is presented at the central political level, may act as an instrument for creating or maintaining public support for the regime. The above-mentioned survey (FOM, 2019c) shows that the coupling 'patriotism = loyalty to the establishment' is communicated to the public. The result shows that a majority of Russians do not accept this coupling. We should be aware though that the attempt is made nevertheless, and that the idolisation of patriotism may serve a secret purpose. It was this coupling between patriotism and political loyalty that Russian opposition politician Lev Shlosberg (2017) addressed in a speech that went viral, and where he made it clear that 'patriotism – that is love for the Motherland ... The Motherland – that is not the state, and it is not the establishment'.

Naturally, the FOM survey (2019c) also addressed the relation between patriotism and military service. In 2019, 69 per cent of the Russians felt that you cannot be a patriot if you try to avoid doing military service. 24 per cent, however, found that patriotism and reluctance to do military service are fully compatible. The figures were, respectively, 71 and 22 per cent in 2018 and 69 and 20 per cent in 2006. The period thus saw very little change, slightly in favour of greater polarisation.

Other possible characteristics from the FOM survey (2019c) include whether you can be a patriot if you 'do not know the lyrics of your country's national anthem' (in 2019, 53 per cent replied in the affirmative, whereas 41 per cent rejected this coupling);³ whether you can be a patriot

3. The lyrics to the Russian national anthem were written by Sergey Mikhalkov in 2000 to the tune of the former Soviet national anthem. A 2019 survey (FOM, 2019b) showed that 45 per cent of the Russian population were unfamiliar with these lyrics (some did not know the tune either), whereas 52 per cent knew both the tune and the lyrics.

if you 'do not know the history of your country' (in 2019, 67 per cent replied in the affirmative, whereas 28 per cent dismissed the idea); whether you can be a patriot if you 'do not participate in elections' (in 2019, 46 per cent replied in the affirmative, whereas 47 per cent felt that this is acceptable); whether you can be a patriot if you 'do not care about the environment of your country' (in 2019, 69 per cent replied in the affirmative, whereas 24 per cent felt that this is acceptable); and whether you can be a patriot if your 'leave your country to live in a different country' (in 2019, 45 per cent replied that a patriot would not do that, whereas 46 per cent felt that this is acceptable).

Tools

Patriotism is a general tool for achieving societal acceptance of militarism and militarisation. Under the right circumstances, patriotism will motivate the individual citizen to show direct as well as indirect willingness to act in a way that may result in personal costs. If this is not successful, the state has other tools for imposing its demands on the citizens.

We know this from as different factors as pecuniary penalty, imprisonment or confiscation of property upon failure to pay one's taxes (indirect will) and from mandatory appearance at the place of service and pecuniary penalty, imprisonment or even death penalty for leaving the place of service or deserting during battle (direct will). In December 2019, for example, news of Russian military police's arrest of opposition politician Ruslan Shaveddinov, who was subsequently transported to a base in the Arctic for compulsory military service, reverberated in both Russian and international media (BBC, 2019).

In Russia, the minimum fine for failure to appear for conscription examination is 500 roubles (approx. EUR 5.5), but the penalty can be far greater and more severe upon repeated or more severe offences, as evident from the Shaveddinov case.⁴ In an article published in *Voennaya Mysl*, a leading military journal, military researchers (Brusentsov, Loba & Malakhova, 2017, p. 68) have argued that 'because of the relatively lenient penalty, the majority of those convicted do not accept blame for the crime they have committed'. In 2019, General Yevgeny Burdinsky from the Russian Armed Forces'

4. Similar rules apply to Danish conscripts (Forsvarets Personalestyrelse, 2020).

personnel services explained that the services are working on 'increasing the penalty, and significantly so, multiplying it by six' (RBK, 2019c). As a rule, the state prefers not having to use such tools. Voluntariness is much easier. In this connection, different Russian governments have implemented national action plans for the 'Patriotic Education of Citizens of the Russian Federation' (2001-2005, 2006-2010, 2011-2015 and 2016-2020 (Lipatnikov & Grigorev, 2017, p. 52)). The current action plan (2016-2020) clearly demonstrates the scope of this task. The programme is mainly owned by three ministries – for Higher Education and Research, Defence, and Culture – but another nine ministries, eight federal directorates and agencies besides a very large number of regional authorities are involved in its production and implementation. The latter is mainly conducted via implementing partners, who either represent the state or are controlled by it. This includes e.g. the 'Russian Centre for the Civic and Patriotic Education of Children and Youth', the 'Russian State, Military Historical-Cultural Centre under the Government of the Russian Federation' (Rosvoentsentr) and the 'All Russian Societal-State Organisation the "Voluntary Society for the Co-operation of the Russian Army, Air Force and Navy"' (DOSAAF, n.d.).

The Agency for Youth Affairs under the Ministry of Culture is responsible for the overall coordination hereof (Government of the Russian Federation 2015, preamble and III). The goals of the plan include 'development of the citizens' military-patriotic education [and] a strengthening of the prestige of serving in the Russian Federation's armed forces and law enforcement authorities', besides the 'creation of conditions in the mass media for information about events and phenomena of a patriotic nature' (Government of the Russian Federation, 2015, II).

The specific means are listed in an extensive catalogue. It includes more than 100 initiatives spanning from military-historical book publications and conferences on 'museological pedagogy and patriotic education' through officers' balls, song and film festivals and competitions for children and youth on the ability to memorise heraldry to youth camps, military sports events, e-sport competitions (e.g. the game World of Tanks), courses for reporters and the production of films and interviews with Second World War veterans. The initiatives will be implemented during the five-year period, over a period of a couple of years or in individual years (e.g. the 2019 celebration of the 30th anniversary of the Soviet Union's

withdrawal from Afghanistan). The total budget for the years 2016-2020 is 1.66 billion roubles (or approx. EUR 18.5 million).⁵

It should be added here that the plan foresees the development of 'research-based monitoring of the efficiency of the citizens' patriotic education'. This is with a view to rendering possible the 'presentation and application of the most effective form of patriotic education' (Government of the Russian Federation, 2015, p. II). It will form the basis of the collection of experience and subsequent learning. The Agency for Youth Affairs is responsible for this part of the process, and it is thus tasked with drawing up annual reports on the status of the citizens' patriotic education (Government of the Russian Federation, 2015, p. III). Two Russian researchers (Lipatnikov & Grigorev, 2017, p. 56) present a simple formula for measuring the degree of patriotism in Russian society when explaining that one should simply consider the 'consistency between the by society described desired characteristics of the patriot and the actual behaviour of the individual'.

This is easier said than done, though. It is also worth noting that the action plans for 2006-2010 and 2011-2015 do not include descriptions of the extent or degree of patriotism in Russian society. The plan for 2011-2015 merely concludes that 'as a result of the effort made, the level of patriotic awareness among the citizens of the Russian Federation is increasing' (Government of the Russian Federation, 2010, p. I). As an observer you get the clear impression that the enlightenment effort has only recently developed into something that satisfies the contracting authorities. During a round table discussion in 2017 on 'current problems facing the historical-patriotic education of the Russian citizens', members of the Federation Council thus highlighted the construction of the military amusement park 'Patriot' (2015) and the military-patriotic children's and youth movement 'Yunarmiya' (2016) as positive contributions (Federation Council, 2017).⁶ The two initiatives were presented either in the current plan, or late in the previous one.

However, the current action plan (Government of the Russian Federation, 2015, p. I) presents, in a familiar Russian style, a series of quantitative indicators from the then latest annual report from the Agency for Youth

5. In comparison, the budgets of the previous plans were, respectively, 178 million roubles (2001-2005), 498 million roubles (2006-2010) and 777 million roubles (2011-2015) (all in the currently of the time).

6. See <https://en.patriotp.ru/> and <https://yunarmy.ru/>

Affairs. The list includes, among other things, 177 cadet schools with a total of 61,845 students in more than 7,000 classes, 4,780 organisations for patriotic youth education, 11,776 organisations for patriotic education of Russian children and around 2,000 military and sports camps. According to the Agency for Youth Affairs, in 2014 there were more than 22,000 Russian 'associations, clubs and centres' for the promotion of patriotism, and 21.6 per cent of the youth had contact with this system (Government of the Russian Federation, 2015, p. I). The plan also lists indicators for the expected growth in the years 2016-2020. These include e.g. figures for trained instructors in the planned activities (from 48,000 to 55,000), for participating organisations (+50 per cent) and for the share of participants to have successfully completed the sports programme 'Ready for work and for defence' (from 30 to 70 per cent) (Government of the Russian Federation, 2015, appendices 2, 1-2).⁷

As mentioned above, one of the partners is DOSAAF. The organisation was established in its current form in 2009, but builds on Russian and Soviet structures dating back to 1920. Right from the beginning, a main goal of the organisation has been to prepare the population, physically and mentally, for war. In 1920, this was disseminated as 'wide-ranging propaganda on military knowledge among the workers', whereas today it is described as the creation of a 'qualitative new system for preparation of the youth before drafting, including via military-patriotic education' (DOSAAF, n.d.). The current description suggests that the patriotic education, at least previously, was not altogether successful; and this is confirmed by a Russian researcher, before he makes it clear that 'under the current conditions DOSAAF in particular should and can, like no other structure or organisation, take on an important role and responsibility in solving the fundamental problems and the long-standing imminent tasks' (Lutovinov, 2017, p. 82).

In the current action plan (Government of the Russian Federation, 2015, appendices 1, 1-42), DOSAAF, as one of the implementing partners, contributes to seven projects with a total funding of 45.3 million roubles (or approx. EUR 500,000). The activities include, among others, military sports competitions, conferences for leaders of patriotic organisations for children

7. The requirements under 'Ready for work and for defence' were updated by the Russian Ministry of Sport in February 2019 (DOSAAF, 2019). The disciplines include e.g. running, strength training and swimming.

and youth (with a view to increasing the 'effect of work on patriotic education of the youth') and games and competitions at the amusement park 'Patriot'. In addition, DOSAAF uses its own funds to conduct projects at its almost 11,000 local branches. These funds come from the Ministry of Defence and are not part of the action plan. These activities include, among others, various forms of military training (e.g. shooting and tactical exercises), including via 'basic military preparation' which is a voluntary programme targeted at Russian primary and lower secondary school students (e.g. *Voenna-promyshlenniy Kurier*, 2019). DOSAAF also offers a number of sports (e.g. shooting, self-defence and parachute jumping), exhumation and possibly identification of fallen WW2 soldiers and maintenance of burial sites as well as support for orphans.

The youth movement Yunarmiya was, as mentioned above, established in 2016, and since then it has attracted great attention in Russia as well as abroad. Russian researchers (e.g. Stepanova & Baranovskiy, 2017, p. 113) like to compare it to the scout movements seen in a number of Western countries and, of course, to the Soviet Pioneer movement. However, critics, including Russian ones, often point to the highly militarised parts of Yunarmiya's activities, which appear to provide the organisation with its unique characteristics (e.g. Sukhankin, 2018; *Moscow Times*, 2019). According to Minister of Defence Sergey Shoigu, Yunarmiya offers its young members the chance, among other things, to 'shoot with anything that can shoot, except for missiles' (RIA Novosti, 2016).

The creation of Yunarmiya must be seen in connection with the 2016-2020 action plan (Grankin, 2017). One of the organisation's declared goals is to contribute to a 'strengthening of the authority and prestige of doing military service', besides providing the young people with the 'readiness and practical skills to fulfil their civic and constitutional duties defending the Fatherland' (in Stepanova and Baranovskiy, 2017, p. 116). This is done in close cooperation with DOSAAF and based e.g. at the amusement park 'Patriot' (Stepanova & Baranovskiy, 2017, p. 115). According to Yunarmiya itself, the organisation had 700,000 members in May 2020 (Yunarmiya, 2020).

The target group of children and youth are not just influenced by these 'associations, clubs and centres', though, where active attendance is a precondition for participation. Before the individual child or young person decides to become an active member of the patriotic programme under the Agency for Youth Affairs, he or she is likely to have been influenced by

other actors already. Russian researchers (e.g. Lipatnikov & Grigorev, 2017, p. 51) points to the socialisation that takes place within the family, partly via state control of the media and educational system. The state-controlled media largely manage to exclude 'alternative and uncontrollable sources' (Kara-Murza, 2018, p. 267) from the national news scene, and the patriotic narratives are therefore generally allowed to stand alone, unchallenged. We find an example hereof in an interview with Margarita Simonyan, Chief Editor of RT, who when asked whether RT 'is a ministry of defence, just on TV' replied: '[W]hen Russia goes to war, naturally we are on Russia's side' (Kommersant, 2012). Of course this creates highly favourable conditions for the dissemination of specific political messages.

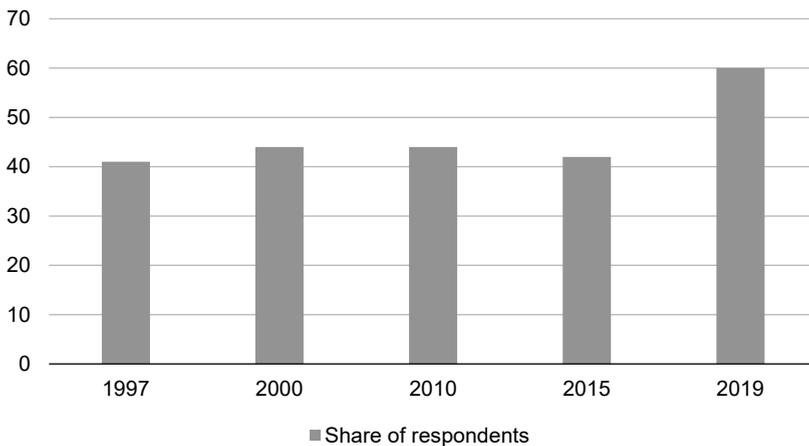
The same applies to the educational system. Hence, the authors of the perhaps most extensively used series of history school books write in a manual for the teachers, 'you are facing the difficult task of teaching [the students] to love the Motherland, understand its past and think about Russia's future' (Danilov & Filippov, 2009, p. 26). Looking at a random Russian school – upper secondary school No 363 in Saint Petersburg – reveals other aspects of this form of influence. The school has published its learning goals and appertaining activities relating to the students' patriotic education (Gymnaziya, n.d., p. 363), and these include activities under the headlines 'Across the generations' (including meetings with Second World War veterans), 'World of the family' (including meetings with parents and a photo exhibition under the topic 'Mother and I'), 'A healthy soul in a healthy body' (focussing specifically on developing 'moral-psychological and physical readiness for military service') and 'More action – less talk' (including tidying and cleaning activities in the local area).

Effect

It is difficult to identify the effect of this influence on the status of patriotism and militarism in Russia. On the one hand, there appears to be great public support for the armed forces as an institution, for the idea of naturally using military means if necessary and for undertaking military action for the benefit of the state. Nevertheless, it is difficult to distinguish the actual support from the staged support as communicated, e.g. by the state-controlled media, and to determine the degree of socialisation.

For example, in 2019 General Yevgeny Burdinskiy from the Russian Armed Forces' personnel services announced that the number of conscripts who fail to appear for military service or refuse to do both military and conscientious objection service has decreased to around 1,000 a year; it used to be as many as 20,000 a year, he adds (RBK, 2019b). In continuation hereof, opinion polls show that a record-breaking number of Russians feel that 'it is a man's duty to serve in the armed forces' (Levada, 2019). The Levada analytical centre (2019) asked the respondents: 'What is your personal opinion of army service based on conscription?' It gave them four options: 60 per cent replied that 'any real man must undertake army service', whereas 24 per cent chose the option 'army service is a duty to the state that everyone must fulfil, even if it does not correspond with their interests', and 12 per cent replied 'army service is a mindless and dangerous occupation that must be avoided at all costs'. Four per cent found it difficult to answer the question. Figure 5.1 shows that most of the respondents chose option number one: 'any real man must undertake army service':

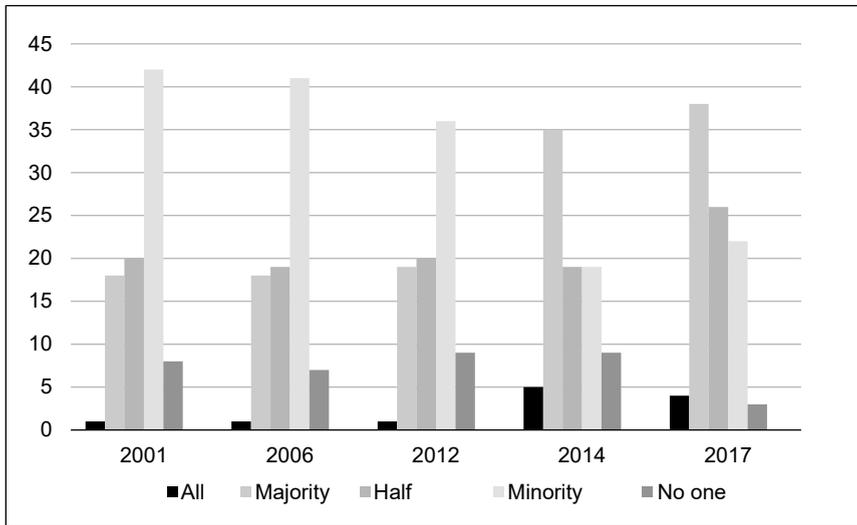
Figure 5.1: 'Any real man must undertake army service' (percentage who replied 'yes' Source: Levada (2019a)).



In 1997, as many as 24 per cent of the respondents felt that conscripts should try to avoid doing military service 'at all costs'. In 2019, this segment had been reduced by a half, namely to 12 per cent.

Another set of figures (FOM, 2019c) show a *general* increase in the share of Russians who consider themselves patriots. According to the analytical centre FOM, 73 per cent of the respondents in 2019 considered themselves patriots. This applied to 64 per cent in 2012 and 57 per cent in 2006. At the same time, FOM (2019c) has asked respondents how many of their fellow citizens they consider to be patriots. Figure 5.2 illustrates the development in responses:

Figure 5.2: 'In your opinion, how many Russians are patriots?' (In percentages)



Source: FOM (2019c).

It is figures and *general* tendencies like these that have prompted the Agency for Youth Affairs to conclude that the past decade has seen a 'significant strengthening' of patriotism in Russia (Kommersant, 2018).

At the same time, though, a number of circumstances weaken this conclusion and suggest a lower degree of patriotic socialisation. The sources hereof are found in e.g. opinion polls and political and military debates. Before providing a couple of illustrative examples, I would like to mention the probability that this intense focus on patriotic education, as evident from the national action plans, among others, in itself results in an increase

in observed patriotism. In other words, it has become far more difficult *not* to be a patriot in Russia today than in the 1990s, for example.

This may be evident from conscription figures, as conscientious objection service and, even more so, non-appearance may lead to shaming of the conscript (Hansen, 2006). It may also be evident from opinion polls, in which people are asked about their opinion regarding a clearly sensitive and high-profile topic, and where it seems obvious which answers are 'right' and which are 'wrong'. E.g., the Levada survey (2019), produced by the country's leading analytical centre, thus refers to 'any *real* man' in its pool of possible answers, and this formulation appears to reflect a desired standard that is likely to influence the respondents. It is a formulation borrowed from the Soviet era, where the media among others would use it to influence the young men facing call-up.

Furthermore, it should be noted that the replies in the FOM study on the nature of patriotism (2019c) show the extent of Russians' understanding of the concept. In 2019, care for the environment and military service were considered the most defining characteristics. It is thus slightly unclear what we can conclude from figures like the ones presented in figure 5.2: Do they communicate patriotism as a willingness to care for the Russian environment or patriotism as a willingness to undertake military action for the benefit of the state or an entirely different understanding of patriotism altogether?

If we continue to look at opinion polls, it is also worth noting how, despite e.g. the national action plans for the 'Patriotic Education of Citizens of the Russian Federation', 74 per cent of the Russians in 2019 believe 'patriotism or not' to be a private matter. In comparison, 23 per cent find that it is everyone's duty to be a patriot (FOM, 2019c). Among the 18-30-year-olds, 85 per cent stated that it is a private matter (FOM, 2019c).

In addition, it should be added that the just cited *general* tendencies regarding the prevalence of patriotism in Russian society is challenged by other, more pertinent tendencies: Figures from FOM (2019c) thus show that the share of Russians who consider themselves patriots has decreased slightly from 2017 (78 per cent) through 2018 (77 per cent) to 2019 (73 per cent). In the same short period of years, the share of Russians who do *not* consider themselves patriots has increased from 17 to 21 per cent. Similarly, Russians believe the share of patriots in the Russian population has decreased: In 2017, 43 of the respondents believed that 'everyone' or 'most'

were patriots. The same figure increased to 45 per cent in 2018, before decreasing to 41 per cent in 2019 (FOM, 2019c).

These snapshots are interesting as they indicate decreasing support for patriotism, personally as well as when assessing others. However, they are just snapshots, and we should be careful not to assign too much importance to them. Surveys conducted in the years to come will show whether or not it is indeed a strong, continued tendency.

The political level is critical of the efforts made. E.g., participants in the Federation Council's (2017) discussion of 'current problems facing the historical-patriotic education of the Russian citizens' in 2017 identified various points of criticism. The senators expressed dissatisfaction with e.g.:

- 'the inertia of a series of state institutions' and NGOs' implementation of the patriotic ideology'
- 'citizens' low level of information with regard to activities by state authorities'
- 'the low number of youth involved in the organisation and implementation of activities of a cultural, humanitarian and historical-patriotic nature'

Comments from members of the Federation Council indicate that the action plans, current as well as previous ones, have not had the desired effect on Russian society. Similarly, during a hearing members of the Duma also made it clear that the current results are not satisfactory. Their recommendations included allocating more funds to the area, modernising DOSAAF through the production of new teaching material and lowering the age limit for participating in the organisation's activities (*Voenna-promyshlenniy Kurier*, 2018).

Criticism from the political level largely focusses on the poor results. However, and perhaps more disturbing to the members of the Federation Council, they also conclude that Russian society is seeing a strengthening of the 'manifestation of "nationalistic patriotism", which is worsening the country's ethnic-religious situation' (Federation Council, 2017). In other words, they are warning against ethnic Russian (in Russian: *russkiy*) nationalism as opposed to citizenship-based Russian (in Russian: *rossiyskiy*) patriotism. The former is excluding, whereas the latter is including and identifies its members on the basis of citizenship only.

There is a clear risk associated with the idolisation of patriotism in Russia, as it also strengthens and provides ethnic nationalism with expanded room for expression. Unity Day on November 4th is a prominent example. It is a national holiday and one of the 17 official Russian holidays celebrating 'military glory'. It commemorates the victory of an army of Russian peasants over invading Polish forces in 1612. The holiday was introduced in 2004 and has since then been the scene of extensive ethnic Russian nationalistic demonstrations known as the 'Russian (*russkiy*) March« (Zuev, 2013). It is undoubtedly manifestations like these, which the members of the Federation Council are referring to in their criticism, and which may be the undesired and hard-to-control effect of the wave of patriotism in Russia.

Finally, criticism is found internally within the armed forces. It is perhaps most clear from various contributions to military journals. E.g., *Voennaya Mysl* includes recurrent comment on the challenges facing patriotism in Russia. E.g., two researchers (Lipatnikov & Grigorev, 2017, p. 51) argue that there is a 'limited sense of patriotism among part of the modern-day Russian youth', and their diagnosis is that it is a result of 'loss of perspective [for life] and increasing irresolution, unrest, uncertainty about the next day, a feeling of hopelessness, disappointment and a dominant wish to live one day at a time'. The two authors identify a post-Soviet 'ideological-patriotic void', which was soon filled with information from abroad, including "'a [Western] mass culture" characterised by its cult of violence, egoism, sex, opposition to the intellectual' (Lipatnikov & Grigorev, 2017, p. 51).

A different researcher (Lutovinov, 2017, p. 78) continues along the same path when concluding that Russia has seen the emergence of 'versatile perceptions of constitutional and military duty, of military policy, the armed forces, military service and other [matters]'. This is undoubtedly the realisation that the actual support for the armed forces does not correspond with the desired level in some circles. According to the author (Lutovinov, 2017, p. 78), solving these problems will require 'an in-depth study and versatile analysis of all the changes and development tendencies found in Russian society with the existing problems in view'. He then goes on to prepare his readers that studies and analyses will reveal the need for developing 'fundamental new approaches to the creation of qualitatively new foundations for military-patriotic activities'. The current system has failed; it has not provided the desired effect.

Conclusion and Discussion

The last-mentioned comments point in the direction of structural challenges facing militarism in Russian society. It is a changing society. New norms will prevail, while others will be thrust into the background. Military research critical of this development appears to be blaming a new, more individualistic and consumption-oriented society. For many years now, civil researchers have supported this interpretation and pointed to current structural processes.

The Russian researcher A. Bikov (2010, pp. 49-50), for example, has described a development 'in the mindset of children and young people and especially in youth subcultures, of widespread apathy and indifference, nihilism and cynicism, irresponsibility and unmotivated aggression, individualism and egoism, a disrespectful relation to the state and to social institutions, and a complex of loss and inferiority, which has emerged in post-Soviet years'. Among young people he identifies (2010, p. 50) a 'depatriotification of spiritual life'.

Similarly, Leonid Reshetnikov (2014, p. 8), former head of the Russian Institute for Strategic Studies, has noted that a 'regeneration of patriotism is ... ongoing; the patriotism found in Russia for a thousand years ... In the 1990s, the feeling of patriotism in our people suffered the greatest blow'. His colleague, Mikhail Smolin (2014, p. 34), also mourns the fact that 'the insufficient [patriotic] awareness prevents ... the production of a practical action programme for the creation of ... love for the Motherland'. He concludes (Smolin, 2014, p. 60) that the situation in Russia 'requires the highlighting of a new understanding [of patriotism] as a counterweight to the past "greatest decade of individualism" at state as well as societal level'.

New sociological studies conducted by Russian researchers cautiously point in the same direction. E.g., a group of researchers from Moscow State University (Osipova, Elishev, Pronchev & Monakhov, 2017, pp. 7-8) conclude that even though 'the family ... unmistakably will remain dominant, it is nevertheless necessary to acknowledge that young people's striving for greater independence ... may lead for a future strengthening of individualism'.

Another sociological study (Osipova, Elishev, Pronchev & Monakhov, 2018, p. 57) points to 'the rather urgent necessity of actively helping the youth satisfy their patriotic impulses and options available'. They conclude, with both relief and concern, that the *surveyed youth* are relatively

critical of 'various negative phenomena', which according to those surveyed are very widespread *among young people in general*: 'Consumer mentality, mimicking Western lifestyle, focus on career, egoism and an inactive lifestyle'.

These studies also reveal the methodological challenges touched upon in the introduction to this chapter. We can sense that the respondents are unable freely to answer questions about how they relate to social practices that are openly classified as undesirable (Osipova, Elishev, Pronchev & Monakhov, 2018, p. 50). Such practices include sex outside of marriage, consumer mentality, egoism and homosexuality. Similarly, we find, the researchers are unable to report their results freely. E.g., the researchers from Moscow State University cautiously point to a series of factors that pull in a different, more normative direction than the one desired by the official Russia, before reporting towards the end of their study that 'practically all students at [Moscow State University] are noted for their aspiration to contribute as much as possible to the regeneration of Russia'.

As mentioned in the methodological discussion, the concept of patriotism is generally broader than militarism. When Russian researchers, civil as well as military, point to a weakening of patriotism in Russian society, it is very possible that militarism is also under pressure and perhaps even in decline. After all, official definitions of patriotism focus mainly on direct willingness to do military service and less on indirect willingness to support the armed forces (The Ministry of Defence of the Russian Federation, n.d.).

The overall picture of Russia is of a country that is willing to go to war, and whose population to a significant extent supports both the use of military means and the allocation of underlying resources. At the same time, the country appears to be undergoing a structural development towards a greater understanding of war as something 'others do'. Several of the above-mentioned studies and assessments point to increasing individualisation in Russian society – an individualisation that even affects the public perception of patriotism as a private matter rather than a common issue. Furthermore, the perception of war as something 'others do' appears to be the almost inevitable result of still more widespread contract service in Russia. Military service continues to apply to a relatively large number of Russians – even if this number is in decline – but actual combat now applies to relatively few. This continued tendency may result in a Russia where only a minority of the population shows direct willingness to fight (e.g. due

to financial incentives) and a majority shows indirect willingness (e.g. by sacrificing part of their wealth), but do not want to put on the uniform, let alone go to war. This way, Russia is gradually approaching the military structure found in many Western countries.

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PART II

Is Russia Ready for War?

CHAPTER 6

Introduction to the Issue of the Russian Armed Forces' Military Capability

By Steen Wegener

Introduction

Part II of this book aims to study the Russian Armed Forces' military capability by looking at the individual services and arms. This chapter offers an introduction to the concept of military capability and the factors, which, from a military point of view, affect the military capability of an armed force. This then sets down the framework for the analyses of the following chapters, which focus on the military capability of the individual services and arms. The chapter does not provide an actual analysis of Russia's overall military capability.

The chapter will begin with a clarification of concepts meant to facilitate the subsequent reading. Then follows a definition of military capability, also known as combat power, cf. NATO's definition, and a brief introduction to the reform process that has endowed the Russian Armed Forces with the combat power they have today. Finally, we will use the warfare cycle as a method for understanding the overall framework of the Russian Armed Forces and the interplay between doctrine, technology and organisation.

Clarification of Concepts

A series of concepts are used in connection with the application of military power and capacities, and insight into these concepts may prove useful when studying the topic. The concepts help create order and structure in our understanding of the processes associated with planning and conducting military operations. Deployment of military forces is a political decision, and the military operation is headed by military leaders who must seek to achieve the political goals of the deployment. This soon becomes a complex affair involving many different decisions at different levels. The deployment of military means is therefore conducted within the auspices of four different levels: the political-strategic level, the military-strategic level, the operational level and the tactical level. The levels establish a structure for the division of responsibilities and tasks in connection with the planning and implementation of military operations. In reality, though, the boundaries between the various levels are fluent, and they are mutually dependent in many respects.

The political-strategic level describes the utilisation and co-ordination of both political, military, civil and financial means. It is at this level that decisions of using military force are made and the overall objectives of a country's participation in a given operation are established. The country's political leaders make these decisions.

The military-strategic level exploits the country's military potential, puts together the required military force and establishes the overall framework for the utilisation of military contributions with a view to achieving the overall political objective of the operation in close coordination with the other strategic instruments such as finances, diplomacy etc.

The operational level puts together and synchronises the military forces from all services with a view to achieving the military-strategic objective within a given typical geographical area of operation. There can thus be several separate operational levels in different geographical areas, all of which seek to meet the overall military-strategic objective.

The tactical level conducts actual activities intended to meet the operational objective. It represents the individual unit's implementation of military activities. Activities at the tactical level are typically conducted within the individual services, even though planning – at the operational level – and implementation are closely coordinated (Hæren, 2016, pp. 101-108).

The concept of joint operations describes operations with the participation of military forces from several services in a coordinated and integrated effort. Joint operations are typically coordinated at the operational level.

As will be evident from the following chapters, the individual services use an extensive and often English-language terminology which to a large extent is shared by the NATO member states, but also includes some state-specific terms. The service-specific concepts are explained in the individual chapters, where relevant, but it may also be useful to be familiar with a different terminology, namely the one associated with military installations. Concepts like 'barracks', 'air base' and 'naval base' are probably well-known as the home of army, air force and naval units, respectively. Though these installations can vary greatly in size, the concepts remain the same. 'Garrison' is a historical concept also used to refer to military installations. It originally referred to the military crew in a fortress, town or military installation (Lex.dk, 2020). Today it refers to a military installation housing armed forces. Similarly, 'depot', which generally refers to a place of storing equipment and supplies, may also greatly vary in size – from a single bunker or building to an entire complex of bunkers and buildings.

Russia's Military Ambitions

Russia does not conceal the fact that it considers itself to be a great power and wants to be seen as such by the international community. In order to live up to its great power ambitions, it is crucial for Russia to have e.g. readily deployable armed forces capable of exercising power and credible deterrence (Westerlund, 2019, p. 17). This is evident in Russian strategic documents, including *Military Doctrine of the Russian Federation* (Russia, 2014), the *Russian National Security Strategy* (Russia, 2015) and the *Foreign Policy Concept of the Russian Federation* (Russia, 2016). It is evident from these documents that a credible military force is needed to safeguard Russia's political interests and to make sure Russia is respected by the international community. Also evident is the fact that the Russian Armed Forces must be capable of conducting: large-scale (regional) operations, local wars, interstate and intra-state armed conflict as well as peace-supporting and peace-keeping operations (Russia, 2014, section 14).

Russia considers the US and its NATO allies as a great threat due to their military build-up and expansion closer and closer to Russian borders

(Russia, 2015, section 15). In order to meet this threat and thus be perceived as a great power, Russia also needs a strong and not least credible military capable of ensuring military security (Russia, 2015, section IV). Russia's military capability is also relevant to Denmark and the Danish Defence, as Russia's behaviour especially in the Baltic Sea and along the borders of the Baltic countries is a cause of growing Danish concern. Consequently, the Danish Defence Agreement 2018-2023 includes a strengthening of the Danish Defence's ability to contribute to collective deterrence and defence of NATO, e.g. through the build-up of a deployable brigade, the procurement of fighter aircrafts and new naval systems etc. (FMN, 2018, p. 3).

Today, almost 13 years after the launch of the Russian reform process, Russia's military capability appears to have improved significantly, evident among other things from Russia's annexation of the Crimea in March 2014, efforts to support the separatists in East Ukraine and the deployment and conduct of operations in Syria (Gorenburg, 2016, p. 2). Russia's behaviour has caused some speculation about its actual military capability, and experts making somewhat conflicting assessments draw an altogether blurred picture. On the one hand, we get a picture of a future operational environment dominated by new Russian weapons systems for which NATO and the Western world do not possess the necessary countermeasures. On the other hand, there are those who believe Russia's military capability is overrated, and that the Russians are not capable of developing the technology required to fulfil the ambitions underlying the reform process (Giles, 2017, p. 1). The answer probably lies somewhere between the two.

However, assessing a country's military capability is a difficult process. A quantitative assessment focussing exclusively on the number of soldiers and available equipment in the form of weapons platforms etc. would not fully capture its actual military capability. A qualitative assessment then should be based on a series of interacting components such as moral standards, training, management etc., which in themselves are also rather difficult to assess.

According to the official Russian definition, 'military capability or power' is the ability to influence international politics either through forced demonstrations of this capability or through actual use of armed force (Westerlund, 2019, p. 18; Voenny entsiklopedicheski slovar, 2007, p. 134). There are a number of recognised definitions of a country's military capability, which argue that others factors, besides actual military forces, also

affect this ability, namely the country's political system, social and financial affairs, technology etc. In order to determine the capabilities of a country's military forces, one could use the NATO definition of combat power, which is '[t]he total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time' (NATO, 2019, p. 28). Combat power thus captures the armed forces' ability to conduct an actual operation against an opponent, whereas military capability describes its overall ability to influence international politics, and where both political, financial and military elements are important (West-erlund, 2019, pp. 18-19). All in all, a service or country's overall military capability can thus be defined as the military unit's combat power in connection with political and financial resources.

Russia's actions in Georgia in 2008, in Ukraine in 2014 and Syria in 2015 show that Russia is willing to use military force to achieve its political goals. They also show that the thus utilised military power could be translated into political power. Aside from achieving the set political goals, the effort in Ukraine also provided the Russian Armed Forces with useful experience in connection with the continued military reform process, as it allowed Russia to test equipment and units in battle (Poulsen and Staun, 2018, p. 267). Events in Ukraine also showed that Russia had difficulties supporting the war both logistically and with new units, despite the fact that it was merely a regional war of moderate intensity. At the same time, intelligence suggests that Russia, despite the limited scope of the conflict, had to make use of large parts of the country's military resources in order to provide units for the operation and not least to support it logistically (Sutyagin, 2017, p. 8).

In light of what Russia managed to do in Ukraine and the subsequent ongoing reformation of the Russian Armed Forces, it is relevant to ask how great Russia's military capability actually is. Russia considers the US and its NATO allies, one of its greatest threats. Should this also be true the other way around? According to the Danish Ministry of Defence, Russia is considered a threat as it has demonstrated a willingness to use military force to pursue its political goals (FMN, 2020). However, does Russia actually constitute a military threat to the Western world, NATO or countries bordering on Russia?

Reformation of the Russian Armed Forces

Following the war against Georgia in 2008, which showed various weaknesses in the Russian war effort, Russia acknowledged the need for extensive reform of its military forces if they were to appear credible and applicable. Analyses revealed various weaknesses and deficiencies in the armed forces, including an ineffective command system and poor coordination, failing communication and outdated equipment. This led to an extensive reform programme,¹ which e.g. involved replacing large parts of the old Soviet equipment with modern equipment and many of the conscription units with professional units. With these extensive reforms, Russia wanted to transform its military forces from a mobilisation system where volume was vital to a more professional military capable of deploying forces fast, effectively and flexibly in accordance with the surroundings and the political ambitions (Poulsen & Staun, 2018, pp. 141-145). An 'Active Defence' (FOKUS, 2020, p. 9), in the words of Chief of the Russian General Staff Valery Gerasimov.

Naturally, the Russian economy plays a vital role in reforming the country's military forces. A wish to transform a mobilisation system with outdated equipment into a modern, flexible and agile defence with up-to-date equipment of the scope facing Russia is both expensive and will require prioritising the defence budget over other parts of the state budget. Immediately after the dissolution of the Soviet Union, the Russian economy was under great pressure with GDP decreasing up until around 2000, when the negative development began to shift. Since 2000, Russia has thus managed to approximately double its GDP (Hansen, 2019). If we compare the increase in GDP with the share of GDP allocated to the defence budget, we can conclude that Russia has seen approximately a doubling of the defence budget in 20 years. Despite this increase, however, the country has had to lower its ambitions within a number of areas to secure the economy. The following chapters will look at how this has affected the different services and arms.

1. For more detailed analysis of the reform process, see Poulsen and Staun (2018, chapter 5).

Assessment of Russia's Total Combat Power

There are a lot of ways to view and assess the combat power of military forces, as various elements affect a given unit's ability to impact an opponent at a given point in time. E.g., the warfare cycle described in chapter two can be used to analyse and develop military units. The model provides a simple and systematic overview by dividing military forces into *doctrine*, *technology* and *organisation*. It is simple, intuitive and easy to use and separates some of the main elements of a military capability, which form the basis for its ability to fight (Jensen, 2004, pp. 10-12). *Education*, another main element of the model, binds together the three elements of doctrine, technology and organisation into a well-functioning and capable military capability (Lund, 2017, p. 5). It is thus, education that is responsible for linking the three elements and producing the overall military combat power.

The warfare cycle touches on the main aspects of military capacities, which affect their ability to deploy combat power. It thus enables us to analyse the military capability or combat power of the Russian Armed Forces. What is the Russian military doctrine and thus the Russian way of thinking when it comes to utilising military units? What is the technological level, condition and capacity of the available Russian military equipment? How is the military structured? In connection with these three areas it is also relevant to consider the level of education of the military forces in order to be able to assess their actual ability to conduct operations based on the given doctrine, technology and organisation. There are countless examples of prodigious military forces, especially in the Middle East (Egypt during the Six-Day War in 1967, Iraq during the 1990 Gulf War etc.), who have had/have at their disposal large amounts of modern equipment, well-structured organisations and well-tested doctrines for the deployment of their units, but which nevertheless have not been able to summon the combat power one would expect from a force of that size. This is due to lack of education and training in deployment and utilisation of the given capacities. Military capacities can be translated into actual combat power only if you know how to deploy and utilise your units expediently – a capability mainly acquired through education and training. It is therefore relevant also to consider the level of education of Russia's military forces.

The reform process has been characterised by a great focus on increasing the mobility mainly of the Russian ground forces to make it possible to move them to any desired location. The following chapters' analysis of the

individual services might therefore also consider the ability to move and subsequently deploy capacities (Sutyagin, 2017, pp. 16-20).

Doctrine – and Military Thinking

Present-day Russian military thinking is based on three elements: strategy, operational art and tactics. The elements are not new but can be traced back to around 1930, and subsequent Russian experience has been incorporated into these concepts on an ongoing basis. From a Russian perspective, strategy is the nature and rules of war, though it also includes preparation and conduct of strategic operations and future wars. Operational art, though, focusses on the theory and practice of preparing and conducting joint operations. Operational art thus links the strategic and tactical levels. Tactics is about preparations and the actual conduct of operations at the tactical level (Grau, 2019, p. 47).² Hence, as mentioned above, Russian military thinking is thus very similar to Western military thinking in this context.

Even though a lot has changed since the fall of the Berlin Wall, Russian military theory regarding conventional war is still shaped by the country's geography, history and military thinking. The Russian borders are the longest in the world, and it covers a huge area. Throughout history, Russia has been invaded by many of its neighbours. After the First World War, it lost Finland, the Baltic countries and Poland. Even though Russia had managed to reclaim some of these areas prior to the German invasion in 1941, its now increased strategic depth was not enough to prevent the Germans from taking Ukraine and making it as far as Stalingrad and Moscow. With the dissolution of the Soviet Union, Russia once again lost the Baltic countries, Belarus, Ukraine, Moldova and several more countries. In the ensuing vacuum, NATO expanded to the east, eventually reaching the Russian border (Dick, 2019, p. 2). The Russians thus feel that their buffer zone has been reduced, and it is in this context, among others, that we must consider Russian military thinking regarding its defence of the motherland.

In a strategic context, the main task of the Russian Armed Forces is to defend Russian territory (Russia, 2015, section 14). There is no concrete

2. For more detailed analysis of Russian military thinking, see Grau (2019) and Glantz (1986, 1991). These sources provide detailed insight into Russian military doctrine from the Soviet era till today.

indication that Russia is seeking large-scale war with a peer opponent such as NATO. Russian leaders are very much aware that their current resources are no match for the total resources of NATO (Boston, 2017, p. 1).

Unlike the Soviet era, when the armed forces were characterised by large units with a great degree of standardisation and thus predictability in terms of operational patterns and deployments, the present-day Russian forces are far more adaptable with regard to specific tasks. Russian experience from deployments in connection with the revolutions in North Africa and the war in Ukraine, among others, showed that the distinction between war and peace is no longer clear, but often blurred. This makes great demands on the military units participating in such conflicts. There are no standard solutions for conducting military operations at the operational and higher tactical levels. It requires a flexible military capable of adapting to the task at hand (USASOC, 2015, pp. 14-15).

Chief of the Russian General Staff Valery Gerasimov is striving to develop a so-called Active Defence. The concept, which is in tune with Russia's military doctrine, means that Russia through a combination of violent and non-violent measures aims to neutralise potential security threats to the country. Through Active Defence, Gerasimov has systematised the development of the military forces. This entails a focus on high readiness, mobility, coordination and concentration of firepower. The principles are based on 'prevention of war' through strategic foresight, enabling you to quell emerging threats, and 'preparation for war' by putting units in a state of readiness, being capable of mobilising units rapidly and supporting them logistically. Add to this the 'conduct of war' through the coordinated deployment of military forces, the keywords of which are surprise, decisiveness and continuity in the effort (NDC, 2019). In 2013, Gerasimov created a model that illustrates his understanding of the main phases of modern conflict development and the utilisation of both non-violent and violent measures in the different phases. The phases are: 1) Covert origins, 2) Escalations, 3) Start of conflict activities, 4) Crisis, 5) Resolution, 6) Restoration of peace. The utilisation of both non-violent and violent measures differs from phase to phase and depends on the situation in question. Military measures are primarily used in military operations in phases 4 and 5 for different purposes and possibly also in phase 6 during stabilisation operations. The changing utilisation and objectives hereof make great demands on the flexibility and adaptability of the military forces (USASOC, 2015, pp. 28-29).

The conflict picture painted here thus requires that Russia in the future establishes a unique military force from operation to operation. To be able to do so, all parts of the armed forces must be characterised by great flexibility, ensuring that units appointed for a specific task are able to work together across services and service branches. The above thinking has also meant that Russia, despite its declared defensive strategic intentions, has focussed significantly on developing offensive capacities for supporting efforts in more diffuse conflict environments (FOKUS, 2020, p. 41).

Organisation

The Russian military is under the command of President Vladimir Putin, who is Commander in Chief of the country's armed forces. This makes him the primary decision-maker and capable of controlling the armed forces in the event of crisis or war. The Minister of Defence, the General Staff, the Chief of Defence and operational headquarters (Glavnoye upravleniye operaciya – GOU) may help him run and develop the armed forces and manage security threats (DIA, 2017, pp. 24-25).

Overall, the armed forces are divided into three main services: the Army (Sukhoputnye Voyska), the Navy (Voenno-Morskoy Flot) and the Space and Air Force (Vozdushno-Kosmicheskie Sily). Add to these two independent arms: the Airborne Forces (Vozdushno-desantnye voyska) and the Strategic Missile Forces (Raketnye voyska strategicheskogo naznacheniya), which fall directly under the General Staff (Russia, 2020). In 2013, a Special Forces Command (Komandovaniye Sil Spetsialnykh Operatsiy) (RAND, 2019, p. xxii) was established and made responsible for all special forces, including those previously commanded by the Army, the Navy and other authorities, including civil ones. This too is directly subordinate to the General Staff, and it plays a main role in Russian hybrid warfare (Poulsen & Staun, 2018, p. 148).

As previously mentioned, the war against Georgia in 2008, among others, revealed that the Russian forces suffered from an ineffective command system and poor coordination, which impeded the effective deployment and effect of the armed forces (Poulsen & Staun, 2018, p. 143). Unclear command structures and poor coordination did not accord with Russia's wish to be able to deploy units from all services and arms established specifically for the task in question and capable of working in complex, unpredictable

environments. Russia wanted to be able to conduct so-called joint operations involving components from several services and arms under a single command. The services used to be limited to their own individual structure and to refer directly to the supreme headquarters. During deployments, this made it difficult to coordinate efforts with the other services, as such coordination had to pass through the supreme headquarters. This type of structure would be appropriate for a mobilisation army focussing on the establishment and deployment of very large forces in a relatively predictable scenario. Flexible deployment of smaller units put together specifically for the task at hand, on the other hand, requires a more flexible command structure, where coordination of deployment is conducted at a lower level under joint command.

