Training for War

Russia's Strategic-level Military Exercises 2009–2017

Johan Norberg

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Abstract

Before 2009, Russia handled armed conflicts and local