The objective of joint operations is greater integration of the deployment of the individual services to make sure their capacities contribute as well as possible to solving the overall task. This is done at the 'operational level' (HRN, 2016, pp. 103-108) which, according to NATO, is 'the level at which campaigns and major operations are planned, conducted and sustained to accomplish strategic objectives within theatres or areas of operations' (NATO, 2016, section 0124). The various services must be able to rapidly and efficiently 'speak together', share intelligence and subsequently coordinate deployments to make the total impact on the opponent as great as possible. In 2010, Russia therefore implemented a Strategic Joint Command Structure (*Obedinonnye Strategichskoe Komandovanie – OSK*) (DIA, 2017, p. 14) with command structures capable of commanding all the services and thus making it easier to conduct joint operations. Russia converted the previous six military districts into four OSKs. In 2015, it established a fifth district covering northern Russia, focussing specifically on the Arctic. Unlike the previous military districts, which mainly operated with ground forces, the new commands commanded all types of units from the three services stationed in or deployed to their area of responsibility (Poulsen & Stau, 2018, p. 147). This makes Russia better equipped to conduct joint operations at the operational level in specific operational areas, which is the purpose of this level. The Russian OSKs can be compared to the US Geographical Combatant Commands whose regional responsibility is defined by an area of responsibility; they are in command of any forces present in this area and may use them in operations (USAF, 2017, ch. 3, section 12). The term 'military district' is still used for historical reasons to describe geographical areas, whereas the command is termed OSK (DIA, 2017, p. 27).

The introduction of such commands has simplified the Russian command structure, which has become more flexible and agile and thus capable of meeting the increased demand for fast, flexible and coordinated deployment.

Poor communication can make it difficult to deploy and command military forces. Based on the wish to conduct joint operations, it was therefore necessary for the Russian Armed Forces to establish a new command, control and communication system. Deploying military forces in a fast, flexible and situational manner requires a command, control and communication system, which is largely based on cyberspace connections. Russia is fully aware of the dilemmas associated with building such a modern cyberspace-based system. On the one hand, they wish to exploit the many technological opportunities provided by cyberspace. On the other hand, cyberspace is one of the first domains to be affected by modern-day conflicts, and there is a risk that systems are being watched, are unstable or become paralysed, e.g. due to hacking. The systems should therefore exploit the many technological opportunities available, but also be so robust that they will remain operational even if parts of them become paralysed. Russia has six focus areas regarding its command, control and communication system: centralisation, redundancy, geographical dispersion, security, reliability and ability to handle 'worst cases'. Centralisation is achieved via strict control on the part of the president as commander in chief. Redundancy is achieved by introducing various self-contained systems at the different levels capable of supplementing and replacing each other in the event of an outage. Geographical dispersion ensures survival and reduces the vulnerability of the system by rendering individual parts harmless. Security is achieved through a focus on constant upgrading to the latest security systems. Reliability is achieved through education and training exercises to test the systems. The system is structured in such a way that it is expected to survive a nuclear attack, which is considered the 'worst case' (DIA, 2017, p. 26).

Transforming the ineffective and unreliable mobilisation system of the Soviet era, which was based on large numbers of conscripts, into a more agile system also required changing the manning composition towards increased use of professional soldiers. Professional soldiers are better trained and better armed, resulting in greater combat readiness compared to units comprising largely of conscripts, which first have to be drafted and armed and, not least, trained or have their military skills brushed up – all of which

speaks against fast, flexible deployments. This, and the fact that many Russian units used to suffer from constant manning shortages and thus could not be deployed at short notice, has led Russia to make significant changes to the composition of units towards greater professionalisation.

The manning of the Russian Armed Forces is a much debated topic. Low manning figures, corruption and diverse methods of calculation have made it difficult to arrive at exact figures both for the past and present manning of the Russian Armed Forces. In a report from 2019, the Swedish Defence Research Agency provides a very objective (though not indisputable) picture of the development in manning over the past years. It is argued in the report that the Russian Armed Forces comprised 1,135,000 positions in 2013 of which only 773,000 were filled. 220,000 of these were professional soldiers, 303,000 were conscripts, and the rest were officers and commissioned officers. In 2019, this had changed to 1,014,000 positions (reduced by 121,000) of which 934,000 were filled (increased by 161,000). Despite the reduction in positions of 121,000, the armed forces had nevertheless managed to increase its manning by 161,000 soldiers, which clearly demonstrates that it used to struggle with substantial undermanning and hence lacked the ability to deploy units at full strength. The Russian Armed Forces have thus reduced their number of positions while successfully managing to fill more of the available positions, resulting in a significant general increase in manning over the six-year period. The main reason for the manning increase is the decision to increase the share of professional soldiers from 220,000 to 394,000, while only reducing the number of conscripts from 303,000 to 267,000. The total number of officers and commanding officers has remained more or less unchanged, with a slight increase in officers from 200,000 in 2013 to 220,000 in 2019. Despite these improvements in manning, though, the armed forces are still undermanned with close to 80,000 vacant positions. The ambition is to increase the number of professional soldiers with another 82,000 to 476,000 by 2025 and reduce the number of conscripts by 47,000 to 220,000 (Westerlund, 2019, pp. 23-24). It is an ambitious plan, which is challenged by demographic issues as low birth rates in the late 1990s and early '00s have resulted in a smaller cohorts of 18- to 27-year-olds in the period 2021-2025, and it is from this group that most soldiers are recruited (RAND, 2019, p. 41).

Technology

According to a so-called May Decree issued by Putin in 2012, Russia aimed to increase the amount of modern equipment available to the armed forces to 70 per cent by 2020 (Poulsen & Staun, 2018, p. 146). According to the Russian Ministry of Defence, 'modern means a type of armament which is not inferior or superior to the best analogous foreign types in its combat, technical, and usage characteristics, or does not have foreign analogues' (RDP, 2017). The armament programmes of the 1990s, intended to raise the level of Russia's outdated and neglected equipment pool, had failed. A new modernisation programme 2011-2020 involving substantial investments was meant to change that. Initially, ambitions for the technological development were high, as the beginning of the process saw rapid development of new technology within a number of areas. Much of the Russian technology was updated to match or, in some areas, even outmatch equivalent Western equipment. However, Russia did not have the financial resources to fulfil all of its high ambitions of introducing brand new technology within all areas. In recent years, the country has therefore been forced to either postpone planned programmes or to upgrade and modernise existing Soviet equipment (FOKUS, 2020, p. 46).

Lacking funds was not the only obstacle facing the armament programmes, though. They have faced other challenges too, including challenges involving the capacity of the weapons industry. Production was not sufficiently efficient, and the production and thus procurement of equipment turned out to be more expensive than expected, which has led to reductions in either quantity or quality, eventually resulting in an inability to complete the planned armament programme. To render the armament programmes as efficient as possible, Russia has established a Military-Industrial Commission (Nezavisimoye Voennoye Obrozeniye) which coordinates state procurement as well as research, development and production. Since 2014, the commission has been governed directly by Putin as chairman. This gives Putin direct insight into and the ability to make sure the programmes run according to plan, which reflects the high priority given by the president to this programme (Poulsen & Staun, 2018, pp. 151-152).

The ambition of transforming the Russian Armed Forces from a mobilisation system, with large amounts of units and equipment, into a collection of fewer, modern, high-technology units has been challenged by various

elements. The aim of achieving a large share of modern equipment has placed demands on the Russian weapons industry for providing such equipment. This became especially difficult after the Ukraine conflict. The loss of the country's previous collaboration with the Ukrainian weapons industry combined with the import sanctions introduced by the EU and US on a number of high-technology products meant that the Russian weapons industry had to adapt and produce the new technology itself. However, this takes time and requires specialist expertise (Poulsen & Staun, 2018, p. 152).

In terms of technology, though, Russia has one advantage over its potential opponents in the West. NATO consists of many different nations, each with their own plans for the technological development of their armed forces. This can make it difficult for the many high-technology systems to communicate with one another and thus achieve a high degree of efficiency. It is a constant challenge with which NATO has been struggling for many years now, and will continue to struggle with in the years to come. Russia does not face the same challenge because it consists of a single country whose management, on behalf of all of its military forces, can decide in which technology to invest. It can make specific demands with regard to specifications and compatibility to make sure the technologies can communicate with one another and thus achieve a greater overall effect. This also includes the country's command, control and communication systems. Here Russia has been successful in building a coherent system with a high degree of cohesion between both modern and more analogue communication equipment and thus the opportunity for coordinated deployment of its total capacities (DIA, 2017, p. 26).

Education and Training Exercises

The Russian Armed Forces' transition – from being mainly conscript-based to now consisting of a much larger share of professional soldiers, also at the lowest level (privates) – has created a basis for significantly raising the overall level of education. Conscript-based units more or less have to start over, at least at the lower levels, each time they receive a new group of conscripts, as the training activities will be new to the majority of the soldiers. This makes it difficult to raise the units' total level of education above a certain level, as they are constantly forced to start over again. Although

professional units also see some degree of manning rotation, they are nevertheless characterised by greater continuity, as the soldiers generally remain in the respective units for much longer than conscripts do. This makes it possible to build on their training and experiences from the last exercise or activity and thus raise the overall level of education in the unit. This in itself results in increased combat power among the new professionalised Russian units, and this is achieved without necessarily changing the organisation (aside from professionalisation), adding new technology or adjusting the doctrine. Raising the level of education increases a military force's ability to adapt to the situation at hand, resulting in greater combat power.

Since 2009, Russia has as in the past conducted a series of large-scale training exercises at both the strategic and operational levels of which 'Vostok-2018', allegedly with as many as 300,000 soldiers, was the largest in 40 years. Among other things, these training exercises have been used to demonstrate Russia's ability to manifest a very large, coordinated military effort in a specific geographical area at short notice. Another equally important objective of these large-scale exercises has been to train the military districts, which with the reforms went from being responsible mainly for the ground forces to conducting joint operations with components from each service (Westerlund, 2019, p. 25). The aim is to raise the level of education at the operational level, thus increasing the armed forces' total combat power. And Russia has seen some development in this area, as is evident from a Norwegian intelligence report from 2020, which finds that training activities in 2019 have shown that the Russian Armed Forces have become more dynamic and increased their ability to adjust the deployment of units to the situation in question (FOKUS, 2020, p. 10).

Analysis of the Individual Services and Arms

During the Cold War, the Soviet Union enjoyed significant superiority in e.g. the number of combat vehicles, fighter aircrafts and other vital military equipment. However, in the West some voices argued that the standard and technological level of many Russian combat vehicles and fighter aircrafts was significantly lower than that of their Western counterparts. The belief was therefore that the West would be capable of countering and winning a conventional war against the Soviet Union. Fortunately, this was never put to the test. Since the end of the Cold War, many countries on both

sides have significantly reduced their defence budgets, which is assumed to have led to a significant reduction in military capability and combat power on both sides. Now Russia has begun to rearm itself, though, and the country's decision-makers are very open about the fact that their great power ambitions also include military prowess. How strong has the Russian military become? Does it constitute an actual threat to the West? Should we be afraid of the Russians and their military capability and combat power? To answer some of these questions, the following chapters will analyse the individual services and arms in more detail. Where possible, the chapters have been structured in the same way, first providing an analysis of the service or arms in questions before offering an assessment of Russia's total combat power. Besides the three services, the chapters also explore the country's nuclear and cyber capabilities as well as its use of private military companies – all of which contribute to Russia's overall military capability.

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CHAPTER 7

From Rusty Neglect to Well-Oiled Machine – The Resurrection of the Russian Army in the Years 2008-2020

By Thomas Nyholm Jørgensen

Introduction

Following the Russo-Georgian War in 2008, then Minister of Defence Sergey Serdyukov launched a reform programme intended to lead the Russian Armed Forces out of the Soviet era and into the 21st century. It focussed on improving the existing command and control structure as well as changing the personnel structure towards greater professionalisation and fewer conscripts, thus raising the level of education and training. At the same time, an extensive modernisation and armament programme was introduced to modernise 70 per cent of the available equipment towards 2020 (Cooper, 2016).

Russia's behaviour along the borders of the Baltic countries has given rise to growing concern, and the West's response has been to establish NATO's enhanced Forward Presence (eFP) in the Baltic countries and Poland. The objective of eFP is to strengthen NATO's deterrence and defence profile and to respond to the insecurity resulting from i.a. Russia's annexation of the Crimea, its actions in east Ukraine and the complex security situation in the east (Forsvarsministeriet, 2020).

Since 2018, Denmark has contributed to Enhanced Forward Presence (eFP) with as many as 200 soldiers placed in Estonia, where they form part of a UK-led multinational battalion battle group. For the first time in modern times, Danish soldiers have thus been deployed against Russian units. Russia's land military capability and Danish defence planning are therefore closely connected. In-depth understanding of the potential of the Russian Army is a prerequisite for organising, arming, staffing and training Danish units to form an active part of NATO's collective deterrence and defence.

This chapter aims to contribute to an assessment of the Russian Army's military capability in selected areas and thus contribute to increased understanding of Russia's current military capability.

Initially, the chapter provides a research review before exploring Russian military doctrine and thoughts on war. It then turns to Russian warfare at the tactical level and the structure of the Russian Army. Then follows a section on how the Russian Army prepares for war by studying selected training exercises. We next take a look at the equipment available to the army and possible development trends within this area before exploring the availability of qualified personnel and the infrastructure and facilities supporting Russian Army operations. Finally, the conclusion summarises the content of the chapter.

Literature Review

This chapter is based on document analyses of a number of open sources. Classified sources and documents have not been included in the survey. The sources consist of a combination of official Russian documents and websites and a series of detailed reports produced by more or less government-supported think tanks.

For a description of the Russian Armed Forces and their ground units in general, see the Ministry of Defence of the Russian Federation (2019), Defence Intelligence Agency (2017), Global Security (2020) and International Institute for Strategic Studies (2020). The sources provide a numerical and general description of the forces of the Russian Army.

For detailed insight into how the Russian Army's current capabilities are structured for war and how they intend to go about this, see Grau and Bartles (2016), Westerlund and Oxenstierna (2019), Dick (2019) and Radin et al. (2019). These sources provide an in-depth introduction to how

Russian Army units are organised, with which weapons systems they are equipped, and how they plan to deploy them. They build on historical analyses, though especially Radin attempts to conjecture about future developments. Thomas (2019) provides a more detailed study of the development of capabilities.

Of the think tanks focussing specifically on Russia, and which have published a number of reports, we recommend the Foreign Military Studies Offices (FMSO), FOI, Royal United Service Institute (RUSI) and RAND. Especially the publications by the FMSO are useful for gaining a deeper understanding of Russian military thinking and how it has shaped their approach to present-day military operations. In selected areas, the FOI reports offer detailed insight into Russian military capabilities and conjecture about their future development. Finally, the RAND reports provide detailed descriptions of current and future possibilities regarding the technological development of Russian military capabilities.

For a more detailed introduction to Russian military thinking, see Grau (2019) and Glantz (1986, 1991). All three provide a detailed introduction to Russian military doctrine as far back as the Soviet era. For more on Russian military thinking, also see Thomas (2019) and *Voennaya Mysl* (Russian Defense Ministry, 2020).

Actual Russian military doctrines at operational and tactical levels are not as openly available as e.g. NATO, UK or US doctrines. Russia furthermore has a different hierarchy for doctrines than the West. Russian military doctrine thus comprises what we in the West would refer to as strategy, whereas actual doctrine, which also covers tactics, belongs under what the Russians refer to as military art. Current doctrine at the tactical level is not readily available, and an assessment of the capabilities of the Russian ground forces must therefore be based on observations of training exercises, operations etc.

It should be stressed that the data used has its limitations; for instance, some of the main sources are in English. One should therefore be aware that Western researchers sometimes tend to refer to each other, which leads to circular reporting.

This chapter will focus exclusively on the capability of the Russian Army. Though the Western world has seen much debate about a potential return to large-scale war, hybrid warfare and other types of asymmetric warfare – a debate that is still ongoing – this chapter will explore the Russian Army's capability with regard to large-scale war only.

Russian Military Doctrine – Russian Thoughts on War

Russian military doctrine is thus at the very top of the hierarchy of military science, dealing with military history, military art, organisation, education and training, and economy. Of interest to this chapter is military art, which covers theories on and how to conduct armed conflict (Glantz, 1991, p. 3).

Western studies of Russian operations on the Crimea, in eastern Ukraine and in Syria have led to assumptions about how Russian units will fight in future wars. Western concepts such as hybrid warfare, new generation warfare, non-linear warfare etc. have helped support these assumptions. This does not necessarily mean that the Russians will adopt the same approach in a new war. In Russian military-theoretical circles, the study of war and the inconstant nature of war has long been a subject of study and debate, and it is widely accepted that each war is unique. This suggests that future conventional wars will not be conducted in the same way as Russia's latest operations. This is supported by a speech given by Gerasimov in 2019, in which he argued that the Russian Armed Forces should be ready to conduct new types of war and armed conflict using classical methods (International Institute for Strategic Studies, 2020, p. 179).

The current military doctrine describes in detail Russia's view of NATO and its eastward expansion, which is considered a threat to the Motherland. The development of the armed forces is considered a main element in Russia's efforts to conduct deterrence and prevent future conflicts. And Russia's threat perception is therefore directly connected to the army's current capability build-up, focussing specifically on the ability to conduct large-scale war, as is evident e.g. from training patterns.

The Russian Art of War – How Do They Fight?

In the 1930s, Russian military-theoretical circles were divided between two schools. The first school, here referred to as the offensive school, was headed by Marshal Mikhail Tukhachevsky and claimed that future wars would be all about mobility and firepower. The enemy should not be allowed to enter the Motherland, and in the event of an attack, the armed forces should launch a series of counterattacks against the enemy's own territory. The second school, the defensive school, was headed by General Aleksandr Svechin. He argued that the defensive approach was the only

real path to victory. This was best done by using the country's depth to scatter the enemy forces and then, once the enemy's attack had culminated, launch a decisive counterattack. Gerasimov often quotes past Russian military thinkers, and Svechin is one of the most popular ones these days, regardless of his emphasis on offensive capabilities, which should then primarily be perceived as counteroffensive (Grau, 2019, p. 47).

Russia's experiences from the Second World War were hard won: more than 26 million killed of which more than eight million were soldiers (Ellman & Maksudov, 1994, p. 672). Based on these experiences, Russia decided never again to accept such casualties, which among other things involved never again letting the enemy penetrate Russian territory (Grau, 2019, p. 46). During the Cold War, any confrontation, which escalated to actual conflict, would lead to immediate mobilisation and deployment of NATO units against Russian units. The combat power relation would soon develop in favour of the West, and a Russian offensive operation could not be certain of success. Based on these experiences, the Russians concluded that they would have to achieve their tactical and operational goals in the first part of the war, before the West had a chance to conduct mobilisation and deployment. These concepts are believed to be just as relevant today as they were during the Cold War.

From a Russian military-theoretical perspective, conventional war is about deploying larger units, e.g. divisions and corps. Russia's conceptual approach to conventional war should therefore be seen in light of its experiences from the Second World War, where Russia won the war against Germany at the operational but not tactical level. At the tactical level, the German units were superior to the Russian with regard to doctrine, organisation and technology, and they thus won the battles, whereas Russia won the operations and campaigns, among other things by being superior in numbers. However, Russia's conceptual approach to a future conventional war has matured somewhat since the time when mass armies would meet on the battleground and the focus was unequivocally on numbers. The current operational environment, characterised by fewer units and a larger area of operation, has made it impossible both for Russia and for the West to establish a coherent front (Dick, 2019, p. 8). For the Russians, though, this makes it possible to launch operations directly from the units' garrisons, making it easier to achieve surprise. This also means that future conventional wars will be characterised by manoeuvre warfare and fragmented battlegrounds, where units will amass force by meeting in time and space,

arriving from various locations and along several attack axes, in a form of meeting engagement. To support such manoeuvres, the Russians have given priority to building a modern, effective and layered air defence, which includes a tactical air defence supporting ground forces and a strategic air defence protecting critical Russian infrastructure against attacks. This leaves the opponent with great dilemmas, while giving Russian units on the ground an advantage. A third element – aside from air defence and artillery – is extensive capabilities for electronic warfare (Bronk, 2020, p. 19).

The tactics adopted at the operational level will also affect how wars are conducted at the tactical level. Instead of units standing shoulder to shoulder in set defensive positions, modern battle will be characterised by more depth, mobility and manoeuvres than previously. Nevertheless, Russian tactics will continue to be based on superior fire support from indirect weapons systems, improved Intelligence, Surveillance and Reconnaissance (ISR) systems, as well as speed and surprise, as an integrated part of its combined arms manoeuvre (Grau & Bartles, 2016, p. 41). Russian units would not willingly enter into a confrontation with an equal opponent, but do everything in their power to make sure the battle was fought on their terms. They would use manoeuvre to find and fix the opponent and thus establish a basis for using indirect fire support to combat the enemy. Various systems such as sensors, ground-based surveillance radars, electronic warfare units and tactical unmanned drones would be used to isolate targets, especially command installations and large formations of combat units. The Zelenopillya artillery attack is a good example of the latter. Here two Ukrainian mechanised battalions were caught in the open, and most of their armoured vehicles were defeated in less than two minutes through a combination of artillery and rocket launchers armed with top-attack ammunition and thermobaric warheads (Karber, 2015, p. 36).

The Russian art of war is shaped by the country's geography, history and current threat perception. Since the launch of the military reforms back in 2008, the development of the art of war has focussed on large-scale war. New technology, equipment and experiences have helped refine especially the armed forces' operational art and tactics of which especially the latter has been evident from the Russian operations in Ukraine and Syria. It still remains to be confirmed, however, whether their military strategy and operational art will resemble the one of the Soviet era, or if that too has been refined.

How are the Russian Armed Forces Structured for War?

The current operational environment, characterised by the ability to move from peace to armed conflict at great speed, requires a command structure that is capable of conducting large conventional operations at short notice. A main part of the Russian reform process, is therefore involved in changing the command structure and the tactical units with a view to facilitating more independent action and fast deployment.

The Russian Army, *Sukhoputnye Voyska*, with around 280,000 soldiers, constitutes the Russian Armed Forces' greatest service (International Institute for Strategic Studies, 2020). Its primary task is to repel enemy attacks on the ground, defend Russian territory and safeguard national interests (Ministry of Defence of the Russian Federation, 2020).

The Russian Army comprises the following types of arms: mechanised infantry, armour, rockets and artillery, and air defence. Common to them all is that they use their weapons systems actively against the enemy. The Army includes combat units, which consist of mechanised infantry and armoured units, i.e. the ones who engage the enemy directly in battle. The combat support services comprise rocket and artillery units responsible for providing fire support in the form of artillery, rocket artillery and surface-to-surface missiles. Finally, the air defence units provide defence in the form of anti-aircraft missiles, anti-aircraft artillery, anti-aircraft guns and anti-aircraft missile systems (Ministry of Defence of the Russian Federation, 2020).

The support troops comprise reconnaissance, signal, electronic warfare, engineer, chemical, biological, radiological and nuclear (CBRN) as well as other units (Ministry of Defence of the Russian Federation, 2019). Reconnaissance units supply the decision-makers with information on the location of the enemy, the characteristics of the terrain and the weather. Engineer units make mobility-increasing and/or -impeding as well as survival contributions, whereas CBRN units provide defence against the effects of chemical, biological or nuclear weapons. Electronic warfare units are used to counter the enemy's electronic systems and thus defeat him asymmetrically. In addition, logistics elements offer the units logistical support, either as support from logistics units or from workshops and depots in Russia (Defense Intelligence Agency, 2017).

The restructuring of the command structure in connection with the 2008-2009 reform process meant that Russia's previous six military districts

were reduced to four: a western, a southern, a central and an eastern military district. In December 2014, a northern joint command was added. Each military district has operational control over all services located within the given area. The units of the Russian Army are based in geographical locations throughout all five military districts.

The combined arms armies act as the link between the military districts and the brigades and divisions. Today, the Russian Army consists of 12 combined-arms armies. The combined-arms armies perform operational and administrative functions as tactical headquarters. A combined-arms army can consist of two to four brigades, usually mechanised infantry brigades, in rare cases combat vehicle brigades, besides rocket and artillery, anti-aircraft, engineer, reconnaissance, CBRN, signal and logistics units. Today the Russian Army only has a single armoured army based in the western military district. Like the other combined-arms armies, it serves both an operational and administrative function as tactical headquarters. It consists of an armoured division, a mechanised infantry division, an armoured brigade, as well as combat support and logistics units (Grau & Bartles, 2016, p. 30).

Russia's reintroduction of divisions into the Army organisation has led to speculation. Increased tension between NATO and Russia and the risk of conventional war involving operational manoeuvres requires robust units that have the necessary combat power and can be deployed independently. Divisions meet these requirements. This reorganisation is evident from Russia's transition from a structure mainly centred around the brigade to a structure consisting of both brigades and divisions. Both are capable of operating independently. The difference is that brigades are more agile and can be deployed faster across Russia, whereas divisions are larger, have greater combat power, but require more resources to move. A Russian mechanised infantry division consists of around 8,500 soldiers, whereas an armoured division consists of only 6,500 soldiers (Radin et al., 2019, p. 70). Unlike Western organisations, both types of units are directly subordinate to a combined arms army, and brigades are therefore not subordinate to divisions, a typical Western structure. In the Russian Army, divisions are expected to comprise three mechanised infantry regiments and one combat vehicle regiment as well as combat support and support units – or the other way around, if we are talking about armoured divisions (Grau & Bartles, 2016, p. 33).

The primary battle formation of the Russian Army is the brigade, also known as a combat team. It will either be organised as a mechanised infantry brigade or as an armoured brigade. Mechanised infantry brigades include: three mechanised infantry battalions, one armoured battalion, two self-propelled howitzer battalions, one rocket launcher section, two anti-aircraft battalions, one engineer battalion, one reconnaissance battalion, one antitank section and companies comprising electronic warfare, drones and CBRN. Armoured brigades include: three armoured battalions, one mechanised infantry battalion and no antitank section. Mechanised infantry brigades consist of around 3,000-4,500 soldiers, whereas armoured brigades consist of only 3,000 (Grau & Bartles, 2016, p. 31). Due to their size and organisation, brigades can therefore be deployed independently and conduct independent operations.

The type of unit to have attracted most attention in the West is probably the battalion tactical group (BTG). The BTG is a battalion established for a specific task, and which can be mobilised, deployed and inserted independently. Readiness is an important feature of the BTGs. Most, if not all, brigades have one or two BTGs fully manned by professional soldiers capable of deploying at very short notice, sometimes within just two hours, and they can thus solve some of the brigade's most demanding tasks (Westerlund & Oxenstierna, 2019, p. 29). An example of a BTG composition, identified in eastern Ukraine, is as follows: one mechanised infantry battalion, one armoured squadron, two to three artillery batteries, including rocket launchers and guns, one anti-aircraft element and various other support units in the form of engineers, Intelligence, Surveillance and Reconnaissance units (ISR) etc. (Crane, Olikier & Nichiporuk, 2019, p. 32). Such compositions make BTGs ideal for solving minor tactical tasks, as evident from their utilisation in eastern Ukraine. However, in the context of conventional war with NATO, the BTG is probably not robust enough as an independent unit. In conventional war, BTGs are likely to be deployed as an advance party or spearhead of the brigade's advance.

As evident from the above review of Russian ground units, the principles of combined arms are used both in the organisation of units and during deployment. Combined arms should thus be understood as the synchronised and simultaneous deployment of several arms in order to achieve an effect on the enemy that is greater than if the arms were deployed separately. The forces are thus composed in a way that both makes up for their weaknesses and exploits their strengths (NATO, 2019, p. 26).

The combined arms principles are also used by Western units within both organisation and deployment.

The organisation of Russian units differs from Western units in other respects. Russian brigades generally include fewer manoeuvre units; instead, they hold greater fire support capability in the form of artillery, rockets and mortars. This composition also reveals that the Russians balance fire and movement differently than Western units in the context of manoeuvre-based warfare. A one-to-one relation between manoeuvre units and fire support units is typically not uncommon. Russians use manoeuvre to locate and fix the enemy and, subsequently, fire support to neutralise him. Russian units also differ from Western units by integrating ISR, anti-aircraft and electronic warfare capabilities as far down the hierarchy as BTGs. In the West, a lot of these capabilities are based at the joint level (Radin et al., 2019, p. 33).

The Russian Army's primary combat power is centred around mechanised infantry divisions and brigades as well as armoured divisions and brigades, which can be deployed independently, most likely as part of a combined arms army. Even though Russia's overall military doctrine is defensive by nature, the Army organisation ensures that it is ready to conduct conventional war (with NATO) at short notice. Russia is preparing to defend itself against a NATO attack, and if the actual fighting is conducted outside Russian territory, it is merely an advantage. Table 7.1 provides an overview of the units.

Table 7.1. Overview of the units of the Russian army. The information is based on data from the International Institute for Strategic Studies (2020), Westerlund and Oxenstierna (2019), Kjellén (2018) and Global Security (2020).

	Total	Western MD	Southern MD	Central MD	Eastern MD
Combined-arms army headquarters	12	3	3	2	4
Combat units					
Armoured units					
Divisions	2	1		1	
Brigades/regiments	2	1			1
Mechanised infantry units					
Divisions	7	3	2		2
Brigades/regiments	23	3	5	7	8

	Total	Western MD	Southern MD	Central MD	Eastern MD
Reserve brigades	13	2		3	8
Foreign garrison	3		3		
Rocket and artillery units					
Surface-to-surface missile brigades	11	3	2	2	4
Artillery brigades/regiments	14	4	3	3	4
Anti-aircraft units					
Brigades/regiments	15	3	4	3	5
Combat support units					
Reconnaissance units					
Brigades/regiments	2	1	1		
Engineer units					
Engineer brigades/regiments	4	1	1	1	1
CBRN defence units					
CBRN brigades/regiments	15	3	3	4	5
Electronic warfare units					
Electronic warfare brigades	5	1	1	1	1
Logistics units					
Logistics units					
Logistics brigades/regiments	10	2	2	2	4

How Do the Russian Forces Prepare for War?

As evident from the military doctrine, Russia considers the US' and NATO's eastward expansion a threat. Training exercises and stationing of NATO units close to Russian borders support Russia's perception of the situation. In order to meet this threat, the country has developed a special defence concept called Active Defence. It was launched in 2019 and includes focussing especially on high readiness, mobility, good coordination and utilisation of massive firepower (Norsk Efterretningstjeneste, 2020, p. 41). Based on the Russian threat perception, experiences from deployments and the Active Defence concept, the armed forces have continually sought to improve the quality of their units through training exercises, both in terms of size and complexity.

The Russian Army's exercise cycle is divided into a summer and a winter rota. Both periods allow for conscripts to participate in the training, and the exercises cover the levels from group to brigade. The winter training periods typically culminate with division and combined arms army

exercises, whereas the summer periods end with a joint strategic exercise. After the Russo-Georgian War in 2008, Russia reintroduced strategic joint exercises as well as readiness exercises with an aim to prepare and controlling the capabilities of the Army and the other services. These strategic joint exercises rotate between the five military districts and usually focus on a threat in one of Russia's strategic directions. In addition, they represent the culmination of the preceding summer training period. Readiness exercises are usually incorporated into the strategic exercises, but are also conducted separately as inspections. The purpose of the strategic exercises is to practise and test the readiness of the individual joint strategic commands, whereas the readiness exercises serve to assess the readiness of units (Norberg, 2018, p. 32).

Joint strategic exercises usually consist of the following stages: preceding readiness inspection of selected units, planning, several military districts on high alert, deployment of units from peacetime garrisons to area of operation, formation followed by tactical deployment, live firing and, finally, evaluation. Aside from training coordination between the services and cooperation of internal Army units, the exercises also contribute to testing and practising new tactics, techniques and procedures. Incorporation of experiences from Ukraine and Syria and the utilisation of new technology and equipment also constitute principal elements of the exercises. The joint strategic exercises thus help assess the services' ability to conduct inter-state conflicts and conventional war, as defined in the military doctrine (Norberg, 2018, p. 49).

Analysis of the strategic exercises conducted in the period 2015-2019 (see the table below) reveals a clear development in purpose, size and complexity of the exercises. Common to all exercises in the period is an aim to test the units' level of readiness, practise command and control during large, conventional operations, practise mobilisation and operational-strategic deployment of units and equipment across large distances and, finally, test new procedures and equipment. This pattern clearly indicates that Russia is training its forces to conduct large, conventional operations.

A permanent element in the strategic exercises has been to test selected units' level of readiness, both prior to the exercises, but also often during exercises. In addition, the five-year period has seen an increase in the number of separate readiness inspections. Exercises and inspections thus range from counting equipment and personnel to calling up, dressing, arming and deploying reservists. The increased attention to readiness has, all

things considered, increased the units' readiness and thus their capability for deployment at short notice.

To be able to conduct large, conventional operations it is important to be able to efficiently command and control all units and thus ensure optimal synchronisation and utilisation of all available resources. The strategic training exercises conducted in the period 2015-2019 have involved all the services, and this has given them a chance to practise coordination across the services and cooperation within the individual services. Concurrently with the strategic exercises, the Russians have conducted separate exercises focussing on relevant headquarters' ability to handle several conflicts at the same time. In addition, the period has seen a steady increase in the size and complexity of exercises, which clearly indicates that Russia is training its ability to conduct large-scale war (Norberg, 2018, p. 47).

Since 2009, the Russian Army has conducted annual exercises covering the strategic and operational levels. Up until today, the exercises have continued to increase in size and complexity, and they are expected to have helped raise the units' level of readiness and increase their mobility and doctrinaire capabilities. Table 7.2 provides an overview of the exercises.

Table 7.2. Overview of the annual exercises of the Russian army. The information is based on data from McDermott (2015, 2016, 2018, 2019) and Kabanenko (2017).

	Tsentr	Kavkaz	Zapad	Vostok	Tsentr
	2015	2016	2017	2018	2019
Strategic direction	Central Asia	South	West	East	Central Asia
Purpose of the exercise	<ul style="list-style-type: none"> - Command and control - Joint operations - Testing level of readiness 	<ul style="list-style-type: none"> - Command and control - Joint operations - Testing level of readiness - Mobilisation - Testing new equipment 	<ul style="list-style-type: none"> - Command and control - Inter-operability 	<ul style="list-style-type: none"> - Command and control - Joint operations - Moving units 	<ul style="list-style-type: none"> - Command and control - Testing readiness - Inter-operability

	Tsentr	Kavkaz	Zapad	Vostok	Tsentr
	2015	2016	2017	2018	2019
Command and control	<ul style="list-style-type: none"> - Central MD - Southern MD - Caspian Flo-tilla - Airborne units - Air transport of units 	<ul style="list-style-type: none"> - Central MD - Black Sea Fleet - Caspian Flo-tilla 	<ul style="list-style-type: none"> - Western MD - Southern MD - Central MD - Northern Fleet 	<ul style="list-style-type: none"> - Eastern MD - Central MD - Northern Fleet - Airborne units - Air transport of units 	<ul style="list-style-type: none"> - Central MD - Caspian Flo-tilla - Parts of the eastern MD - Airborne units - Air transport of units - Foreign units
Personnel	95.000	12.500	12.700	300.000	128.000
Equipment	<ul style="list-style-type: none"> - 7,000 vehicles - 170 aircraft - 20 vessels 		<ul style="list-style-type: none"> - 70 aircraft and helicopters - 250 combat vehicles - 200 artillery pieces and rocket launchers - 10 vessels 	<ul style="list-style-type: none"> - 1,000 aircraft and drones - 80 vessels - 36,000 combat vehicles and other vehicles 	<ul style="list-style-type: none"> - 600 aircraft - 15 vessels - 250 tanks - 450 infantry fighting vehicles and personnel carriers
Observed elements of the exercises	<ul style="list-style-type: none"> - Testing the command and control system Andromeda-D - Data system for electronic warfare and new systems - Strategic mobility 	<ul style="list-style-type: none"> - Testing the command and control system Andromeda-D - Data system for electronic warfare and new systems - Strategic mobility 	<ul style="list-style-type: none"> - Deep battle - C4ISR - Digital radios - Electronic warfare procedures - Combined reconnaissance and attack system 	<ul style="list-style-type: none"> - Command and control - Readiness - Strategic logistics with aircraft and trains - Drones and robots 	<ul style="list-style-type: none"> - Combined reconnaissance and attack system - Use of drones - Short-range ballistic missiles

Which Equipment Do the Russian Ground Units Have at Their Disposal?

The Russo-Georgian War in 2008 made it all too clear that the equipment available to the Russian Armed Forces was insufficient. At the time, only 10 per cent of this equipment was less than 10 years old. The reform process launched in 2008 thus included an ambitious modernisation and armament plan (GPV) implemented in 2010. According to the plan, the goal was to ensure that 70 per cent of the country's military equipment by 2020 would consist of modern, i.e. post-Soviet equipment (Fernandez-Osorio, 2015, p. 65). The main priority then was Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems and increased unit mobility. Preliminary assessments suggest that 48 per cent of the Army's equipment had been upgraded by 1 January 2020. In 2018, Russia ratified a new modernisation plan to run until 2027. The goal is still to ensure that 70 per cent of the equipment is upgraded, though

focus has now shifted to ISR systems, high-precision weapons and drones (Westerlund & Oxenstierna, 2019, p. 119).

Generally, the Russian Army has sought to modernise its equipment and organisation either by upgrading older platforms or developing new technology based on Western approaches, i.e. copying Western or US technologies or concepts and then using them in a Russian context. An alternative approach has been to counter enemy capabilities – i.e. which Russia is unable to match – asymmetrically. Combat units and artillery units as well as anti-aircraft systems are examples of older platforms that have been upgraded to match or outmatch equivalent Western platforms. C4ISR systems and long-range missile systems are examples of technologies and concepts that the Russians have copied from the Americans, primarily in the light of traditional Western warfare. The development of electronic warfare capabilities can be seen as an asymmetrical approach to countering the West's superiority and dependence hereof (Radin et al., 2019, p. 48).

Below follows a detailed review of the Russian Army's service branches: combat units, rocket and artillery units, anti-aircraft units, reconnaissance units, engineer units, CBRN units, logistics units, electronic warfare units and signal units.

Combat Units

The combat units of the Russian Army consist of mechanised infantry units and armoured units of which the former represents the majority. Their task is either to conduct defensive or offensive operations. Mechanised infantry units do so through a combination of retention of terrain and attack with an aim to defeating the enemy. Armoured units support mechanised infantry units' defence and counterattacks. During defensive operations they conduct deep attacks for the purpose of defeating the enemy and exploring success (Ministry of Defence of the Russian Federation, 2019).

The Russian combat units are divided into battalions, regiments, brigades and divisions, as described in the section on organisation. Mechanised infantry units are generally equipped with vehicle platforms of the types BMP, MT-LB or BTR. Units based on BTR or MT-LB include anti-tank units, whereas BMP units hold greater combat power and therefore have no need for such units. The BMP family consists of three generations (BMP 1-3) and is the army's primary tracked infantry fighting vehicle. These vehicles have been designed with mobility and firepower and not protection in view, and Western versions therefore typically offer greater protection

(Radin et al., 2019, p. 77). The vehicles are amphibious and equipped with a 30/100-millimeter machine gun with an effective range of up to 4,000 metres and anti-tank missiles with a range of up to 5,500-6,000 metres. Armoured personnel carriers include BTR and MT-LB of which the former is wheeled and the latter is tracked. These models are relatively light and thus highly mobile. They too are amphibious, and they are equipped with a 14.5/30-millimeter machine gun with a range of up to 3,000/4,000 metres (Grau & Bartles, 2016, p. 220).

The armoured units of the Russian Army are primarily equipped with older platforms. Even though there has been much talk of the T-14 Armata tank, it is still not operational. The majority of the army's tanks are thus T-72 models, followed by the T-80 and T-90. The T-80 and T-90 are based on the T-72 and have mainly been exported. In recent years, the main trend in the development of tanks has been upgrading T-72Bs to T-72B3s, which is generally considered a new tank inside an old body. The T-72B3 has been equipped with an integrated fire control system, infrared sight on par with thermal sight, a 125-millimetre modified gun with a range of up to 4,700 metres, anti-tank missiles, increased protection and a more powerful engine (Radin et al., 2019, p. 57).

Russia has been experimenting with an armoured tracked chassis, the Armata, on which all future heavy tank, infantry fighting vehicles, armoured personnel carriers and other vehicles were meant to be based. The first versions of the T-14 tank and the T-15 infantry fighting vehicle were delivered in 2015, but in test versions only. Even though the Armata is claimed to represent an entirely new generation within combat vehicle design, proof is still missing, and by the end of 2019 only 70 T-14s had been delivered. It should be noted, though, that the technology and weapons systems that are by-products of the development of the Armata platform can be used to upgrade the existing platforms, which is much cheaper than producing a new model (Radin et al., 2019, p. 85).

Producing new armoured platforms is expensive, both when it comes to developing new technology, but also when it comes to establishing machinery capable of doing so. Considering the size of the Russian Army, resources for modernisation are limited. Therefore, the army's primary modernisation process regarding its vehicles has consisted of upgrading existing platforms such as the T-72, the BMP-2 etc. (Westerlund & Oxenstierna, 2019, p. 120). The new added technology have made these platforms almost as good as new and at a much lower price. This has helped facilitate the

strengthening of the combat units in size and capability. Table 7.3 provides an overview.

Table 7.3. Overview of the upgrade of combat units. The information is based on data from the International Institute for Strategic Studies (2020, p. 196) and Radin et al. (2019, p. 76).

	Main Battle Tanks	Infantry fighting vehicles	Armoured personnel carriers
Type	2000 T-72B/BA, T-72B3, T-72B3 mod	500 BMP-1	100 BTR-80A
	450 T-80BV/U, T-80BVM	3000 BMP-2	1000 BTR-82A/AM
	350 T-90, T90A	540 BMP-3	3500 MT-LB
	70 T-14 Armata	20+ BMP-3M	200 BTR-70

Rocket and Artillery Units

Another branch of the Russian Army is the rocket and artillery troops, which represent the army's primary capability for defeating the enemy using conventional or nuclear weapons systems. The rocket and artillery troops consist of missile, artillery and rocket brigades, including artillery sections, rocket artillery regiments, self-propelled reconnaissance battalions and artillery units within manoeuvre units. The Russian Army is based on robust artillery units and the use of artillery. Russian use of artillery is centred around manoeuvre by means of fire, where indirect fire is used to defeat the targets. The desired effect is thus achieved using artillery instead of manoeuvre units (Ministry of Defence of the Russian Federation, 2019).

A Russian brigade consists of four artillery battalions, two howitzer sections, one rocket launcher section and one anti-tank section. Depending on the system and ammunition, the howitzer sections have a range of up to 36 kilometres. The rocket launcher sections can be equipped with various types of rockets and have a range of up to 90 kilometres. The last unit is the anti-tank section, which includes both anti-tank artillery and an anti-tank missile battery with a range of up to 10 kilometres. Furthermore, the individual combat battalions have their own organic artillery batteries with mortars and grenade launchers with a range of up to 13 kilometres (Grau & Bartles, 2016, p. 235).

The rocket and missile troops' current systems consist of older platforms from the Soviet era, and the modernisation of these has not been a

main priority. It should be noted, though, that the number of systems is considerable and represent a not insignificant capability in the army. Investment in high-precision weapons and ammunition does not appear to be a priority either, though the integration of ISR resources with the area weapons has made them very efficient. This is evident especially from the further development of the reconnaissance fire concept, strengthening the connection between sensors and weapons systems. See table 7.4.

Table 7.4. The further development of the reconnaissance fire concept. The information is based on data from the International Institute for Strategic Studies (2020, p. 196).

	Self-propelled	Towed	Mortar	MLRS
Type	150 2S1 Govzdika	150 2A65 Msta-B	800+ 2B14	550 BM-21 Grad/Tornado-G
	800 2S3 Akatsiya	650 M-46	700 2S12 Sani	200 9P140 Uragan
	100 2S5 Giatsint-S	1100 2A36 Giatsint-B	40 2S4 Tulpan	9K512 Uragan-1M
	500 2S19/M1/M2 Msta-S/SM	600 2A65 Msta-B	390 2S4 Tulpan	TOS-1A
	60 2S7M Malka	1075 D-20	30 2S23 NONA-SVK	100 9A52 Smerch
		700 D-1	50+ 2S34	12 9A54 Tornado-S
		100 M-1937	100 2B16 ONA-K	
		40 B-1M		

Russian manoeuvre brigades do not include short-range, land-based ballistic missile systems. These self-contained brigades are found at the combined-arms army level, but they are able to support the manoeuvre brigades. An Iskander brigade consists of three Iskander battalions, each of which is equipped with three batteries with two launchers. The Iskander missile is a tactical-operational missile with a range of 500 kilometres or more. The missile can be equipped with different types of warheads, including thermobaric or nuclear ones (Grau & Bartles, 2016, p. 263). See table 7.5.

Table 7.5. The Iskander missile. The information is based on data from the International Institute for Strategic Studies (2020) and Radin et al. (2019, p. 113).

	Long-range, land-based cruise missiles	Short-range, land-based ballistic missile systems
Types	9M728 (SSC-7 Southpaw)	140 9K720 Iskander-M (SS-26 Stone)
	9M729 (SSC-8 Screwdriver)	

The rocket and artillery troops mainly consist of systems based on older platforms. The improvements we can expect to see in the future will mainly consist of increased range and improved ammunition types. The use of artillery as an area weapon will continue to be the norm.

Anti-Aircraft Units

The anti-aircraft troops belong within the Russian Army, and the branch's primary task consists in protecting units against attack from the air (Ministry of Defence of the Russian Federation, 2019). In the Russian Armed Forces, ground-based air defence capabilities are divided between the army and air force (see the section on the capabilities of the Russian Air Force). The army air defence is mainly responsible for the use of point-defence, short-range and middle-range missile systems, though certain units also possess older long-range missile systems. The anti-aircraft troops are equipped with anti-aircraft missiles, anti-aircraft artillery and combined anti-aircraft guns and missile systems. Depending on the targets and the given system, they can be used to fight targets more than 100 kilometres away (Bronk, 2020, p. 10).

Units in the Russian Army have dedicated short- and middle-range missile systems within dedicated anti-aircraft brigades, but the manoeuvre brigades too are equipped with significant systems. The manoeuvre brigades have at their disposal point-defence and short-range missile systems, and they are part of the two air defence sections. Together they make up the brigade's air defence. In addition, the army's systems form part of the operational and strategic anti-aircraft systems and thus contribute to a highly advanced integrated air defence system (Bronk, 2020, p. 17).

The Russian Army is in the process of significantly improving its air defence systems and has invested quite a lot in tactical systems. The improvements mainly consist of systems, which may include several missiles, better radar coverage, increased range and the ability to circumvent the

enemy’s electronic warfare measures. Considering the current systems, this modernisation process is believed to be targeted mainly at an upgrade and further development of existing systems. However, this does not change the fact that Russia’s current systems are believed to constitute a significant challenge to NATO air forces (Grau & Bartles, 2016, p. 271). See table 7.6.

Table 7.6. The Russian army’s air defence systems. The information is based on data from the International Institute for Strategic Studies (2020).

	Long-range missile systems	Middle-range missile systems	Short-range missile systems	Point-defence missile systems
Type	S-300V (SA-12 Gladiator/Giant)	200 9K37M Buk-M1-2 (SA-11 Gadfly)	120+ 9K331/9K332 Tor-M/M1/M2U (SA-15 Gauntlet)	250+ 2K22M Tunguska (SA-19 Grison)
	S-300V4 (SA-23)	90 9K317 Buk-M2 (SA-17 Grizzly)		400 9K33M3 Osa-AKM (SA-8B Gecko)
		60 9K317M Buk-M3 (SA-27)		400 9K35M3 Strela-10 (SA-13 Gopher)
				9K310 Igla-1 (SA-16 Gimlet)
				9K34 Strela-3 (SA-14 Gremlin)
				9K38 Igla (SA-18 Grouse)
				9K333 Verba (SA-29)
				9K338 Igla-S (SA-24 Grinch)

Reconnaissance Units

The reconnaissance units also belong within the Russian Army. The task of this service branch consists in collecting information about the enemy, the characteristics of the terrain and the weather with an aim to supporting the commanders and staff’s decision-making processes. Information services are conducted by a combination of reconnaissance units, which form organic parts of the manoeuvre units, and units that have been put together for the occasion (Ministry of Defence of the Russian Federation, 2019).

In connection with the reform process launched in 2008, reconnaissance battalions were reduced to companies only. However, the increasing amount of tasks combined with the manoeuvre brigades' ISR needs meant that a single reconnaissance unit in each brigade soon turned out not to be enough. This, together with experiences from the war in eastern Ukraine, has rendered visible the need for significant reconnaissance capabilities, and the Russians are therefore currently in the process of re-establishing reconnaissance units both within the combined arms armies and the manoeuvre brigades (Sutyagin & Bronk, 2017, p. 54).

Seeing as the personnel of reconnaissance units have typically trained as mechanised infantry, they use regular vehicles such as BTRs and BMDs for reconnaissance. However, mainly BRDMs and BRMs are used as specific reconnaissance vehicles, even though several new wheeled vehicles are on the way. The latter are capable of crossing ditches and water obstacles and are e.g. equipped with 14.5-millimetre machine guns and other reconnaissance-specific systems (Grau & Bartles, 2016, p. 278).

In the future, the process of upgrading companies into battalions in the brigades and battalions into reconnaissance brigades in the field armies is expected to continue, especially based on experiences from Russia's latest operations. See table 7.7.

Table 7.7. Reconnaissance vehicles. The informatin is based on data from Grau and Bartles (2016).

Reconnaissance vehicles	
Types	1000 BRDM-2/2A
	700 BRM-1K

Engineer Units

The engineer units constitute a service branch of the Russian Army whose main task is to solve complex engineering tasks in order to support operations. Overall, engineering tasks are divided into mobility-promoting and mobility-inhibiting measures as well as survival measures.

Mobility-promoting measures include tasks such as reconnaissance with a view to collecting information about the enemy, characteristics of the terrain and the weather, besides establishing crossings through minefields, watercourses etc. Mobility-inhibiting measures, on the other hand, include establishing minefields and various forms of obstacles. Finally, tasks belonging within the category of survival measures include establishing field fortified battle stations, various operation-supporting facilities and other specific tasks (Ministry of Defence of the Russian Federation, 2019).

An engineer battalion is affiliated to each mechanised infantry brigade, just as there is an engineer company for each armoured brigade. In addition, each military district has an engineer brigade. The purpose of the engineer battalions is to support the units' mobility or inhibit the enemy's mobility. Engineer battalions consist of four companies, each capable of breaking through obstacles, establishing crossings across watercourses using launching equipment, mending roads or performing similar engineering services (Sutyagin & Bronk, 2017, p. 69).

The battalion's road construction company includes i.a. four BAT-2 AEVs and four lorry-based bridges, each of which can establish a crossing across watercourses of up to 10 metres or, when combined, 42 metres. Moreover, the pontoon company is equipped with a pontoon bridge with a span of 268 metres. The battalion also includes a demining platoon equipped with two UR-77 vehicles and two IMR-3 AEVs. UR-77s can, using mine-clearing hoses, establish a crossing through a minefield that is 90 metres deep and six metres wide. The IMR-3 is based on a T-90 chassis and, among other things, has a bulldozer capability and a telescopic crane. The battalion also includes a platoon specialised in establishing obstacles. The platoon's three GMZ-3 mine-laying vehicles can establish a 1,200-metre deep minefield containing 624 mines in just 26 minutes (Grau & Bartles, 2016, p. 303). See table 7.8.

Table 7.8. Battalion Road Construction Company. The information is based on data from the International Institute for Strategic Studies (2020, p. 196).

	AEV	ARV	VLB	MW
Types	BAT-2	BMP-1	KMM	BMR-3M
	IMR, 2, 3	BREM-1/64/K/L	MT-55A	GMZ-3
	MT-LB	BTR-50PK(B)	MTU	MCV-2
		M1977	MTU-20	MTK
		MTP-LB	MTU-72	MTK-2
		RM-G	PMM-2	UR-77
		T-54/55		
		VT-72A		

Russian experiences from Ukraine, where BTGs were deployed independently, has rendered visible the increased need for engineer units, also at lower levels, to maintain operational flexibility (Sutyagin & Bronk, 2017, p. 70). This has led to the introduction of several new engineer battalions and capabilities, increasing the Russians' operational flexibility. Especially the introduction of new bridging equipment, new mine clearing vehicles and the engineer units will help improve the total offensive capability of the Russian Army.

CBRN Defence Units

The task of the Russian Army's chemical, biological, radiological and nuclear (CBRN) defence units is to reduce the number of casualties among ground forces operating in environments subjected to CBRN attacks. In addition, CBRN units ensure that the ground units can continue to do their job even though the environment has been polluted, and they increase their survival rate and protection against high-precision and other weapons. The overall task of the CBRN units is to identify possible pollution of the operational environment and thus assess the extent of damage. In addition, they must protect units against CBRN pollution, just as they must reduce the visibility of units and permanent installations and protect them against flamethrowers and thermobaric weapons (Ministry of Defence of the Russian Federation, 2019).

Within the Russian Army, there is one CBRN brigade per military district and one in reserve. Add to this a CBRN regiment for each combined-arms army and a CBRN company in the manoeuvre brigades. The overall task of Russian CBRN units is the same as that of their Western counterparts: They have been equipped to detect CBRN pollution and to carry out

decontamination. However, they differ from the Western units in also having been equipped with flamethrowers and thermobaric weapons (Grau & Bartles, 2016, p. 317). These weapons systems are not used by Western units, but they continue to be widespread in the Russian Army. The flamethrower capability is found at all levels, and the CBRN brigades include e.g. one flamethrower battalion with three subsections. The CBRN regiments include a flamethrower company, whereas the manoeuvre brigades' CBRN company includes a flamethrower platoon (Sutyagin & Bronk, 2017, p. 65).

Russian flamethrower units are either equipped with light or heavy flamethrowers. Light flamethrowers carried by soldiers mainly include Rocket Propelled Infantry Flamethrowers (RPOs) capable of shooting rocket-assisted projectiles. The warheads of the projectiles are thermobaric, and their maximum effect can be compared to the effect of a 152-millimetre artillery grenade. Their maximum effective distance is believed to be around 600 metres. Heavy flamethrowers are mounted onto a vehicle platform, which makes them more mobile and gives them a longer range and effect. TOS-1As are equipped with 30 220-millimetre rocket tubes, all of which can be fired within 7.5 seconds within a range of 3,500 metres. Whereas light flamethrowers are suitable for destroying minor field-fortified battle stations, heavy flamethrowers may be used to destroy larger areas (Grau & Bartles, 2016, p. 320). See table 7.9.

Table 7.9. Flamethrower types. The information is based on data from Grau and Bartles (2016, p. 318) and Sutyagin and Bronk (2017, p. 65).

	Light flamethrowers	Heavy flamethrowers
Type	D-30 Rys	TOS-1 Buratino
	RPO Shmel	TOS-1A Solntsepyok
	RPO Shmel-M	TOS-2
	MRO Borodach	

The Russian Army considers CBRN units an important resource in conventional warfare, both with regard to fighting and surviving in a CBRN-polluted environment, but also as an offensive capability. Due to experience with the use of flamethrowers in both Afghanistan and Ukraine, the Russians continue to invest in this area.

Logistics Units

The main task of the Russian Army's logistics units is to ensure that the units have enough supplies to conduct operations and to mend broken equipment. In support hereof, they have a support structure consisting of depots etc. This is described in more detail in the section on facilities. The logistics system used to be based on the Soviet system, which would mobilise the entire population in the event of war (Westerlund & Oxenstierna, 2019, p. 26). Today, this is not considered expedient, and the logistics structure was therefore changed after 2008.

The current logistics structure of the Russian Army includes equipment technical support (ETS) brigades, which support the military districts. The divisions and brigades are supported by ETS battalions or companies, depending on the type of brigade. The regiments too are supported by ETS companies. The ETS brigades supporting the military districts consist of a C2 elements, two motor-transport battalions, one maintenance battalion, one pipeline battalion, one traffic control battalion and other functional units. These or parts hereof can, where necessary, be released to support the divisions or manoeuvre brigades. The ETS battalion supporting the manoeuvre brigades also includes a C2 element, a motor transport company responsible for supplies, ammunition and fuel, respectively, a maintenance company and two transportation companies. The transportation companies usually provide divisions to support e.g. manoeuvre or artillery sections (McDermott, 2013, p. 48).

In the long term, the Russian Army wants to incorporate interoperability and a modular structure into its logistics vehicle platforms, as with the Armata chassis. So far it has been a difficult process, but 90-95 per cent of the components of the logistics vehicles are now believed to be replaceable, though only through specific supplies. They used to use up to six different vehicle manufacturers, but have later chosen to focus on KamAZ's Mustang platforms. However, the Russian Army has now begun to look for a new generation of logistics vehicles, including the Tayfun and Platforma platforms. They are believed to use the same platform for both logistics vehicles and some fighting vehicles (Grau & Bartles, 2016, p. 351).

Responsibility for deployment of units and equipment to support operations in or outside of Russia rests with the Section for Transport Support within the General Staff (Grau and Bartles, 2016, p. 326). In principle, it resembles the Danish Joint Movement and Transport Organisation (JMTO). Russia's main tool in connection with deployment is the country's

extensive railway infrastructure, which is also the most frequently used resource for moving or replenishing units. Seeing, as Russia is incapable of defending all parts of the country simultaneously, a railway network is thus central to shifting effort by moving troops. Russia considers this a fairly vital aspect of its strategic mobility, and it is therefore a fixed element in joint strategic exercises. This is why Russia has specific military units responsible for the operations and maintenance of the country's railways.

In connection with operations in Ukraine and Syria, the Russian Army was able to practice deployment and logistics. Whereas Russia was able to use its railway network to support the operations in Ukraine, which represented a clear advantage, the same was not possible in connection with operations in Syria. Russia is believed to have had severe difficulties supporting the latter operations, as the country's logistics structure is designed for participation in regional conflicts primarily (Grady, 2018).

Since the reform process, the Russian Army has reorganised and thus streamlined its logistics structure. The establishment of depots, logistics units and the attempt to use the same vehicle platforms are all believed to be a step in the right direction, though training exercises and operations indicate that Russia is still facing challenges when it comes to strategic mobility and logistics. However, this does not change the fact that – for conventional conflicts in the region – it has an extensive network of depots and logistics installations as well as a large railway network and thus a clear advantage.

Electronic Warfare

Russian electronic warfare (EW) units are responsible for conducting electronic attacks, electronic protection, countermeasures to technical interference and radio-electronic reconnaissance. Russian EW units are found in all services, and in the army, they are also found in all the manoeuvre brigades (Kjellén, 2018).

Each military district has an EW unit as well as one strategically in reserve. Each EW brigade consists of a total of four battalions, each of which is responsible for the domains ground, air, space and terrorism (Kjellén, 2018, p. 32). The EW brigades have the capabilities to operate at tactical, operational as well as strategic levels. Their equipment enables them to conduct jamming of mobile communication and satellites, GPS spoofing and interference with AWACS aircraft (Grau & Bartles, 2016, p. 290). Each manoeuvre brigade in the Russian Army includes an EW company, which

mainly operates at the tactical level, and which is able to jam communication and GPS-guided weapons systems and to ignite the fuses on enemy artillery grenades, rockets and missiles prematurely in order to protect own units (Sutyagin & Bronk, 2017, p. 81). Based on experiences from Ukraine, the Russian Armed Forces have established close cooperation between EW, signal and artillery units, both for the sake of protection and to conduct electronic reconnaissance supporting target designation.

Eventually, all Russian EW companies will be equipped with the Borisoglebsk-2 or Diabazol system. Borisoglebsk-2 is the latest new tactical EW system, and it is believed to be able to conduct SIGINT, jamming of satellite communication and GPS navigation systems, designate targets using electronic reconnaissance etc. Whereas Borisoglebsk-2 is tracked, the Diabazol is wheeled. Diabazol is expected to be ready before Borisoglebsk-2, but is rarely implemented in full. The concrete capabilities of the two systems are believed to more or less similar. In the future, Borisoglebsk-2 is expected to be the main EW system used by the manoeuvre brigades' EW companies (Kjellén, 2018, p. 45). See table 7.10.

Table 7.10. EK systems. The information is based on data from Kjellén (2018, p. 45).

Task	EK systems used by Russian manoeuvre brigades	
	Borisoglebsk-2	Diabazol
C2	R-330KMW	P-330KMA
HF jamming	R-378BMV	R-378UM
VHF jamming	R-330BMV	R-330Zh Zhitel
UHF jamming	R-934BMV	R-934UM Sinita
Jamming	R-325BMV	R-934UM Sinita
Service	ATO-40	NA

The Russian Army uses its EW resources to counter Western warfare, asymmetrically. This is mainly based on the realisation that the US' and the West's superiority in warfare is largely a result of electronic command and control systems. In the future, Russia will thus continue to develop and implement modern EW systems in its units. Similarly, experiences from Ukraine and Syria have led Russia to focus on improving its ability to protect itself against UAV attacks. Moreover, the country is expected to

integrate EW systems into its signal and artillery units. In the conflict with Ukraine, this was evident from Russia's use of a combined reconnaissance and attack system, where the ability to quickly detect targets and deliver an effect are closely connected.

Signal and Command and Control Support

The main task of the army's signal units is to employ communication systems to support the command and control of the army's units during operations. In addition, they are responsible for operating automatic command and control systems (Ministry of Defence of the Russian Federation, 2020).

There is a signal battalion in each manoeuvre brigade tasked with supporting the units both during deployment and at the garrison. Command and control has long been a challenge for the Russian Army, and up until the 2008 reform it lacked the right technology for network-based warfare, which was not a main priority. However, Russian studies from the 1990s of Western warfare, including the concept of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), persuaded the Russian Armed Forces of its importance, and they have been following this path ever since (Grau & Bartles, 2016, p. 285).

The Russians are currently seeking to establish strategic C4ISR, which links the military districts with the combined armies and lower levels in order to thus streamline Russian battlespace management and decision-making processes (Radin et al., 2019, p. 154). At the tactical level, they have struggled to connect the various communication systems, both due to technological differences between the systems, but also because of the scale of the task. The introduction of new digital radios and systems such as the Andromeda C2 system first in the airborne units is meant to solve this problem. This system is supposedly similar to the Danish C2IS and BMS systems, and it is meant to help increase situational awareness through information sharing down to the individual soldiers. If it turns out to be a success, the army is also expected to implement the system (Grau & Barles, 2016, p. 286).

So the Russian Army is striving to become able to conduct network-based warfare, and reports from their operations in eastern Ukraine and in Syria seem to confirm their approach within these areas. Among other things, this helps support and streamline the Russians' combined

reconnaissance and attack system, which was used in these locations (McDermot, 2019). See table 7.11.

Table 7.11. Network-based warfare. The information is based on data from Radin et al. (2019, p. 161).

	Tactical C2 systems	Operational C2 systems	Strategic C2 systems
Typers	Akveduk	Akatsiya	Antey
	RATNIK (Strelet)		
	REDUT-2US		
	YESU-TZ		

The Russian Army has focussed on establishing a robust command and control structure that can help synchronise operations and streamline decision-making processes. Therefore, further development of centralised, secure and robust C2 systems will likely continue to be a main priority in the future.

How Many Qualified Personnel Does the Russian Army Have at Its Disposal?

The right amount and combination of trained and motivated personnel is fundamental to conducting effective ground operations. Since 2008, Russia has systematically attempted to professionalise its armed forces. However, recruitment and retention of trained personnel has been and continues to be one of the army's great challenges.

In the Soviet era, the military system was based on conscription and cadre units, which in the event of war would be fully manned through mobilisation. However, the 1990s saw a decrease in levels of availability and preparedness, mainly due to demographic challenges, decreasing budgets, corruption and widespread ill-treatment of conscripts. In 2008, assessments found that only 13 per cent of the units could muster a level of preparedness that made them deployable (Radin et al., 2019, p. 42).

The 2008 reform process included a series of structural changes intended to solve these challenges. In terms of personnel, this mainly concerned a professionalisation of the pool of soldiers, which would be reduced in number. Increased professionalisation was necessary, as future wars would involve advanced technology and equipment requiring highly specialised personnel. Such a level of professionalism could not be achieved with conscripts. In addition, a professionalisation of the forces would raise the level of availability and preparedness and make Russia capable of acting fast in the event of conflicts in the region, which was confirmed by the Russia-Georgian War. Professional contract soldiers would therefore be given a more qualified education and a longer period of affiliation and could thus be deployed at short notice (Global Security, 2020). The second part of the personnel restructuring involved reducing the total number of soldiers available. This mainly concerned the officer corps. Concrete figures for the Russian Army are hard to come by, but according to Sutyagin the army was by 2016, 19 per cent from having reached its goal of 243,500 soldiers (Global Security, 2020). In 2020, the IISS claims, the size of the Russian Army was 280,000 soldiers, including conscripts, but not including the reserve.

Recruitment and retention has been a constant challenge facing the Russian Armed Forces, including the army, but the restructuring, including the increase in wages and other benefits, and the wars on the Crimea and in Ukraine have improved matters (Crane, Oliker & Nichiporuk, 2019, p. 59). However, a reduction in the number of people qualified for conscription in the future is likely to lead to more competition with the civil society. This probably also means that the Russian Army will continue to use a personnel system based on a combination of conscripts and professional soldiers. However, as with other parts of the reform, this does not entail a reduction in the quality of soldiers. Better education and more intense, complex training is likely to continue to increase Russia's ability to conduct ground operations.

Even though professionalisation of the personnel is a main priority, conscripts continue to represent a significant part of the Russian Army personnel, as Russia still considers conscription a key instrument for infusing young men with patriotism, but also, and just as importantly, because it constitutes a pool for mobilisation as well as recruitment of reservists – a sort of strategic reserve. In the event of prolonged conventional conflict, it is necessary to have a system that makes it possible to replace personnel on

an ongoing basis or to adjust the size of the army as required. Even though Russia since 2015 has striven to build such a reserve and focussed on mobilisation and subsequent deployment of said reserve, and continues to make sure the reserves receive regular training through strategic exercises, the reserve is still not believed to be of a size or quality that makes it suited for conventional operations (Westerlund & Oxenstierna, 2019, p. 24).

It is hard to say how recruitment and retention of qualified personnel following demographic changes will affect the Russian Army. Nevertheless, Russia has demonstrated an ability to gather enough forces for deployment fast, no matter where conflicts might arise. Most importantly, though, Russia has demonstrated a high degree of willingness to exercise military power, as evident from the conflicts on the Crimea, in eastern Ukraine and in Syria.

Which Infrastructure and Facilities Support the Army?

A main part of the Russian military reform is the goal to improve the strategic mobility of Russian ground forces. This has led to a restructuring of the infrastructure for ammunition depots, equipment depots and the establishment of dedicated storage and maintenance barracks for ground units.

As part of the restructuring, Russia has established 13 large modern depots for various forms of ammunition, including missiles and explosives. Each of the large depots will consist of a number of smaller depots. These are joint depots and thus meant to cover all the military districts as well as the navy. The intention is that each depot will be responsible for providing ammunition to units deployed in Russia. These user-specific depots will result in more efficient and faster ammunition management and thus faster deployment of units. In addition, the restructuring has resulted in a simpler and more flexible logistics structure, of which the reduction of 140 depots to the present 13 is a good example. The intention is again to reduce the time it takes to supply or resupply units with equipment and thus to raise their level of readiness (Sutyagin & Bronk, 2017, p. 17).

The Russian ground forces have undergone a similar restructuring, consolidating their logistics infrastructure in just 24 large ammunition and equipment depots, where there used to be 330. These depots are not based at the same location as the joint depots. In addition to making the supply

chain more flexible, the restructuring has reduced the amount of personnel needed to man the depots, who may thus be used in other parts of the Russian ground forces (Sutyagin & Bronk, 2017, p. 18).

The creation of dedicated storage and maintenance depots is also part of the restructuring meant to improve the strategic mobility of the Russian ground forces. These depots or barracks, which resemble the prepositioned equipment depots of the US Army and Marine Corps, contain complete brigade equipment packages as well as two and a half times the basic load of ammunition per brigade. The idea is that, in the event of a conflict or war requiring fast deployment, personnel from other brigades in Russia may leave their vehicles, equipment and heavy weapons and be transported by air or train to a depot close to the area of deployment for arming and deployment. All within just 24 hours (Dick, 2019, p. 12).

The transport, arming and deployment of these units via air transport is often practised during the large-scale strategic exercises. Russia currently has the capability to move five mechanised infantry brigades in a single haul, but is striving to expand that capability (Sutyagin & Bronk, 2017, p. 20). See table 7.12.

Table 7.12. Moving capacity. The information is based on data from Sutyagin and Bronk (2017, p. 21).

	Western MD	Southern MD	Central MD	Eastern MD	Total
Type/total MD	5	1	4	11	21
Mechanised infantry	2	0	3	9	14
Armoured	1	0	0	0	1
Artillery	2	1	1	2	6

Aside from acting as dedicated storage depots, the equipment packages in the depots may also be used to arm units, which usually do not exist during peacetime. In connection with conventional war, this may be done through mobilisation, and the depots will then help establish new brigades, presumably manned by conscripts.

The strategic mobility of the Russian Army has been greatly improved by the restructuring of the joint ammunition depots, the Army ammunition and equipment depots and the storage and maintenance depots. The ability to move units from one part of the country to another, arm and deploy

them within 24 hours would constitute a significant capability in the event of conventional war – a capability we can only expect the Russians to further strengthen in the years to come.

Conclusion

Since the launch of the reform process in 2008, the Russian Army has been on a long journey that has resulted in a significantly improved military capability. Just 13 years ago, the Russian Army had severe difficulties managing a small-scale war against Georgia. Since then, it has managed to reform its military doctrine and art, organisation, training, equipment, personnel structure and military facilities and thus its overall ability to wage large-scale war.

The Russian Army has managed to refine its tactics, techniques and procedures at the tactical level, and especially the integration of ISR resources and weapons systems can provide a quick, destructive impact, just as its state-of-the-art, integrated anti-aircraft systems can render possible protected army manoeuvre. Elements of both were seen during the wars in eastern Ukraine and Syria. Furthermore, the army has significantly improved its ability to wage large-scale war, including the ability to conduct joint operations. The reform of the structure of the army and the organisation of the brigade combat teams and divisions are clear indications of the fact that the Russians are preparing for larger, more complex operations requiring more combat power than was the case of the battalion tactical groups deployed in eastern Ukraine.

The Russian Army's training exercise pattern in recent years testifies to a clear development in the scope of these exercises, as more brigades and divisions now take part in the exercises, which have become more complex, e.g. moving units from one part of the country to another to strengthen an operation. The depot reform and standardisation of equipment of units have helped make it possible to move units fast and relatively smoothly. Furthermore, the Russians appear to have managed to increase units' level of readiness, and they thus have at their disposal units that may be deployed at short notice in the event of conflict or actual war.

Even though the Russian Army has thus introduced significant improvements, trees do not grow into the sky. Most of the army's equipment still consists of old Soviet platforms, which have been upgraded, not

replaced by new-generation platforms. The challenges involved in producing the Armata platform show that it will take some time until the Russian equipment is able to match that of the West. Even though a lot has been done to improve conditions for the soldiers, many units continue to be understaffed, and retention and recruitment still appear to be a challenge. Especially the need for increased professionalisation to be able to man the more sophisticated weapons systems means that these issues have to be resolved if the Russians are going to be able to meet their own level of ambition.

The Russian Army has come a long way since 2008 and currently possesses significant military capabilities. Confronted with NATO, whose member states for many years now have been focussing on stabilisation operations and reducing their budgets, the question is who is most capable.

Denmark is currently halfway through the present 2018-2023 Defence Agreement, which takes the view that the current threat landscape of our neighbouring region is far more serious than at any other point since the fall of the Berlin Wall. As a direct consequence hereof, the agreement aims to strengthen Denmark's contribution to NATO's collective deterrence and defence, i.a. in the form of new capabilities such as a brigade, anti-aircraft missiles and new F-35s. In addition, the Danish Defence's contribution to the national security must also be strengthened, i.a. in the form of more soldiers on alert, an improved mobilisation capability and the great effort of drawing up a national defence plan for the country.

The military capability of Russia's ground forces and Danish defence planning are thus closely connected. In-depth knowledge of the capabilities available to the Russian Army and how they may be employed is therefore vital to how the Danish Defence should be organised, equipped, armed, manned and trained to make up a credible part of NATO's collective deterrence and defence, today and in the future.

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CHAPTER 8

The Development of the Russian Navy – from Global Maritime Power to Coastal Defence

By Anders Puck Nielsen

Introduction

As a small nation at the entry to the Baltic Sea, Denmark constitutes a natural part of Russia's maritime geography. Russian warships regularly pass through Danish waters on their way to or from the Atlantic Ocean, and US warships often enter the Baltic Sea to demonstrate their maritime presence. In fact, the Danish island of Bornholm and Kaliningrad are just 150 nautical miles apart, and Denmark's role has traditionally been to function as the area in which to establish a blockade of Russian sea lines of communication into and out of the Baltic Sea. A military confrontation with Russia would thus immediately affect Denmark, and it is relevant for the country to pay attention to the Russian Navy and its activities at sea.

Throughout history, Russia's interest in the maritime area and in being a maritime power has varied. Indeed, a quick look at the map will show that Russia has a fair share of military challenges on land. The country comprises a huge area that is difficult to protect, and modern-day Russia borders on no less than 14 countries. Its maritime borders, however, are far less conspicuous. Military issues on land have, therefore, been a main issue requiring constant attention, whereas commitment to the maritime areas has generally been something Russian leaders have been able to choose to focus on or not.

This is not to say that Russia does not have a significant stretch of coast. The country has 37,653 kilometres of maritime borders, which makes it one of the countries in the world with the longest coastline (Central Intelligence Agency, 2019). It is just that most of the Russian coastline is either hard to reach or located in uninhabited areas. The longest stretch of coast is the one stretching from Norway to North Korea, which is a huge distance. This coastline has few of the characteristics required to support a commercial or military interest in the sea: Hardly any people live there, and much of the coast is difficult to navigate. At the same time, there are few close neighbours to whom the sea could act as a means of communication.

Russia also has coastline in areas that see more maritime activity, though, including the Baltic Sea, the Black Sea and the Caspian Sea. Here Russia has to maintain a maritime presence to safeguard its interests in the neighbouring region. These waters are relatively protected, and the ships are able to operate in close proximity of their homeport. Hence, there is generally little need for large ships with long endurance to solve the naval tasks Russia may face in these busier waters.

On the other hand, due to its great power ambitions, Russia must to some extent be able to project its power into and across the oceans. The country has military interests at sea, just as it must be able to safeguard its commercial interests through maritime security operations. Two elements in particular are relevant when discussing Russia's great power interests at sea. First, there is the fact that Russia's main opponent, the US, is the world's leading naval power, which in turn means that the Americans also depend on this naval superiority to solve military operations in Europe or Asia. It is therefore important for Russia to have the capability to challenge the US Navy and to complicate the American naval operations across the Atlantic and the Pacific Oceans. Second, Russia, as a great power, must be able to use the sea for nuclear deterrence. Strategic submarines constitute Russia's most convincing retaliatory threat in the event of an attack from the US (see chapter 10 on nuclear capabilities), and it is therefore necessary to secure its submarine bases and their access to the sea.

Literature Review

There are several relevant approaches to studying Russia's naval capabilities. If the goal is to arrive at a quantitative list of vessels and equipment,

databases such as the IHS Jane and or the Military Balance (International Institute for Strategic Studies [IISS], 2020) may prove useful. Open Russian websites such as RussianShips.info also contain useful lists, and in my experience, they provide precise and updated lists of active ships in the Russian Navy.

If the goal, on the other hand, is to conduct a more qualitative assessment of the Russian Navy today, it may be useful to read Liv Karin Parnemo's article on 'Russia's Naval Development – Grand Ambitions and Tactical Pragmatism' (Parnemo, 2019). It provides a good historical summary of the development of the Russian Navy and the constant dilemmas facing Russian naval strategy. It also describes current priorities and challenges. If you are more interested in the navy's role in Russian nuclear deterrence, I can recommend Michael Kofman (2020). Dmitry Gorenburg and Kasey Stricklin (2019) have provided an interesting perspective on the Russian officer corps and the typical career paths for successful officers. For questions concerning the Russian armament industry and output of the shipyards, Richard Connolly is a useful source (Connolly, 2016; Connolly, 2017; Connolly & Boulègue 2018). Finally, for studies of the importance of the Russian Navy to Denmark, I humbly refer to my own article 'Sømiliter vurdering af Ruslands Østersøflåde og de militære implikationer for Danmark' (Nielsen, 2019c).

Theory

To assess a navy, it is necessary to consider the tasks it is expected to solve. In this regard, it may be useful to distinguish between two different approaches to naval warfare: either one aspires to dominate the sea, or one has the less ambitious goal of just spoiling the opponent's ability to use the sea. These are referred to as strategies of sea control or sea denial, respectively (Speller, 2016, pp. 170-175).

This is an important distinction to make when assessing the Russian Navy, because throughout history its level of ambition has varied. Sometimes Russian leaders have wanted to dominate the sea, and sometimes they have been content with a modest coastal defence. At around the year 1700, Peter the Great headed the first attempt to build a Russian Navy, and throughout the 1700s, under Catherine the Great, the Russians managed to build a navy that dominated both the Black Sea and the Baltic Sea. Later

Russian leaders had to lower their level of ambition, though, to one more oriented toward coastal defence, mainly due to the Russian defeats in the Anglo-Russian War 1807-1812, the Crimean War 1853-1856 and the Russo-Japanese War 1904-1905 (Theobald, 1954). These conflicts demonstrated that even if Russia wanted to compete with the other great powers at sea, this was difficult to pull off in practice.

After the establishment of Soviet rule in Russia, the schism between sea control and sea denial became especially pronounced in the Russian (Soviet) Navy, and it is often described as a conflict between two schools (Hudson, 1976; Parnemo, 2019, p. 44). On the one side there was the 'old school', which strove for a large, offensive navy. These were 'traditionalists' inspired by thinkers like Alfred Mahan and Julian Corbett, and it is noticeable that Soviet Admiral Sergey Gorschkov was one of the world's most prominent proponents of this approach in the 20th century (Speller, 2018, p. 69). On the other side was the 'young school', which argued that a defensive navy would serve Russia better. These 'modernists' pointed out that the Soviet Union did not have to control the sea to cover its security needs, and a coastal defence was thus sufficient. This logic led to the argument that during the Cold War the Soviet Union was able to strike NATO's Achilles heel by disrupting Western sea lines of communication across the Atlantic Ocean; they did not have to control the sea themselves (Speller, 2018, pp. 66, 77).

The young school was very influential in the first part of the Soviet era, whereas the old school dominated the latter part. Under the long leadership of Admiral Gorschkov from 1956 to 1985, the Soviet Union thus built the world's second largest fleet of enormous force and global reach, only outmatched by the US Navy (Grove, 2016, p. 16; Huckabey, 2014). This meant that the Soviet Union was dissolved at a time when the navy was exceptionally strong, and this is worth remembering when arguments are made that the present-day Russian Navy has lost some of its previous strength (Tsypkin, 2010, pp. 331-332).

The debate between the old and young schools is also evident from modern Russian doctrine. Russia has produced two documents, which together can be said to comprise a naval doctrine, namely the *Maritime Doctrine of the Russian Federation* from 2015 and the *Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030* published in 2017 (President of the Russian Federation, 2015; President of the Russian Federation, 2017). The two documents set

different tones for the role of the navy, and in rough terms the maritime doctrine can be said to argue in favour of the young school's focus on a limited coastal defence (Connolly, 2017), whereas the fundamentals of the state policy in the field of naval operations speaks more offensively in favour of the old school by arguing that Russia should have the world's second strongest navy (Gorenburg, 2017). As pointed out by Parnemo (2019, pp. 47-49), both documents appear to be overly ambitious compared to the realities of the Russian navy. She thus urges readers not to take the text too literally; perhaps the documents should rather be interpreted as domestic policy artefacts meant to legitimise a specific worldview, which may act as a useful tool in connection with the allocation of funds. For a more reliable picture of the navy that Russia is building, it is therefore important to look beyond the written doctrine and compare it to real world priorities regarding equipment and operations.

Aside from distinguishing between the approaches of sea control and sea denial, it is also necessary to distinguish between the various functions of the navy. This stems from the observation that navies are used for many other purposes than merely waging war. Navies are usually said to have three functions: namely a military role, a diplomatic role and a policing role (Booth, 1977, p. 16; Grove, 1990). They are thus also used to solve tasks, which people on land usually do not associate with the military. This is because states on land have a variety of different agencies and tools of governance, whereas at sea they must make do with the vessels that are available. A strong navy thus also guarantees the state's ability to make use of the sea and assert itself in the maritime environment in a broader context. A meaningful assessment of the Russian Navy must therefore look at whether it is capable of solving the full range of maritime tasks. It is possible for a navy to fulfil its military role while being more or less useless for other types of tasks. Such a navy can only be used for specific purposes, and this would be a significant point to bear in mind.

While the navy must help solve the state's civil tasks at sea, it can also expect other state agencies to contribute to solving some of its military tasks. This includes mainly the coastguard. At a conceptual level the coastguard solves police tasks, whereas the navy is a military organisation, but in practice the two overlap (Till, 2018, p. 351-354). Russia has an active coastguard, which resides within the Federal Security Service, FSB, and it can be utilized in connection with international confrontations in the grey zone between peace and war. This became evident in 2018, when ships

from the Russian coastguard stopped and captured three Ukrainian Navy vessels in the Kerch Strait (Kofman, 2018). It is also common for Russian navy and coastguard ships to conduct joint exercises with both military and civilian training objectives. This chapter will not go into more detail with regard to the Russian coastguard, but a good description of the relationship between the navy and the coastguard can be found in Elgsaas and Parnemo (2019).

Method

The following analysis of Russia's naval capabilities will begin by outlining the structure of the Russian Navy. It consists of four fleets and one independent flotilla, and understanding the different roles of these fleets will help understand Russia's maritime priorities. Then follows a status of Russia's naval equipment, describing mostly ships, but also the most important weapon systems. Finally, the chapter outlines the main tasks and trends of the Russian Navy.

This will be compared to the two underlying theoretical discussions presented above. The first concerns the distinction between the old school that wants a large, offensive navy, and the new school's focus on a limited coastal defence, the second being the question of the navy's various military, diplomatic and policing roles. Together, these two conceptual frameworks provide a basis for assessing the navy's force, options and scope, and they make it possible to evaluate the development trends in context.

First, a couple of definitions need to be explained. 'Navy' is used in this chapter to designate the organisational part of the Russian Armed Forces focussing primarily on war in the maritime domain. The ships represent its most important capacities, supplemented by other units such as naval aviation, ground forces and coastal missile batteries. 'Fleet' is used to describe the pool of ships available to the navy. That is, the navy consists of a fleet and several other assets. This may be slightly confusing, as the Russian Navy is divided into smaller units also known as fleets, for example the Baltic Fleet. These are as a rule referred to by name to make it clear whether I am referring to a geographically determined subdivision or the naval fleet as a whole.

This chapter mainly deals with the fleet. This means, for example, that naval aviation or coastal batteries are only included when necessary to

describe the activities of the fleet. One could perhaps argue that especially naval aviation deserves more attention, because they also act as a type of general reinforcement to the Russian Air Force in international operations like the one in Syria (Lavrov, 2018, pp. 24-25). In a maritime context, though, the navy's airborne units are not vital to understanding the main debates. Helicopters are standard equipment on modern warships, and operations such as anti-submarine operations presuppose the ability to deploy aircraft with the right equipment. Russia has these airborne assets, but that does not give Russia a unique capability. The country has a very limited aircraft carrier capacity and thus not a noticeable ability to deploy aviation across the sea. This means that Russia's naval aviation mainly plays the same coastal defence role as sea mines and land-based missile batteries. Russia also has at its disposal long-range bombers, which can play a role in a maritime context at longer distances, but they are organised under the air force, not the navy, and are thus discussed in chapter 8 of this volume, which looks at Russia's Air Force.

Throughout the chapter, ships are referred to by their NATO reporting names.

Structure of the Russian Navy

The Russian Navy is divided into a series of fleets depending on their geographical location. These are: the Northern Fleet based in Severomorsk by the Barents Sea, the Baltic Fleet based in Kaliningrad, the Black Sea Fleet based in Sevastopol and the Pacific Fleet based in Vladivostok. Add to these the Caspian Flotilla, which is a minor naval formation based in Astrakhan. Russia thus has four fleets and one flotilla, but for convenience, all five are referred to below simply as fleets.

Each of these fleets has unique characteristics. The Northern and Pacific Fleets are high seas fleets, and their main task is to operate on the world oceans. They have at their disposal the largest ships and Russia's strategic nuclear submarines (Kofman, 2020). The Baltic and Black Sea Fleets, on the other hand, have been tailored for tasks close to base (Nielsen, 2019c; Nordby, 2017). They have smaller ships with limited endurance at their disposal, but which in return are highly useful in coastal waters. Both the Baltic Fleet and the Black Sea Fleet also have larger ships which can contribute to operations further from base, but their contributions are limited,

for example to a frigate for a specific mission, and not meant for strategic deterrence. In addition, the Black Sea Fleet is also Russia's primary fleet in the Mediterranean, and in that context the Russian naval facility in Tartus in Syria functions as an important logistical hub.

The Caspian Flotilla performs more or less the same functions as the other smaller fleets, but it has a unique area of operations in the shape of a large lake. However, it is important for Russia to maintain a naval force in the Caspian Sea, where especially Iran has a rather strong fleet. It is also important to point out that the Caspian Sea is not cut off from the ocean, as ships as large as corvettes can be moved to the Black Sea via the system of inland waterways.

Equipment

A list of vessels belonging to the Russian Navy is available in table 8.1., which reveals that the large surface vessels and nuclear submarines are concentrated in the Northern and Pacific Fleets. These units can operate in the oceans and are well-suited for strategic deterrence. The smaller vessels are mainly found in the Baltic and Black Sea Fleets. Closer examination of the various ships will reveal that a lot of them are rather old. In fact, the average age of a ship in the Northern or Pacific Fleets is 30 and 29 years, respectively, whereas the ships of the Baltic and Black Sea Fleets are 25 years old on average (RussianShips.info, n.d.). This is a high age, reflecting the fact that many of the ships are from the Soviet era. This also indicates that many of them may not be ready to sail, which the list does not take into account. The actual strength of the force may thus be significantly weaker than suggested by the list.

Table 8.1. List of ships of 300 tons or more belonging to the Russian Navy, September 2020 (RussianShips.info n.d.).

Type	Class	Baltic Fleet	Black Sea Fleet	Northern Fleet	Pacific Fleet	Caspian Flotilla
Strategic nuclear submarines	Typhoon class			1		
	Borey class			2	2	
	Delta-III class				1	
	Delta-IV class			6		
Attack submarines	Oscar-II class			3	5	
	Yasen class			1		
	Akula class			6	4	
	Sierra class			4		
	Victor III class			3		
Diesel submarines	Kilo class	1	1	5	7	
	Improved Kilo class		6		1	
	Lada class			1		
Special purpose submarines	Nuclear-powered special submarines			9		
	Diesel-powered special submarines			1		
Aircraft carriers	Kuznetsov class			1		
Cruisers	Kirov class			2		
	Slava class		1	1	1	
Destroyers	Udaloy class			5	4	
	Sovremenny class	1		1	2	
Frigates	Gorshkov class			2		
	Grigorovich class		3			
	Krivak class		2			
	Neustrashimy class	2				
	Gepard class					2
OPVs	Vasily Bykov class		2			
Corvettes	Steregushchiy class	4			2	
	Karakurt class	2				
	Buyan-M class	2	3			3
	Buyan class					3
	Nanuchka class	4	1	2	4	
	Parchim class	6				
	Grisha class		6	6	8	
	Bora class		2			
Tarantul class	6	5		11	1	
Minesweepers	Alexandrit class	1	2			
	Gorya class		1	1		
	Natya class		5	1	2	
	Sonya class	4		6	7	2
Landing ships	Ropucha class	4	4	4	3	
	Alligator class		3		1	
	Ivan Gren class			1		
	Zubr class	2				

Like other parts of the Russian Armed Forces, the navy has undergone significant developments in connection with the military reforms beginning in 2008. This has resulted in the construction of new ships and the upgrading of old ones. In addition, Russia has made its naval vessels more powerful by equipping them with modern weapons systems.

For several reasons, though, the navy has not seen the same increase in strength as other branches of the armed forces (Oxenstierna et al., 2019, p. 125). First, designing and building new ships takes a lot of time, and the Russian shipbuilding industry is infamous for being distinctly slow (Parnemo, 2019, p. 50). The new ships built by Russia in the 2010s are thus mainly productions planned before the military reforms, which simply had not been completed by 2008. Second, the navy has suffered from being a lesser priority compared to the other services. Faced with limited resources and the huge task of rebuilding the armed forces, the Putin administration simply was not sufficiently interested in the maritime domain. As a result, the naval leadership has had difficulties living up to its own ambitions of 'maintaining the status of a great maritime power, possessing maritime potential that supports the implementation and defence of its national interests in any area of the World Ocean' (President of the Russian Federation, 2017, p. 2). Instead, the Russian Navy has experienced deteriorating ability to conduct blue water operations, and it is increasingly developing into a coastal fleet (Gorenburg, 2017).

This is evident from the fact that new Russian ships mostly consist of smaller vessels such as corvettes and minesweepers (Nielsen, 2019c, p. 152). Russia has built a few frigates, but not enough to replace the older frigates, destroyers and cruisers, which have been phased out. As a result, the Russian Navy now has fewer ships with a global reach. It has tried to compensate for this by upgrading older ships from the Soviet era, and we should expect some of these to continue to operate well into the 2030s (Oxenstierna et al., 2019, p. 125). However, it has proven difficult for Russia to maintain the operational status of older ships, and especially the upgrading of the iconic aircraft carrier Admiral Kuznetsov has developed into something of a farce, where first the sinking of a dry dock and then a large fire have caused doubts about whether the ship will ever put out to sea again.

Russia still has great ambitions to build new large surface vessels. For example, they have drawn up draft plans for new aircraft carriers, and especially the project for the gigantic Shtorm class carrier has received much

attention (RIA Novosti, 2019). Another significant project is the *Lider* class, a new cruiser of more than 15,000 tons (Mayers, 2019). Discussions on the development of the Russian Navy often refer to the new carrier and the new cruiser, but common to them is that they will probably never be built. Russia simply does not have the funds or the political determination to make the required investments (Parnemo, 2019, pp. 50-51; Trevithick, 2020).

A more realistic project is the construction of new, large helicopter carriers to substitute for the *Mistral* class ships, which had been ordered from France, but whose delivery was cancelled due to sanctions following the annexation of the Crimea in 2014. Russia has signed a contract for the construction of two such ships, and they are likely to become operational at some point during the 2030s (Axe, 2020). I here use the term 'helicopter carrier' to avoid the loaded term 'landing ship', which inevitably leads to images of ambitious amphibious operations. These ships will be able to carry as many as 900 marines, which makes them useful for landing operations, but in practice, they are flexible universal platforms that are useful in a broad variety of operations (Nielsen, 2020).

Another realistic project is the possibility of building a larger version of the new *Admiral Gorshkov* class frigate. This project is often referred to as the 'Super *Gorshkov*', and we could see this type of vessel in production within a couple of years (Mil.Today, 2020). The gradual phase-in of the *Admiral Gorshkov* class and possibly, also the 'Super *Gorshkov*' class will over time make it possible to replace older Soviet era destroyers such as the *Udaloy* and *Sovremenny* classes. However, this does not change the overall picture, that Russia has had difficulties building new large surface vessels fast enough to replace old ones facing retirement.

Alongside its gradual development into a coastal fleet, however, the navy has seen the opposite development in terms of weapons. Russia has been focussing on developing long-range precision missiles, and today a lot of its warships are equipped with modern missiles of the *Kalibr* or *Oniks* type (Connolly, 2019). The *Kalibr* missile has a range of 1,500-2,500 kilometres against targets on land, turning even small vessels into a possible strategic threat for Russia's adversaries. Consequently, Russia has to some extent managed to maintain a long-range capability, even with ships that are unable to cover the long distances. The practical benefit of extremely long-range missiles on a small corvette is debatable, though. The hard part of weapons delivery is usually target acquisition, and locating

moving targets at great distances is difficult (Nielsen, 2019b). However, the intimidating effect of these missiles is considerable. Especially Kalibr has attracted a lot of attention, as it is able to strike targets on land as well as at sea, and because it can be equipped with conventional as well as nuclear warheads. If equipped with a launcher, even small vessels are able to attract a lot of attention, as they can potentially be armed with nuclear weapons and long-range precision missiles.

Another main priority has been the construction of submarines. Russia has traditionally excelled in this area, especially the construction of nuclear-powered submarines. Russia has thus built the modern strategic Borey-class submarine, which, with its Bulava missiles, are an important part of the country's nuclear deterrence (Kofman, 2020). These submarines are part of the Northern and Pacific Fleets, and a main task of the other ships in these fleets is to make sure the strategic nuclear submarines are able to do their job. Another highly capable new submarine is the Yasen class, which is a nuclear-powered attack submarine. Its task is to destroy the most valuable enemy ships in the event of war, including aircraft carriers. It is these submarines that are most likely to carry nuclear-armed Kalibr missiles, enabling them to deliver tactical nuclear weapons (Kristensen & Korda, 2019, p. 80). Though both classes of modern submarines are fully developed and operational, Russia has prioritised serial production of the Borey class. In the course of the 2020s, however, it is likely that Russia will thoroughly update both its strategic submarines and attack submarines, giving it a highly modern and capable fleet of nuclear-powered submarines.

Russia's diesel-electric coastal submarines are less impressive, though, as Russia has not managed to build a reliable engine for air-independent propulsion. This means that although modern Russian coastal submarines such as the Improved Kilo class are good, they also have a weakness in that they are forced to surface regularly for snorkelling while the batteries recharge. The Russian coastal submarines are thus less technologically sophisticated than their Western counterparts. In return, they are equipped with Kalibr missiles which can be fired while submerged, and that gives the Improved Kilo class a capacity for precision attacks against targets on land – a capacity that only significantly larger Western submarines possess.

When Russia has chosen to focus on submarines, it largely reflects a wish to compensate for the reduced strength of its surface fleet. As a rule, submarines operate independently, whereas surface vessels must be part

of a fleet. By focussing on submarines, the Russians are thus able to achieve a greater effect with fewer vessels. Naturally, this is no miracle cure, and there are lots of tasks that submarines are unable to perform, but when it comes to strategic deterrence and the ability to challenge US supremacy on the oceans, submarines constitute a well-suited weapon.

Future Development in Equipment

Looking at likely scenarios for future development of the Russian fleet, there are two important but also somewhat contradicting trends when it comes to equipment. First, Russia clearly has difficulties building new ships fast enough. This is due to a combination of political priorities, lack of resources and a weak shipbuilding industry. On the other hand, the Russians now have a series of good prototypes of various ship classes, and they may be able to translate them into rapid serial production. This has led some researchers to argue that we can expect a form of ketchup bottle effect, as Russia has laid the groundwork for future production of modern warships (Connolly, 2016, p. 1; Oxenstierna et al., 2019, p. 125). This includes specifically:

- Strategic Borey-class nuclear submarines
- Nuclear-powered Yasen-class attack submarines
- Improved Kilo- and Lada-class coastal submarines
- Admiral Gorshkov-class frigates
- Steregushchiy-, Karakurt- and Buyan-M-class corvettes
- Alexandrit-class minesweepers

However, there is reason to be sceptical about whether Russia will in fact manage to increase its production rate significantly. The first reason is simply that we have not seen such an increase in production yet. The average age of Russian warships continues to rise; in 2019, it rose by 0.2 years (cf. Nielsen, 2019c). Only the Black Sea Fleet has seen a slight decrease in average age. In other words, in 2019 new ships were not introduced fast enough to keep up with the aging of existing ships. This is somewhat surprising, as a lot of the Russian prototypes are not new, and one would have expected the synergy of serial production to have emerged by now. Part of this can possibly be explained by the fact that Russia has had difficulties

freeing itself from its dependence on especially Ukrainian and German ship engines, which were subjected to sanctions following the annexation of the Crimea in 2014. It is unclear, though, how much the production rate will increase once Russia gets its own production going (Connolly, 2017, pp. 8-10).

Another reason why Russia may not profit fully from developing good prototypes is that the Russians have traditionally changed designs rather often. The list in table 8.1. shows that Russia does not have a lot of ships of each type, and achieving synergy can thus be difficult. For example, the Admiral Grigorovich class can still be said to be a modern frigate, but Russia abandoned the design after building just three ships for themselves and selling a couple for export. Instead, they have now chosen to focus on the Admiral Gorshkov class, which is now being further developed into the Super Gorshkov. This makes it difficult to achieve economies of scale. In comparison, the Americans have a very different tradition for sticking to a design and then building a lot of units. For example, they have built 85 Arleigh Burke-class destroyers, and production is still ongoing (O'Rourke, 2020, pp. 2-3).

The fact that Russia has so many different ship types is connected with the fact that the state uses funds allocated for defence to support various design agencies. They are regularly tasked to develop new ship types, which means that they constantly have new designs in the pipeline. Prominent examples include the Gremyashchiy-class corvette, the 'Project 20386' corvette, the Kalina-class coastal submarine and the above-mentioned further development of the Admiral Gorshkov-class frigate (Gady, 2017; Novy, 2020). Add to this that Russia's armament industry generally suffers from poor efficiency and erratic quality (Connolly & Boulègue, 2018, pp. 32-35). Hence, Russia faces various institutional issues that make it difficult for the country to achieve economies of scale with regard to the fleet. Even though they could to some extent lower costs and harness the value of good prototypes for serial production, this would require a cultural transition that so far has not occurred (Connolly, 2016, p. 2).

Tasks

The changing interest among Russian politicians in the country's military power at sea reflects the fact that a lot of its military goals are achieved

without the use of maritime forces. On the other hand, Russia does use its navy to solve various tasks, and the maritime units do help safeguard the country's strategic interests. In this section, I will briefly outline some of the Russian Navy's main tasks. Obviously, it is not a complete list, but it serves to illustrate how the various tasks are tied to the structure of the fleets and the geopolitical challenges facing Russia today.

Strategic Deterrence of the US

The aspiration of the Russian military is largely to be able to wage war against the US. For that purpose, a series of tasks demand that Russia be able to operate at sea. These tasks relate to great power war and strategic deterrence and are mostly delegated to the Northern and Pacific Fleets.

First, Russia must be able to challenge the US' supremacy at sea. The US Navy is the strongest in the world, and Russia cannot realistically defeat the US in a naval battle. However, as mentioned above Russia does not really need sea control in order to fulfil its strategic objectives at sea. Instead, adopting a sea denial strategy, Russia will be able to challenge the Americans' ability to use the sea and thus cut them off from Europe. Russia's nuclear-powered attack submarines are well-suited for this purpose; they are often referred to by Russian sources as 'carrier killers'. Also important to note is that the Russians do not have to defeat the entire US Navy, but rather simply try to sneak undetected through the screen of escorts surrounding the most important targets and thus make sure the Americans lose their mission essential units (Hicks, Metrick, Samp & Weinberger, 2016, p. 6). It is doubtful whether Russia is strong enough to cut off the maritime lines across the Atlantic Ocean entirely, but they will for a period of time be able to cause substantial disruption and thus delay Western operations. This would limit the Americans' ability to move equipment and troops across the Atlantic.

Another main task related to strategic deterrence is supporting the submarine-based leg of Russia's nuclear triad, enabling the country to retaliate in the event of a nuclear attack. On a day-to-day basis, this means that the navy must have strategic submarines patrolling the Atlantic and Pacific Oceans and, in the event of a crisis, be able to deploy more submarines. It also means that Russia must be able to defend its naval bases and ensure free access between the bases and the oceans. They therefore need the ability to establish sea control around the approaches to the naval bases – a task that is often referred to as the 'bastion concept' around the Kola

Peninsula (Boulègue, 2019, pp. 6-8; Kvam, 2020). In practice, this means that both the Northern and Pacific Fleets have ships dedicated mainly to protecting the waters around the naval bases in the event of large-scale war. Moreover, they have long-range missile batteries on land, and naval aviation have allocated significant resources to ensuring air supremacy around the naval bases.

Finally, it is worth mentioning that climate change has turned the Arctic into a scene of military competition between the great powers. The Northern Sea Route is now navigable a large part of the year, and both the Northern Fleet and the Pacific Fleet use the route to move ships from one part of the country to the other. In addition, the melting of the ice has been the cause of renewed conflict between Russia and the US over the legal status of these waters. Parts of the sea route pass through Russian territorial waters, but the US believes it is an international strait, which gives other countries the right to unhindered transit passage. On the other hand, Russia has presented several arguments as to why the passage does not live up to the definition of a strait, arguing further that Article 234 of the Convention on the Law of the Sea gives Russia the right to regulate the traffic to protect the highly vulnerable ecosystem of the Arctic. Incidentally, the Russian views are shared by Canada, which relies on the same rules regarding the Northwest Passage (United Nations, 1982). There is validity to both arguments, but delving into this discussion is beyond the scope of this chapter (Fahey, 2018; Galimullin & Bedyk, 2020; Todorov, 2017). From a military perspective, the important thing to note is that whereas the military focus concerning the Arctic used to concentrate on the waters around the Kola Peninsula, the conflict potential has now increased to include the entire Northern border. Russia is therefore in the process of establishing a sea denial capability across the Arctic coastline with long-range missile batteries and surveillance capacities in strategic positions (Boulègue, 2019, p. 12).

Small Wars

Whereas wars between great powers are rare, strong countries often engage in small-scale armed conflict around the world. Hence, Russia is currently involved in active fighting in Ukraine and Syria, and it constitutes a significant actor in frozen conflicts in, for example, Georgia and Moldova. In addition, Russia has soldiers in a number of countries, where it seeks to gain influence.

The navy is used to support such military operations. From a geographical perspective, the Black Sea Fleet is in a central position vis-à-vis most of the current conflicts. Therefore, it plays a key role in rendering possible and coordinating Russia's efforts in connection with small wars and conflicts in Southeast Europe, the Middle East and North Africa (Nordby, 2017).

Russia has a limited capacity to project power from the sea and on shore, as the country neither has a functional aircraft carrier nor the large landing ships required to support amphibious operations. As mentioned above, these are capacities that Russia wishes to build, though it is uncertain what the result of these plans will be. Consequently, Russia currently does not have the capability to conduct large landing operations. However, it does have the ability to conduct operations at sea, and it has the ships and infrastructure to provide logistical support to the other services via sea lines of communication. The most prominent example hereof is the so-called Syrian Express, which shuttles between the Black Sea and the naval base in Tartus to deliver supplies to the Russian forces in Syria. Furthermore, in Syria the fleet has delivered precision bombings on ground using long-range Kalibr missiles. From a military point of view, it was probably not strictly necessary for the navy to lend the air force a helping hand, but it did send a clear signal, demonstrating to the world that Russia has these capabilities at its disposal.

These types of limited naval contributions to Russian military interventions constitute one of the navy's main tasks, and there is no doubt that it is something we will continue to see. Unlike the US Navy, the Russian Navy does not have the strength to project overwhelming power onto another country, but combined with other diplomatic and military resources, Russia has enough naval strength to make a difference in a conflict.

International Maritime Policing Operations

Russia's maritime interests are not limited to war, but also include maritime policing operations. This rather broad term covers the types of tasks aimed at maintaining law and order rather than achieving a military advantage.

Russia regularly engages in these types of operations, for example in connection with the removal of chemical weapons from Syria in 2014 and in the fight against piracy in the Gulf of Aden. A challenge facing Russia in this connection has been the international community's reluctance at times to include Russia in collaborations, and therefore, the Russian contribution

has sometimes been of a slightly symbolic nature. It is clear, though, the Russia does want to be considered an actor, which also in this area plays a role in the international maritime system.

In that connection, Russia's current force structure developments pose a problem, as fewer ships will be well-suited for maritime policing operations. This is connected with Russia's overall development away from a fleet of large surface combatants and towards a greater focus on coastal defence with smaller vessels and submarines. These vessels may be well-suited for challenging an enemy's supremacy at sea, but they are not ideal for protracted international deployments against a diffuse opponent such as organised crime or terrorism. In the years to come, it will therefore become harder for Russia to contribute to international maritime policing operations. The country will still have frigates and large corvettes capable of solving such tasks, but it will require more difficult trade-offs, as the most powerful surface ships will then be unavailable for other tasks in the meantime (Till, 2016, p. 23).

Naval Diplomacy

The last main task of the Russian Navy is to create diplomatic effect through active presence in specific areas. Warships have certain advantages as diplomatic tools, because the ocean to a large extent is borderless, and ships can move freely. They can thus show up and leave again, or they can stick around in an area without being a burden to anyone. At the same time, ships can more easily change their appearance, transforming, in the words of navy thinker Ken Booth (1977, p. 27), 'from a platform for a dance-band and cavorting local dignitaries, to a haven of refuge for nationals in distress, to a gun-platform for shore bombardment'. Moreover, navies play a role in symbolic battles between nations, and it makes a difference to have large, impressive ships that radiate superiority (Speller, 2018, p. 84).

Russia has adopted an active approach to naval diplomacy and proven that it is able to make headline news using simple means. One example was the deployment of the aircraft carrier Admiral Kuznetsov to the Mediterranean in 2016. Though the carrier in reality only made a limited contribution to the operations in Syria, it nevertheless made headline news, for good or bad, around the world, and Western navies allocated considerable resources to observing the Russian ship (Parnemo, 2019, p. 52). Another example of active Russian naval diplomacy was a joint exercise with Iran and China, held close to the Strait of Hormuz, during a conflict between

the US and Iran in December 2019. The fact that the three countries had thus entered into a military collaboration struck a responsive chord around the world, but in fact Russia had merely sent a single warship from the Baltic Fleet to Iran on a naval visit and to do a couple of simple exercises that mostly focused on good photo ops (Nielsen, 2019a).

Such active use of naval units to create diplomatic effects is undoubtedly something we will continue to see. However, Russia will have a harder time achieving the same diplomatic effects with the ships it is building today than with the ones that are currently being phased out. Arguably, the most impressive new Russian ships today are the Borey- and Yasen-class submarines, but they do not have the qualities required for flexible naval diplomacy. More suited for this purpose are surface ships such as the Admiral Gorshkov-class frigates, but compared to the gigantic Soviet warships, they are much less impressive and have a reduced signalling effect as diplomatic instruments.

Conclusion

In this chapter I have described the Russian Navy and the country's naval capabilities. The resulting picture is that of a Russian fleet under pressure. Russia's naval strength is showing a declining trend, as the country has been unable to build new, large ships to match the ones currently being phased out. The result is that the Russian Navy is increasingly developing into a coastal fleet with some potential for operating at larger distances for limited periods at a time. This is a considerable downturn compared to past glories and official statements about the country's level of ambition.

However, Russia has carefully chosen a couple of focus points to ensure that it will continue to constitute a credible maritime threat to the US. By focussing on modern nuclear-powered submarines and long-range missiles for both small and large vessels, the Russians have managed to develop capabilities capable of challenging US supremacy at sea.

In more theoretical terms, Russia today is characterised by a movement away from the old school's ambition of a large, offensive navy and towards the young school's ideal of a limited coastal defence. It is a fleet that is sustainable, considering the Russian economy, but also less versatile. Even though Russia intends to maintain a maritime force for core military tasks such as strategic deterrence and participation in small-scale wars, Russia

as a whole is currently losing maritime strength. The country will not have the same ability as previously to influence the global maritime agenda or to use its navy as a diplomatic tool. On a regional level, though, close to its strategic positions in the Baltic Sea, the Black Sea and the Barents Sea, Russia will continue to constitute a strong naval force, capable of attracting the attention of the neighbouring countries as well as global great powers. And this also means that the Russian fleet will continue to play a vital role in the maritime dynamics around Denmark, because the Danish straits by the entry to the Baltic Sea are located within the maritime zone where a Russian coastal defence against the US might unfold.

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CHAPTER 9

The rise of Russian Air Power – a Qualitative Assessment of the Capability of the Russian Aerospace Forces

By Karsten Marrup and Kåre Dahl

Introduction

This chapter explores the development and status of Russian air power. Based on the military reforms launched in 2008, Russia has modernised its air forces and recently promoted several upgraded or brand-new fighters (Allport, 2018, p. 20) as well as several new missile systems (IISS, 2019, p. 178, 192) for both offensive and defensive use, attracting great publicity (Globalsecurity, n.d.). Russia has successfully managed to present its air power as a strong, modern force, and it has conducted operations in Syria, among other things to demonstrate and test its military air power capabilities (IISS, 2019, p. 170).

Denmark too has seen Russia exercise its air power. The media regularly describe how Danish fighters have had to take off to turn away Russian fighters or long-range bombers approaching and, in rare cases, entering Danish territorial airspace. Though such events are typically void of any drama, they do demonstrate Russia's ability and will to make its presence in the neighbouring region known. Add to this the increased military focus on the Baltic Sea Region. Danish soldiers are stationed in Estonia, alongside soldiers from other NATO member states, to demonstrate NATO cohesion

following Russia's annexation of the Crimea. Russian military conduct in its Western Military District should attract the attention of the West, as especially the current balance of power between NATO air forces, on one side, and Russian aerospace forces, on the other, might prove problematic for NATO in the event of a military confrontation in the air above the Baltic Sea Region.

Therefore, it is extremely important to bring focus to Russia's current military air power capabilities, and given Denmark's central location by the entry to the Baltic Sea area, it is a topic of great interest to Danish security policy. The purpose of this chapter is thus to provide a qualitative assessment of Russia's military air power capabilities. It may add to our understanding of present-day Russian military capabilities, including in our own neighbouring region. Although the Russian Army and the Russian Navy also have military air power capabilities, they will not be addressed here.

Air power is defined by NATO as '[t]he ability to co-ordinate, control, and exploit the air domain in the pursuit of Alliance objectives' (NATO, 2019, p. 2). This understanding of air power entails that the air domain is exploited for political gain,¹ and it may thus be used in this context, as this also applies to Russia.

Following a brief research review, the chapter is divided into four main parts. Part 1 examines the concept of air and space power, including the types of missions included herein. This part of the chapter forms the basis of subsequent assessments of Russia's air power. Part 2 then begins with a general introduction to the organisation of the Russian Aerospace Forces, before outlining its air power capabilities within four main categories: aircraft and drones, anti-aircraft systems and missiles, space capabilities and, finally, command and control. Though the overall nature of this introduction is quantitative, it will be supplemented by qualitative assessments of the identified capabilities. Part 3 compares Russia's capabilities with the types of missions outlined in part 1 in order to arrive at an actual qualitative assessment of Russia's ability to conduct air and space operations. Part 4 offers a conclusion on the status of Russian air power in 2020. All information presented in this chapter is based exclusively on open, unclassified sources.

1. 'Alliance objectives' are political objectives, as NATO is a political organisation, and any Alliance objective is therefore ultimately a political objective.

Despite the fact that nuclear capabilities mainly use the air domain as its means of delivery, this chapter will not contemplate Russia's ability or willingness to conduct nuclear operations. This will instead be addressed in a chapter dedicated specifically to this issue.

Literature Review

For a description of the Russian Armed Forces and its air power in general, see IISS (2020) and Jane's (2019). Both sources provide a numerical and overall description of the country's air forces. A more qualitative assessment of its armed forces is available in Allport (2018), who concludes that Russia's conventional weapons are more potent than its nuclear weapons. In his article from 2017, Giles offers a balanced answer to the question of the status of the Russian Armed Forces: not invincible, but not impotent either. Defence of Japan (DOJ 2018) offers an Asian perspective on the modernisation of the Russian Armed Forces. It too concludes that the Russian president is not lying when he claims that Russia is gradually returning to its former prime. The same conclusion can be found in a recent report from the Norwegian intelligence service (Etterretningstjenesten, 2020).

With regard to detailed knowledge about the Russian Air Force, Gordon and Komissarov (2011) is a good place to start if you wish to go into detail about the Russian aircraft. The book is mainly a picture book, though, and the many detailed images and descriptions of the individual aircraft offer no assessments of their quality. For an assessment of Russia's air power, Dalsjö, Berglund & Johnsson (2019), Trautner (2018), Gladman et al. (2017) and Gvosdev (2016) are useful, though they do not arrive at the same conclusion. Whereas Dalsjö, Berglund & Johnsson are critical of Russia's actual prowess, Trautner is more convinced about the quality and threat of the Russian Armed Forces. An important factor in comparisons of NATO and Russia, Boston, Johnson, Beauchamp-Mustafaga & Crane (2018) stress, is the fact that whereas NATO will be numerically superior over time, Russia has an immediate advantage from being in a state of readiness.

Unlike e.g. the UK and US air power doctrines, which are freely available online, the Russian counterpart is not made public. First of all, the Russian doctrine is generally aimed at the strategic level, and second, unlike the West, Russia does not have a tradition for making its operational concepts publicly available. Even so, the Russian concept for the deployment

of air power will be referred to in this chapter as doctrine in order to facilitate comparison to well-known terms. Kainikara (2005) offers a review of the early development in Russian air power and constitutes a useful source for the history and doctrinaire thinking of the Russian Air Force. It is also a main source for insight into how Russian air power supports the country's ground forces. Employing the same focus as Kainikara, Sterrett (2007) provides a detailed survey of early Soviet air power theory, including the debate on a separate air force, whereas Johnson (2015) is a more recent source to go to for knowledge on the general use of Russian military power, including air power.

This chapter does not focus on the future development in Russian air power, which is a topic already covered in detail by various sources. We recommend Westerlund and Oxenstierna (2019), and if supplemented by Connolly and Boulègue (2018) and Person et al. (2016), even the most critical reader should feel well-informed.

Air Power

The main task of the Russian Armed Forces is fighting on ground, and Russian doctrinaire thinking regarding the use of air power therefore mainly focusses on attacking targets on ground in support of the Russian Army (Kainikara, 2005, p. 4). The early Soviet debate following the First World War was more preoccupied with whether the air force should be a separate service than with defining its main task, as it was soon concluded that the air force should have two roles: to be in control of the air and to support fighting on the ground (Sterrett, 2007, pp. 25-26). The Western doctrinaire approach to the employment of air power is largely influenced by air power thinkers such as Douhet, Mitchell, Trenchard and, not least, Warden, who are all concerned with the strategic applications of air power (Warden, 1997). They do not consider support for ground-based fighting the main task of the air force; it is merely a secondary task that is necessary to protect the freedom of movement of one's own forces. Douhet's and Trenchard's ideas of massive air forces bombing the opponent to a pulp never gained ground in the Soviet debate (Sterrett, 2007) or, subsequently, in Russia. The fundamental difference between the Western and Russian approaches to air power is that Russia would never try to win an armed conflict by only engaging its air forces in strategic bombardments; instead,

it would use its ground forces, supported by forces in the air. An approach that is fully supported by Western air power thinkers Robert Pape and Martin van Creveld, but not reflected in Western doctrine.

This analysis of Russian air power will take NATO doctrine for air and space operations as its starting point and use said doctrine to describe different types of missions and what they consist of. In Western thinking, doctrine is a tool typically used to frame and define fundamental approaches based on experience. Within the framework of air operations, doctrines are mainly used to describe activities at the tactical level. NATO doctrine is based on consensus among all the member states and thus appear to represent a universal Western perception of the types of missions that are predominant regarding the use of air power. Russia takes a broader approach to doctrine, which typically helps frame the strategic level and the interaction between actors at this level. The Russians therefore do not have specific doctrines for the conduct of air operations at the tactical level – and if they do, at least they are not publically available. Therefore, we are unable to base this analysis of Russian air power on actual Russian doctrine for air operations. Instead, Western doctrine is used as a main foundation for understanding what Russia would be capable of doing with its power. Even though Western doctrinaire thinking regarding the employment of air power to achieve one's goals is different from the Russian perspective, they share the same overall approach to the use of air power. Operation types and the categorisation of aircraft for specific types of missions are the same. They differ only when it comes to the categorisation and prioritisation of operation types. Therefore, NATO doctrine, if regarded as a universal categorisation of air power, can be used in this context.

When NATO – and Russia – employ air power, they do so within one of the following four categories: Counter-Air, Attack, Air Mobility or Joint Intelligence, Surveillance and Reconnaissance (JISR).² Add to these, space operations, which support the other four categories. This is also true of Russia, where early Soviet thinkers such as Algazin as early as 1928 grouped the country's air power into the following categories: deployment in battle over airspace (Counter-Air), support for ground forces (Attack),

2. Counter-Air is suppression of an enemy's military air power to gain control of the air. Attack is directed at targets on the ground or at sea, which do not fall under Counter-Air. Air Mobility includes all forms of air transport and air-to-air refueling, and JISR is the collection of information (data) within the optical and electromagnetic spectrums and processing of this data.

reconnaissance (JISR) or political activities (dropping leaflets) (Sterrett, 2007, p. 28). The lack of mention of air transport (Air Mobility) at this point in time is due to the fact that the technology available then did not support such tasks. Furthermore, the Russian aerospace forces are structured much in the same manner as in the West; they are categorised by aircraft types: aircraft for attacking other aircraft (Counter-Air), aircraft for hitting targets on ground (Attack), transport aircraft (Air Mobility) and aircraft for intelligence, surveillance and reconnaissance (JISR). In addition, Russia has an extensive space programme with capabilities supporting the armed forces. The latter task can also be found in NATO doctrine. All in all, it thus makes good sense to rely on NATO doctrine here as a basis for studying Russia's air power.

As mentioned, Russia has an overall military doctrine. Air power is used to achieve political objectives, and the question then, following a description of what the Russian Air Force is capable of, is whether it is in fact enough to achieve the political objectives outlined in the military doctrine. At the time of writing, a new Russian military doctrine is in the pipeline, but until its release the doctrine from December 2014 will define these objectives. According to the doctrine, the Russian Armed Forces and thus the Russian Aerospace Forces must, among other things, be capable of defending Russia and its allies, deter and prevent conflicts, ensure surveillance and timely warning of imminent attacks, deploy forces, protect critical infrastructure from air and space attack, support the armed forces with space capabilities, conduct peacekeeping operations and fight piracy and terrorism (Russia MOD, n.d.).

These tasks are solved using i.a. air power and, in that context, through the four above-mentioned operation types, which will be described below to provide an overview of what Russian air power must in fact be capable of.

Counter-Air is about controlling the airspace. The objective of gaining control over the air is to protect one's own forces in the air as well as on ground and at sea against attacks from the air and to utilise the airspace in support of one's own units. The need for airspace control is fundamental, according to Western air military thinking, as argued even by the first air power thinkers (Douhet, 1921, p. 19; Mitchell, 1925, p. 16). Control of the air is vital when it comes to winning battles on ground as well as at sea, and since the Second World War no one who has controlled the airspace has lost a battle on ground (Mehrtens, 2019). To gain control over the air one must be able to attack the enemy's air forces as well as the defence,

command and control systems supporting them and be able to defend oneself against attacks.

Whereas Counter-Air and control of the air are more or less a precondition for conducting most other types of military operations; according to NATO doctrine, Attack is the core task of a country's air power (NATO, 2019, p. 24). Attack is coercion in the broadest possible sense with tactical as well as operational and strategic effect. This is done either by hitting enemy forces on ground or at sea or by impacting the enemy's decision-makers directly through so-called strategic attack. The term typically covers all types of air attacks not related to Counter-Air.

Air Mobility is a necessity i.a. to maintain operational tempo, and it includes air transport of personnel and equipment, e.g. deployment, replenishment, rescue operations and transporting sick or wounded persons. The concept also covers deployment and extraction of special forces. Air transport is divided into two main categories: transport to the area of operation from the home country/base and transport within the area of operation. Air-to-air refuelling is also included within Air Mobility (NATO, 2019, p. 28). Air-to-air refuelling provides aircraft with global reach and, more importantly, it gives aircraft and helicopters the possibility to stay in the air for longer than usual and thus ensures better utilisation of the available capabilities. A fighter such as the F-16 can stay in the air for one to two hours based on its own fuel supply, but once it has access to air-to-air refuelling, the pilot becomes the only limiting factor from keeping the aircraft in the air. Missions involving fighters which last more than six hours are thus not unusual. That is why tanker aircraft are also referred to as force multipliers, because they have the power to keep aircraft in the air longer than usual, getting as much as possible out of the individual platform.

The purpose of JISR activities supporting joint intelligence collection, surveillance and reconnaissance is to build an intelligence picture and situational understanding of the enemy with a view to utilising this for target designation as well as warning of attacks (NATO, 2019, p. 29). It also plays a main role in assessing the progression and success of an operation. The role of air power in JISR contexts is to collect information that will help reduce uncertainties in decision-making processes and contribute to information superiority – that is, create a better understanding of events in the area of operation. The three main characteristics of air power – speed, reach and height – make aircraft particularly suitable for surveilling large areas using few resources.

Looking at the four overall categories together suggests that they are equally important for utilising air power optimally. First, it is necessary to gain control of the air in order to subsequently suppress the enemy through attacks or threats hereof from the air or the ground. Without control of the air, one cannot expect to be successful on the ground or at sea. For Counter-Air and Attack activities to have an effect, one must first have knowledge of events and the location of the capabilities one wishes to target. Furthermore, all operations depend on the availability of supporting logistics when needed and where needed. In other words, a country can have lots and lots of offensive aircraft and weapons, but their effectiveness will suffer without knowledge of the location of the targets or the right weapons and/or resources to deliver them.

Also vital to effective deployment of air power is the ability to conduct command and control. NATO's formula for effective command and control is centralised control and decentralised execution. All operations are planned and coordinated from the same headquarters, which also makes sure to coordinate air operations with ground, maritime and special operations, respectively, in order to fully utilise air power's ability to flexibly support surface operations. Russia has a similar centralised control structure.

A central element affecting both the conduct of air operations as well as the command and control hereof is space capabilities, which provide support in areas such as communication (SATCOM), meteorological and oceanographic forecasts (METOC), navigation-related information (GPS), surveillance of units on the ground and in space (ISR) and early warning of missile attacks (EW) (NATO, 2019, p. 42). In addition, satellites are used to inspect own and other countries' satellites in space. Satellites can also be used to damage opponent satellites and are therefore sometimes referred to as anti-satellites (ASAT). For that reason, this chapter will include a section on Russia's space capabilities which are after all part of the foundation enabling the Russian Aerospace Forces to conduct operations. Russia as well as the US and EU have research-based space programmes mainly centred around the international space station. These are not directly related to military operations and will therefore not be discussed further in this chapter.

Based on the above presentation of air power and the role hereof, the following section will look at Russia's capabilities within this area.

Russian Air Power Capabilities

The Russian Aerospace Forces (*Vozdushno-Kosmicheskiye Sily*), colloquially shortened and referred to simply as the VKS, consist of the Russian Air Force, Air Defence and Space Defence. The VKS is a result of the 2015 restructuring of the Russian Armed Forces, which merged the three. Since 2011, Russia has favoured upgrading its aerospace forces (later the VKS) over the army and navy. The aim is to modernise 80 per cent of the VKS by the end of 2020 (Gordon & Komissarov, 2011, p. 3). Russian statements provide no proper definition of modernisation, though, only that the process involves both upgrading old platforms and acquiring new ones. However, it is clear that Russian aircraft are being equipped with new weapons, new engines, new avionics (the electric systems used to control the aircraft in the air and for navigation and weapons delivery) etc. In other words, they are not merely being repainted, but given a real quality boost.

The VKS is governed by the Russian General Staff. The Supreme Command of the Air Defence Forces (VKS) has strategic control over all air forces conducting strategic operations and air transport, whereas control over tactical and defence flights rests with the respective joint OSKs of the five military districts (Jane's, n.d.-a).³

As mentioned, the VKS is divided into three columns: Air Force, Space Defence, and Air and Missile Defence. The Air Force is further divided into subcategories, each of which represents the types of operations they perform: operational/tactical fighting (Counter-Air and JISR), flying for the army (Attack), long-distance flying (strategic bombers) and air transport. Space operations are divided into the categories: orbital resources (communication, weather and other satellites) and ballistic warning (space- and ground-based warning).

Air and Missile Defence consists of three categories: air defence, radio technology (airspace surveillance using radar) and ballistic missile defence (Westerlund & Oxenstierna, 2019, p. 32). See table 9.1.

3. *Obedinonnye Strategichskoe Komandovanie (OSK)*, which translated directly means Joint Strategic Command. See chapter 6 for a more exhaustive description of the organisation of the Russian Armed Forces.

Table 9.1. Categories of air and missile defense. (Westerlund & Oxenstierna, 2019, p. 32).

Vozdushno-Kosmicheskiye Sily (VKS)		
Air Force	Space	Air and Missile Defence
Operational-tactical	Orbital resources	Air defence
Flying for the army	Ballistic warning	Radio technology
Long-distance flying		Ballistic missile defence
Air transport		

In total, the VKS VKS totals 159,400 personelle. It is believed that pilots’ air time has been more or less stable since 2014 at around 110 flying hours a year for combat pilots and 200 flying hours a year for transport pilots (Jane’s, n.d.-a). A large share of the Russian pilots have participated in operations in Syria, which has not only given them valuable operational experience, but also demonstrated Russia’s ability to provide and support effective military contributions. In total, more than 48,000 Russian soldiers and airmen have participated in these operations. Eighty per cent of Russian air crews, including 95 per cent of all Russian combat helicopter crews, have on average flown between 100 and 120 missions in Syria (Ria Novosti 2017).

The rest of this chapter will analyse Russian air power and space capabilities. This analysis has been divided into four categories reflecting the main tasks of air power: Counter-Air and Attack (offensive as well as defensive capabilities), Air Mobility (transport and air-to-air refuelling), JISR (reconnaissance and surveillance) Space Capabilities as well as Command and Control (C2).

The analysis will be divided into platforms and the categories used by the IISS, just as data from the IISS publication ‘The Military Balance 2020’ will act as our main source. The analysis of the individual capabilities will be supplemented with information about e.g. weapons, upgrades etc.

With regard to drones, these are typically grouped into three categories according to size (Gettinger, 2019, p. IV). As class I drones are small drones of up to 150 kilos and mainly used by the army and navy for surveillance, only class II and class III drones will be included in this analysis.

The tables below list all the Russian air power platforms considered relevant here. Training aircraft have not been included, as these are not used for operational purposes and thus do not affect Russia’s air military capabilities. Each table provides the total number of aircraft available within

each category followed by the types of aircraft and the number of aircraft available of each type. The aircraft are referred to both by their production title, e.g. MiG-29, and NATO designator,⁴ in this case Fulcrum.

To gain a picture of the actual combat power one should keep in mind that the figures presented here include all aircraft, but not how many are ready for deployment at a given point in time. Aircraft may be out of operation for various reasons, including service, upgrading, breakdown etc. It is therefore realistic to assume that around 75 per cent of the total number of aircraft presented here are operational (Westerlund & Oxenstierna, 2019, p. 33).

Counter-Air and Attack

The analysis of Counter-Air and Attack has been divided into an analysis of aircraft and an analysis of anti-aircraft missile systems, respectively, as the latter should also be grouped within the Counter-Air category.

The list below includes all VKS aircraft, which may be used for attack and/or defence, and it has been structured as follows:

Strategic bombers, fighters used for both air defence and attacking surface targets (multirole), fighters mainly used for air defence, and fighters and helicopters mainly used to attack surface targets. The list also includes aircraft and helicopters focussing on electronic warfare, as these may also be used for offensive purposes.

To put the figures into a European context, we have included a space at the bottom listing European NATO member states' equivalent capabilities. See table 9.2.

4. NATO designators are NATO reporting names for Russian aircraft. The names have been divided into categories, which mean that fighters are given a name beginning with F, cargo aircraft a name beginning with C, bombers a name beginning with B etc.

Table 9.2. Russia's VKS airplanes

	Strategic bombers	Fighters, multirole	Fighters, air superiority	Fighters, ground-attack	Combat helicopters	Electronic warfare aircraft
Quantity	139	453	180	264	414	30
Type	63 Tu-22M Backfire	50 MiG-29 Fulcrum	70 MiG-29 Fulcrum	70 Su-24 Fencer	127 Ka-52A Hokum	3 Il-72 (no code)
	60 Tu-95M Bear	71 Su-27 Flanker	80 MiG-31 Foxhound	194 Su-25 Frogfoot	100 Mi-24 Hind	27 Mi-8 Hip
	16 Tu-160M Blackjack	111 Su-30 Flanker	30 Su-27 Flanker		105* Mi-28 Havoc	
		122 Su-34 Fullback			82** Mi-35 Hind	
		90 Su-35S Flanker				
		9 Su-57				
EURO/NATO	0	1398	167	356	454	42

* This figure is based on data from Jane's. It is 98+ according to the IISS.

** This figure is based on data from Jane's. It is 60+ according to the IISS.

Strategic bombers: Russia is currently in the process of upgrading (RF MOD, 2019) and expanding (Axe, 2019) its fleet of strategic bombers, and it has been testing several new types of ammunition, including airborne cruise missiles. Both Tu-160 and Tu-95 have used airborne cruise missiles (ALCM) in Syria (IISS, 2019, p. 16). In addition, Russia has initiated development of the PAK-DA (Safronov & Georgievich, 2019), which is a strategic bomber with a low radar signature similar to the US B-2. However, delivery hereof may not take place for a long time to come due to budget limitations (Gady, 2020).

Fighters, multirole: Multirole aircraft may be used both for air defence, fighting other aircraft, and to attack targets on ground. Aside from the new air-to-air missiles available to the air defence aircraft, they may also be equipped with e.g. KAB-500 and KAB-1500 series bombs. The bombs are either laser-, TV- or INS/GLONASS satellite-guided precision weapons of 370, 520 and 1,525 pounds, respectively. KAB-500 bombs have been used in Chechnya as well as Syria against bridges and similar targets requiring precision weapons (Globalsecurity, n.d.-a). All the multirole fighters,

including the Su-57, have been employed in Syria. The Su-57 is still not operational, though.⁵

The group of multirole fighters is considered the most powerful and flexible part of the VKS. It is the largest group of aircraft, but also the most modern (e.g., 44 of the 50 MiG-29s in this group can be refuelled in the air). Both the Su-30SM and the SU-35S are newer versions of the Su-27, all of which are referred to by NATO as Flanker. These aircraft are characterised by being extremely manoeuvrable. They exceed the Su-27 in range and can perform a broader spectrum of tasks. Whereas the Su-30SM has been in production since the mid-1990s, the Su-35S (also known as the Super Flanker) is a recent upgrade that is just six years old. Most of the aircraft in this group have been produced and delivered within the past 10 years (Nikolsky, 2016).

Fighters, air superiority: This type of fighter is tasked with fighting other fighters in the air. Even though these fighters can in principle be equipped with bombs, it is not what they were designed for or what the pilots have been trained to do. Just like the US fighter F-15, the Russian counterparts, MiG-29 Fulcrum and Su-27 Flanker, are available in an air-to-air as well as an air-to-ground version. Most of the aircraft in this category are older aircraft facing more limitations in terms of utilisation than their younger multirole relatives. For example, older versions of the MiG-29 in this group cannot be refuelled in the air. However, they have all been equipped with new, up-to-date air-to-air missiles. The Vympel R-77 (Adder) and Vympel R-73 (Archer) air-to-air missiles are both available in new, upgraded versions: R-77-1 and R-74M. In addition, a new long-range missile, R-37 (Axe-head), was developed and introduced in 2016, and it now represents the main missile used on the MiG-31 Foxhound (IISS, 2019, p. 8). All 80 MiG-31s are upgraded versions of the original (TSAMTO, 2014) (IISS, 2018, p. 119).

Even though the MiG-31 was originally designed for air defence and appears as such in various lists, the MiG-31K version can be equipped with Kh-47M2 Kinzhal hypersonic anti-ship and ground attack missiles, enabling this version of the MiG-31 to conduct Attack activities as well. The choice of the MiG-31 for this role is a result both of its size (the Kinzhal is

5. Operational means that a capacity has been fully developed and put into service. In this case the Su-57 has been used in a not fully developed version – a prototype – probably to test and display it.

basically an airborne Iskander missile and rather big) and speed. If the missile is fired at supersonic speed, it uses significantly less energy to achieve its own cruising speed and can thus cover greater distances.

Fighters, ground-attack: Both the Su-24 and the Su-25 are used exclusively for striking ground targets. The Su-24M2 is the latest upgraded version of the Su-24 series. Even though the Su-25 was mainly designed to support ground forces, both types are capable of solving a number of tasks and may be equipped with e.g. anti-radar missiles such as the Kh-58. Both types have been employed in Syria.

Combat helicopters: The main task of the combat helicopters of the VKS is to provide Close Air Support (CAS) to army units on the ground during battle. CAS constitutes a doctrinaire subcategory of Attack. Both the Ka-52, the Mi-24 and the Mi-28 have been employed in Syria (Schegolev, 2015; STRATFOR, 2015).

Electronic warfare aircraft: Even though the Il-22 is an older platform (an upgraded version of the Il-20 Coot), the three electronic warfare (EW) aircraft listed are brand new and were delivered to the VKS in 2016 (Prokopovic, 2016). The limited number of aircraft in this category might lead one to think that Russia has deprioritised EW. This is by no means the case. The contrary is true (Dura, 2017). The four Tu-214s listed below as intelligence aircraft are also capable of EW (Globalsecurity, n.d.-e), just as both the Su-30 and the Su-34 may be equipped with SAP-14 jammer pods, which is a capability designed to suppress air defence radars and which resembles the US capability EA-18G Growler (Deagel, 2017). Furthermore, the An-12 is available in an EW version (An-12PPS (Cub-D)). The quantity hereof is evident neither from the IISS nor Jane's, though, even though its existence is mentioned by several sources, including Horák (2018). The new EW version of the Mi-8 helicopter, the Mi-8MTPR, will mainly be protecting units up to group size against various forms of attack. It is equipped with Rychag-AV, which is one of the most powerful jammers in the world, apparently capable of jamming aircraft at a distance of several hundred kilometres. The helicopter has been employed in Syria (Tahar, 2018).

Russia's stock of anti-aircraft missile systems also referred to as surface-to-air missiles (SAM), are listed in the table below. The table only includes the systems available to the VKS. For a full overview of Russia's air defence missile capabilities, the list should be compared to the capabilities available, both to the navy and the army, as especially the latter has a number of capable systems at its disposal.

The table has been divided into three groups according to range and utilisation: long, medium and short. The table thus follows the categorisation made by the IISS. A missile system consists of one or more radars for target acquisition and tracking, a launcher carrying one or more missiles, the missiles and a command and control system. The figures below represent the number of launchers and not the number of missiles in the individual category. A launcher may have several types of missiles, depending on the target. See table 9.3.

Table 9.3. Air defence missile systems.

	Long-range missile systems	Medium-range missile systems	Short-range missile systems
Quantity	490	80	50
Types	150 S-300PM1/PM2 SA-20 Gargoyle	80 Buk M1/M2 SA-11 Gadfly/SA-17 Grizzly	50 Pantsir S1 SA-22 Greyhound
	160 S-300PS SA-10 Grumble		
	20 S-300V SA-12 Giant		
	160 S-400 SA-21 Growler		

The Russian long-range systems have a range of 100-400 kilometres (Fomichev, 2015). The effective range of the most long-ranging systems is questionable, though, and probably closer to 200-250 kilometres (Dalsjö, Berglund & Johnsson, 2019, p. 30). Nevertheless, the S-300 and S-400 (see the chapter 7 on the capabilities of the Russian Army) are some of the most advanced SAM systems in the world. They use a number of different missile types and thus differ in range, even though fired from the same platform. Depending on the type of missile, the systems are capable of engaging aircraft, drones and other missiles, including ballistic missiles. For example, the S-300V4 was designed for ballistic missile defence. The S-400 is the most potent system, capable of engaging as many as 36 targets at the same time (Army Technology, 2019). These systems can be compared to the US Patriot system, which also uses different types of missile depending on the target. However, Patriot has a maximum range of just 160 kilometres.

The Russian medium-range systems have a range of up to 70 kilometres. The Buk M2 and M3 are upgrades of the original system and comprises i.a. new 3D radars and a new control system capable of engaging as many as 36 targets at the same time.

Pantsir is a combined SAM and air defence (gun) system with a missile range of up to 20 kilometres. The system can be used to target aircraft and cruise missiles, but also rockets, mortars and artillery grenades, and it is capable of firing while in motion. It was designed in 1995 and introduced in 2012, and it has been employed in Syria, among other places.

Air Mobility

The table below provides an overview of the VKS' total air transport and tanker capability. Within Russia, the aircraft in this category are vital for transporting the Russian Army, including providing logistics support to both ground and air forces. See table 9.4.

Table 9.4. VKS' total air transport and tanker capability.

	Heavy transport aircraft and helicopters	Medium-heavy transport aircraft and helicopters	Light transport aircraft	Passenger aircraft	Tanker aircraft
Antal	120/33	65/300	225	32	15
Type	11 An-124 Condor	65 An-12 Cub	114 An-26 Curl	15 An-148 (no code)	15 Il-78 Midas
	4 An-22 Cook	300 Mi-8 Hip	25 An-72 Coaler	17 Tu-154 Careless	
	105 Il-76 Candid		5 An-140 (no code)		
	33 Mi-26 Halo		27 L-410 (no code)		
			54 Tu-134 Crusty		

Even though the first job of the Russian transport aircraft capability is to transport the Russian Army, it solves various other tasks, including force deployment support. In connection with the conflict in Syria, the An-124 was used, among other things, to deploy the S-300 air defence system to the Russian forces at the Khmeimim Air Base (Staff, 2018). In addition, it moved a range of other air personnel and equipment back and forth between Russia and Syria.

The Mi-26 is the world's largest mass-produced helicopter, and it has a payload of around 20 tons (or 82 soldiers or 60 stretchers) (Globalsecurity, n.d.-c). In 2015, Russia initiated production of an upgraded version of the Mi-26 (RT, 2015).

The An-12 Cub is the Russian version of the US C-130, and according to online media site The Drive, Russia is currently developing a gunship version of the An-12 based on the same idea as the US AC-130 (Trevithick, 2019).

The Mi-8 is the helicopter that has been produced in the greatest number globally. It is used by around 80 countries (Globalsecurity, n.d.-b).

Four An-72s, plus two in the navy, are currently being upgraded in preparation for use in the Arctic (Air Recognition, 2018).

The An-140, 148 and L-410 are all light, twin-engine transport aircraft.

Transport aircraft for passenger transport: The Tu-154 is similar in size and capability to a Boeing 727. Unlike airliners like the Boeing 727 and its military equivalents, though, the Tu-154 was originally designed to operate in rough terrain and bad weather conditions. The aircraft was designed for long periods of use between services, which may have been a contributing factor to its high accidents statistics (Military Factory, 2018).

The Il-78 is the tanker version of the Il-76 Candid. It can be equipped with as many as three drogues (baskets) for air-to-air refuelling. As a supplement to the tanker aircraft, the Su-24, Su-30 and MiG-29 can be equipped with tanker pods (UPAZ-1) containing a basket and thus act as buddy tankers, that is, fighters refuelling other fighters (Uttam, 2018).

Joint Intelligence, Surveillance, Reconnaissance and C2

The table below provides an overview of all VKS ISR platforms. They have been divided into the following groups: intelligence aircraft (I), surveillance aircraft (S), reconnaissance aircraft (R) and airborne command and control aircraft (C2). See table 9.5.

Table 9.5. VKS ISR-platforms.

	Intelligence aircraft (I)	Airborne Early Warning aircraft (S)	Reconnaissance aircraft (R)	Airborne command and control aircraft
Quantity	35	9	84	11
Type	14 Il-20 Coot A	A-50 Mainstay	4 An-30 Clank	4 Il-80 Maxdome
	17 Il-22 Coot B		50 Su-24 Fencer	2 Il-82 (no code)
	4 Tu-214 (no code)		30 Forpost (drone)	5 Tu-214 (no code)

Coot A and B are both military versions of the airliner Il-18. Coot A is an electronic reconnaissance platform. Coot B is available both in a command and control version and a radio relay version and may just as well have been listed among the command and control aircraft. The Coot is a frequent guest in the Baltic Sea Region.

The Tu-214 is used either for command and control or as an intelligence platform. However, it may also be used for EW.

Mainstay, which is an airborne radar station, is the Russian equivalent of the NATO E-3A AWACS. It has a crew of five and 10 operators, and it is capable of tracking 50-60 tracks (aircraft in the air), and controlling 10-12 fighters at the same time (Airforce Technology, n.d.). The number of operational Mainstays has been halved from 2019 to 2020, suggesting that the ageing platform needs updating or replacing.

The An-32, Su-24 and Forpost are all primarily photo reconnaissance platforms. The 30 Forpost are class II drones for reconnaissance. It is an Israeli drone produced under licence in Russia (Gettinger, 2019, p. 64).

The Il-80 is a command and control aircraft dedicated to transporting the Russian president in case of a nuclear conflict. From this aircraft the president will be able to exercise command of the Russian Armed Forces. The US has a similar aircraft, a Boeing E-6 Mercury. Though the IL-82 performs the same function as the Il-80, it is based on a different type of aircraft (IL-80/IL-86 and Il-82/Il-76).

Russian Space Capabilities

The Russian Space Forces (Kosmicheskie Voyska) or KV is, as mentioned above, part of the VKS. As in the West, the Russian Space Forces consist of four segments: satellites, link systems, ground stations and the user

segment. As link systems, ground stations and the user segment all aim to support the use of satellites, they will not be addressed further here, though it should be mentioned that the Russian satellites are controlled from the Russian space command centre in Noginsk outside Moscow.

In 1957, the Soviet Union was the first country in the world to send a satellite into space, and it has since launched more than 2,500 satellites. Today, the Russian space programme comprises a broad range of satellite types. At the time of its merger with the air force in 2015, the Russian Space Forces had around 130 satellites orbiting Earth (Butowski, 2019, p. 16); today the figure has increased to around 160 (Union of Concerned Scientists, n.d.). Not all of these satellites serve a direct military purpose, though. The list below only includes the satellites that are referred to as either military or military/civilian satellites.

Russian military satellites can be divided into the following overall categories: SATCOM, METOC, NAVIGATION, ISR, EW and ASAT. See table 9.6.

Table 9.6. Types of Russian military satellites.

	SATCOM	METOC	NAVIGATION	ISR	EW	ASAT
Quantity	49	12	30	14	3	10
Type	4 Blagovast	2 Bars-M	27 Uragan	2 Egypsat	3 Tundra	10 Kosmos
	2 Garpun	2 Geo-IK	3 Parus	1 EMKA		
	8 Meridian	2 Elektro L		2 Kondor-E		
	3 Raduga 1M	6 Kanopus		4 Lotos		
	32 Strela-3M			1 Olymp-K		
				3 Persona		
				1 Tselina-2		

SATCOM. Whereas the Blagovast satellites are 'ordinary' SATCOM satellites used for communication on Earth via space, the Garpun satellites function as a sort of radio relay between satellites. The Strela-3M satellites have on-board memory storing transmissions between reception and delivery, when the satellite passes the right location for sending the information down to Earth. Meridian communication satellites are used for communication in the Arctic by both civilian and military vessels and aircraft, and together with the Raduga 1M satellites they make up Russia's Integrated Satellite Communications System (ISSS) (Krebs, n.d.).

METOC. The Geo-IK satellites are tasked with providing high-precision measurement of Earth and the Earth's magnetic field in order to act as a precise reference point for military coordinate systems for e.g. long-range precision weapons.

NAVIGATION. The Russian alternative to the US GPS system is called GLONASS. The system consists of 27 Uragan satellites and is used by the Russian Armed Forces as well as several civilian operators. For instance, many sports watches today use both GPS and GLONASS to measure distance and speed. The three Parus satellites are used for navigation and data transmission.

ISR. The two Egyptsat satellites were funded by Egypt. Still, they were both built and launched by Russia, and they are also likely to be delivering data to Russia, who to begin with was also responsible for controlling them. Similarly, the Kondor satellites were funded by South Africa, but developed and launched by Russia. The satellites are equipped with Synthetic Aperture Radar (SAR), which is a system that relies on radar to create picture like images of the Earth's surface in all weather conditions and at all hours, as well as optical cameras. They are used by the South African Armed Forces, but can also provide Russia with data (Zak, n.d.). The four Lotos satellites make up the system known as Liana, which is an electronic intelligence system (ELINT). Finally, the Olymp-K is a geosynchronous signals intelligence satellite (SIGINT), and the Persona satellites electro-optical intelligence satellites (IMINT).

EW. Early Warning satellites monitor specific parts of the Earth using infrared telescopes, which record the heat build-up from missiles. The Russian Tundra system corresponds in task and function to the US SBIRS.

ASAT. As a rule, all Russian satellites are called Kosmos followed by a number. However, most are, as evident from the list, also given a name that reveals which programme they belong to. The Kosmos 2499, 2504, 2519, 2521, 2523, 2535-38 and 2542 satellites have all been launched by Russia without prior announcement and therefore only have their Kosmos names, though 2519-2523 are also referred to as Nayad (Zak, n.d.). Common to the satellites is that they have performed manoeuvres and switched between different orbits, which i.a. has brought them close to other satellites. They are therefore classified as anti-satellites, as they are capable of destroying other satellites by simply crashing into them. Furthermore, the satellites are most likely capable of inspecting other satellites and passing on information about them to the Russian control centre.

The Russian satellites have been used in Syria, among other places, where especially navigation, communication and ISR satellites played a main role in connection with the deployment of Russian forces (Zak, n.d.; Sabak, 2015).

Besides the above-mentioned space capabilities, Russia also has a ground-based anti-satellite programme (Jane's n.d.-b). The programme likely consists of laser weapons and missiles, including the PL-19 Nudol missile which is fired from the ground and has been tested on several occasions (Panda, 2018). There are also reports of a Russian anti-satellite missile fired from MiG-31s (Mizokami, 2018; Pravda, 2018). Furthermore, several sources claim that the Russian ground-based laser system Peresvet is equally capable of engaging satellites (O'Conner, 2018) either by blinding their cameras and/or other optical equipment or perhaps by destroying parts of the satellite.

Command and Control

The Russian Air Defence was established in 2011, at which point the air and missile defence as well as missile warning and space operations were merged into one command and control structure. Following the merger with the air force in 2015, aircraft, ground-based air defence, surveillance radars, space operations and missile defence in the VKS are now part of the same command and control structure (Jane's, n.d.-a).

The Russian Air Defence now consists of five air and air defence sections, one for each of the five military districts (OSKs): the 6th Army of Air Forces and Air Defence in the Western District, the Fourth Army of Air Forces and Air Defence in the Southern District, the 14th Army of Air Forces and Air Defence in the Central District, the 11th Army of Air Forces and Air Defence in the Eastern District and the 45th Army of Air Forces and Air Defence in the Northern District. Each section consists, among other things, of air bases with air defence aircraft, early warning radars and long-range air defence systems. Each section has its own headquarters from which all air defence activities are coordinated. Operationally they refer to the National Defence Management Centre in Moscow, which coordinates the overall defence of Russia (Defence Intelligence Agency, 2017, p. 28). The headquarters of the sixth section in St. Petersburg is located within the joint headquarters and acts as a joint air defence headquarters (McDermott, 2019), much like the NATO Combined Air Operations Centre (CAOC). Just like the Russian aircraft, the command and control structure has been

upgraded over the past 10 years. The structure is characterised by being under central command, redundant, geographically scattered, secure (encrypted), reliable and designed to continue working in case of worst-case scenarios (Defence Intelligence Agency, 2017, p. 26).

The airspace above Russia is being monitored by i.a. nine new Voronezh 3D radars built between 2009 and 2017; another three are on their way (Podvig, 2019). Russia also has Konteiner radars, which is a so-called 'over-the-horizon' (OTH) radar (TASS, 2020). OTH radar signals refract off the ionosphere and are said to have a range of up to 3,000 kilometres. Among other things, the Russian Konteiner radars will be tasked with monitoring the Arctic and Europe. Add to these a series of other passive as well as active systems such as missile defence radars monitoring space for ballistic missiles and the now nine A-50 Mainstay airborne early warning aircraft capable of supplementing early warning radars or supporting other aircraft on offensive missions.

It is difficult to make final conclusions based on the available sources, but it appears that Russia, unlike NATO, has managed to develop a functional, modern command and control system consisting of the necessary units. Compared to the West, Russia benefits from the fact that all of its weapons and C2 systems are produced in Russia, and that they only have to communicate with one overall system, Russia's. The West contends with various competing weapons producers scattered across various nations, which all have national interests to protect. Therefore, in the West interoperability is a goal, whereas in Russia it is a precondition. Furthermore, Russia appears to have expanded its command and control system by an automated command and control system, which links units at different levels within a network-based command and control system. This system, which has so far only been introduced in the Western District, is said to increase the speed and efficiency of the command and control structure to such an extent that Russia will always be one step ahead of its opponent (McDermott, 2019).

Russia's Ability to Conduct Air Operations

As mentioned above, efficient deployment of air power depends on command and control as well as space capabilities, and Russia has both. As described above, the Russian command and control system has been designed and adjusted to Russian needs and the country's space capabilities are modern and appear to be capable of supporting operational

deployment. Therefore, the foundation for conducting air operations is believed to be present, and in the following we will look at Russia's ability to conduct operations within the four categories analysed in the first part of the chapter.

Counter-Air

As described in the introduction, Counter-Air consists of two tasks: attacking enemy air forces to gain control of the air (offensive) and defence against enemy aircraft seeking to gain control of the air (defensive). So, if Russia should wish to conduct counter-air operations against NATO, this would involve fighting NATO air bases, command and control facilities, as well as air forces, while at the same time protecting itself against enemy attacks. To be able to do so, offensive and defensive aircraft and air defence systems must be linked through the Russian command and control systems, and the whole effort must be supported by Russian space capabilities. With regard to aircraft, the offensive and defensive parts of the VKS are relatively modern and powerful. Russia is in the process of achieving its objective of upgrading 80 per cent of its fleet of aircraft by 2020. Even though a lot of the Russian platforms are either old platforms or new ones based on old ones, the overall force is believed to be on par with a corresponding NATO member state platform. Russian air-to-air and air-to-ground weapons have also been upgraded within the past 5-10 years. Once again, these are mainly upgraded versions of already existing capabilities; but this is no different from Western nations.

Just like Western doctrine, Russian doctrine states that the first aim in the event of a conflict is to gain control of the air (Rudnenko, 1999). The Russian fleet of aircraft does include the capabilities immediately required to conduct offensive as well as defensive air operations. Russia has 222 fighters dedicated to air defence and 265 for attacking surface targets, as well as 378 modern multirole aircraft for both types of operations. It is thus fully prepared for offensive or defensive operations, depending on the situation. Add to these 139 bombers with long-range weapons, which may also be employed offensively against air bases, radars and command and control units. Finally, Russia also has at its disposal ISR capabilities, which may play a main role in gaining overview of the situation, as well as

airborne command and control capabilities capable of supporting Russian air operations.

Unlike NATO and the US, Russia has in recent year spent a lot of resources developing and modernising its air defence system. The Russians have thus developed a highly potent and modern system such as the S-400 and S-300 series and the Pantsir, which is considered on par with and, in some respects, better than its Western counterparts. Both long-, medium- and short-range Russian systems are equipped with upgraded missiles and radars, and capable of engaging a number of targets at the same time. This gives Russia some of the worlds most sophisticated and mobile ground-based air defence systems. Lots of them. Because the Russians have seen how NATO and the US wage war, and they know that Western air forces will constitute their greatest challenge. They have therefore focussed on developing and producing ground-based air defence systems of a variety and amount not seen anywhere else in the world. The result is a highly capable multi-layer, ground-based air defence that will undoubtedly cause attacking forces lots of trouble, regardless of their origins.

Together, the Russian air defence units have long-range, modern 3D radars and air defence missiles at their disposal. They are linked through a command and control structure divided into districts, which coordinates the activities of aircraft and air defence missiles. Russia is thus well equipped for both offensive and defensive Counter-Air; the only question is of which scale.

With a total number of EWs, fighters and bombers of just over 1,200, Russia is severely outnumbered – in terms of aircraft – in the event of offensive battle against NATO where the aim is to wrest control of the air from a united NATO. For training purposes, Russian pilots spend almost as many hours in the air as the average Western pilot, and qualitatively, Russian aircraft and missiles appear to be on par with those of the NATO member states, as both parties have a combination of older, upgraded platforms and new, modern ones. Naturally, if Russia focusses on attacking one or a few NATO countries in the neighbouring region, it has a clear advantage; but against a mobilised, united NATO Russia does not stand much chance.

A few things, however, suggest that NATO, despite its numerical superiority, would struggle if faced with a large-scale, coordinated Russian attack. If Russia should choose to employ a combination of offensive fighters, long-range weapons from bombers, cruise missiles and short-and

medium-range conventional ballistic missiles against NATO air bases and command and control facilities, it would be capable of inflicting considerable losses on NATO member states in a short time span. With capabilities such as the Iskander, Screwdriver and Kinzhal missiles, these are precisely the type of weapons Russia has been developing in the past years.

The below FOI report of the total number of aircraft and radar stations in the European part of NATO shows that Russia, using conventional weapons, would be capable of effectively attacking all aircraft and radar stations in Zone A, paralysing air operations in Zone B and only partially impacting air operations in (Westerlund & Oxenstierna, 2019, p. 67). See figure 9.1. Zone C

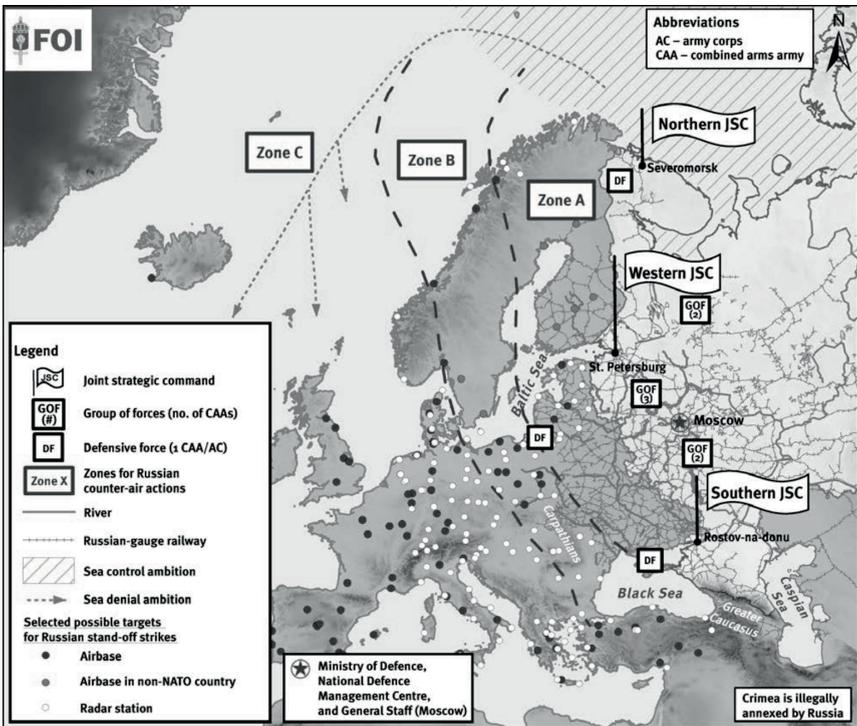


Figure 9.1. FOI figures on the total number of aircraft and radar stations in the European part of NATO (Westerlund & Oxenstierna, 2019, p. 66).

Attack

As mentioned, Attack implies attacking surface targets that are not part of offensive Counter-Air operations. It makes no difference to the individual fighter whether he needs to drop a bomb on a fuel depot, a runway, a control tower or, in this case, a bridge, an army unit or a logistics centre. Out of a total force of just under 900 fighters and just over 400 helicopters, 265 of the Russian fighters and all of the helicopters are dedicated to supporting ground operations. Add to this that another 453 fighters may also be used for these kinds of operations. This means that out of approx. 1,400 platforms, approx. 1,000 are either earmarked for or ready to support ground operations. This division fits well with the Russian understanding of the employment of air power in support of ground forces.

The focus of surface target attacks appears to be targets, which, if defeated, may support the advance of the Russian Army – targets, which are thus attacked mainly with a purpose of defeating the enemy's ground forces. The VKS' large number of combat helicopters represent a considerable capability tailored specifically for this job. In addition, the army's cruise and ballistic missiles, e.g. the Screwdriver and Iskander, may be used as a supplement.

Due to its limited number of tanker aircraft, Russian aircraft are limited in range as well as time in the air. This is a clear disadvantage in offensive operations. And it is something Russian doctrine is trying to compensate for by planning for its advancing ground forces to take air bases quickly, thus allowing Russia to move its aircraft alongside the army (Kainikara, 2005). This is an extremely complex concept, though, as pilots, technical personnel, spare parts etc. must also be moved from base to base.

Even though Russia does not assign the same value, as NATO to strategic air attack, there is no doubt that targets that are expected to have a strategic effect will also be attacked, if possible. These may e.g. be targets that are believed to be the cause of a potential dispute between the members of the alliance.

Transport

The VKS is, as previously mentioned, responsible for supporting and conducting operations that involve transporting the Russian Army to the battlefield.

Russia has a large number of ground forces that may be deployed from the air, and it is vital that such deployment is supported by Russian fighters. Russian doctrine stresses that a great effort should be made to establish air superiority in the event of a greater offensive (Kainikara, 2005).

Russia has some of the world's largest transport aircraft and helicopters. These types of aircraft are predominantly optimised to support ground operations, and their quantity thus appears to reflect Russia's focus on ground operations. Russia is believed capable, if using its total transport capability, to move 5.5 to 6 light armoured, motorised brigades in one motion, which corresponds to 25,000-27,000 soldiers or 10 per cent of the country's light armoured forces (Olsen, 2018, p. 323). Therefore, this opportunity to deploy troops is also described as a force multiplier. In the event of an emergency, the idea is to move the forces via the air and let them use the equipment already deployed to the area of deployment (Sutyagin & Bronk, 2017, p. 20).

Russia practiced deploying troops from the air at the latest large-scale Zapad exercise in 2017. During the first days of the exercise, several battalions arrived in transport aircraft in both Belarus and western Russia. Some parachuted to an area, which had been designated 'behind enemy lines'. The exercise also tested Russia's ability to conduct long-distance flights; this was done in the Baltic Sea and around Norway. Naturally, it is important for Russia to have enough transport aircraft to deploy the large number of troops, as described in Russian doctrine. In this light, it is worrying for Russia that the heavy transport capability is still believed to constitute the weakest link in this context (Westerlund & Oxenstierna, 2019, p. 125).

Most striking, though, is Russia's lack of tanker aircraft. Fifteen tanker aircraft is all Russia has at its disposal, which, compared to NATO standards, is a very small figure indeed. The lack of tanker aircraft is responsible for various operational limitations due to the aircraft's relatively low number of flying hours based on their own fuel stock (Peck, 2019). In the past, Russia built short-range fighters thinking that its army forces would take enemy air bases as they advanced. This meant that Russia had to accept great casualties to gain ground. Subsequently, Russian aircraft could operate from the conquered bases (Kainikara, 2005).

Even though new Russian fighters have a significantly longer range than old versions, air-to-air refuelling is still necessary for them to achieve a better effect of fighters and long-range bombers. The fact that tanker aircraft are generally considered a force multiplier merely makes it even more

problematic, as having a small fleet of tanker aircraft has a disproportionately great impact, seeing as the breakdown of just one tanker aircraft can thus severely affect the fleet's ability to complete the planned operation. That is why tanker aircraft are a main priority in NATO operations both during planning and execution phases. A solid tanker aircraft capability is therefore considered vital to the ability to perform significant operations running over a longer period of time. Russia thus faces a serious challenge here. In comparison, the US-run coalition employed no less than 268 tanker aircraft during Operation Iraqi Freedom in 2003. The 268 aircraft conducted a total of 9,064 sorties (a sortie is each time an aircraft takes off on a mission) during the one-month operation (19 March to 18 April 2003). This corresponds to 301 sorties a day or 1.13 sorties per aircraft per day each day of the operation (USCENTAF, 2003, pp. 6-7).

Of course, buddy refuelling – one fighter refuelling another – is a small consolation. However, this solution reduces the number of fighters available for other types of operations, and all things being equal, Russia's total tanker aircraft capability is believed to be considerably limited.

The above might suggest that Russia has adopted a relatively defensive strategy, in which aircraft do not need to move far away from their bases. Nevertheless, defence of Russian territory would also suffer from the lack of tanker aircraft, as defensive aircraft on patrol can remain in the air for a relatively short period of time before they have to be replaced by new aircraft and thus new pilots. The result is a great resource demand on both the aircraft stock and the personnel.

Tanker aircraft are also used for aerial refuelling of strategic Russian bombers, as evident e.g. from recent operations over Syria, where Russia conducted bombings using TU-95Ms, which departed from Russia and, with two air-to-air refuelling sessions en route, covered a total of 11,000 kilometres in order to launch Kh-101 cruise missiles on targets in Syria via the Mediterranean. The point here is that even long-range bombers and not least the fighters protecting them may require air-to-air refuelling (Korablev, 2016).

At the time of writing, the Russian tanker aircraft fleet is awaiting the completion of an upgrade to a new version, the IL-78M-90A, which was first introduced in January 2018. Even though Russia is expecting to have at least 14 of these platforms at its disposal by the end of 2027, it is still significantly less than the current need for around 30-35 (Jane's, n.d.-a).

This means that Russia can be expected to continue to suffer from a lack of tanker aircraft for a long time yet.

Joint ISR

The Russian ISR aircraft represent a capability that is hardly available to European air forces. Only the US has similar ISR platforms, though of a larger quantity.

Russia's nine A-50 Mainstay airborne early warning aircraft correspond to NATO's 17 E-3As. However, the NATO fleet is supplemented by the nations' own E-3s – e.g. from France, the UK and the US. Russian surveillance aircraft are expected to remain active until 2025 or longer. Their replacement is the announced A-100 Premier, which commenced testing in the beginning of 2019. Open sources report that the radar on this new aircraft is capable of detecting other aircraft at a distance of around 600 kilometres (Jane's, n.d.-a), which is slightly more than the 520 kilometres which open sources ascribe to NATO's aerial radar station (AWACS) (NATO, 2017).

The longer range gives the new platform several potential advantages, e.g. the ability to detect approaching enemy aircraft early. Whether the new radar is particularly good at detecting stealth fighters is unknown. If not, the longer range is an advantage only if the radar is looking for so-called fourth-generation fighters with limited stealth capability. At the same time, NATO has at its disposal a number of fifth-generation fighters that are very hard to detect, even for modern radars. The F-35, for example, of which more than 500 units have already been produced (Lockheed, 2019), will pose a significant problem to Russia's new radar aircraft. However, Russia is still in the process of developing the prototype of a fifth-generation fighter (the SU-57 Felon), though only 10 prototypes have been built so far, of which one has been lost.

A flying radar station needs protection, seeing as it is typically vital to the effective completion of air operations. For that reason, flying radar stations are considered high-value air assets and typically surrounded by fighters, protecting it against approaching enemy aircraft when in action. Here the country's limited air-to-air refuelling capability, as discussed above, may prove particularly problematic to Russia, as the fighters providing protection must be relieved early if they cannot remain active via air-to-air refuelling.

Russia's six command and control aircraft, as well as aircraft for radio relay, provide it with a good basis for maintaining control over its forces from a mobile, airborne platform in the event of a nuclear conflict. The country's ISR capabilities and resilient command and control system suggest that Russia can potentially produce significant amounts of ISR to support the decision-making process during a conflict. Even overall control with missions may be conducted from flying Il-80 Maxdome platforms. Airspace control may be conducted using radar surveillance aircraft capable of delivering a detailed picture of the airspace. Fighters and drones may contribute to reconnaissance, but also to weapons delivery.

Russia is training all of the above. For instance, during the latest Vostok exercise in 2020, SU-24s conducted intelligence and target reconnaissance, which was passed onto ground artillery in order to heighten precision. Orlan-10 drones and A-50 Mainstays also participated in the exercise (Jane's, n.d.-a).

All in all, Russia's ISR capability appears to be a relatively robust one, capable of making sure the required information is available to the military commanders and that they can communicate decisions.

Fulfilling the Objectives of the Military Doctrine

Considering the VKS' capabilities vis-à-vis Russian military doctrine, the VKS appears to be successful. Its main task is to defend Russia and its allies, and its many air defence capabilities in the form of aircraft and ground-based air defence systems, as well as its robust C2 system and support from Russian space capabilities, make the VKS considerably strong when it comes to defensive Counter-Air. Additionally, Russia managed to turn the tables for its allies in Syria, mainly through the deployment and employment of offensive air power (Charap, Treyger & Geist, 2019; Erlich, 2019).

Russia also appears to have the requisite capabilities to fulfil the doctrine's objectives regarding surveillance and warning, deployment of forces, conducting peacekeeping operations and fighting piracy and terrorism.

Strategic deterrence is conducted by Russia's nuclear forces primarily, though the VKS does contribute to this task via upgraded strategic bombers, which regularly demonstrate their presence in the North Sea as well as the airspace close to Alaska (Martinez, 2020).

Conclusion

At the time of writing, 2020, the VKS is a service with lots of modern capabilities, equipped to participate in the full spectrum of operations. The VKS fully meets the objectives of Russian military doctrine. There appears to be a balance between doctrine, organisation and technology, which, all things being equal, must be positive from a Russian perspective. The capabilities are integrated into an extensive command and control system designed to work even in harsh conditions and supported by space capabilities. A lot of the capabilities have been tested in real conditions in Syria and in connection with large-scale Russian training exercises. Hence, Russian units are also characterised by good training standards and operational experience.

If the first job of the VKS in the event of war is to support the Russian Army in winning, it is well-prepared for the job, both with regard to transport, surveillance and combat support from the air.

This does not mean that its capabilities do not have flaws, though. The lack of tanker aircraft is Russia's main Achilles heel when it comes to air operations, and in the event of peer conflict against NATO this could have a vital influence on the outcome of the battle for control of the air. Russia's large number of sophisticated ground-based air defence systems to some extent make up for this lack when it comes to defending Russian territory. However, Russia still has not managed to develop an operational fifth-generation fighter, and this subjects Russia to more offensive limitations than its counterparts in NATO.

There is much indication that Russia is ahead of NATO with regard to command and control systems and, to some extent, the employment and prevalence of ground-based missile systems. Russia appears to have chosen to focus on developing new missile capabilities useful in fighting NATO where NATO is at its weakest, seeing as defence against missiles is both complex and expensive. That is also why a numerically inferior VKS, with the help of the army and navy, may still prove a hard nut for NATO to crack in the event of a conflict.

In a Danish context, the conclusion is crystal clear. Denmark is severely inferior to Russia with regard to capabilities that would enable Denmark to defend itself single-handedly against potential Russian aggression from the air. Denmark's mere 25-30 fighters, lack of ground-based air defence, (eventually) limited point air defence of the Brigade and the minor

capability of (eventually) three well-equipped frigates speak for themselves. That is why Denmark's NATO membership is of vital importance with regard to a credible air defence of Danish territory.

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CHAPTER 10

Russia's Nuclear Capabilities – a Basic Insurance Policy in a Complex Technological Age

By Carina Meyn

Introduction

Having inherited the Soviet Union's large arsenal of nuclear weapons, Russia has always enjoyed considerable power within the nuclear domain. This chapter provides an analysis of the development of Russia's nuclear capacities and strategic-operational thinking. Following a short introduction to the chapter's organising theory and method, a short introductory overview is provided on existing research into Russian nuclear capabilities. With a view to giving the reader the best possible context for understanding Russia as a nuclear power, the ensuing section outlines the evolution of Soviet nuclear weapons development and strategic-operational thinking, as this constitutes the logical steppingstone to Russia's nuclear weapons policies today. Having thus established the basic context, Russian military doctrine and the precise constituent elements of the strategic arsenal are then subject to deeper inquiry and analysis. The final conclusion offers an overall perspective on the development in Russian strategic thinking and its weapons-technological developments.

For Danish politicians and practitioners, the nuclear weapons developments among the established great powers no longer seem to be cause for any great concern. Nevertheless, the international system is now seeing the gradual emergence of several new arms races all at once (Acton et al., 2017),

which not only makes the international strategic situation far less stable and predictable than before; it essentially renders very large swaths of traditional theoretical debates and strategic modelling practices empirically obsolete (Acton, 2018; Acton et al., 2017; Meyn, 2018a). In effect, therefore, this amounts to a new strategic challenge for a small state such as Denmark vis-à-vis larger geopolitical actors, given that the defining security equation for any one nation can no longer simply be assessed on the basis of simple comparisons of strategic arsenals, but instead increasingly depends on an entire array of advanced technologies, in which even small states can actively participate (jf. Jyllands-Posten, 2015). In this more complex technological age, it is thus important for Denmark to be able accurately to assess the thinking not just of its closest major allies, but also of its closest major security adversary in order to better navigate the new international dynamics (jf. Booth & Wheeler, 2008; Herz, 1950). For example, closer inspection of international nuclear policy now reveals an ongoing debate among both US and Russian military planners on whether nuclear weapons could be used in 'limited scenarios' in, say, the Baltic States or Poland (E. A. Colby, 2014, 2018; Defense, 2018; Kofman et al., 2020; Payne, 2017, 2018). In view of Denmark's geographical proximity to these areas, Danish politicians and civil servants would reasonably be expected to have a strong interest in discussing this subject, both at the national level and with fellow NATO member states.

In the broader geopolitical context, Russia's nuclear capabilities can rightly be described as a basic security insurance in a new, complex technological age. More granularly, Denmark's understanding of this new technological age – as well as its active contribution to its development – directly influences Russia's practical considerations about how its nuclear weapons may be used in an unequal conflict with the much stronger NATO. In the words of Leon Trotsky, 'You may not be interested in war, but war is interested in you'. The premise here is that Danish defence policy priorities still play a role in international developments; just as international developments are of vital importance to Danish security policy 10, 20 or 30 years into the future. In that respect, new international weapons dynamics and specialised expert debates about Russia's nuclear capabilities are by no means irrelevant to a Danish audience. Instead, what is at stake is a broader decision about what kind of strategic development we would like to see evolve over the long term (jf. Booth & Wheeler, 2008; Herz, 1950, 1959).

Theory

The following analysis builds on a classical realistic understanding of the security dilemma and the many different political-strategic rationales that may be at play in connection with the development of new military capabilities (Booth & Wheeler, 2008; Herz, 1950, 1959). Whereas the security dilemma from a neorealist perspective is defined as a fixed negative development to be evaluated on the basis of carefully examined offensive-defensive balances (Glaser, 1997; Jervis, 1978), a classical realist understanding of the security dilemma is premised on a more open approach to what political decision-makers might wish to gain from a given situation – in both political and diplomatic terms (Booth & Wheeler, 2008; Scheuerman, 2010; Sylvest, 2009; van Munster & Sylvest, 2016). Thus, the advantage of working from a classical realist understanding of the security dilemma is that it allows for a dual focus on both capabilities and on interpretational processes within strategy (Herz, 1950, 1959). As such, the approach is more vibrant and applicable in practice than the subsequent analytical-deductive research tradition that emerged with the onset of neorealism (jf. Guillhot, 2011; Schmidt, 1994, 1998).

From a classical realist perspective, the security dilemma in international policy might involve a worsening of interstate relations and interpretation patterns. Just as importantly, however, it might also lead to new understandings and international rules *if* this is actively communicated and promoted by the states in question (Herz, 1950). According to a classical realist understanding, therefore, different countries' ideological differences and competing values do not automatically involve a fatalistic belief in intractable conflict scenarios. Instead, the classical realist understanding of the security dilemma particularly stresses that countries, despite disagreement and mistrust, may still enter into negotiations and binding collaborations, which can then, over time, facilitate shared views of shared security policy interests (Booth & Wheeler, 2008; Herz, 1950).

In 1950, John Herz described the security dilemma as follows:

'Whether man is by nature peaceful and cooperative, or domineering and aggressive, is not the question. The condition that concerns us here is not a biological or anthropological but a social one. This *homo homini lupus* situation [the security dilemma] does not preclude social cooperation as another fundamental fact of social life. But even cooperation and solidarity tend to become elements in the conflict

situation, part of their function being the consolidation of particular groups in their competition with other groups.' (Herz, 1950:157)

To put it briefly, following the classical understanding of the security dilemma, the pendulum of an arms race may move back and forth, depending on the given country's priorities and approach to its competitors in international policy. Will it, for example, choose to increase its deterrence capability by developing new types of weapons? Or will it make the development of new arms control agreements a key item on the security policy agenda? Historically, the superpowers have quite often chosen to do both at once (jf. Gaddis et al., 1999).

In effect, therefore, states may have multiple strategic options at work simultaneously with regard to nuclear policy – from peace-oriented objectives of increased collaboration and transparency to a broad range of strategic-operational plans for various conflict scenarios. Accordingly, from this perspective, a country's nuclear strategy cannot simply be determined by reading its military doctrines, as they only describe the offensive scenarios in which nuclear weapons may be incorporated. In order to come a step closer to understanding a state's broader understanding of strategy, methodologically, we will need to read different types of documents and take a broader and more historical, as well as more sociological, approach than what strategic studies typically expect.

For example, as is evident from the classic case studies of the Cuban Missile Crisis, strategy may equally be affected by the strategic sensibility of leaders when confronted with critical dilemmas, as they may be the direct result of the country's formal military doctrine within the field (jf. Allison & Zelikow, 1971; Bourdieu, 1990, 2000; Gaddis et al., 1999). In other words, it is important in practice to distinguish between official military strategies, at one end of the spectrum, and the broader view among a nation's security elites on the challenges of those plans, at the opposite end of the spectrum.

Method

The method of this chapter logically follows the principles of classical realist security analysis and therefore makes it a priority not to base its evaluation of Russia's nuclear capabilities and strategic-operational thinking on

a hardened threat assessment, and thus, by implication, an implicit enemy understanding (Booth, 1979; Herz, 1950, 1959). Instead, the focus of this chapter will be on analysing Russian military doctrines on their own terms and, subsequently, outlining the new debates and concerns that have emerged in the West on how Russian strategy and combat capability is now to be understood.

In order to arrive at a better contextual understanding of what Russian nuclear thinking and its strategic capabilities derive from, the chapter provides a historical survey of the development in Soviet nuclear weapons and broader strategic thinking over time. The analysis in these sections will be based on secondary sources as well as publicly available oral history interviews with leading Soviet decision-makers from the Cold War. In subsequent analytical sections, the analysis will be based on official Russian security doctrines from 1993 onwards, Hans Kristensen and Matt Korda's basic research into world nuclear forces and, finally, leading researchers' historical-cultural and theoretical-deductive analyses of Russian nuclear thinking and technological focusses over time.

Literature Review

Analysing nuclear capabilities and strategic-operational thinking is not a neutral scientific discipline characterised by widespread scientific agreement on what constitutes the right kind of approach to the study of empirical cases and specific research questions. As such, the existing research on Russian nuclear capabilities and strategic thinking is highly varied with regard to both content and method.

Somewhat simply put, though, it is possible to distinguish between two main tendencies within Russian nuclear policy research. On the one hand, we have the experts who begin from an analytical-deductive position characterised by strong worst-case reasoning about Russia's nuclear capabilities and strategic intentions (E. A. Colby, 2015b, 2015a, 2018; Davis et al., 2019; Ford, 2017; Payne, 2017, 2018; Roberts, 2016, 2017; Shlapak & Johnson, 2016). For a number of years now, these analysts have greatly influenced official US nuclear policy and thus played a main role in the practical development of the current relationship between Russia and the West. On the other hand, we have a group of experts who begin from a more cultural and sociological understanding of Russian nuclear strategy and

on-going weapons-development (Arbatov, 2015, 2018; Gottemoeller, 2019, 2020; Olikier, 2016; Olikier & Baklitsky, 2018; Tertrais, 2018). The main contributions within this tradition are made by Kristin Ven Bruusgaard, who has studied Russian strategic thinking by analysing in detail the Russian government's own documents, definitions, and archives on nuclear policy (Bruusgaard, 2016). Methodologically, this approach is based on great respect for the unique conceptual understanding of strategy and deterrence that has emerged over time among Russian military-strategic elites. Another contribution is Dmitry Adamsky's article 'From Moscow with coercion: Russian deterrence theory and strategic culture', which demonstrates how Russian strategic thinking cuts across conventional nuclear boundaries and different military domains (Adamsky, 2018). In addition, it is worth mentioning a CNA report, which outlines the different debates among Russia's leading security elites on questions relating to strategy and the possible employment of nuclear weapons from the late 1990s up until today (Kofman, Fink & Edmunds, 2020). Finally, everyone studying Russian nuclear capabilities and strategy relies on Kristensen and Korda's world nuclear forces research (Kristensen & Korda, 2020a, 2020c, 2020b), which uses the US Freedom of Information Act to arrive at a best estimate of other countries' nuclear weapons deployments and general inventory (Kristensen, 2013a, 2013b).

Soviet Nuclear Force and Doctrine 1945-1991

Just a few years after the failed international negotiations of 1945-1946 on general nuclear disarmament, the Soviet Union conducted its first nuclear weapons tests in Semipalatinsk in North-eastern Kazakhstan in August 1949 (Broscious, 1999; Craig & Radchenko, 2008). Then followed the rapid development of the first generation of Soviet nuclear weapons and, before long, research and development of thermonuclear weapons and ballistic missiles (Woolf, 2019:7-8).

The Soviet Union's early thinking on nuclear weapons was premised, in many ways very straightforwardly, on already existing military planning and experiences from the two world wars. Not until after the death of Stalin in 1953 did leading Soviet military thinkers start to discuss the long-term implications of nuclear weapons on war and the possible repercussions of an entirely new technological age (FAS, 2000). 1955 saw the

publication of the very first military analysis of a nuclear surprise attack authored by Pavel A. Rotmistrov (1955). This was followed up by a series of seminars in 1957 organised by Soviet general and Commander V. D. Sokolovsky the aim of which was to develop a new nuclear weapons strategy by consulting with some of Russia's leading military elites. In 1962, Sokolovsky's work resulted in the first official military doctrine since the interwar period, which in turn became a central document for several generations of Soviet strategic policy practitioners (Sokolovskii, 1963).

The official military doctrine made it clear that Soviet strategic elites could see no meaningful way of containing or controlling a conventional war against a nuclear-armed opponent (Sokolovskii, 1963:299). Naturally, this basic assumption did not mean that the Soviet Union refrained from drawing up plans for the employment of nuclear weapons in more limited scenarios of confrontation (Hines et al., 1995:3). However, at a principled level, Russia was of the belief that nuclear weapons were in a class of their own, and that crossing the nuclear weapons threshold at a time of conflict could only lead to extensive human and military disaster.

In more general terms, Soviet nuclear weapons strategy during the Cold War was based on a purer understanding of deterrence than the concurrent American strategy (Hines et al., 1995:3). Whereas Eisenhower in the 1950s – just like his main strategic opponent – wanted to clearly communicate the dangers of allowing a conflict to escalate to nuclear levels (Eardmann, 1999), US nuclear policy experts were becoming increasingly preoccupied with the possibility of waging limited nuclear war in various 'flexible response' scenarios (Kahn, 1960, 1965; Kissinger, 1957; Schelling, 1960). Given that Soviet strategic elites considered these warfighting scenarios essentially unwinnable for anyone involved, they invariably interpreted the US intellectual debates as a smokescreen for a far more sinister preparation of a 'bolt from the blue' surprise attack on the Soviet Union (Sokolovskii, 1963:152).

Thus, in terms of classical nuclear strategy and military planning the two superpowers were working from two very different analytical positions, which in turn impacted the development of each country's next generation of strategic decision-makers. The Soviet Union considered nuclear weapons the ultimate weapon, whose application should be avoided at all costs, whereas the US adopted a more flexible understanding and to a greater extent discussed the possibility of controlling nuclear escalation. From the 1970s onwards the Soviet Union did start to hypothesise about

the possibilities for 'limited nuclear war', but this never actually led to an official change in Soviet nuclear doctrine (Hines et al., 1995:37-39).

It is clear, though, that the Soviet Union had a pronounced fear of being disarmed by a US surprise attack. They also worried about technological superiority of the United States, leading ultimately to an increased focus on quantity as opposed to quality for the Soviet nuclear weapons arsenal (Green & Long, 2017). Under consideration, therefore, were various scenarios involving both preventative attacks and 'launch-on-warning' reponse options. Thus, even though the Soviet Union from the 1970s and onwards had officially adopted a 'no-first-use' policy, its leaders still considered what its options were for either limiting or forestalling an imminently incoming attack. The Soviet Union, by its very nature, was not prepared to wait for US missiles to strike before it would respond (Sokov, 1999; Woolf, 2019:3).

The Post-Cold War Russian Force

The first decades following the collapse of the Soviet Union and the formation of the new Russian state was followed by a steady decline in the Russian nuclear arsenal, in both quantitative and qualitative terms, as compared to the nuclear apex of the Soviet Union during the 1960s and 1970s. As summarised by Polina Sinovets, the new Russian state only managed to modernise 10 per cent of its strategic arsenal during the first two decades of its existence, the result being that the remaining 90 per cent of its nuclear stockpile had already been in use for two to three times as long as originally prescribed (Sinovets, 2015:5). On this basis, Bruce Blair argued in front of the US Congress in 1998 that the greatest threat to US security was no longer Russian strength but, in fact, Russian weakness (Blair, 1998). Importantly, the challenges posed by a strategically weak Russia should, in Blair's estimation, be taken very seriously by the US government, given that a much weaker Russia might easily lose control of its command and control capabilities. Added to this was the risk of 'loose nuclear weapons' appearing on the international black market due to demoralised military forces taking matters into their own hands to gain some long-needed remuneration (Blair, 1998). Based on in-depth insight into general Russian capabilities, Blair also stressed that Russia was likely to begin assigning

much greater value to the early use of nuclear weapons – as one of its only remaining options for defending the country (Blair, 1998).

The best way of understanding this new and puzzling idea of Russian weakness is to explore the broader historical-strategic context. As early as the late 1970s, the US had in fact managed to develop a clear technological edge over the Soviet Union, particularly in the realm of new intelligence and surveillance technology, electronic warfare, stealth technology, and precision-guided weapons (Green & Long, 2017). Throughout the 1980s this development was a grave concern to Soviet strategic elites, arriving as they did at the conclusion that the relative balance of power had essentially shifted, as a result of these many new technologies, to no longer being simply a matter of balanced nuclear weapons inventories, but rather something much more intricate and multidimensional (Green & Long, 2017:618-619).

In continuation of this technological assessment, Keir Lieber and Daryl Press published an analysis of a nuclear first strike on Russia in 2006, which led them to conclude that the age of 'mutually assured destruction' was definitively over, and the US' strategic lead in global politics now a reality (Lieber & Press, 2006). Yet, as pointed out by Lieber and Press, this was not necessarily a straightforwardly positive development: 'Nuclear weapons may no longer produce the peace-inducing stalemate that they did during the Cold War' (Lieber & Press, 2006:9), and therefore, US decision-makers should make the effort to think long and hard about the implications of making further investments and improvements to US strategic capabilities. Differently put, an unreflective aim on the part of the US to build up strategic strength might only result in new, dangerous developments, especially in relation to Russian and Chinese nuclear policy (Lieber & Press, 2006:10).

Perfectly in line with the predictions of these policy analysts, nuclear weapons came to play a far greater role in Russian security policy as a result of the country's other military weaknesses. Thus, from the 1990s onwards, Russian military analysts focussed increasingly on how nuclear weapons could be used in limited nuclear scenarios across the so-called 'escalation ladder' between conventional and nuclear attacks (Kahn, 1965; Kofman et al., 2020:10-16). These discussions came to a crescendo around the time of the development of the 2000 military doctrine and ceased soon thereafter, as the most prominent protagonists of limited nuclear war failed to gain the influence on official doctrine they had otherwise been hoping

for (Oliker, 2016; Oliker & Baklitsky, 2018). In a present-day context, Russian strategic debate is far more focussed on US conventional prompt global strike capabilities and new hypersonic weapons developments (Acton et al., 2017; Bruusgaard, 2016:12-14).

Russian Nuclear Doctrine Since 1993

Russia has changed and adjusted its nuclear doctrine on several occasions since the formation of the Russian state in 1991. One of the first things it did was to abandon the classical Soviet no-first-use policy in 1993 due to the country's increasing conventional military weaknesses and overall financial difficulties (Woolf, 2019:3-4). Idealistically, in 1993 Russian nuclear doctrine focussed on (i) international cooperation on peace and stability; (ii) maintenance of the Russian military at the lowest possible level to uphold the country's existential defence; and (iii) a more long-term objective of nuclear disarmament in international policy. In other words, in this early doctrine nuclear weapons served a single purpose: strategic deterrence of an extensive attack on the Russian state (FAS, 1993).

Not until NATO's military intervention in Kosovo in 1999 did a vital turning point occur in Russian military thinking:¹ After having focussed on disarmament and international institutions in its earliest approach to nuclear policy issues during the early 1990s, Russian strategic thinking shifted significantly in the years following the Western-led intervention over Kosovo. First of all, the West's decision to intervene in the affairs of a sovereign state without a Security Council resolution was very clearly noted by the new Russian state. Equally important, though, was the fact that during the Kosovo campaign, Russia became witness to the West's superior conventional precision weapons, leading to new questions among Russia's security policy elites on whether something similar might unfold on Russian territory at some future point in time (Kofman et al., 2020; Sokov, 1999).

Based on these reflections, much of the disarmament idealism of the 1993 doctrine was thus replaced by a more regular deterrence policy in the

1. Other causes hereof include the enlargement of NATO in 1999 and 2004, respectively, the US' withdrawal from the ABM Treaty in 2002 and the 2003 invasion of Iraq.

2000 military doctrine. According to its provisions, Russia reserved the right to use nuclear weapons in response to strategic attacks involving nuclear or other types of weapons of mass destruction (Sokov, 1999). However, Russia also reserved the right in the new military doctrine to use nuclear weapons in situations believed to be 'critical to the national security and the survival of the Russian state', i.e. in cases of extensive conventional and nuclear attacks on the Russian state (Sokov, 1999). All in all, the realpolitik threshold for the use of nuclear weapons was lowered in 2000 from previously being conceivable only in connection with worldwide nuclear war to now also being an option in larger regional scenarios in which the state's conventional military resources did not suffice (Sokov, 1999).

A lot of these points survived the subsequent updates of Russian military doctrine and now form a natural part of Russian policy thinking as a general baseline. The 2010 military doctrine was written at a time when Russia felt its relationship with the West was worse than ever before, and several references to international cooperation and conventions were therefore removed from the doctrine (Truffer, 2015). The 2014 doctrine, though, reintroduced positive mention of international cooperation and strategic arms control. However, it also introduced several aggravating references to other aspects of conventional warfare in local and regional conflicts. More generally, though, the 2014 doctrine gave nuclear weapons a less prominent position vis-à-vis other means (Truffer, 2015).

Russian Nuclear Doctrine and the 'Escalate-to-Deescalate' Debate

In the years following many of these doctrinal adjustments, a new debate has emerged, especially among Western policy analysts, on Russia's thinking as regards possible scenarios for the use of limited nuclear warfare, particularly in regional conflict scenarios. This is widely referred to as 'the escalate-to-deescalate' debate, and has mainly involved two different groups of nuclear policy experts:

On the one hand, we have a group of analysts who typically take a highly deductive approach to nuclear policy issues and, out of precaution, adopt a worst-case perspective on Russia's nuclear weapons arsenal and various political characteristics (E. A. Colby, 2014, 2015b, 2015a; Kroenig, 2016; Payne, 2017, 2018; Roberts, 2016). These analysts are often referred to in the

US debate as nuclear realists (Meyn, 2018b): Firstly, because they express a traditional and predictable pessimism with regard to other states' strategic intentions. And secondly, because they are always ready to invest more money into the state's ongoing nuclear weapons projects in order to prevent the worst possible outcomes (Payne, 2015; Wilson, 2015). Especially in recent years, the idea that Russia will try to take advantage of weaknesses in the West's nuclear posture and strategic thinking through its relatively large number of non-strategic nuclear weapons has become a rather central concern and working presumption among these analysts. (E. A. Colby, 2014, 2015a; Kaplan, 2020; Payne, 2017, 2018; Zysk, 2017, 2018). As a result, they have advocated a less naïve approach to US nuclear weapons development, especially with respect to smaller weapon types, which are generally considered to be more flexible and to some extent 'useful' in regional conflict scenarios (E. A. Colby, 2014; Payne, 2017; Roberts, 2016).

So far, their nuclear advocacy work has been very successful. In the wake of President Trump's ascent to power in 2016, several of these analysts were asked to help write and develop the Trump administration's new Nuclear Posture Review (Defense, 2018). Thus, a new important assumption in Trump's nuclear strategy is that Russia is effectively assumed to be planning the use of nuclear weapons in regional conflict scenarios in order to make its opponents withdraw from defending their political allies. Accordingly, under Trump the US has given priority to developing two new types of smaller nuclear weapons precisely in order to counter potential Russian plans for possible conflict-escalation (Defense, 2018).

On the other side of this debate we find the more context- and culture-oriented analysts who stress that there is nothing within official Russian doctrine to suggest that Russia indeed has an escalate-to-deescalate doctrine for the use of nuclear weapons in its neighbouring vicinity (Arbatov, 2018; Bruusgaard, 2017; Gottemoeller, 2020; Olikier, 2016; Olikier & Baklitsky, 2018; Tertrais, 2018). Surprisingly, this group of analysts include the hard-line French security policy analyst Bruno Tertrais. He argues that while there are a lot of aspects to Russian policy of which one should rightly be critical and worried about, their nuclear weapons doctrine is not one of them. First, Russia's increasing conventional strength and the wording from the 2014 doctrine both suggest that present-day Russian security in fact depends less on the possible use of nuclear weapons (Tertrais, 2018:37-41). Second, those who suggest that Russia on a number of different occasions has practised using nuclear weapons during its military

exercises fail, in Tertrais' estimation, to take into account that a lot of Russia's weapons systems are of a dual use nature. Hence, these analysts base their interpretation on what they consider to be an exercise involving nuclear weapons – but without necessarily having the empirical evidence to support their claims (Tertrais, 2018:39-41). According to Tertrais, no Russian exercise in almost 20 years has involved the use of nuclear weapons (Tertrais, 2018:39). This is in stark contrast to other research studies that have analysed Russian military exercises over time (Norberg, 2015). Nevertheless, Tertrais is very clear that it does not make sense, from a strategic perspective, for a country like Russia to operate with a secret nuclear weapons doctrine, as it is the job of official doctrine to clearly dissuade key opponents from any revisionist agendas (Tertrais, 2018:41).

The same point was presented in 2016 by Olga Oliker, who also underlined the fact that nuclear-armed powers have an obvious interest in communicating clearly their exact doctrine and red lines on the possible use of nuclear weapons (Oliker, 2016). According to Kristin Ven Bruusgaard, there is much indication that Russia had lowered its threshold for the use of nuclear weapons around the turn of the century, but since then Russian doctrine has only been further qualified and the nuclear threshold raised back up to its prior level (Bruusgaard, 2017).

All in all, it can be difficult to analyse the escalate-to-deescalate debate on the basis of open sources only. Even during the Obama administration, however, it is worth noting that the escalate-to-deescalate scenario was being incorporated by the country's key decision makers as a new part of US nuclear war gaming (Kaplan, 2020:253-257). The prevailing, pessimistic interpretation of the escalate-to-deescalate debate is therefore not uniquely Republican, but instead driven by more recent analyses and points of attention provided by the US intelligence sector (Kaplan, 2020:254).

Basic Principles of State Policy on Nuclear Deterrence: Russia Issues a Nuclear Executive Order

The latest development in the broader academic debate on Russian nuclear policy has been the publication on 2 June 2020 of a document outlining the basic principles of Russian nuclear deterrence policy (Putin, 2020). The document, an executive order, was published by the Russian Ministry of Foreign Affairs and was made directly available in a professional English

translation on the ministry's own website concurrently with the Russian guidance. Noteworthy, therefore, is not just the obvious user-friendliness of the publication, but also its political timing – around six months before the expiration date of the New START Treaty – which, if left simply to expire, would leave the superpowers without any rules or restrictions on their strategic nuclear weapons for the very first time in decades.

The Executive Order is six pages long and addresses four main issues presented by the Russian government for all to see. These four issues include (Putin, 2020):

- General principles of nuclear deterrence
- The essence of Russian deterrence policy
- Conditions under which Russia would put its nuclear weapons to use
- The state apparatus' role in the nuclear mission

First, the executive order clearly defines Russian deterrence policy as a defensive strategy. Only in the event of the collapse of nuclear deterrence does Russia expect to use its nuclear weapons in order to re-establish deterrence and national defence as quickly as possible. Articles 4 and 5 of the executive order read (Putin, 2020):

4. State policy on Nuclear Deterrence is defensive by nature, it is aimed at maintaining the nuclear forces['] potential at the level sufficient for nuclear deterrence, and guarantees protection of national sovereignty and territorial integrity of the State, and deterrence of a potential adversary from aggression against the Russian Federation and/or its allies. In the event of a military conflict, this Policy provides for the prevention of an escalation of military actions and their termination on conditions that are acceptable for the Russian Federation and/or its allies.
5. The Russian Federation considers nuclear weapons exclusively as a means of deterrence, their use being an extreme and compelled measure, and takes all necessary efforts to reduce nuclear threat and prevent aggravation of interstate relations, that could trigger military conflicts, including nuclear ones.

As summarised by Nikolay Sokov in relation to the Western escalate-to-deescalate debate, the Executive Order partly confirms the idea that Russia

is operating with a deescalation strategy (Sokov, 2020). In this context, it entails: a strategy for ending larger conflicts through a boundary-setting use of nuclear weapons with a view to re-establishing the previous deterrent balance and push back one's enemies to an acceptable distance. It is vital, though, that we are not talking about an offensive warfighting strategy, as has widely been the assumption and fear in recent years (see fx. E. A. Colby, 2014, 2015b, 2018; Payne, 2017, 2018; Roberts, 2016; Shlapak & Johnson, 2016). By instead rendering visible the defensive objective of the country's nuclear force, Russia is using the new executive order to repudiate speculations that Russia's nuclear weapons may be used in offensive war scenarios in the neighbouring region.

As regards the essence of Russian deterrence policy, article 12 of the executive order offers insight into the key military technological developments that Russia considers to be a threat even to its nuclear arsenal. These include:

- The build-up of general forces and nuclear capabilities in territories bordering on the Russian Federation by Russia's strategic adversaries.
- The deployment of missile defence systems, conventional high-precision weapons, hypersonic weapons systems as well as drones and directed energy weapons systems by Russia's strategic adversaries.
- The development and deployment of defensive as well as offensive strike systems in outer space.
- Other states' possession of nuclear weapons and other types of weapons of mass destruction as well as means of delivery of such weapons.
- Uncontrolled proliferation of nuclear weapons and critical technology to previously non-nuclear weapon states.
- The deployment of nuclear weapons and their delivery means in the territories of non-nuclear weapon states.

The executive order also seeks to make it perfectly clear to a wider international audience under which conditions Russia would consider the use of nuclear weapons to be an option. Here the document lists four specific scenarios – none of them of an offensive nature. Instead, nuclear weapons form part of the response scenario in the event of:

1. Credible information about an incoming ballistic missile attack.

2. Use of nuclear weapons or other types of weapons of mass destruction against Russia or its allies.
3. An attack against critical Russian infrastructure or command and control facilities, which control the country's ability to retaliate using nuclear weapons against strategic adversaries.
4. Attack against Russia with the use of conventional weapons threatening the very existence of the state.

All in all, the substance of these points corresponds to previous versions of Russian military doctrine (Truffer, 2015). From Sokov's perspective, Russian nuclear thinking can therefore best be described as fairly stable and logical over time (Sokov, 2020). In fact, for the most part, Russian nuclear thinking here very closely resembles the Cold War strategy of the West, which was based on the assumption that large-scale confrontation with the Soviet Union would inevitably lead to the defensive use of nuclear weapons had general deterrence policy failed (Freedman, 1981). In a broader historical context, it may therefore seem paradoxical that the West has reacted so fiercely to Russia's possible nuclear dispositions in recent years (Sokov, 2020): Because the defensive Russian de-escalation policy contains no elements which have not also been part of the West's organising principle for deterrence and self-defence at times where its conventional combat power did not match up to that of its opponent (Kennedy, 1960; Kissinger, 1957; Schelling, 1960).

Present-Day Russian Nuclear Capabilities

Despite the great challenges facing the Russian military-industrial complex in the 1990s, Russia still remains a nuclear superpower. It presently possesses 46 per cent of the world's nuclear warheads, which makes it the country in the world with the most nuclear weapons. The US has 41 per cent, while the rest of the world together has the remaining 13 per cent (Kristensen & Korda, 2020b).

This is evident from the table below (table 10.1.), which is a simplified version of Kristensen and Korda's basic research on world nuclear forces:

Table 10.1. Summary of russia's nuclear capabilities.

Country	Strategic warheads deployed	Non-strategic warheads deployed	Warheads in reserve	Total arsenal	Awaiting destruction	Total amount
Russia	1.572	0	2.740	4.312	2.060	6.372
USA	1.750	150	2.050	3.800	2.000	5.800
Rest of the world	400	?	840	1.240	0	1.240

The most interesting aspect of the data above is the number of deployed warheads for the US and Russia compared to the total arsenal. The fact that Russia and the US have almost the same amount of deployed warheads demonstrates that the area is controlled by a common agreement, and that the countries have arrived at a level where they are more or less equally ready for sudden nuclear war. The total arsenal, however, shows that the states may quickly increase their nuclear arsenal should their mutual understanding fail.

Even though Russia holds the numerical lead in the above list, a large share of the country's nuclear capabilities has since the early 1990s been ready to be phased out and replaced by a new generation of nuclear weapons (Woolf, 2019). All nuclear powers undergo such maintenance once every 20-30 years due to the unique technology that constitutes the main ingredient of these systems, namely radioactive material (Kristensen, 2016). Technologically, such modernisation processes are related to issues of security, precision and predictability of the nuclear powers' existing weapons arsenal and are thus not necessarily an indication of an emerging arms race.

Today, Russia – like all of its immediate strategic adversaries – is in the middle of an extensive nuclear modernisation process (Kristensen and Korda, 2020a). Towards 2028-2029, Russia plans to have phased out and replaced all remaining Soviet nuclear weapons by new nuclear capabilities (Westerlund et al., 2019:126-127). In addition, President Putin made it very clear in his speech to the Federation Council in 2018 that the country is in the process of developing a number of new weapons systems designed to circumvent advanced missile defence technologies in various new ways (Putin, 2018). The strategic objective of these new weapons is thus to rebuild confidence in Russia's basic nuclear deterrence potential, especially after the development of the West's missile defence system and the introduction of the US Conventional Prompt Global Strike programme in the early 2000s (Woolf, 2019:32).

The Nuclear Triad

Russia's nuclear capabilities are structured as a nuclear triad – on land-, sea-, and air-borne delivery systems (Kristensen & Korda, 2020a). This also applies to the US strategic nuclear force (Kristensen & Korda, 2020c), the intention of which is to make up for opportunistic surprise attacks, e.g. on the country's intercontinental ballistic missiles, by having other types of weapons platforms ready to launch in times of crisis. In practice, this structure of the superpowers' nuclear capabilities was introduced during the Cold War, and the nuclear triad is thus a direct result of how states diversify their nuclear weapons arsenal in a way that enables nuclear strategy to take place both sequentially and across various different weapons platforms, each making up for the other's relative weaknesses (jf. Wohlstetter, 1958).

Assessing a country's nuclear capabilities, the best approach is duly to consider the following questions:

- What should the arsenal be capable of achieving?
- How is its mission defined?
- What is the geopolitical situation of the state in question?
- What other political and weapons-related developments make the state worry about its safety?

As is evident from Russian military doctrine, the main strategic objective of the country's nuclear weapons is deterrence. Only in the event of an invasion or a serious, imminent threat to the survival of the Russian state, do the leaders of the country expect to make use of nuclear weapons in direct confrontations (FAS, 1993, 2000; Medvedev, 2010; Putin, 2015b; Sokov, 1999; Truffer, 2015).

Here the geopolitical perspective on Russia's total arsenal becomes relevant, in the sense that it helps clear up some of the unintentional biases that often dominate the general understanding of Russian nuclear capabilities and strategic thought (Booth, 1979; Herz, 1950, 1959). Quite contrary to the predominantly Western framing of Russian nuclear weapons developments, as a country, Russia has to contend not only with its former arch-enemy to the West; it has China as a new emerging superpower in its south-eastern corner and a series of new neighbours to the south who are also armed with nuclear weapons and advanced missile technology. As

stressed by Putin as early as the 2007 Munich Security Conference, these proximate geopolitical developments all affect Russia's own risk and preparations-thinking, especially as regards missiles, weapons flexibility and the continued relevance of old arms control agreements with only two treaty-bound adherents (Putin, 2007).

The table below (table 10.2.) outlines the most geopolitically relevant nuclear arsenals from a Russian threat perspective (Kristensen et al., 2018; jf. Kristensen & Korda, 2018, 2019a, 2019b, 2020a, 2020c, 2020b):

Table 10.2. Listing of the most geopolitically relevant nuclear weapons stockpiles for Russia to consider in its immediate vicinity.

	Ground-based capabilities	Sea-based capabilities	Airborne capabilities	Non-strategic capabilities	In total/in total (deployed)
Russia	1.136	720	580	1.870 ²	2.436 ³ /1.572
USA	800	1.920	850	230 ⁴	3.800/1.750
UK	-	120	-	-	/120
France	-	240	50	-	/290
China	218	48	20	-	/286
India	~ 60	16	~ 48	-	/~130-140
Pakistan	~ 114	-	~ 36	-	/~140-150

In the following sections, I will zero in on Russia's nuclear triad, its concerns regarding US missile defence and the brand new weapons designs presented by President Putin in 2018 in his address to the Federal Assembly. Despite its broader geopolitical attention to its closest nuclear neighbours, Russia still officially considers NATO and the West its main strategic antagonists in the field of global security (Putin, 2015a). From that perspective, it would make sense to take a closer look at the country's specific

2. Traditionally, non-strategic weapons also referred to as 'tactical nuclear weapons' are not included in the superpowers' lists of their strategic capabilities.
3. Within the framework of the New START Treaty, the US and Russia arrive at a lower number of strategic forces in each other's arsenals, as stored nuclear weapons are not included as part of the active arsenal.
4. The majority of the US' non-strategic nuclear weapons are located on European territory, whereas a smaller number of weapons are kept in the central US reserve.

capabilities and development agenda for ground-based, sea-based and air-borne nuclear weapons, respectively.

Land-Based Strategic Nuclear Missiles

Kristensen and Korda estimate that Russia's total arsenal of land-based nuclear weapons consists of 302 missiles capable of carrying a total of 1,136 warheads (Kristensen & Korda, 2020a:103-104). What is unique about the larger land-based missiles as well as the submarine-based weapons systems is that they can be equipped not just with one, but several nuclear warheads (Kristensen, 2004). Due to a unique missile technology based on Multiple Independent Re-entry Vehicles, also known as 'MIRVing', an intercontinental ballistic missile can in practice attack several independent targets from the same flight-trajectory thousands of kilometres away (Kristensen, 2004). This gives Russia's intercontinental ballistic missile force great destructive potential. From a practical military perspective, though, it is uncertain whether land-based missiles would in fact come into play at other points of an actual conflict than in a first strike. In particular, silo-based missiles are quite vulnerable to attack, given that their locations are already widely known to adversaries. Russian land-based weapons are therefore very likely to be singled out for damage limitation strikes by the US very early on in a nuclear conflict (Acton, 2013; E. Colby & Gerson, 2013). Mobile land-based missiles are better protected, but they have less destructive potential (CSIS, 2018). All in all, the advantage of land-based missiles is that they can be very heavily outfitted with several nuclear weapons on a single platform of attack; the disadvantage, on the other hand, is that they are more vulnerable to attack than e.g. submarine-based missiles – and thus not necessarily available at the time and place when they could be needed the most.

As a result of the New START Treaty's mutual arms limit, Russia has currently filled up its land-based missiles to their maximum capacity (Kristensen & Korda, 2020a). In the long term – and in a possible new political context without US-Russian strategic arms control – the agreed-upon limits of the nuclear powers' strategic force would fall away. This could then lead to mutual uncertainty about each country's precise dispositions regarding different weapon-types. The main function of the old arms control agreements was that they allowed each state insight and a certain measure of

control with the weapons that the opponent had dedicated to the nation's ultimate existential defence.

Submarine-Based Strategic Nuclear Missiles

Russia has 10 submarines for strategic nuclear missiles. They are divided into three classes, but they can all carry 16 missiles, each containing four to six warheads. In total, this gives Russia a capacity of 720 warheads in the submarine-based part of the triad. Kristensen and Korda, though, estimate the figure to be hovering somewhere around 560, in view of the fact that nuclear submarines are not all operational at the same time (Kristensen & Korda, 2020a:109). In comparison, the US has 14 submarines with a total capacity of 1,920 warheads (Kristensen & Korda, 2020c:47). This significant difference between the US' and Russia's submarine-based capacities shows that the US has more alliance-related deterrence obligations than Russia. It can also be considered a result of a more limited Russian defence budget. The US' strategic force is tasked with the job not only of making sure Russia does not challenge the geopolitical status quo, but also that China remains deterred of doing so.

Characteristic of submarines is that they are hard to trace, and there is therefore a good chance that a submarine on a mission will survive a first strike on its home country. The submarines thus contribute to nuclear deterrence by ensuring that Russia is able to retaliate in due course. The disadvantage, however, is that they are technically complex and highly resource demanding. Furthermore, the limited space on a submarine also sets functional limits to the number of nuclear warheads that can be uploaded to the specific systems at sea (Woolf, 2019:16-17).

Like the rest of its strategic arsenal, Russia is currently in the process of renewing its strategic submarine fleet. At the time of writing, it has four new operational Borey-class submarines, while a series of the improved Borey-A-class submarine is either under construction or expected to be built in the years to come. In total, this will give Russia 10 to 14 submarines of this type, which will gradually replace the older Delta III- and Delta IV-class submarines (Kristensen & Korda, 2020a). In sum, Russia is expected to gradually increase its submarine-based capabilities, as part of the nuclear triad.

Strategic Bombers

Russia has around 60 to 70 strategic Tu-95MS-, Tu-95MsM- and Tu-160-class bombers, which are capable of delivering nuclear weapons to target very straightforwardly (Woolf, 2019, p. 17; Kristensen & Korda, 2020a, p. 103). Of these, the New START Treaty's mutual inspection agreement only includes 50 of the bombers as being fully operational with a total of 580 nuclear warheads allocated for strategic deterrence (Woolf, 2019, p. 17; Kristensen & Korda, 2020, p. 103). This is slightly fewer than the equivalent US arsenal of around 850 nuclear bombs on bombers (Kristensen & Korda, 2020c:47).

Bombers play a special role in the nuclear triad. The other two legs of the triad – land-based missiles as well as submarines – represent a balance between destructive power and vulnerability to surprise attack. The objective of Russia's land-based missiles is to hold its opponents' cities and critical infrastructure at risk, while nuclear submarines are meant to safeguard Russia's ability to respond to a US surprise attack. Bombers, however, do not have any of these attributes: they cannot in the same reliable way deliver a lot of nuclear weapons for individual target destruction, and furthermore, they depend on airports and other logistical support, which can easily be destroyed in time of war. Nevertheless, bombers are very flexible and highly visible in a way that none of the other legs in the triad is.

The objective of strategic bombers, therefore, is mainly to act as flexible tools for strategic communication (jf. Schelling, 1960). Via strategic bombers, countries can signal escalation willingness and strategic seriousness in ways that stationary missiles or relatively invisible submarines cannot. This gives the Russians a chance to control a possible escalation by communicating clearly to the opponent that they are preparing to use nuclear weapons. Bombers are also useful if the country is expecting a potential enemy attack. The advantage of strategic bombers in this context is that they can be recalled after reconnaissance or political negotiations. A similar option does not exist for land-based nuclear missiles. Once they have been launched for attack, they cannot be halted or recalled. In this way, bombers can buy a state valuable time, flexibility and warning capability in times of crisis and confusion.

As part of Russia's broader nuclear modernisation programme, its current bombers are in the process of being upgraded to more modern standards. In time, the idea is to replace the fleet of bombers by the thoroughly

modernised platform, Tu-160M2, which is said to be ready for use around 2023. In the longer term, Russia is working on a concept involving next-generation bombers, which so far carries the name PAK-DA (Kristensen & Korda, 2020a:110-111).

Russian Concern Regarding the West's Missile Defence

The nuclear triad is meant to give Russia the capacity to initiate or retaliate against a nuclear attack from the US. To assess whether Russia indeed has the capacity to deal with this challenge, we need to take into account Russia's offensive capacities, as well as the US' defensive countermeasures (jf. Acton et al., 2017; Tannenwald & Acton, 2018).

Fear of a Western missile defence has characterised Russian military thinking since the 1950s (Long, 2018). Since the beginning of the Cold War, the Soviet Union feared the Americans' technological lead and worried that its missile defence systems could eventually dismantle the threat posed by Soviet nuclear missiles. Therefore, the Soviet Union supported the idea of an arms control agreement to preclude this from happening, which resulted in the 1972 ABM Treaty on anti-ballistic missiles. By signing the agreement, the US and Soviet Union committed to not developing missile defence systems, and thus to remain vulnerable to each other's nuclear weapons without any countermeasures. By ruling out the adoption of defensive systems, the two countries became far better positioned to identify their real need for more offensive weapons. In this way, the ABM Treaty helped pave the way for the 1979 SALT II Treaty (Strategic Arms Limitation Talks) by placing a limit on the number of nuclear weapons that the US and Soviet Union could each deploy.

In 2002, the US decided to exit the ABM Treaty in order to more effectively ward off sudden threats to the US homeland, and the issue of defensive weapons once again became relevant in the context of the overall strategic power balance. The US maintained that its missile defence was not aimed at countering threats from Russia, but rather against some of the new nuclear actors in global nuclear politics such as North Korea and Iran. Russia was never fully convinced by this explanation, though. Despite being aware that the Americans still do not have a missile defence system strong enough to effectively repel a Russian attack, many Russians still fear that this might come to pass at some point in the future. Accordingly,

Russian defence policy has made it a priority to oppose US missile defence and instead develop new weapons capable of circumventing its perimeter. Examples of these types of missile defence-evading weapons include Russia's new hypersonic missile, Avangard, and the nuclear-powered torpedo named the Poseidon (Cooper, 2018; Cordesman, 2018). In the short run, they do not challenge the strategic balance, but they are designed to ensure that Russia will continue to be able to attack the US using nuclear capabilities (jf. Gottemoeller, 2020).

From a Western point of view, it may appear as though Russian concerns about ballistic missile defence are critically overblown. For example, it created quite the international uproar when in 2015 a Russian ambassador suddenly announced that Danish warships would likely become targets of Russian nuclear missiles if they signed on to become part of a US-led missile defence system (Jyllands-Posten, 2015). The Danish Minister of Foreign Affairs at the time, Martin Lidegaard stated, 'Russia knows perfectly well that NATO's missile defence is defensive and not oriented towards Russia' (Jyllands-Posten, 2015). However, Russia does not share that view. They are worried about the future potential of the broader missile defence system.

According to the Russia, nuclear weapons are designed for strategic deterrence, and the threat of mutual destruction is their guarantee of security (Tannenwald & Acton, 2018). This presupposes that both countries have the capacity to retaliate against a nuclear attack. Importantly then, it does not suffice that Russia has enough weapons to start a nuclear war; it must also have enough weapons to survive and retaliate against a first blow (Long & Green, 2015; Wohlstetter, 1958). The Russia fear that the technological development in a host of new areas may, in time, undermine their capacity for strategic defence. If the US should manage to develop offensive hypersonic weapons, and their missile defence system becomes large enough to handle much larger amounts of incoming missiles, there could be room for them to conduct a surprise attack which would destroy so many Russian missiles that the missile defence system could deal with the retaliatory wave of a Russian counterattack. It is this situation that the Russians are so determined to avoid, as it would severely weaken the country's position as a military superpower.

Russia's New Weapons and the Possibility of a Future Arms Control Agreement

As a result of the Russia's long-standing concern about the West's missile defence and other technological strengths, they have spent the past two decades developing a range of new weapons, all designed to evade existing missile-defence technology. Surprisingly, President Putin presented the new weapons portfolio at his annual address to the Federal Assembly in 2018 (Putin, 2018). The main objective of these new weapons is generally to strengthen Russia's strategic force in the decades to come, as well as to highlight Russia's continued capacity for scientific innovation to the rest of the world. As argued by a series of leading analysts, Putin's landmark speech on the development of its many new weapons had two main target audiences: firstly, the broader Russian public in the run-up to the presidential election; and, secondly, the US and NATO strategic policy elites.

For the reader's information, the new weapons are listed in the table below (table 10.3.) along with a range of best estimates on their expected date of deployment (Cooper, 2018; Cordesman, 2018; Hruby, 2019):

Table 10.3. Summary of new weapons developments.

Weapons systems	Upload characteristics	Objective and deployment
Avangard Hypersonic boost-glide weapon	One nuclear weapon per means of delivery	The objective of the Avangard is to penetrate a missile defence via the boost-glide weapon's incalculable trajectory. It is fired either from an SS-18, SS-19 or Sarmat missile. Deployed in December 2019.
Kinzhal Air-launched ballistic missile	Conventional or nuclear upload potential	Is, to all appearances, based on an Iskander missile. Is capable of attacking targets on land or at sea and can move at hypersonic speed upon launch from a fast-moving fighter.

Weapons systems	Upload characteristics	Objective and deployment
Sarmat New, heavy silo-based ICBM	Heavily armed intercontinental ballistic missile in the order of 10+ nuclear warheads	Is designed to cover a distance of up to 16,000 kilometres and thus bypass the US' traditional radar and missile shield technologies in Alaska and California by attacking from the South Pole and into the American mainland instead of across the North Pole. Deployment expected around 2021.
Poseidon Underwater drone	Conventional or nuclear upload potential	Designed as a second-strike weapon for deployment from custom-built submarines. Meant to launch a 'radioactive tsunami' against its opponent following an incoming surprise attack. Deployment expected in the mid-to-late 2020s.
Burevestnik Nuclear-powered cruise missile	Nuclear upload	Designed to penetrate a missile shield and has in principle 'unlimited' scope due to the means of delivery's inbuilt propulsion reactor. Deployment expected in the mid-2020s, though a more realistic estimate is around 10 years from now.

A lot of questions regarding these systems still remain unanswered, but we cannot rule out that the public presentation was meant to influence the US to enter into a new round of negotiations on strategic stability and, in the long term, new forms of arms control. US General Hyten, for example, has made it clear that an extension of the New START Treaty would have to take into consideration the development of new Russian weapons types (Hyten, 2019). This points to the potential for a new type of debate between the US and Russia in the years to come. There is no guarantee, though, that this will lead to new constructive measures and strategic agreements in the current political climate. Instead, this will continue to depend in large measure on the two countries' heads of state and strategic advisors.

The Obama administration's previous chief negotiator on nuclear arms control, Rose Gottemoeller, has observed that Russia's new, more exotic weapons systems seem to serve more of a political function than a strictly military one, especially in view of the fact that they are extremely expensive to produce – and even at times dangerous to operate. She therefore expects to see only a small number of these weapons eventually in use

(Gottemoeller, 2020). In this context, the strange accident which killed seven people in northern Russia in 2019 really epitomizes some of the key challenges that continue to dog the development of these more unusual new weapons systems (Landay, 2019; Sanger & Kramer, 2019). Technologically speaking, therefore, Rose Gottemoeller believes that many of these new weapons will not be considered central pieces to the broader Russian security equation. Simply put, some of the new weapons, particularly the Poseidon and Burevestnik projects, are simply too bizarre and technically unreliable to become a central part of Russian nuclear force planning (Gottemoeller, 2020). In Gottemoeller's estimation, therefore, the three main legs of Russia's existing nuclear triad will still be the core issue at hand in future US-Russian arms control (Gottemoeller, 2020).

Conclusion

Russia is and will continue to be a nuclear superpower. The country places great emphasis on its nuclear capabilities, which of course also form part of what entitles Russia to its continued status as a recognised global actor. In this sense, Russia is quite pleased to still be on an equal footing with the United States, even though it still worries about its more long-term ability to be able sustain this.

Naturally then, this forms part of the background for the development of Russia's many new types of weapons. In a nutshell, Russia is worried that the technological development in the West will eventually give the US a credible defence against Russian missiles. Accordingly, they have been developing new delivery systems designed specifically to circumvent advanced missile defence technology. Meanwhile, in the West, it is often argued that no missile defence system could ever defend against the total amount of missiles in the Russian nuclear arsenal, but this logic of course presumes that Russia will be the first to strike. Conversely, in Russia, the capacity to retaliate against a Western attack is very much at the centre of concern, which again raises questions about Russia's long-term capacity to ensure this outcome.

In recent years, the West has seen much debate about whether Russia has a so-called escalate-to-deescalate doctrine with a lower threshold for the use of nuclear weapons in a regional conflict. This has, among other things, caused the Trump administration decide to develop two new types

of nuclear weapons for the American submarines to make up for the perceived greater variation in Russia's nuclear capabilities and strategic thinking. As mentioned above, it is difficult to determine whether this is indeed the case based on open sources only. There is no doubt, however, that even the Obama administration did practise possible response scenarios for a Russian escalate-to-deescalate scenario. From a historical perspective, Russia has traditionally believed that conflicts were uncontrollable once they had moved past the nuclear threshold. It therefore believed that nuclear weapons were suited for strategic deterrence and mutual destruction only. Tactical deployment scenarios could be planned, practised and eventually conducted, but not under the illusion that the remaining society would be as functional or meaningful as before. The idea that nuclear weapons might act as a flexible tool in minor conflicts was not introduced into the Russian military debate until the 1990s, when the country's conventional forces were too weak to constitute a credible alternative. As Russia has rebuilt its conventional military force, following Putin's accession to power, the internal debate in Russia on the flexible deployment of nuclear weapons has gradually faded into the background. This suggests that Russia currently has other tools that are more well-suited for regional conflict, including high-tech precision weapons and a more effective military in general.

On the other hand, this also suggests that the threshold for the deployment of nuclear weapons may be lowered if Russia is once again weakened. A strong Russia will consider nuclear weapons a means of strategic deterrence in a global war, whereas a weaker Russia may seek to compensate for its conventional shortcomings by adopting a more aggressive nuclear attitude in smaller conflicts. Such a development would be alarming, as the tendencies are already moving in the wrong direction: On the one hand, several arms control agreements have already been abandoned in these past years, the result being that in the coming years, we should prepare to see an increasing number of nuclear weapons in both the Russian and Western arsenal. On the other hand, a stronger diplomatic grip on the Russian economy and, above all, falling oil prices would, over time, result in the relative weakening of Russia's conventional military force. Russia quite simply would not be able to keep up with the US-China arms race. In sum, all of these tendencies paint an alarming picture of a nuclear threshold coming under renewed pressure, all while the number of nuclear weapons in the world continues to grow.

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CHAPTER 11

Russia and Cyber – Espionage, Sabotage and the Constant Fight for the Truth

By Mikkel Storm Jensen

Introduction

'Russia is spending considerable resources promoting its interests in the neighbouring region and other areas of strategic importance and uses i.a. cyber capacities for this purpose. The Russian state has an extensive capacity for conducting cyber espionage and destructive cyberattacks, which can support Russia's strategic and security interests as well as the country's military operations. Russia continues to be a leading and highly active player in the cyber area.' (FE, 2019, p. 32)

The above is an excerpt from the Danish Defence Intelligence Service's 2019 risk assessment. Espionage, influence operations and regular attacks conducted through the cyber domain have become integral parts of the Russian state's foreign policy means, and Russia has demonstrated not only the ability but also the will to use them, even in peacetime.

Reading this chapter, it is important to keep two things in mind: First, the Russian attacks may be interpreted as a sign of weakness. They are asymmetric attempts to weaken Russia's adversaries because, unlike its predecessor, the Soviet Union, the state does not have the military or economic resources to compete symmetrically. Second, Russia has, despite its active and aggressive use of the cyber domain, only had little success with its operations. The annexation of the Crimea is still not recognised internationally; Estonia, Lithuania and Georgia did not yield to Russian cyber

pressure; and although Russian Internet trolls supported Trump's election campaign and Brexit in 2016 (Kirkpatrick, 2017; U.S. Senate Intelligence Committee, 2016), it was not Russia who placed Trump at the top of the Republican list of candidates, nor did Russia put the UK's EU membership to the vote. Russia latched on to and facilitated ongoing processes, though, through operations whose direct or derived effects have ranged from annoying through unpleasant and costly to dangerous and subversive. Russia is not likely to be able to paralyse Danish infrastructure or derail our democratic processes. Nevertheless, Russia does have, if we are to believe the excerpt from the Danish Defence Intelligence Service, the intention, The will and, in part, the means to do so. Denmark still has not seen serious Russian cyberattacks (NotPetya, which cost Maersk at least USD 300 million, was targeted at Ukraine, not Denmark) or Internet-based information campaigns. Nevertheless, the threat is real, and it is therefore important that Danish society – the state, defence, citizens and businesses – prepare to withstand cyberattacks as well as other forms of Russian pressure in the cognitive domain, such as campaigns intended to spread discord and insecurity through social media and other online platforms.

The objective of this chapter is to describe the goals Russia is trying to achieve by building offensive cyber capabilities and to explain how Russia expects to use them. Unlike Western doctrine, Russia does not consider cyber operations as primarily technological means of attack to achieve technological military effects. Instead, Russian doctrine considers cyber operations as a subset of information operations designed to achieve psychological effects. It is therefore necessary also to consider Russian information operations in order to understand their approach to what NATO refers to as the cyber domain, but which Russia considers part of the cognitive domain.

Russia's offensive cyber capabilities thus constitute an essential element of the country's arsenal of means to impose its will on other states. Organisationally, only few of these capabilities constitute regular military units and thus fall outside the scope of this book. Therefore, this chapter will apply a broad interpretation of the concept of 'Russia's military power in the cyber domain' as denoting Russian's means for causing damage to other states through the Internet. Its offensive cyber capabilities span from espionage to destructive cyberattacks. An example of the former is the DNC hack on the US Democratic Party in 2016, where Russia gained access through the Internet to information in the form of Democratic Party emails, without

destroying anything. At the other end of the scale are the BlackEnergy attack in 2015, which shut down a Ukrainian power plant, and the NotPetya attack in 2017, which paralysed both Ukrainian infrastructure and a number of Western companies. Here Russia caused destruction outside the virtual domain by destroying data or manipulating physical infrastructure linked to the Internet. (The attacks mentioned here will be dealt with in more detail below).

In this context, it makes sense to discuss whether information operations, e.g. through social media, can be categorised as cyberattacks merely because they take place in the cyber domain. However, within Russian doctrine, strategic information operations are considered an integral part of the preparations for potential conventional conflicts and are thus relevant in this context (Thomas, 2016, p. 561). Moreover, the special characteristics of the cyber domain (e.g. the opportunity to conceal the origin and validity of messages, or the use of algorithms to target false information or propaganda at the most susceptible audience) represent such an important part of the methods with which Russian information campaigns are conducted that they are relevant to discuss here. Moreover, the task of warning about and countering possible influence operations targeted at Denmark was included in the 2018 Defence Agreement in the section describing efforts against cyber threats (Forligspartierne, 2018, p. 10).

Why Focus on Russia's Offensive Capabilities?

This chapter analyses Russian cyber and information operation capabilities from a Danish security perspective. The aim of the chapter is to identify the threat they pose, and focus will therefore be on Russia's offensive capabilities. The chapter will also focus on cyber-related conditions, as Denmark is likely to be affected by Russian cyberattacks and information campaigns via social media (and thus via the cyber domain). Initially, the chapter will provide an overview of sources of knowledge concerning Russian cyber capabilities and the doctrines behind their deployment. Following a brief discussion of the research-related challenges of studying this area, the chapter offers a description of these capabilities along with concrete example of offensive Russian cyber and information operations. State vulnerability in the information domain has long played a major role in Russian strategic thinking (Jonsson, 2019, p. 105). The internal academic debate in

Russia discuss whether the collapse of the Soviet Union was a result of its inferiority to the West following protracted battle for information supremacy in the cognitive domain, the so-called information space (Thomas, 2009). The colour revolutions in the post-Soviet area and the so-called Arab Spring have further accentuated this concern and influenced Russian doctrine with a view to utilising the information space to defeat the opponent (Connell & Vogler, 2017; Giles, 2011, p. 48; Jonsson & Seely, 2015, p. 8). In continuation of the internal Russian debate on whether the Soviet Union lost the Cold War on account of what the Russians refer to as information-psychological aspects of the conflict with the West, there remains considerable concern at the top of the state apparatus about whether Russia can withstand what they see as pressure from the West. This has affected the nature of the documents which represent Russia's security strategies at national and international levels, e.g. via diplomatic initiatives in the UN (Thomas, 2014, p. 102). By default, the Russian government considers Russia's information-psychological position the weaker party vis-à-vis the outside world, and digitalisation and information technology are weaknesses and vulnerabilities that should generally be mitigated and prevented (Jonsson, 2019; Kurowska, 2019; Pallin, 2019). In 2016, Russia therefore developed an official information security doctrine and, on that basis, launched various initiatives, including attempts to establish a parallel 'Russian Internet'. The hope is that it will eventually make Russia independent of the global Internet, aside from a few, well-controlled gateways to the outside world. A new Internet Act which allows the authorities greater control over the Internet in Russia, the RuNet, became effective from 1 November 2019 and thus takes the country one step closer to secession from the global Internet (Etterretningstjenesten, 2019, p. 24, p. 77; Pallin, 2019, pp. 204-211; RT, 2017). However, Russia's defensive cyber capabilities and other measures introduced to maintain information supremacy within its own borders will not be analysed further here.

This leaves out a significant part of any state's cyber capabilities, namely its resilience against negative incidents (attacks, accidents etc.) originating in the cyber domain. In this area, Russia is struggling with a number of strategic weaknesses, which are likely to make her vulnerable in the cyber domain: e.g. its dependence on foreign (and thus potentially hostile) software, hardware and expertise to build the country's digital infrastructure.

Another relevant area, which will not be addressed here, is Russia's approach to influencing the emerging interpretation of international law in

the cyber area. Russia has been a very active player in e.g. UN efforts to interpret existing international law in the field (Jacobsen, 2017, p. 8). Like most other nations, Russia professes the idea that international law also applies to cyber affairs. The problem is that there is no international consensus on the practical interpretation of international law in the cyber domain. Here Russia (simply stated) cooperates with China and several other authoritarian states on promoting national sovereignty on the Internet through technical and legal divisions and regionalisation, contrary to the US and the European states, which strive to maintain liberal concepts of freedom and a 'borderless' Internet (Jonsson, 2019; Kurowska, 2019).

Literature Review

The literature on Russia's use of force in the cyber domain is at once quite extensive and very limited. Russian approaches to conflict in the so-called cognitive domain are well described, but there is very little concrete, well-consolidated information on Russian cyber- and information-related organisations and operations. Keir Giles' *Handbook of Russian Information Warfare* from 2016 offers a good overview of the field for Western analysts and offers several suggestions for further reading (Giles, 2016a). The same is true of Oscar Jonsson's more academic history of ideas contribution to *The Russian Understanding of War* (Jonsson, 2019).

Russia's use of the cyber domain to conduct influence operations is directly linked to former Soviet doctrines for the strategic use of propaganda and disinformation, and it is an area that has been studied in great detail. In the article 'From Moscow with coercion: Russian deterrence theory and strategic culture', Adamsky provides a useful overview of the development in Russian strategic thinking from the 1980s to 2017, and how the battle for cognitive dominance using all available means – including cyber resources – has become still more important (Adamsky, 2018). For a deeper understanding of Russian strategic thinking concerning information operations and the great importance assigned by the Russians to the cognitive domain, Timothy Thomas' article 'Dialectical Versus Empirical Thinking' provides a thorough introduction to the area. The article demonstrates how generally accepted Russian perceptions of information operations' impact on the individual and entire societies often become examples of what

Western analysts would consider to be mysticism or semi-religious pseudoscience (Thomas, 1998, p. 51).

In the 2014 Russian military doctrine, the ability to dominate the opponent in the information space is referred to as a main element when it comes to the country's abilities to achieve security objectives, whether offensive or defensive. In *When Russia Wages War in the Cognitive Domain (Når Rusland fører krig i det kognitive domæne)*, Flemming Splidsboel-Hansen provides a thorough analysis of the Russian understanding of the information space battle (Hansen, 2019). The integration of cyber into traditional Russian strategic thinking on information warfare (*informatsionnaya voynya*) is well-described by Stephen Blank in 'Information War à la Russe' (Blank, 2017). Also, Thomas' 'The Evolution of Russian Military Thought: Integrating Hybrid, New-Generation, and New-Type Thinking' demonstrates how Russian thinkers have presented the development in Russian doctrine as a response to what they describe as Western hybrid war doctrines (Thomas, 2016, p. 558).

Russian cyber operations are shrouded in much secrecy. Both at the operational and the tactical level, and naturally also when it comes to the strategic operations that Russia is likely to be preparing, e.g. against the critical infrastructure of potential opponents. This secrecy also includes the identity of the military and intelligence units conducting cyber operations. Therefore, the scientific literature in the area is extremely limited, and it is difficult to validate the information provided by open sources on the topic. At the same time, the nature of the cyber domain makes it harder to assess Russia's military cyber capabilities than its conventional capabilities. For instance, analysts focussing on Russian sea power will, despite the high operational security level in the Russian Navy, be able to draw on open sources such as satellite images, information about sea-borne traffic, photos from visits to harbours, equipment and training activities, e.g. exercises. Such physical elements, which can be identified, counted and assessed, are not present in the cyber area. Offensive cyber capabilities – cyber weapons – are 'just' people in an office equipped with regular computers and an Internet connection. The potential efficacy of offensive cyber capabilities largely depends on the level of training and initiative of the staff. None of these attributes can be identified or assessed on the basis of satellite images. Therefore, we only learn about Russia's cyber capabilities when they make mistakes or conduct attacks that reveal the nature of their activities and the quality hereof. Even in such cases it can be difficult to determine the

validity of the information, as it is often provided by the intelligence services of Russia's potential opponents and made available with only limited documentation to protect their methods of attribution and analysis.

A recent report which in few pages offers a useful overview of offensive Russian cyber doctrines, means and methods as well as concrete example of their employment since 2007 is Connell and Vogler's 'Russia's Approach to Cyber Warfare' (Connell & Vogler, 2017). The article which provides the best, though still limited overview of its regular military units for information warfare is Lysenko and Brooks' 'Russian information troops, disinformation, and democracy' (Lysenko & Brooks, 2018). And the role of the Russian intelligence services is described by Galeotti in *Putin's Hydra: Inside Russia's Intelligence Services* (Galeotti, 2016). The boundary between military cyber operations and classical electronic warfare is becoming increasingly blurred. Here McDermott's report from 2017, *Russia's Electronic Warfare Capabilities to 2025*, offers useful insight into the area's increasing importance to Russia's conventional military operations (McDermott, 2017). Finally, "What does Russia want in cyber diplomacy? A primer" by X. Kurowska provides an up-to-date overview of Russia's diplomatic standpoints and approaches to influencing the emerging international law norms concerning cyber activities (Kurowska, 2019).

Aside from the language barrier, Western analysts are facing two fundamental obstacles to analysing Russian thoughts on information warfare and the means available for realising these ideas: The former is often very unfamiliar to Western worldviews and interpretations, and the latter are military secrets. These obstacles have affected the method chosen for this chapter.

Method

Methodically, non-Russian researchers face a series of challenges when it comes to studying offensive Russian cyber and information strategies. They do not have access to all the sources; many are classified. The majority of the available sources are in Russian, and a lot of nuances is lost following translation. Even if the translation is of a high quality, the cultural and political context of the text does not easily translate, making the sources difficult to interpret accurately. This may especially be true of the cyber and information area, as some of the Russian theoretical approaches to this field

are as alien to our Western idea of science as is astrology. However, even though parts of these strategies are based on what Western observers would consider to be pseudoscience, they are nevertheless important, as they have helped shape Russian political and military strategies and actions. Methodically, one should therefore humbly acknowledge that Western studies in the area are based on glimpses of concrete actions and partially published internal Russian debates, with very limited ability to decode the finer linguistic nuances and limited cultural understanding of the worldviews on which the Russian debates. Western analysts are thus comparable to the people in Plato's cave, trying their best to interpret the dancing shadows of Russian actions and published statements (Plato, n.d.).

Cyber effects and pseudoscience

V. Solntsev and V. Pirumov are examples of how alien serious Russian research into cyber effects may seem to appear Western analysts. The two scientists researched information operations at the time of the fall of the Berlin Wall. They considered humans an open system, whose 'psycho-physiological' condition could be affected through the transfer of information, e.g. via sound or electromagnetic radiation. Following the proliferation of the Personal Computer in the 1990s, their research would also include computer viruses, which according to these two gentlemen could cause disease, breakdown of the human mind and body, change people's behaviour or line of thinking and even lead to death through e.g. cerebral haemorrhage. Solntsev presented their research at an international conference in Washington in 1996 (Thomas, 1998, p. 51, p. 61).

This chapter is based on Western analysts' reading and interpretation of recent Russian sources and debates in academic and military circles. These debates are often presented in Russian military journals such as *Voennaya Mysl* (*Military Thought*) and *Krasnaya Zvezda* (*Red Star*). This approach was chosen partly due to the general and introductory nature of this chapter and partly for practical reasons, as the author does not speak Russian well enough to decipher the primary sources. In this context, it is important to understand that military doctrines and regulations are classified information in Russia (Pallin, 2019, p. 203), which makes such materials both unavailable to Western researchers and illegal to discuss for the Russians who may or may not have actual knowledge hereof. This may be why the

public part of the Russian debate on doctrine development, including the doctrines on hybrid and information warfare, is often 'mirror imaging'. Rather than describing the best method of attack, Russian thinkers often describe the most advanced and dangerous enemy attacks (usually Western) which they imagine that Russia should be able to defend itself against (Thomas, 2016, p. 555).

When it comes to Russia's actual activities and capabilities, this chapter builds mainly on information made available in well-renowned Western media and official reports on Russian cyber activities and information campaigns. As mentioned, it is often difficult here to assess the validity of the relatively limited information, and the assessments provided in this chapter are therefore based on a cautious, conservative approach.

It is difficult for analysts who do not speak Russian to study Russian doctrine development and to interpret the observed activities without knowledge of the language and concepts the Russians use. This increases the danger of relying on Western doctrines and conflict understanding in interpreting Russian actions. For example, in 2011 Deputy Defence Minister Andrey Kokoshin said that cyberwar plays an integrated, but secondary role in information warfare, because 'information conflict has scientific-technical, political-psychological, operational and organisational aspects, among others' (Thomas, 2014, p. 103). Kokoshin's statement is a fairly moderate example, but include various diffuse concepts, and their translation and removal from the Russian cultural context does not make them any more precise. This is especially challenging when it comes to cyber and information operations, as the general Russian world view as demonstrated is very different from the generally accepted scientific views of the West. Serious Russian researchers entertain ideas of how humans may be affected by technology, which the Russians would call holistic, but which Western analysts would likely consider as pseudoscience with a religious overtone. At the same time, Russian thinkers often assign far greater weight to the psychological element in cyber and information operations than their Western colleagues, who are often more interested in the technological aspect (Thomas, 1998, p. 51). This applies both to academics and to political leaders: In a speech where he commented on the US' latest, allegedly more offensive national cyber strategy, Russian Deputy Defence Minister Ruslan Tsalikov thus particularly stressed that Russia must be able to resist the psychological effects created by a potential US cyberattack (Ministry of Defence of the Russian Federation, 2019; Sanger, 2018).

Russia's Offensive Cyber and Information Capabilities

In Russia, information operations and their subset of cyber operations are thus believed to hold potential strategic importance. At the strategic level, a cyberattack (which in Russian parlance is referred to as 'special programming effects') could theoretically achieve the ultimate military effect of paralysing the opponent's nuclear arsenal. If we leave this rather unlikely scenario out of account, Russian thinkers as early as the 1990s recognised the opportunity of using cyberattacks for military purposes against the opponent's communication, reconnaissance, early warning, logistics and weapons platforms at the tactical and operational levels. At the same time, they recognised the opportunity to exercise pressure at the strategic level through information operations and attacks against critical infrastructure, also prior to the outbreak of war. Already at this early point, the Russians and the West seemed to adopt different views of the concept of cyber war, as Russian thinkers imagined how an 'information attack' might destroy an entire nuclear power station (Thomas, 1998, p. 53). Unlike US and NATO doctrines, Russian doctrine does not consider cyber a separate area (Brent, 2019; U.S. Cyber Command, 2018). Instead, the 2014 Russian military doctrine refers to the 'global information space' (Military Doctrine of the Russian Federation 2014, 2014, p. 15c), which includes both physical means of communication in all forms, including the Internet and a cognitive domain, where states struggle to influence what is believed to be legitimate and true. In the information space, states may utilise cyber operations' unique ability to support operations in the physical or cognitive space, but cyber is just a means like any other. Therefore, Western analysts should focus on the cognitive or physical effects Russia is trying to achieve with operations in the cyber domain rather than on whether their methods for pursuing their objectives are by cyberattack or conventional means.

What is the Russian General Staff's perception of information warfare (informatsionnoye protivoborstbo)?

In 1996, during the least tense period between Russia and the West, Timothy Thomas was able to interview a Russian officer on the topic. He describes their point of view as follows:

'Information warfare is a way of resolving a conflict between opposing sides. The goal is for one side to gain and hold an information advantage over the other. This is achieved by gaining unsanctioned access to information and putting electronic management systems out of commission, and for enhancing the information security of one's own management systems. The potential damage from the use of "information weapons" against government information and telecommunications systems, systems for the command and control of strategic missile forces, and systems for the management of transportation, power engineering and credit and financial structures can be compared to the effects of weapons of mass destruction since they can be used, in principle, to destroy the entire system of state administration'

(Thomas, 1996).

Even though this interview was conducted in the early days of the Internet, the formulations correspond to a draft doctrine for military activities in the information space published by the Russian Ministry of Defence in 2011

(Jonsson, 2019, p. 99).

The struggle for dominance in the information space is, from the Russian point of view, not limited to situations of crises and war, but constitutes a permanent, ongoing conflict. The only difference between activities in peacetime, crisis and war is the intensity and some of the means. 'Depending on the target of action, information warfare consists of two types: Information-psychological warfare (to affect the personnel of the armed forces and the population), which is conducted under conditions of natural competition, i.e. permanently [, and] Information-technology warfare (to affect technical systems which receive, collect, process and transmit information), which is conducted during wars and armed conflicts' (Giles, 2016a, p. 10).

Hence, handling of offensive Russian cyber capabilities are not separated from its remaining information warfare capabilities, which span from elements of electronic warfare to regular information operations (Giles, 2011, p. 44). These are mainly conducted by the Russian intelligence services, though the military has in recent years acquired a few capabilities of

its own. Aside from regular state cyber capabilities, the Russian intelligence services make use of proxies in the form of cyber criminals and self-motivated private individuals – so-called ‘patriotic hackers’ – to conduct cyberattacks which thus cannot be linked directly to the Russian state (Connell & Vogler, 2017, pp. 7-8, p. 17; Defense Intelligence Agency, 2017, p. 39; Heickero, 2015, p. 73; Isachenkov, 2017).

Russia’s Clandestine ‘Active Measures’ Are Not a New Phenomenon

As described above, there is nothing new in Russia’s emphasis on the struggle in the cognitive space as an important parameter in international conflict. What *is* new is the shift in importance of non-military means vis-à-vis conventional military means, which is now 4:1, according to some Russian strategists (although they give no indication of how they quantify it) (Bartles, 2016, p. 4; Gerasimov, 2013). Whether this assessment is the result of stringent analysis of modern conflicts and methods or of the need to uphold the Russian self-perception as a superpower, with far less resources available than Soviet Union, is unclear. Naturally, Gerasimov’s 4:1 weighting cannot be operationalised directly, but it likely demonstrates that the military elite acknowledges the increasing importance in modern conflicts of competences and capabilities, which fall outside the classical military domain. It is probably civilians mainly who have the competences to conduct ‘conventional cyberattacks’ in a Western sense against e.g. communication facilities or critical infrastructure as well as misinformation operations and propaganda. In any case, Russia acknowledges the increasing importance of ‘asymmetric’ alternatives to conventional means in international conflict, as it does not have the means to confront the US in symmetric battle. The development towards greater emphasis on asymmetric means gained momentum especially after the launch of the large-scale reforms of the Russian Armed Forces in 2008 (Jonsson, 2019, p. 106).

What are 'active measures' (aktivnye meropriyatiya)?

'In traditional Soviet military thinking, the systematic effort to influence outside developments covertly is the so-called active measures. [...] Active measures are conducted secretly, based on the principle of plausible deniability [...]. A disinformation operation is most likely to succeed when it enters a target group's independent media climate, as the originator of the planted story can then refer to "credible" Western sources in its own official communication, effectively collapsing the border between active measures and public diplomacy. Therefore, the distinction between active measures and public diplomacy is not always easy to discern, as coordination also occurs between the two'

(Kragh & Åsberg, 2017, p. 779)

'Active measures' include not just information operations, but also physical operations such as sabotage and spectacular murders. Famous examples from the time of the KGB include Stalin's dethroned rival, Trotsky, who was stabbed with an ice pick in Mexico in 1940 and the dissident, Markov, who was killed by a poisoned bullet fired from a converted umbrella in London in 1978. The FSB and GRU continue to use similar methods, e.g. against FSB defectors: Litvinenko, who was poisoned with polonium in his tea at a hotel in London in 2006, and Skripal, who suffered an attempted murder, when someone put nerve gas on the door handle in his home in Salisbury in 2018 (Stewart, 2018; Weaver, 2018). After the attack on Skripal, two Russian agents were arrested in the Netherlands trying to conduct a cyberattack that was meant to sabotage the results of the Swiss laboratory analysing the evidence from Salisbury

(Schreuer, 2018).

The collapse of the Soviet Union coincided with the emergence of the Internet, but Russia largely upheld Soviet strategic thinking and concepts, including the concept of 'active measures' and brought them into the era of cyber (Kragh & Åsberg, 2017, p. 779; Valriano, Jensen & Maness, 2018, p. 113). Responsibility for active measures, as well as for most of the strategic electronic intelligence collection, rested with different sections of the Soviet intelligence services, the KGB (the Soviet Union's Domestic and Foreign Intelligence and Security Service) and the GRU (the Soviet Union's and later Russia's military intelligence service), and it was therefore natural for these services to continue to solve these tasks when both collection and the spread of communication moved to the Internet.

The Organisations behind Russia's Offensive Cyber and Information Operations

Following the collapse of the Soviet Union, the KGB was divided into a series of services.¹ The FSB (Federal Security Service) is the largest of these and the KGB's direct successor. The FSB is responsible for surveilling Internet communication within Russia, and all Russian Internet providers are obligated to install systems ensuring that the FSB is able fulfil its mission. The SVR (Foreign Intelligence Service) is responsible for the general collection and analysis of foreign intelligence. And finally, the FSO (Federal Protection Service) is, according to Heickero, responsible for electronic reconnaissance, including through the use of cyber means, whereas Galeotti and the DIA argue that its tasks are limited to counterintelligence services and internal security (Defense Intelligence Agency, 2017, p. 72; Galeotti, 2016, p. 3; Heickero, 2015, p. 73). The services of the FSB are not limited to Russian territory, though. It is allegedly involved in both cyber and information operations directed at foreign targets and includes, according to Giles, the GURRSS (Main Directorate for Radio-Electronic Reconnaissance on Communications Networks, *Glavnoye upravlenye radioelektronnoy razvedki sredstv svyazi*) (Galeotti, 2016, p. 2, p. 7; Giles, 2011, p. 53). Add to these the K section at the MVD (Ministry of Internal Affairs), whose role is to investigate Internet crime (Giles, 2011, p. 51). When the K section identifies talented cyber criminals, it can choose not to prosecute them, but instead force them to conduct cyberattacks on behalf of the Russian state. This gives the state a degree of 'credible deniability' and serves to camouflage its role in these activities should they become publicly known and traced, just as Russian cyberattacks are sometimes masked as criminal rather than political activities (Galeotti, 2016, p. 5; Sullivan 2018).

The Russian military intelligence service, the GRU, conducts independent intelligence gathering using any available means, including cyber resources, and it makes frequent use of active measures, including offensive cyber operations. According to Galeotti, there are significant differences, both past and present, between the strategic culture of the KGB's successor, the FSB, and the military intelligence service, the GRU. The KGB had and the FSB has a, somewhat, more discreet approach to active measures,

1. For a simple overview of Russian services and their portfolios, see appendix F in *Russia's Military Power, DIA 2017* (Defense Intelligence Agency, 2017).

though without avoiding them, and have prioritised the clandestine element. The GRU has, institutionally, demonstrated greater willingness to take risks and emphasised action over secrecy, perhaps due to the organisation's affiliation to military units, including the Russian special forces (Galeotti, 2016, p. 2). A large part of the major cyberattacks, which Western intelligence services have attributed to Russia are linked to the GRU. This includes, for example, the cyber espionage targeted at the Democrats' email correspondences during the 2016 US election campaign and the Not-Petya cyberattack in 2017, which caused extensive data destruction and economic loss of USD 800 million or more worldwide (Gunderman, 2017; The Grand Jury for the District of Columbia, 2018; UK Foreign Office, 2018). From a Russian leadership perspective, blurring the boundaries between the job portfolios of the FSB, SVR and GRU, respectively, creates internal competition between the organisations and increases their drive and innovation. The disadvantages, however, include lack of synergy and potentially greater willingness to take risks than is appropriate from a Russian state perspective. It also means that the organisations are fighting over resources and portfolios, not least in the cyber area (Galeotti, 2016, pp. 4-5; Giles, 2011, p. 52).

The regular Russian military has only played a minor role in this development, even though traditional tasks within electronic warfare (*Radioelektronnaya borba*) and the forces solving them (*Voiska radioelektronniy borby*, *Voiska REB*) have become more cyber-related, as both the military's own communication and that of its potential opponents has moved onto digital platforms. In the wake of the 2008 war in Georgia, Russia saw the emergence of an internal debate on the introduction of so-called 'information troops', followed by discussions on expanding the tasks of existing electronic warfare units in order to integrate cyber operations more directly with conventional operations at tactical and operational levels. The Russian forces are striving to become better at conducting network-based operations (Jonsson, 2019, p. 103), which means that numerous platforms on land, at sea and in the air work together on collecting and sharing information on the opponent, while coordinating and focussing the means to fight him. Here the Russian operations in Syria has demonstrated that the interplay between forces on ground, aircraft and other platforms has indeed improved (Harris & Clark, 2018; Lavrov, 2018). At the same time, Russian forces are seeking to improve their ability to resist the opponent's ability to fight in the same way and to reduce the effects of the enemy's

advanced precision weapons. Therefore, electronic warfare – defence of the country's own electronic systems as well as attacks against enemy systems – plays an increasing role in Russian military doctrines (McDermott, 2017; McDermott, 2018). Here Russian ideas of using cyberattacks against the opponent's command and control systems in order to lower his operational tempo, in line with old-fashioned electronic warfare, are no different from equivalent Western ideas of cyber support for conventional operations (Franke, 2015, p. 37).

However, the FSB and GRU have been protecting their cyber portfolios zealously. Up until 2014, both the FSB and GRU resisted all attempts to increase the role of the military in this area. Ideas of increasing the military's capacities and autonomy in the cyber area were severely criticised, e.g. by the FSB, who instead suggested strengthening the existing structures (Giles, 2011, pp. 51-55). Nevertheless, the regular military has gained a few, but increasing number of Russia's information warfare capabilities. Information warfare was mentioned in the 2010 military doctrine as a concept for achieving political results, though it did not involve the regular forces (Jonsson, 2019, p. 104). The new military doctrine from 2014, however, officially tasked the Russia military with increasing its information warfare capabilities (Military Doctrine of the Russian Federation 2014, 2014, p. 46 c). Later that year, the authorities started summoning highly talented, well-educated university students for military service. This group of conscripts serve for a period of 12 months in so-called 'research companies' of 60 men, solving tasks related to cyber and information warfare, but also within cyber defence and more traditional propaganda activities. After completed military service, some conscripts are encouraged to sign a contract with the military as reserve officers. These research companies belong under the General Staff's 8th Directorate and are scattered throughout the services and military intelligence service, the GRU, with locations throughout the country (Lysenko & Brooks, 2018). The Russian military's own (English-language) communication to the outside world on its cyber capabilities is very limited. It focusses mainly on defensive aspects such as units tasked with safeguarding the communication, command and data security of Russian forces (Ministry of Defence of the Russian Federation, 2019).

Russian Cyber and Information Operations

Even though Russia does not consider the cyber domain to be a separate domain, it is nevertheless a medium through which Russia, in war as well as peacetime, may wage (or become the victim of) information war and support conventional forces in action (Giles, 2016b, p. 2). In 'The Evolution of Russian Military Thought: Integrating Hybrid, New-Generation, and New-Type Thinking', Thomas describes how Russian doctrines refer to the battle for dominance in the cognitive domain as an ongoing effort, which will gain increasing importance and thus also intensity at the transition from crisis to war – a time translated by Thomas as 'the Initial Period of War' (IPW) (Bartles, 2016, p. 2; Thomas, 2016, p. 556). In this context, cyber operations are seen both in the form of attacks against the enemy's (and defence of own) information systems and information operations, i.e. 'psychological information campaigns' targeted through the cyber domain via e.g. social media or the press with a view to erode the opponent's morale and social cohesion and achieve 'information superiority' (Franke, 2015, p. 23):

'Main efforts will be focused against aggressor governments and military control systems, while national information sources will continue to be protected from adversary influence. IPW goals will be accomplished by employing military, economic, and information technology measures in combination with psychological information campaigns [...]. Cyber issues have changed the nature, methods, and techniques used by state and government agencies; influenced social relationships; and affected the methods of military operations, creating new information threats and challenges. [New-Generation Warfare] belongs to the age of high-tech wars, and operational objectives will depend on new technologies and weapons, altering the character of armed struggle. Fire strikes; space-based systems; [Electronic Warfare] forces; electromagnetic, information, infrasound, and psychotronic effects will be employed; along with corrosive chemical and biological compounds to erode an adversary's capabilities.' (Thomas, 2016, p. 265)

As mentioned above, Russia built its offensive cyber and information capabilities after the collapse of the Soviet Union within the organisational and conceptual framework of the intelligence services and the Soviet tradition for 'active measures'. This did not attract much attention in Western academic circles, though, possibly because Russian activities likely primarily involved traditional espionage. Russia's extensive cyberattack on Estonia in 2007 therefore came as a surprise to many. These attacks showed,

perhaps for the first time in history, how a state can make the cyber domain its primary battleground in the attempt to impose its will on an adversary by coordinating cyberattacks with diplomatic pressure and other information campaigns. This method was also used against Lithuania in 2008. It attracted more attention, though, when Russia, also in 2008, revealed its capability and willingness to combine cyberattacks with conventional military operations in its campaign against Georgia (Connell & Vogler, 2017, p. 13; Tikk, Kaska & Vihul, 2010, p. 24, p. 51, p. 67). Russia's ability to combine cyberattacks with conventional operations and information campaigns in what Western voices would refer to as hybrid warfare was accentuated with the annexation of the Crimea in 2014 and subsequent Russian support for the separatists in the Ukrainian civil war (Thomas, 2015, p. 460). In December 2015, the BlackEnergy attack, which caused a temporary power cut in parts of Ukraine, served to focus attention on Russia's ability to destroy or paralyse critical infrastructure (Beredskabsstyrelsen, 2017, p. 107). Finally, Russia's strategic use of cyber espionage and targeted information campaigns became a central topic during the 2016 US presidential election, where Russia actively opposed the Democratic candidate (Select Committee on Intelligence, 2020, pp. 199-221; U.S. Senate Intelligence Committee, 2016).

Influence Operations

In its 2019 Risk Assessment, the Danish Defence Intelligence Service describes Russia's influence operations as follows: 'Russia's influence campaigns are coordinated by the Russian leadership in cooperation with the country's intelligence services. Russia's influence campaigns continue to include the use of traditional media, hackers, conferences, social media and so-called troll factories, where the staff are tasked with controlling a very large number of fake online personas. Russia continues to refine its influence measures, improving their ability to obscure their origins and Russian involvement, and to develop advanced technology for generating fake content and circumvent methods for tracing fake accounts' (FE, 2019, p. 24). The most widely known and effective Russian influence operation is probably the above-mentioned interference with the 2016 US presidential election. However, the Russian campaign was (and continues to be) considerably more diverse and not limited to subverting the Democratic Party's

election campaign through cyber espionage and subsequent publication through channels such as WikiLeaks, which cannot be linked directly to the Russian government² (Select Committee on Intelligence, 2020, p. vii, p. 199). Russian interference with the US election campaign, which continues to poison the US political debate, was merely one especially successful element in an overall, long-term strategy aimed at subverting US social cohesion by increasing existing tensions between different interest groups in the US. One of its main methods is to disseminate information and propaganda on social media, advocating for or against the cause of particular interest groups through fake profiles posing as Americans.

As early as 2012, a so-called troll factory in Saint Petersburg by the name of the Internet Research Agency began building such a Potemkin village of fake American profiles and to disseminate inciting, conflict-inducing messages. The aim of these messages is not to promote Russian foreign policy, e.g. recognition of the annexation of the Crimea, but to fan the flames of US domestic issues that divide the population. These messages can be targeted effectively at impressionable individuals in the social media using the same type of software used for targeting ads. For example, searching the Internet for information about the dangers of vaccination reveals to the major commercial search engines that you are inclined to believe in conspiracy theories and thus constitute possible fertile soil for planting Russian propaganda. And if the recipient takes the bait and shares the message – e.g. a meme portraying Trump as dangerous or raging against Democrats’ lenience towards immigrants – with the recipient’s friends online, this material may for a long time circulate the ideological echo chambers with which they presume to agree (Politico, 2018). Furthermore, fake personas have attempted to turn ideological disputes into physical riots and violence: In 2015 the Internet Research Agency thus managed to create two groups

2. ‘In addition to disseminating hacked materials through its own personas, the GRU gave information to WikiLeaks as part of a joint effort to secure wider distribution of stolen DNC documents and John Podesta emails. WikiLeaks opted to release those materials, first on July 22 and later on an ongoing basis between October 7 and the election. WikiLeaks also actively solicited and then released the documents for maximum effect, despite mounting evidence that they had been stolen by Russian government hackers. Notably, this was not the first instance that WikiLeaks had taken actions for the purpose of harming U.S. interests. Nor is it the only instance of contact between the Russian government and WikiLeaks, which have a history of parallel and sometimes coordinated actions in attacking U.S. institutions’ (Select Committee on Intelligence, 2020, p. 199).

based in Texas: one fighting for the establishment of a local mosque and the rights of Muslims in the US, and one fighting for rightist key issues, including the fight against immigration and for Christian fundamentalism. Subsequently, via Facebook Russian manipulators managed to get the two groups to demonstrate at the same time and place. Russian measures, methods and known activities have been thoroughly described in *The Tactics and Tropes of the Internet Research Agency* (Diresta et al., 2019). The Internet Research Agency is not officially linked to the Russian state, but funded by plutocrat Yevgeny Prigozhin. There is no available information on how he funds the Internet Research Agency, which does not appear to have any revenue source. In September 2019, the US financial authorities imposed several sanctions on Yevgeny Prigozhin for his interference in the 2016 election (*U.S. Department of the Treasury*, 2019).

The US is far from the only target of Russian information operations, though. Within former Soviet territory, countries such as Estonia, Lithuania, Georgia and Ukraine have all been exposed to Russian influence operations (Diresta et al., 2019, p. 6; Tikk, Kaska & Vihul, 2010). And considering countries who in terms of foreign policy appear to be more similar to Denmark, there are reports of Russian attempts to influence e.g. the German parliamentary election in 2017 and the French presidential election also in 2017 (BfV, 2017, p. 270). In both cases, the objective was probably to undermine EU cooperation, and it was done mainly by intensifying existing debates on e.g. immigration with the intention of strengthening nationalistic and EU sceptical parties. But similar to the US election, these campaigns also included cyber espionage against candidates and subsequent publication of e.g. emails, though on a smaller scale and, at least in the French case, less well-prepared form in terms of understanding the target groups. For instance, part of the Russian campaign against French presidential candidate Macron was based on claims that he had had a homosexual affair – a topic which did not concern with the French public (Greenberg, 2017; Nolan, 2017, pp. 35-43, Stelzenmüller, Bosch & Fellow, 2017, pp. 5-6). Hence, interference with the French and German elections appears to have been given lower priority than the US campaigns. In the UK, Russian media reporting and ‘troll activities’ in the social media supported both the fight for Scottish independence at the 2014 election and Brexit at the 2016 vote on EU membership. There is nothing to suggest that the Russian support for Scottish independence and Brexit, respectively, built on material procured through espionage, though (Gorodnichenko, Pham & Talavera,

2018, p. 9; Intelligence and Security Committee of Parliament, 2020, p. 13; Kirkpatrick, 2017).

Espionage and Military Operations

At the strategic level, Russia has inherited and continued the Soviet tradition for espionage against the military organisations and political leaders of potential adversaries, and cyber espionage is a natural continuation hereof. For example, in 2015 and 2016 the unclassified email service of the Danish Defence, mil.dk, was subjected to targeted Russian reconnaissance (Borre & Larsen, 2017). In the context of information warfare, the novelty brought about by the development of cyber measures has led to the combined use of information collected through cyber espionage and information campaigns conducted via various online media, as mentioned above in connection with the US and French presidential elections (Nolan, 2017; U.S. Senate Intelligence Committee, 2016).

Several countries, including the US, have reported possible Russian preparations for attacks against critical infrastructure (Fireeye, 2018; US-CERT, 2018). These include targets such as power and water supplies, industry and financial infrastructure such as banks and electronic payment systems. In addition to the physical destruction and disruption of the adversary's ability to e.g. produce materials necessary in war, such attacks could potentially undermine the population's confidence in the government and its ability to protect them (Franke, 2015, pp. 25-28). In Ukraine, Russia has, as described above, demonstrated both a willingness and an ability to target critical, civilian infrastructure for the purpose of creating a feeling of insecurity among the Ukrainian population not directly related to simultaneous military operations. The two best known examples include the above-mentioned NotPetya attack in 2017 on financial infrastructure and the temporary power cut in 2015 caused by the BlackEnergy attack.

Compared to conventional military operations, Russia is seeking to develop measures for cyberattacks against potential adversaries' military units and weapons systems, e.g. their ability to communicate and wage war via the cyber domain. According to the Danish Defence Intelligence Service, Russia 'sees an opportunity to take advantage of Western military forces' increasing dependence on network-based information exchange and satellite navigation. Therefore, Russia focusses extensively on the

application of electronic warfare for active jamming, i.e. interference with radio signals, as well as passive reconnaissance. Russia has been experimenting with the use of artificial intelligence in autonomous systems for electronic warfare in Ukraine and Syria, and Russia is likely to continue to prioritise the use of artificial intelligence and robot technology in its military capacities' (FE, 2019, p. 22).

Moreover, cyber reconnaissance is likely to play an increasing role at the tactical-operational level. During the operations against Georgia in 2008, offensive Russian cyber operations seemed to focus on achieving information superiority at the strategic level (Connell & Vogler, 2017, p. 17; Lupion, 2018, p. 333). Cyber reconnaissance probably supported the operations directly before, during and after the annexation of the Crimea in 2014 demonstrating that cyber operations likely are increasingly being incorporated into conventional operations, as similar support does not appear to have been provided during the operations against Georgia six years prior (Iasiello, 2017, p. 54). In Ukraine, we have also seen several examples of cyber reconnaissance acting as the basis of conventional as well as tactical information operations. For instance, Ukrainian soldiers at the front have received personal text messages meant to undermine their fighting morale (Mölder & Sazonov, 2018, p. 324). Another example of support for conventional operations involving the cyber domain is the increasing use of technical means to disrupt GPS signals in larger areas, including battle zones in Syria and in connection with NATO exercises in northern Scandinavia (C4ADS, 2019; O'Dwyer, 2019; Yle, 2018). There are also reports of mobile network breakdowns in Russia's neighbouring countries in connection with Russian training exercises (Birnbaum, 2018).

At the same time, conventional Russian forces are conducting more and more operations intended to support cyber operations. During the annexation of the Crimea, for example, Russian soldiers attacked both physical cyber infrastructure such as optical fibre cables and media with Internet-based communication platforms. The objective of these operations was to ensure Russia's information superiority in and around the Crimea during and immediately after the annexation (Jonsson & Seely, 2015, p. 15). Furthermore, there are indications that conventional Russian forces are engaged in activities that constitute preparations for offensive cyber operations in potential future conflicts against NATO. These activities include, among other things, mapping and even gaining physical access to cyber infrastructure that is critical to NATO or individual member states. This

includes not least navy activities involving surface vessels as well as submarines at the location of some of the undersea cables that constitute the backbone of the Internet, and which are responsible for the majority of international traffic (*Russia a "risk" to undersea cables, defence chief warns*, 2017; Sanger & Schmitt, 2015).

Conclusion

In summary, Russia has demonstrated both the will and the ability to use the cyber domain in offensive operations both at times of peace, crisis and war. The use of the cyber domain has spanned the entire spectrum of offensive operations – from espionage through influence operations via targeted campaigns, with or without fake content and with or without fake origins, to outright destruction of critical infrastructure. The quality and results of these offensive operations have varied with on both the Russian aggressor's and the adversary's degree of preparation. Targets and means have, in continuation of traditional 'active measures', spread from the strategic level to the tactical and operational levels, and at the same time, the Russian military has recently begun to build its own capacities within this area and become better at integrating cyber operations with conventional operations. Moreover, the traditional emphasis placed by Russia, and before that by the Soviet Union, on the role of electronic warfare has continued in the cyber domain. As mentioned at the beginning of this chapter, Denmark still has not been exposed to serious Russian cyberattacks or Internet-based information campaigns. Nevertheless, to ensure the continued function of Danish society and the Defence Forces, Denmark must make the necessary arrangements to increase resilience against potential offensive Russian cyber and information operations – operations which Russia at the time of writing is conducting in several countries and which are expected to increase in size and intensity at times of crisis or war.

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CHAPTER 12

The Rise of the Military Companies – Russian Wars Outsourced

By Niklas Rendboe

In January 2018, a cargo ship by the name Ural put to sea from the Russian Black Sea port of Novorossiysk. For a month, it followed a circuitous route through the Mediterranean, zigzagging, as though the captain had intended to dock in civil war-torn Libya on three separate occasions, only to abandon the plan and eventually sail west to the Tunisian port of Sfax. The port turned out to be a bad choice. The reception from Tunisian customs was ice-cold. Ural's papers were rejected and its cargo searched. This resulted in the seizure of a large shipment of equipment suited for the establishment of a military base. Satellite communication equipment, uniforms, ammunition, first aid equipment and no less than 66 vehicles were confiscated, including bulldozers, armoured personnel carriers and modified Ural-4320 lorries (Ghanmi, 2018; Voytenko, 2018). Before long, more Ural lorries with similar modifications began to appear across the Libyan border in Sudan and the Central African Republic. Peering into the back of these lorries, bystanders would have caught sight of military personnel whose masks and sunglasses could not hide their fair skin and Russian mother tongue (Leviev, 2019).

That this supply chain was sponsored by the Russian state has since become undoubted. Even so, these were not state soldiers; they were employed by the nominally private company ChVK Wagner (A Russian abbreviation for Private Military Company Wagner, or simply PMC Wagner) and tasked with protecting Central African President Touadéra and

training the state security forces within the auspices of an agreement sanctioned by the UN Security Council. Back in Tunisia, the Ural cargo was soon returned by the authorities, and before long British media reported that Wagner had reached Libya, where they had begun to build two bases in the eastern part of the country, which was controlled by rebel leader Khalifa Haftar (Dunn, 2018; Voytenko, 2018). The scale of this mission increased rapidly in 2019, as the Libyan civil war expanded into international proxy warfare. And when the Wagner personnel started to receive air support from Russian fighters in May 2020, the prominence of military companies as part of Russia's total military capability had become a demonstrable fact. (Correll, 2020; Kirkpatrick, 2019).

Since 2014, military companies have been at the centre of Russia's military activities, providing among other things the largest Russian deployments in Ukraine, Syria and Libya (Katz & Harrington, 2020, p. 20; DoD OIG, 2020, p. 35; Inform Napalm, 2018). Their existence can be seen as Russia's response to US involvement in the so-called colour revolutions in the 2000s and the Arab Spring beginning in 2010. According to Russian military doxa, these revolutions were not merely encouraged by the West, but engineered from the start and continuously controlled (Revaitis, 2018, p. 282). Now Russia is building its own capabilities within this grey zone area of conflict, and the job of the military companies is to control the chaos suffered by conflict-ridden countries to Russia's advantage and thus gain strategic, political and financial benefits without the use of regular forces. The popular view holds that Russia is using illegal mercenaries for their plausible deniability. It is not quite that simple. These companies rarely consist of mercenaries, and Russia's public denials have long since lost their credibility. Russia's main advantages in using so-called private military companies is the fact that they constitute a source of cheap, fast and flexible recruitment of soldiers, whose work may even generate a profit for the Russian elite. By being tied to private enterprise, the Russian military companies hamper outsiders from determining when exactly they are acting as independent, profit-maximising business, and when they are acting as Russian military auxiliaries. Private military and security companies is nothing new within international security, but for a military great power to rely so heavily on military companies, as Russia has done in connection with its military campaigns in countries like Ukraine, Syria and Libya, is unheard of.

The aim of this chapter is to account for and assess how these companies contribute to Russian military capability. The chapter will proceed with a literature review outlining Russian military companies' position in conflict research. Section two presents a review of the literature within this field. Section three will describe the method applied in this chapter, whereas section four will account for the companies' legal status in Russia and internationally. Section five provides a short fly-by of the organisation of these companies, while section six discusses a series of well-known cases that serve as the main data set for the assessment of the companies' current and future role. The seventh and last section summarises the chapter's overall assessment.

Literature Review

Within international research, the study of military companies falls within the cross-disciplinary field of research into Private Military and Security Companies (PMSCs), in which the methodological approaches are primarily sociological, legal and historical (Avant, 2005; McFate, 2014; Percy, 2007; Singer, 2003).¹ Singer (2003) has written the first prominent volume on the subject, providing the field with its basic concepts and assumptions, according to which military companies are 'profit-driven organizations that trade in professional services intricately linked to warfare.' (Singer, 2002, p. 186). These services include anything from camp logistics to specialised military training and only in rare cases direct participation in war (Avant, 2005, pp. 16-22). The industry of private military companies is dominated by legally registered corporate entities and should not be conflated with the concept of mercenaries, which applies to individuals who choose to enlist as outsiders in a foreign conflict (Singer, 2002, pp. 192, 197). Military companies are, furthermore, distinguished from security companies that offer similar services without a connection to warfare (Singer, 2002, pp. 192, 197). In practice, it is difficult to maintain the distinction between military and security companies because security tasks in conflict areas often assume a military character (Krahmann & Leander, 2019; Leander, 2005). Instead, researchers have tended to study companies that operate abroad and

1. For an overview of the international research in this area, see van Meegdenburg (2015).

thus tend to exclude domestic security companies from the equation. This international focus has positioned the research field as a sub-discipline of international relations/security studies.

The industry of Russian military companies, as it is currently known, began to take shape in the years 2010-2014. As such, they are a novelty within the study of international security, and gauging them properly within the study of PMSCs requires importing and processing insights from Russian area studies that can provide decades of insights into Russian history, the elite, intelligence services, organised crime and paramilitary units that shape the context of the military companies (Galeotti, 2013; Renz, 2018; Volkov, 2002). We thus see a cross-fertilization between Russia-watching and security studies that generates new descriptive models fit for the special case of Russian military companies (Marten, 2019b; Spearin, 2018; Sukhankin, 2019b).

Russia's own research into the area has focussed on the companies' historical development vis-à-vis their Western and African counterparts and their applicability as policy (Bogdanov, 2012; I. p. Kononov, 2015; I. Kononov & Valetskii, 2013; Valetskii, 2012; Vиграizer, 2018; Vиграizer & Ivanov, 2019). Western private military companies are primarily considered state instruments, and a similar instrumentalisation of Russian companies by the Russian state would therefore be a natural development (Bogdanov, 2012). Moreover, Russian researchers typically posit a great continuity between present-day companies and mercenaries in Cold War Africa – in line with a few researchers in the international field (Percy, 2007; Petersohn, 2014; White, 2018). This perspective results in a tendency to leave out military companies that offer logistical services and consulting rather than personnel for combat, which means that Russian and international researchers often talk at cross-purposes.

The two research traditions have begun to coalesce in recent years, as PMC Wagner has become the most popular contemporary case in the study of PMSCs. Yet, the case of Wagner poses a risk to PMSC studies because its newfound prominence in research may suggest, erroneously, that it is representative of the majority of Russian PMSCs. On the other hand, the evidence hitherto studied suggests that Wagner alone constitutes a greater factor in Russian foreign policy than all the other PMSCs combined (Bingham & Muzyka, 2018; Giles & Akimenko, 2019; Marten, 2019b; Rondeaux, 2019; Spearin, 2018; Stratfor, 2019; Sukhankin, 2018a; Vиграizer & Ivanov, 2019). Whether this is indeed the case can only be determined through broader

studies describing the entire sector of private Russian military companies, including Konovalov and Valetskij (2013), Allison (2015), Sukhankin (2019a, 2019b, 2019c), Bristow (2019) and Østensen and Bukkvoll (2020; 2018). It is to this theoretical effort that the present chapter seeks to contribute, even if PMC Wagner continues to be the key figure.

Method

Unlike the three main services of the Russian Armed Forces and the country's nuclear arsenal, the military companies do not constitute a permanent service capable of deterring Western military apparatuses. The personnel are hired on an ad hoc basis and employed to gain influence over the political and strategic situation in crisis-ridden third countries at the expense of Russia's great power rivals. The doctrine behind their uses stem from the part of Russian military-strategic culture² concerned with colour revolutions and hybrid measures, where the norms of international law are used instrumentally, and commercial success is included in military strategy. The method adopted in this chapter has been tailored to describing this unique phenomenon; it begins by suggesting a model for the ideal Russian military company and then compares actual cases to that ideal. The method foregoes a high level of detail regarding personnel and equipment due to the mutability of the companies. Instead, the analysis draws on insights from legal theory and Russia studies in order to describe how the companies have been shaped by legal concerns and unique Russian conditions.

The ideal military company is both independent and loyal. Most of the time it minds its own business, keeps its personnel combat ready whilst securing lucrative contracts for Russian industry. Similarly, the ideal of state control is like a fishing rod: The state has the companies hooked allowing them to continue to move around and do business. When the state needs the companies to solve a demanding task, it reels in the line (i.e. maximises its control of the companies for a while). As they are placed in this proximity, the state provides the means required for the task in the form of equipment, personnel, training and operational support from the rest of the military. As the need for company involvement fades, the state will

2. See Jørgen Staun's chapter three in this volume.

withdraw these resources and slacken its hold on the rod to allow the companies to once again mind their own business. If things go according to plan, this will result in the prevalence of independent, patriotic military companies, which can be activated at the state's pleasure for troop deployment anywhere on the planet. The services of these companies thus include what we may term state-proximate activities conducted using state resources and with the state breathing down their necks. Their services include heavy offensive operations, commanding foreign fighters and advising key allies. At the other end of the service spectrum are state-distant activities without the involvement of the state, e.g. guarding of oil rigs and mines, anti-piracy and training of civilian Russian-minded volunteers in the post-Soviet regions. If we were to turn this ideal into a formula, military companies would be assessed on the following four complex parameters:

- Personnel: Recruitment, training and deployment of loyal, well-qualified and disciplined personnel without permanent employment.
- Cooperation: Good conditions for and effective coordination with political and military authorities, private collaborators, contracting states and Russian-minded factions abroad.
- Discretion: Maintenance of their image as an independent company with no ties to the Russian state and maximum discretion in solving state-proximate tasks in order to maintain deniability for the Russian state.
- Availability: Deployment across the globe (at somebody else's expense than the Russian state's) to ensure a Russian military and intelligence-related presence at little cost.

The analysis below is not structured rigidly according to these parameters but uses them as guiding principles in reaching its conclusions. Moreover, the four parameters are informed by the legal context of the companies, which, as described below, is an essential factor in setting the boundaries for their operations and recruitment basis.

The Military Companies' Legal Status

The status of Russian military companies in international and Russian law is complex and ambivalent, which makes it difficult for foreign states to

deal with them politically and through military means (Novicka, 2019). Therefore, a cursory understanding of the companies' legal status is a prerequisite for understanding what they are and what they can do.

The Russian criminal code forbids the establishment of any armed group that is not explicitly allowed.³ It has thus, unsurprisingly, caught the attention of international society that Russia has made use of military companies in warfare, denied it publicly, had a national debate on whether they should be legalized and then let proposed legalisation bills come to nothing on four separate occasions in 2009, 2012, 2014 and 2018 (Bukkvoll & Østen-sen, 2020, p. 6).

In 2013, the Russian courts sentenced several senior employees from the military company the Slavonic Corps (Slavyanskiy Korpus) to prison for mercenarism. The company had participated in a sensational operation in Syria without the approval of the Russian state, which turned into a debacle highly damaging to Russian prestige (Korotkov, 2013; Weiss, 2013). The Russian criminal code has borrowed its definition of mercenarism from Additional Protocol I to the Geneva Convention, which stipulates that mercenaries are soldiers who participate directly in hostilities in a foreign state without their home state participating in the conflict (making the mercenaries outsiders to the conflict in question). In addition, they must have been hired specifically for that job, receive a higher salary than local, regularly enlisted soldiers and be primarily motivated by profit.⁴ In theory, this narrow definition of mercenarism places an immense burden of proof on any prosecutor taking up the charge of mercenarism (Tonkin, 2011, pp. 35-41). It is thus remarkable that Russian authorities have nevertheless charged and sentenced PMSC members with mercenarism. Several international commentators have conjectured that doing so was a political show of force to keep Russian military companies in line, rather than a regular example of due process (Dahlqvist, 2019, p. 1; Marten, 2019b, p. 11). With this in mind, mercenarism as such is precluded from the scope of this chapter, as the focus is Russia's use of Russian military companies, which means that the involvement of the home state precludes the category of mercenarism from applying.

3. The Criminal Code of the Russian Federation, Federal Law No. 64-FZ of June 13, 1996 on the Enforcement of the Criminal Code of the Russian Federation, Art. 208.

4. The Criminal Code of the Russian Federation, Art. 359.

The ban against mercenaries and non-legalised armed groups suggests that Russian military companies are illegal, pure and simple. However, the state's practices suggest otherwise. In 1992, Russia legalised the operations of armed security companies within Russia (Volkov, 2002). The desire of large Russian state corporations such as Gazprom and Transneft to have access to the most robust security forces has helped extend this body of laws to such a degree that Russian industry giants are now hiring heavily armed, militarised units to protect their business both in Russia and globally (Gusarov, 2015; Hurst, 2010; Morozov, 1994; Pylnova, Shkrilev & Ivanova, 2007; Rondeaux, 2019, pp. 25-27). Today, Russian military companies can hide within this extensive body of laws, but only insofar as someone from the elite protects them.

No international treaties or agreements address 'profit-driven organizations that trade in professional services intricately linked to warfare' (Singer, 2002, p. 186). However, in 2008, the International Red Cross introduced the so-called Montreux Document, which summarises international law on areas of relevance to PMSCs, where common rules on state responsibility, international humanitarian law, contract law etc. still apply. Moreover, the document describes best practice in areas such as employee vetting and contracting between state bodies and PMSCs, but it does not introduce new laws (Tougas, 2009).

According to international law, the relation between the company and the state is key. If the group is a state organ, which acts on state orders or has been authorised to represent the state, the state is legally responsible for the group's actions (UN, 2001, pp. 38-49). If a military company commits an act of war or even a war crime on behalf of the state, the state can, in theory, be held accountable by the international community. But courts such as the International Court of Justice in The Hague have set the burden of proof for proxy war so high that even the exercise of slight discretion will diminish the likelihood of a judicial follow-up (Cassese, 2007). This shifts the question of state responsibility to the diplomatic scene, which is more complex and easier to manoeuvre to Russia's advantage.

Organisational Overview

According to the literature, there are 10-20 military companies in Russia which interact with the Kremlin to such an extent that they are part of the

country's military capability (Østensen & Bukkvoll, 2018, p. 22). Many of the companies emerged after the GRU and FSB contacted Russian networks for veterans and militias in 2010-2015 with a view to transforming them into profitable proxy actors (Sukhankin, 2019d). The Russian private military sector gets its characteristic features from these relations. The state is closely connected to a plethora of armed networks that are otherwise engaged in activities contrary to the Kremlin.

PMC Wagner, the most prominent Russian military company was in part established during the Russo-Ukrainian War and in part an offshoot of the so-called Oryol Family alongside e.g. Tiger Top Rent, Slavonic Corps, ISIS Hunters and Shchit (Due-Gundersen, 2019; Korotkov, 2019; Østensen & Bukkvoll, 2018, p. 22). By all appearances, the Oryol Family is highly rooted in a network of paratroopers and KGB special forces which was once based in the town of Oryol. From there, the network has explored various methods for capitalising on their military skills and connections to the Russian military elite. Each new organisation within this family represent a new business model of which some have provided military instruction, training, and protection services in Russia rather than act as an international military company (Rondeaux, 2019, pp. 23-27; Solomin & Naryshkin, 2018; Sukhankin, 2019c).

Another family of armed groups is based in the Russian Cossack community. The term Cossack refers to a people that emerged on the borders of the early Russian Empire, and which is remembered especially for its cavalry, which fought sometimes with and sometimes against Tsarist Russia. Today, numerous communities in Eastern Europe and the Caucasus refer to themselves as Cossacks. In 2005, Russian Federal Law 154-FZ on state service of Russian Cossacks created an opportunity for paramilitary Cossack communities in Russia to be registered and approved for state service, giving them an official role in the armed defence of their regions, emergency readiness, youth education and more. The Cossack communities are known, among other things, for the military and patriotic education they give their children and youth, and they thus contribute as a phenomenon to Russian militarism, which is addressed by Flemming Splidsboel Hansen in chapter four of this volume (Laruelle, 2019, p. 9). They also constitute a nesting box for various militias that have fought for Russian interests in armed conflicts, some of which may be regarded as military companies, including All-Powerful Don Host (Vsevelikoe voisko Donskoe) and PMC Patriot (Bristow, 2019, pp. 3-5; Sukhankin, 2018c).

Studying force assessments for the individual companies and adding up the numbers would give you a total of 15,000-20,000 soldiers. However, when analysts give their estimates of the total body of companies they rarely arrive at more than 10,000 individuals.⁵ The reasons for this discrepancy are worth addressing, as they can tell us something about the companies' organisational dynamics. First, different analysts are likely to include different companies in their assessments. It remains an open question whether e.g. the oil industry's security company, Lukom A, or active Russian militias in Ukraine, such as the East Battalion (Batalyon Vostok), should be included (Ivshina, 2014). Second, military companies generally adjust their staff carefully on an ongoing basis. They hire people for large contracts and demobilise once the job is done (McFate, 2014, p. 152). Therefore, when they attract attention, the companies have been scaled up, and it is their maximum rather than their average number of staff that is recorded.

Uncertainty, specifically regarding the organisational structure of PMC Wagner, represents a separate source of error affecting estimations of the entire sector. Some 2,400-5,000 soldiers were ascribed to Wagner's operations in Syria alone, but the company is known to have many collaborators and areas of operation. When Wagner recruits locals and deploys them as separate units, these recruits may be counted twice, once as Wagner employees and once under the name of the subunit, whereas other researchers prefer to leave out these affiliated groups entirely.⁶

Adding to the confusion, certain Ukrainian sources believe they have proof that Russia is fabricating rumours about the existence of rival companies, which are meant to paint a picture of an actual Russian private military industry where there is only Wagner, which is nothing but Russian soldiers and special troops (Leviev, 2018; SBU, 2019a, 2019c). Conversely, Russian-minded sources claim that Wagner is a fiction disseminated by the West to justify aggression against Russia (Callsign Wolfsnarl, 2017; Krutikov, 2017). Both of these conflicting narratives are dying out, though. Today, established reporters in both Russia, Syria, Turkey and Libya refer to PMC Wagner as a reality (Assad, 2019; News Desk, 2019; Stanovaia, 2019; Suwayda 24, 2020; YŞ, 2017). And a study conducted by the

5. Kjellén and Dahlgvist (2019, p. 36) even arrive at less than 5,000.

6. For instance, the forces of Karpaty, Turan, Euro Polis and ISIS Hunters can probably be added to higher estimates of the forces of TjVK Wagner without the risk of counting anyone twice. This may also apply to Vega and Patriot.

Ukrainian group Inform Napalm, analysing the military company sector in general, is being cited extensively by Western researchers (Inform Napalm, 2018).

Even though Russian military companies are thus becoming a well-documented reality, they also constitute a moving target that is constantly adjusting its structure, size and position. Attempts to assess their capability must therefore base themselves on the most well known cases of their activities.

The Military Companies in the Past, Present and Future

The basic idea for the private military companies' current model is said to have emerged in 2010 from the Russian General Staff who were allegedly intrigued by the idea of deniable forces (Sukhankin, 2019d). The context was the accelerated modernisation of the armed forces following the Russo-Georgian War and the Arab Spring, which Russia attributed to Western involvement.

In 2012, shortly before he returned as president after having served as the country's prime minister for four years, Vladimir Putin mentioned that the state could consider using private military companies for reaching its security policy goals. That comment was monumental because it pointed to a new possible career path for Russia's two million reservists and 0.7 million paramilitary troops (IISS, 2017, pp. 211, 233; RIA, 2012). Whilst this announcement was not, as many had hoped, followed up by a clear legal definition and legalisation of military companies, it introduced a business model that had the Kremlin's blessing.

Origins and the Former Soviet Union

It is likely that the vision for this business model was unclear even to Russian military insiders. When the Slavonic Corps picked up the gauntlet in 2013 and went to Syria to fight for the Assad government, it apparently did not have the full approval of the Russian state. The mission turned into an operational fiasco characterised by a lack of support from Russia, poor cooperation with the locals and a catastrophic case of friendly fire on a helicopter (Weiss 2013). Considering the parameters presented in the method

section above (personnel, collaboration, discretion and availability), it appears that cooperation difficulties foiled the group's attempt to operate discretely and effectively. But even though the Russians punished this fiasco by convicting the company's management of mercenary activities, the group's ability to make qualified personnel available to Russia is generally accepted; several of the company's employees were subsequently recruited for the paramilitary forces that participated in the annexation of the Crimea and the invasion of the Donbas Region in 2014 (Khazov-Kassia, 2018; Korotkov, 2013).

Another group that participated in the Donbas Invasion is E.N.O.T. Corp. Before the operation, E.N.O.T. operated in Russia and Ukraine as an extreme rightist group and it assisted, on the order of the state or Russian Orthodox church, to make life difficult for migrants and members of the Orthodox Church of Ukraine. When war broke out, E.N.O.T. coordinated activities with the Russian authorities and went to eastern Ukraine to incite political dissatisfaction with the Ukrainian government among the population. They later established military-patriotic training camps for both adults and children in Ukraine, Belarus, Serbia and Syria, among other places. E.N.O.T. contributed to the availability of patriotic personnel by finding veterans and training recruits. Camps such as these do not produce elite soldiers, but the pay-off is relatively high in terms of how cultural unity and combat readiness is boosted for the participants. Be that as it may, E.N.O.T. has ended up as an example of how unattainable the fishing rod ideal is. In November 2018, the Russian authorities officially closed the corporation, allegedly because its activities had become too extremist to align with Kremlin interests (Goble, 2018). Several other companies are also known for their extreme right leanings. What was special about E.N.O.T. was likely its proximity to the remaining Russian society and Europe, where the demands of discretion and collaboration are higher than for groups operating mainly in the MENA region.

At one point during the Ukraine conflict, Wagner became affiliated with the businessman Yevgeny Prigozhin, a prominent restaurateur and catering manager, who owns a range of companies supplying the Russian public sector (the armed forces in particular) with food, utilities and more. Among other things, the companies are used to redirect money to Wagner and the Internet Research Agency. The latter is a so-called troll factory notorious for its role in disseminating news stories, opinions and disinformation in favour of Donald Trump during the 2016 US presidential

election. Aside from the role as sponsor, Prigozhin also took responsibility for representing Wagner in negotiations with foreign diplomats and business partners, and in this connection he has won contracts in both Syria, Libya, Central Africa, Sudan and an unknown number of other states. Journalists and researchers have not identified any financing schemes for Russian military companies that match Prigozhin's, and it is therefore likely that Wagner's position under Prigozhin's leadership has made it a central hub, relied on by most other Russian military companies for funding and leadership.

Syria and Libya

The most telling example of the fact that military companies form part of the Russian military capability is their deployment in the conflicts in Syria and Libya. In Syria, Russia has supported the Bashar al-Assad government through the deployment of several military companies in offensive operations against ISIS, local rebels and a series of proxy actors. In Libya, its support has been directed at the rebel leader, Field Marshal Haftar, and his army known in the West as the Libyan National Army (LNA), which is attempting to take over the country from the current UN-supported Government of National Accord (GNA). The focus of these missions seems to have been the availability of soldiers, and the companies are therefore recruiting as many locals as they can and cooperating with local forces. The demand for discretion is lessened here as the areas in which the companies are operating are dangerous for reporters, and the demand for highly qualified personnel appears to be met by small groups of top soldiers from the Russian Armed Forces, including snipers and fighter pilots (Kirkpatrick, 2019).

Once again, PMC Wagner is the headliner with 1,500-3,000 soldiers in Syria and 800-1,200 in Libya (DoD OIG, 2020, p. 35; Korotkov, 2016, 2017b; Nichols, 2020; Satanovsky, 2019). In addition, a patchwork of Russian military companies participate in the conflicts, including e.g. Shchit, PMC Vega, RSB and Moran Security Group (Aboufadel, 2018; Korotkov, 2019; Leviev, 2018; Rondeaux, 2019, pp. 49-51; Sukhankin, 2019a). Aside from combat and reconnaissance, the companies also perform military police services and recruit local soldiers to establish militias meant to fight alongside them (Due-Gundersen, 2019). The only known way that they generate profit in the area is to take over oil fields, and the companies therefore also

engage in oil war in both countries (Al-Atrush & Kravchenko, 2019; Assad, 2017; Malkova, Stogney & Yakoreva, 2018).

As for their equipment, the individual soldier is equipped like any regular soldier with a uniform, vest, helmet, fully automatic rifle and appertaining equipment, though typically without night vision. Their vehicles are typically armoured pickup trucks, which they use for hit-and-run attacks against weak targets (Sukhankin, 2019d). As Russia's prime military company, Wagner has more resources at its disposal than the other companies. The group has been seen operating combat vehicles, armoured personnel vehicles, mobile rocket launchers, anti-tank missiles and howitzers, among others (Felgenhauer, 2020; Rozhdestvenskii, Baev & Rusyaeva, 2016). In Syria 2016-2017, observers have noted the most prominent example of the fishing rod mechanism in action, when Wagner first appeared with combat vehicles and handguns on the front lines of Eastern Syria and were found later to be operating poorer quality versions of the same equipment after Russia had switched their equipment (Korotkov, 2017a). Conversely, Russian military companies have experienced a tightening of their leash when receiving support from special operations forces (Galeotti, 2016; Kirkpatrick, 2019; Korotkov, 2017a; Vaux, 2016).

In Syria, military companies have been tasked with target acquisition for the Russian Air Force and with attacking enemy positions. The latter is sometimes so risky that the participating soldiers have dubbed this type of operation a 'meat grinder' (Khazov-Kassia, 2018). In February 2018, Wagner (possibly accompanied by a group of ISIS Hunters) launched a large-scale assault to take an oil field from Kurdish and US forces, only to be annihilated by the US Air Force in just four hours (Gibbons-Neff, 2018; Kofman, 2018). This is known as the greatest failure of the Russian military companies, but even if they engage in highly risk-seeking behaviour with below-average personnel and judgement on some occasions, there is no doubt that the military companies make a significant contribution to the Russian effort in Syria and Libya. They are typically represented by trained soldiers with sufficient resources to achieve meaningful operational targets (Inform Napalm, 2018; Korotkov, 2016, 2019; SBU, 2018b, 2018a; Sukhankin, 2018b).

Sub-Saharan Africa

The job most closely related to the state to have been carried out by a Russian military company is probably the role played by Wagner in the Central

African Republic, where it makes up an important part of Russia's diplomatic presence in the country (Rosbalt, 2018). It should come as no surprise that Russia did not use the name Wagner when it asked the UN Security Council to dispense from the international arms embargo against Central Africa. The dispensation, provided in July 2018, allowed Russia to send 170 civilian and five military instructors to Central Africa to train the country's security forces and bring along anti-aircraft defence systems, rocket launchers and various handguns (Hellem, 2019c). The Central African job is part of a greater Russian foreign policy initiative in Sub-Saharan Africa, which also includes intelligence and media campaigns in honour of the friendship between Russia and Africa (Dossier Center, 2019; Lister, Shukla & Ward, 2019; Rozhdestvenskii, Badanin & Rubin, 2019; Rozhdestvenskii & Badanin, 2019).

The immediate strategic relevance of such jobs is availability: that Russia has soldiers at its disposal in several African countries without having to use soldiers from its regular forces. Wagner's ability to change between project types, contractual partners and host states impedes the attempts of observers to determine how many employees there are and what to do about them.⁷ In the neighbouring country of Sudan, Wagner also worked for the government up until the removal of President Omar Bashir from office in 2019 (SBU, 2019b). Whilst this mission is significant, its character is more state-distant than the mission in CAR, as Wagner personnel is not known to cooperate directly with Russian state actors there. And even though Wagner's presence in the country has been documented, we only know very little about the nature of their work and its possible relation to Wagner activities in other countries in the region, e.g. the DRC, Burundi, Rwanda, Kenya and Cameroon (Hellem, 2019b; Leviev, 2019; SCORPIO, 2019). In terms of personnel, Wagner is hardly noted for its professionalism in their operations in Sub-Saharan Africa, just as the financial basis of these operations is not necessarily rock solid, seeing as the mines meant to cover Wagner's expenses are likely unprofitable (Marten, 2020). The real benefactor here is the greater Russian-African collaboration, which in the eyes of the Kremlin should lead to military collaborations, weapons contracts,

7. Larger studies of Wagner activities in Sub-Saharan Africa suggest that they have anything from 500 to 3,000 soldiers in the area, but even the highest estimates leave them with a minuscule deployment relative to the aim of influencing the entire continent in a decisive way (Evers, 2020; Fabricius, 2019; Hellem, 2019a; Lagneau, 2019; SCORPIO, 2019).

military bases, mineral rights and an increased export market in general (Bryjka, 2019). Moreover, the campaign comes at a time when the US and France are withdrawing from the region, which gives Russia a chance to exploit cases where the Western superpowers have disappointed the locals (Marten, 2019a; McGregor, 2018). Finally, the military companies constitute a less demanding alternative to the UN peacekeeping forces, because the companies do not require their hosts to comply with human rights and international humanitarian law.

Future prospects of the Military Companies

The future role of the military companies will depend on their ability to enter into industrial, political and paramilitary networks. However, the industry is characterised by internal contradictions, as the companies rely on recruits who have the necessary drive to conduct dangerous operations on the battlefield using out-of-date equipment and who are professional and efficient enough to act without state supervision. Nevertheless, we are likely to see more of these companies, because there is a large group of potential employees, and because many companies and paramilitary organisations will recognise the potential in operating in foreign war zones with the state's blessing, as long as they do not interfere with the interests of the elite. As long as Wagner exists, its competitors will have to cooperate with them or find hitherto untapped markets, because Wagner has become a large and highly embedded part of Russian military operations.

One potential market for companies outside the Wagner structure is the build-up of a military capacity among extreme rightist militias in Europe. Once again, Russia risks tarnishing its reputation and losing control by contracting with the groups that provide these services, and this breaks the fishing rod ideal, because it turns the situation into an either/or situation, where the companies either conduct missions closely related to the state or missions with no direct relations to the state. One way to introduce more moderate forces would be to pass a law for military companies addressing the contractual obligations between employer and employee. However, the passing of such a law before the situation involving these companies had been solved, would risk protecting extreme groups, which the Kremlin would prefer to have disbanded first. Furthermore, it is doubtful whether the Kremlin would be able to formulate a law that lived up to the

expectations of Russian armed communities without compromising the practice of employing military companies to conduct offensive warfare.

Commentators from all sides have emphasised the usefulness of military companies for deploying forces with plausible deniability for the Kremlin. In the case of Wagner, however, there is no plausibility to talk of. Open sources have long provided an abundance of evidence for their activities. But as pointed out by researchers Cormac and Aldritch (2018), implausible deniability also holds great value, as it allows the sender to disseminate different messages at different levels. Wagner is portrayed both as a threat to enemies, and a service to stakeholders as well as a romantic David and Goliath story about the cunning of the Russians. One incident that seriously stresses the usefulness of the military companies is the 2018 battle, where the US annihilated a group of attacking Wagner (and possibly ISIS Hunters) soldiers. If the Americans had been attacked by regular forces, the incident might have led to great power conflict, but because Wagner is supposedly a private actor, the US was able to utilise the company's implausible deniability to strike them down without the risk of them receiving reinforcements from the Russian state. This enables Russia to continue to deploy Russian military companies in foreign conflicts without fear of catalysing a war, insofar as they make sure to suggest to the enemy at another level that there is a low ceiling to escalation of the conflict. However, it may require Russia to cut the umbilical cord once the company has been deployed and refrain from providing any other operational support than e.g. the passing on of intelligence and providing medical aid. Once the cord has been cut, the US holds a form of veto power with regard to military company operations, enabling it to weigh the pros and cons of using its military and political might to thwart any such operation without fear of catalysing a full-scale great power conflict. In this connection, it is worth noting that Russia has not decreased its support for these companies, but instead deployed the Russian Air Force in support of Wagner in Libya (Correll, 2020).

Conclusion

The existence of military companies does not mean that Russia has abandoned regular strategy. As described by four of the other capability-oriented chapters in this book, regular capabilities continue to be paramount

in terms of resource allocation. Together with the country's cyber capabilities, though, the military companies constitute a cost-effective means, which may be used to outplay Russia's rivals without starting a great power conflict. This also gives the regular forces of Russia time and room to continue the current modernisation process, while the most hazardous exploits are left to cheaper, private actors whose casualties do not affect Russia to the same extent.

The cases analysed in this chapter paint a picture of an industry, which roughly lives up to the outlined parameters of personnel and availability by placing Russian-minded, profit-generating soldiers in various parts of the globe. Nevertheless, the industry fails to hit its target. Its Achilles Heel appears to be collaboration and terms of employment. The Russian military companies do not seem to be able to establish local collaborations that can increase their efficiency and maintain a level of discretion without the close involvement of the Russian state. The poor terms of contract and working conditions of the personnel are likely to discourage the most competent and discrete soldiers. Therefore, even though there is a market for military services by a prestigious non-Western and non-Chinese partner, cooperation with the Russian companies will for many potential clients be woefully associated with critical risks as long as the majority of the companies are affiliated with Prigozhin and Wagner.

Today, Russian military companies are active in Mali where they risk crossing paths with forces from the UN, France and Denmark. And Russia appears to hope to take over the position traditionally played by France in Africa (Lagneau, 2019; Marten, 2019a). Whilst the Russian military companies cannot achieve the goal of outcompeting France in Africa, they are capable of accumulating large amounts of favours receivable among politicians and business people in African and the Middle East, and then they are able to make Russia's ability to deploy forces in the region a matter of course, which makes them diplomatically unavoidable. As a capability, these companies are not qualified to wage war against Western military forces, but they can outperform them in terms of presence in countries outside their immediate influence. Importantly, the companies' entry in the region does not depend on greater organisational or technological innovations. For now, the Western military apparatus tolerates their presence, because handling them has not been a collective priority. Instead, they are dealt with on an ad hoc basis. Their fate therefore very much depends on Western priorities and how much engagements are deemed to be worth

the trouble. However, the West should note that if they are not dealt with in the right way, the military companies could very well, some day, become a catalyst for war.

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CHAPTER 13

Conclusion

By Niels Bo Poulsen and Jørgen Staun

In what follows, we will briefly outline the path taken by the Russian Armed Forces in recent decades and summarise what can be said about Russia's military capabilities based on the research in this book. This then brings us to a discussion of the nature of the military threat Russia poses to Denmark and its allies, and how we might respond.

Russia's military capability today is miles from its low point during the first Chechen war in the mid-1990s. It has also evolved significantly from the 2008 war against Georgia, where Russia may have won on the battlefield, but not without exposing serious shortcomings. After the war, Russia launched a large-scale military reform process led by then Minister of Defence Anatoly Serdyukov. And in 2011, the reforms were followed up by an extensive equipment procurement programme. The reforms and added resources were intended to lift the ageing Russian defence out of the Soviet era and into the 21st century. Overall, the objective of the reforms was to improve Russia's command and control capabilities and to ensure greater professionalisation of the personnel by reducing the role of conscripts as well as modernising the equipment. The level of education and training also had to be improved, not least to increase the different services' ability to act as a joint force. It was not until the annexation of the Crimea in 2014 that the West and the rest of the world really saw the results of the extensive modernisations. Here we witnessed a far more modern, professional and well-equipped Russian military which invaded the Crimea with a surprise attack, almost without firing a single shot – and achieved its objectives almost before the outside world and Ukraine had time to react. But developments did not stop there. In recent years, Russia has built up and practised defending itself against an even stronger adversary – NATO. The

main question of this volume has therefore been: How capable are the Russian Armed Forces today? Behind this question lies the use of NATO – the strongest military alliance in the world – as a possible benchmark, which is why most of the chapters of the book have indirectly compared the Russian Armed Forces to the capabilities of Denmark and its NATO partners.

Today, Russia is one of the world's leading military powers, and it can – if it so chooses – engage militarily with very large conventional forces in its neighbourhood and with smaller but still significant forces far from its borders, as we have seen in Syria. But looking at Russia's military strength does not necessarily tell us what Russian politicians intend to use it for. Indeed, scholars disagree on a number of points about the degree of military threat Russia poses to other countries and what its security ambitions are. In other words, is the intention mainly to use this power defensively to maintain the status quo, or is it to assist Russia in revising its place in the world order?

What Does Russia Want?

Russia's main foreign and security policy objective is to be a major power with a global role that is respected by the other major powers. This has been a constant desire of Vladimir Putin – and the elite around him – since he took office over 20 years ago. The Russian leadership is highly critical of the unipolar world order, in which the US, along with the rest of the West, wields the baton. Many, such as the influential Secretary of the National Security Council, Nikolay Patrushev, even see the US as seeking world domination.

This sentiment is echoed in the National Security Doctrine, which states that the US and its allies seek to 'contain' Russia and seek to 'retain their dominance' in world affairs (President of the Russian Federation, 2014, p. #12). In Russia's eyes, the world is multipolar. And to function optimally, from a Russian perspective, the globe should be divided into great power-dominated regions, where the other great powers must either stay out, or, as a minimum, align their policy with the interests of the regionally dominant great power. Russia's preoccupation with the US' alleged quest for global dominance is because, despite Russia's increased military strength, its leadership feels militarily technologically inferior to the US and NATO. The US Prompt Global Strike system and the expansion of US and NATO

missile shields are seen by Russia as potentially undermining its security. It is widely believed that the US technological superiority enables it to threaten Russia's ability to respond in kind (nuclear) to a possible surprise attack, and tempts the US to undertake such an attack. The German attack of June 1941, which due to Stalin's erroneous intelligence interpretation hit the country virtually unprepared and brought it to its knees, has not been forgotten. This event along with the Arab Spring and the colour and flower revolutions in other former Soviet states are often linked to a narrative of permanent US plans of sudden, partly concealed aggression against regimes that fail to dance to its tune.

This is linked to the fact that the perception of war among the foreign and security policy elite in Moscow has changed considerably since the beginning of the 2000s. Russian military thinkers have been following the wars waged by the West, led by the United States, over the past 30 years. Meanwhile, they have debated that not only has the nature of war changed, due to the use of high-tech, long-range precision weapons and the widespread use of satellites and information networks, but the nature of war itself is also allegedly changing: The use and effect of non-military means is now so extensive that they can be compared to military means. Sometimes they are even considered to be more effective than military means. In the words of Chief of the Russian General Staff Valery Gerasimov, 'a perfectly thriving state can in a matter of months and even days, be transformed into an arena of fierce armed conflict' (Gerasimov, 2016a). Colour revolutions are not, as we like to believe in the West, the population's democratic struggle against a tyrannical regime. In the eyes of the Russian elite, they constitute an 'externally organised coup d'état' (Gerasimov, 2016b), conceived, controlled and launched by the US to destabilise and destroy Russia. This view of the world and the essence of war mean that the line between war and peace is increasingly blurred. And this means that a large part of the elite believes Russia to be at war with the West. This is a low-intensity conflict to be sure, currently confined to the cyber domain or information warfare and fought by non-military and hybrid means – except in Ukraine, Syria and to some extent Libya, where the wars are to some extent proxy wars – but a war nonetheless. It is important to stress that this view of the world and of the essence of war also have deep domestic and systemic roots. It is a result of the political elite's fear of losing control over the Russian population, and therefore, it is rooted in the Soviet (and

Russian) security apparatus, as are many of the leading figures in Russian politics.

One way to counter the perceived threat from the West is to prepare the population for war. Love of the fatherland, a spirit of self-sacrifice and patriotism are stressed again and again in military-theoretical debates as the key to building devoted, successful military forces. The belief that high (conservative) morals, a strong sense of community and a pronounced spirit of self-sacrifice are prerequisites for great fighting power can be traced far back in time and continues to characterise Russian military culture today. At the same time, Russian military personnel appear to be more robust and willing to suffer losses than their Western counterparts. Focus is less on regular soldiers' ability to take a critical and independent approach to the task at hand – which is e.g. the case in the Danish Armed Forces – and more on their ability to follow orders and their willingness to make the ultimate sacrifice. The right to be free-thinking and critical is still limited to a small elite of General Staff-trained officers. Things are changing, though, and still lower levels are now given responsibilities. Experiences from the Crimea, eastern Ukraine and Syria also seem to point in that direction, and Valery Gerasimov makes an official virtue of ensuring that experiences from military operations are incorporated into personnel training. But even though the Russian Armed Forces stress the need for joint solutions and have structured parts of their operational activities accordingly – e.g. the five military districts – there is nothing to support this ambition in Russian military education. Basic training and specialisation are still conducted within the auspices of the individual services.

Since the introduction of the first Russian military doctrine in 1993, the goal of strengthening Russian patriotism has been a fixed point on the agenda. In an interview in connection with the anniversary of the Russian victory in the Great Patriotic War (the Second World War) on 9 May 2020, Putin, upon being asked to describe the 'national idea' of modern-day Russia, replied, 'patriotism; I do not think there is any other choice' (Putin, 2020). The overall objective of the state programmes for promoting patriotism among the population is to gain broad public acceptance of the militarism and militarisation that has characterised Russian society these past decades. And the state does a lot to promote patriotism. It supports anything from officers' balls, song and film festivals and competitions for children and youth to youth camps and sports competitions under the auspices of the military. Aside from initiatives promoting patriotic organisations,

various other parts of Russian society are also exposed to patriotic influences, including schools and the state-controlled media as well as cultural events such as exhibits and festive days. As in many other countries, promoters of Russian patriotism struggle with increasing individualisation in society and especially among the youth, and many complain about an 'apathy and indifference, nihilism and cynicism ... which has emerged in the post-Soviet years' (Bikov, 2010, pp. 49-50). Nevertheless, the patriotic programmes seem to be working – at least judging by the way the citizens express themselves in a series of opinion polls focussing on patriotism and willingness to defend the fatherland. Aside from the fact that it is useful for soldiers and the public to be animated by a spirit of self-sacrifice and patriotism in the context of war, increased willingness to defend the fatherland may also help increase the deterrent effect of the Russian forces. Another 'benefit' of the militarisation of Russia is a siege mentality, whereby individuals and groups who do not agree with the regime are referred to as unpatriotic or even identified as foreign agents. It is therefore difficult to distinguish between the political benefits of these initiatives and their military value. But it is equally difficult to distinguish between preparing the country for defence and for attack.

What Is Russia Capable of?

All in all, Russia has around one million men under arms in all its armed forces, about two-thirds of whom are professionals. In addition, there are about 700,000 in reserve, and about 900,000 civilian personnel in the support structure. To this should be added the personnel of a number of different state authorities which could be deployed in a war or crisis situation, e.g. the National Guard, which numbers up to 340,000 men.

Russia's military strength has increased considerably these past 10 years – from 2015 to 2019, Russia's army increased in size by almost 25 percent (Meijer & Brooks, 2021, p. 37) – and in several respects it is now a match for NATO. There is a lot of evidence to suggest that Russia has in fact achieved some of the main goals of its military reform programme, namely to develop a functional and modern command and control system capable of combining the information of the various units into one. So far, the system has only been introduced in the Western Military District, though.

The primary combat power of the Russian Army is centred around mechanised infantry divisions and brigades, as well as combat vehicle divisions and brigades, which can be deployed independently, probably as part of a 'combined-arms' army. Even though Russian military doctrine is defensive by nature, the army is able to take the initiative in the event of a crisis and wage large-scale conventional war at very short notice. Russian military exercises bear witness both to a clear development in purpose, scope and complexity, clearly indicating that Russia is training its armed forces to conduct large, conventional operations against a peer adversary (NATO), and to a significant development in the armed forces' state of readiness. At the same time, the country's depot reform has increased its mobility and improved its ability to arm, move and deploy units. The Russian Army's anti-aircraft systems constitute a significant challenge to NATO air forces, and the most mobile of these systems expand the zone that Russia is able to control, in part or in full, far beyond its borders.

The Russian Navy, though, is not what it was in the heyday of the Soviet Union. Despite bombastic statements from the navy management that its task is to secure Russia's 'status as a great maritime power, possessing maritime potential that supports the implementation and defense of its national interests in any area of the World Ocean' (President of the Russian Federation, 2017, p. 2), what we have seen in practice is a Russia that is slowly losing its ability to operate with precision on the world oceans. Instead, the Russian Navy is gradually developing into a coastal fleet. Russia simply has difficulties building new, large surface ships fast enough to replace the old Soviet vessels that are being phased out. To compensate for this inability to operate far from Russian coasts, the navy has sought to arm its new, smaller war ships, mainly frigates and corvettes, with long-range precision missiles, including the Kalibr missile which has a range of 1,500-2,500 kilometres against targets on land (and approx. 660 kilometres against targets at sea). It is an extremely versatile missile. It can be used against both targets at sea and on land, and it can be fitted both with conventional and nuclear warheads. At the same time, Russia has increased its fleet of modern, nuclear-powered submarines. Its strategic Borey-class submarines and Yasen-class attack submarines are in operation and have been thoroughly tested, and in the next few years we are likely to see Russian shipbuilders, after having spent many years designing and testing prototypes, produce large numbers of the new vessels: as many as 10-14 Borey-class submarines (Russia currently has four in operation) and eight Yasen-

class submarines (they currently have one in operation). By rights, Russia wields a highly modern and capable submarine fleet, only outmatched by the US. Overall, the new Russian Navy will to a greater extent be capable of effecting 'sea denial', that is, preventing NATO from using the sea unhindered and e.g. interrupting NATO's vital supply lines across the North Atlantic, more than ensuring 'sea control', that is, where Russia is strong enough to dominate the sea territory. Nonetheless, it is a sustainable fleet, given the size of the Russian economy.

In terms of air defence, Russia has for a period of years spent a lot of resources developing and modernising its air defence systems. Russian military thinkers have seen how the US and NATO wage war and concluded that the West's superiority in the air is likely to be one of the alliance's main strengths, but also, if you are able to hit it, one of its main vulnerabilities. Therefore, Russia has focussed on developing and producing ground-based air defence systems of a variety and number that can outmatch any other country, even NATO. And with long-range, modern 3D radars and a fairly robust command and control structure divided into separate districts, Russia is well-prepared to conduct offensive and defensive counter-air operations. Many of its capacities have been tested in live combat conditions in the war in Syria, and the training standard is high. Since November 2014, Russian pilots have maintained a somewhat stable annual average of 110 hours in the air for fighter pilots and 200 hours for transport pilots, which is more or less the same as NATO pilots. The result is a highly capable, layered air defence that would cause attackers great difficulties, including NATO. However, the alliance's increasing stealth capacity – e.g. more than 500 units of the F-35 fighter alone have been produced, and it is now prevalent in large parts of NATO – is likely to pose a challenge to the Russian air defence. How big a challenge is difficult (and not within the scope of this volume) to say. Russia's own stealth capacity is vanishingly small. To date, only 10 prototypes of the Russian fifth-generation SU-57 Felon-class aircraft have been built.

With a total number of fighters, bombers and electronic warfare aircraft of just over 1,200, Russia would be extremely inferior in numbers should it wish to try to wrest control over the air from NATO, at least based on an aircraft-versus-aircraft assessment. In terms of air transport, though, Russia would be able to keep up. Russia is thus believed to be able to move the *personnel* of 5.5-6 mechanised rifle brigades, equalling 25,000-27,000 soldiers, in one motion to the location of pre-positioned equipment or to

places where they could subsequently be supplied with combat vehicles, lorries and supplies. This clearly constitutes a force multiplier, which strengthens Russia's ability to wage land war in its neighbouring region.

A main vulnerability is Russia's capacity for air-to-air refuelling. With a tanker fleet of just 15 IL-78-class aircraft, it is practically non-existent, and this limits the range and air time of the Russian Air Force, which is a clear disadvantage in defensive operations, but especially so in offensive ones.¹ Russia seeks to compensate for this inability by focussing its doctrine on ground forces' ability in war to take air bases in enemy territory, which would make it possible to move its air forces as the army takes more ground. This was the strategy used with success during the Second World War and the one Russia planned to follow in the event of war between NATO and the Warsaw Pact prior to the fall of the Berlin Wall. Today, though, having constantly to move technical personnel, spare parts, fuel depots etc. as the war progresses is a complex affair, and this clearly reduces the offensive capability of the Russian air defence. And it is something that does not appear to be changing anytime soon. Even with the new version of the IL-78-class tanker, of which Russia has ordered 14 to be delivered by the end of 2027, this will continue to constitute a limiting factor for the Russian Air Force.

Despite a significant reduction in its nuclear arsenal since the collapse of the Soviet Union, Russia continues to be a nuclear superpower. It currently has at its disposal more than 46 per cent of the world's nuclear warheads, whereas the US has 41 per cent. Both countries have deployed around 1,550-1,600 of them as stipulated in the arms control agreement New START. In addition, Russia has 2,740 strategic nuclear weapons in reserve (the US has 2,050), which may be deployed and prepared for launch at short notice. The warheads have been distributed across different launch and delivery platforms in the nuclear triad consisting of ground-based missiles, submarines and aircraft, ensuring the country's capacity for nuclear retaliation. Add to these just over 1,880 tactical nuclear warheads with less (but still immense) explosive force and a shorter range distributed across ships, aircraft and ground-based means of delivery. The intention is to use these tactically on the battlefield in the event of war. Especially

1. In comparison, the US-led coalition employed no less than 268 tanker aircraft during Operation Iraqi Freedom in 2003. The 268 aircraft conducted a total of 9,064 sorties (a sortie is each time an aircraft takes off on a mission) during the one-month operation (19 March to 18 April 2003).

Russia's stock of tactical nuclear weapons – which exceeds NATO's – has spurred a debate about the possible existence of a so-called Russian escalate-to-deescalate doctrine. This doctrine, if it exists, means that Russia in the event of war is likely to use nuclear weapons at an early stage of the conflict in order to intimidate NATO and (if NATO backs down) thus deescalate the conflict. However, the idea that nuclear weapons may thus constitute a flexible, tactical Russian tool in the event of war is more likely to reflect a situation where Russia considers itself the weaker party in terms of conventional force. Hence, in recent years, with Russia's enhanced conventional capability, the emphasis on tactical nuclear weapons has decreased in relation to the country's overall territorial defence.

Russia believes itself to be in a war of existence of sorts with the West in what Russians refer to as the cognitive domain, which includes cyberspace. On the one hand, Russia believes itself to be highly vulnerable vis-à-vis the West in the cognitive domain, but has, on the other hand, demonstrated a readiness to act rather offensively. Its defensive measures in this domain focus on protecting Russia from the types of subversive external activities that many Russians believe played a main role in the collapse of the Soviet Union, and which they believe to be the doing of the West through Eastern European colour revolutions and the Arab Spring. Offensive measures include attempts to undermine the social and political cohesion of Russia's opponents through different types of activities.

Though the conflict varies in intensity, it never stops. It is waged with the use of so-called active measures (*aktivnyye meropriatiya*) and moves without difficulty from the physical world, where agents attack defectors abroad, through the information domain, where Internet trolls undermine the political cohesion of other states and blur the boundary between true and false, to the cyber domain, where attacks and espionage support other measures and sometimes inflict physical damage or great costs on those targeted. In the West, these methods are often described as 'hybrid warfare', a very imprecise concept which mainly is used by Russian thinkers and the Russian military to describe Western operations. The Russian government usually denies everything and often uses intermediaries, including cyber criminals or 'patriots', to conduct attacks on behalf of the Russian intelligence services to make the origins hereof even more unclear.

Active measures have formed part of the Russian foreign policy toolbox since the Soviet era, and they have been used with more or less success. Russian interference with the 2016 US presidential election is found to have

contributed at least to reducing the country's political cohesion, perhaps even to secure Trump the last but vital votes. The effect of Russian interference with the British Brexit debate remains unclear, though. Still, the fact that it did interfere became clear after the British government, after months of hesitation, released the British parliamentary report. However, in most cases, the success of these operations has been limited or non-existent. Instead, active measures have exposed Russia as an aggressive power that fails to comply with international norms of good conduct. The Russian cyberattack against Estonia in 2007 came to nothing, just as its interference with the parliamentary election in Germany in 2017 and the presidential election in France also in 2017 had no or little effect on the outcome. Denmark has been subjected to cyber espionage against traditional military targets, but we still have not been the target of an intense influence operation. Nonetheless, the Danish company Maersk (along with a number of other international companies all over the world) was severely affected by the Russian cyberattack, NotPetya, against Ukraine in 2017, which did not merely affect its primary target. From a Danish perspective, it is worth noting that Russia has demonstrated great risk appetite for using these measures regardless of the potential collateral damage and apparently with little fear of being caught.

For a number of years, Russia has invested in and made use of private military companies, including for combat activities in e.g. Syria and Libya. These PMCs constitute a flexible capacity that fits well with the Russian approach to warfare. Not least the opportunity to deny all involvement by the Russian state in a given conflict, as seen in the Crimea and at the beginning of the conflict in Syria, suits Russia well. The state has its hook in these companies as they move around doing business. When the state wishes to use them to solve a difficult task, they receive resources in the form of equipment, personnel, training and operational support from the rest of the military. When it has little use for them, the resources are withdrawn, and the state once again relaxes its grip, leaving the companies to pursue self-financing business as much as possible. If things go according to plan, this will result in a large number of independent, patriotic military companies which may be activated at the state's pleasure. The 2018 battle in Syria, where the US stopped an attack conducted by the company Wagner (and possibly the ISIS Hunters), clearly demonstrates the usability of these companies. If the Americans had been attacked by regular Russian army forces, it might have prompted a conflict between great powers. But because

Wagner is a private actor, the US could make use of Russia's denial of any involvement and thus avoid a conflict with Russia. And Russia did not have to retaliate, precisely because the attack was conducted by a private and not a state actor.

Overall Assessment

All in all, Russian military power has increased significantly in recent decades, both considering the size of its military budget, its modernisation of equipment and organisational reforms and, finally, the resources spent on exercises, training and education. But also when we look at the results, it is clear that Russia's ability to use its own forces has improved. Its execution of the annexation of the Crimea in 2014 was almost flawless, but the conditions were also virtually ideal. The subsequent intervention in eastern Ukraine has been characterised by a more diffuse picture, among other things due to the use of local actors as Russian 'proxies' and greater local resistance to the Russian intervention. As evident from the chapter on private military entrepreneurs, the problem with outsourcing the use of military force is that the private actors also have their own agendas and interests, just as their degree of professionalism may not always be high. The conflict in the Donbas Region in eastern Ukraine shows signs of both elements. Russia's military efforts in Syria were not flawless either, though it did achieve its declared goals of securing the survival of the Assad regime, just as it managed to test and show off a series of different weapons systems. However, the campaign was partially targeted at irregular opponents of Russia's intervention – just as many civilians were among the casualties. This means that the Syrian and Ukrainian examples do not necessarily say much about Russia's capabilities in a large-scale war.

But even though Russian military doctrine operates with the idea that Russia should be able to wage war at all levels, it is hardly in Russia's interest to engage in open war against a strong conventional opponent like NATO. Therefore, recent years have seen considerable interest in Russian military thinking regarding the use of information and cyber war, private military companies, subversive measures etc. to achieve goals that would previously have been met through the threat or use of conventional military means, but which could be pursued without triggering Article 5 of the North Atlantic Treaty (the Musketeer Oath).

Nonetheless, the current situation suggests that Russia, should it wish to, is able effectively to project power into its neighbouring region – e.g. the Baltic countries – just as its present-day capacities would be sufficient to occupy the islands of Bornholm or Gotland, if this should be considered opportune in a time of war. Though the value of such an act might be to ‘block’ the Baltic Sea, it is important to note that it would most likely launch a large-scale war. Hence, all things considered, Russia probably would not consider such an act unless a highly tense crisis situation gave it reason to strike first. The logic in that case would be that it would put Russia in a position to conduct negotiations from a position of strength combined with a heightened state of nuclear readiness or even the detonation of a nuclear weapon based on the logic of an escalate-to-deescalate strategy.

At the same time, it is worth noting that Russia’s military power may have peaked; at least the increase in military power currently seems to be levelling out, partly from a relative point of view, as a series of NATO member states have significantly increased their defence budgets in recent years (NATO, 2019). China and several medium-sized powers have also experienced a budget increase that matches or trumps Russia’s. In terms of its economy, Russia is a declining great power, also considering its relative armament-financial potential. It is worth noting that Russia’s current military equipment consists of upgraded versions of older prototypes, and that Russia’s great weakness continues to be its lacking ability to create innovative, cutting-edge solutions which can be produced by its own arms industry.

Russia’s Future Use of Its Military

The situation outlined above is not necessarily reassuring. Historically, great powers who have seen their power decline have not always chosen to ‘grow old gracefully’. In fact, they have often sought to consolidate their position through measures intended to stop the erosion of power, including waging war before likely adversaries would have time to further increase their strength.

As long as the US is active in Europe, and as long as it poses a credible nuclear threat to Russia, the latter is unlikely to pursue a military ‘fantasy policy’, but rather to prefer stability – at least as long as it finds its interests to be safeguarded. Based on its policy these past 21 years – i.e. the period

in which Putin has formally and/or de facto run the country – Russia will continue to use its military instrument to position itself as a great power through symbolic gestures and practical measures such as naval visits, base and training collaborations, troop concentrations, changing levels of readiness etc. and, if considered opportune and lucrative, military interventions. Neither the Russian elite nor the population is ‘post-heroic’ with regard to prevailing values, and it is clearly part of the current regime’s strategy to use the military instrument both to achieve foreign policy gains, to give the population a ‘charade’ and even to create conflicts with the outside world that might contribute to a sense of siege and marginalisation of dissident voices. It can thus be argued that Putin during his presidency has not managed successfully to establish legitimacy through positive domestic developments in the form of financial growth, declining corruption and a policy characterised by renewal. Instead he has had to rely on foreign policy successes to maintain the government’s popularity.

We cannot be certain that Russia will continue this development in the future, though. On several occasions, Putin has adjusted his foreign policy, just as the period in which Medvedev acted as president was characterised by some degree of reorientation towards the West (a change which some argue was nothing but a mere play to the gallery). From the perspective of more than two decades, the level of conflict between Russia and NATO has followed an upward-sloping curve, but it has also seen significant fluctuations, and merely expecting the current development to continue without change is problematic. Financial issues, new security challenges, a change of regime or Putin’s voluntary retirement may all help change the country’s current course. Offhand, this is unlikely to change the fundamental condition that Russia, regardless of the given government or form of government, will consider itself a great power which, due to its enormous territory and position at the ‘centre of the world’, will consider a strong defence central to the representation of its interests.

Denmark and Russia

Not only is Russia likely to continue to be a relatively strong military power in the future; it will also continue to border on areas of importance to Denmark, i.e. in the Arctic or the Baltic Sea. As a small state, it is not in Denmark’s interest to see the Russian security elites’ idea of a world where

great powers control separate spheres of interest gain ground. A rule-based European order and transatlantic alliance with the world's strongest military power is, despite setbacks and crises, probably the best way for Denmark to safeguard its interests. However, just as it is problematic to ignore or belittle the security challenge represented by Russia, it is not advisable to present Russia as all-powerful, to demonise the country and its population or to nurture unrealistic expectations for its development over the next few years.

Nonetheless, it is in the interest of both Russia and the West – including of course Denmark – to lower the current high level of tension. From a Western point of view, the main obstacle here is the Russian security agencies' conduct in Western democracies and in Ukraine. Together with its partners, Denmark should maintain a regime of sanctions in response to Russia's gross violation of European norms in Ukraine. However, it is also important to consider how this regime can be softened or dissolved in response to specific Russian behaviour, such as its agreement with Ukraine on stabilising the eastern part of the country. NATO's contribution to such an agreement might be to abstain from promises of Ukrainian NATO membership. However, after the NATO defence ministers meeting in June 2020 made Ukraine an 'enhanced opportunities partner', it would probably require considerable diplomatic cunning to pursue such a path. At the time of writing, the situation in Belarus was still unresolved, as protesters demanded the retirement of President Lukashenko after his continued use of systematic election fraud during the presidential election in August 2020. Lukashenko responded with extensive police brutality – supported by Russia, but also showing signs that the Kremlin would seek to increase its control over Belarus through its involvement. This may lead to a process like the one seen in Armenia a couple years back, where a popular revolt managed to unseat the president, only to result in the introduction of a new government with close ties to Moscow. No matter what, these events are a reminder that the existence of a series of autocratic former Soviet states can be expected to result in regular crises between Russia and the West when it comes to popular revolts or crises of succession. In this context, it is important for Europe and the US to think carefully and not *unintentionally* take steps that may lead to Russian military intervention, as in Ukraine in 2014, and worsen the tense relationship between Russia and the West.

In any case, it will be easier for a strong NATO that is united politically and characterised by an American idea of fair burden sharing to make sure

Russia acts in moderation in its neighbouring region than for a weak, divided NATO. However, Danish defence policy must not simply take place on a sufficiently funded basis. It should be geared to counter the military threat posed by Russia and to contribute to credible deterrence, also in the context of activities that Russia seeks to keep below the Article 5 threshold. Because there is always a risk that such activities are exposed and attributed to Russia. At the same time, Denmark should strive to make sure the various arms control agreements, which constituted the most significant security policy triumph of the late 1980s and early 1990s, are adhered to and, if necessary, renegotiated rather than unilaterally discontinued or suspended, as we have seen the US do in recent years.

Russia's willingness to use cyberattacks and information campaigns as foreign policy measures, along with its pronounced willingness to take risks, should prompt Denmark to maintain a high level of readiness in these areas. This is regardless of whether Denmark becomes the direct target of a Russian campaign or the random victim of poorly designed cyberattacks like NotPetya. It is not a threat that will emerge once crisis and war is upon us; it is here already. Denmark should therefore increase its resilience to such threats throughout society – a difficult task that is only partly military in nature.

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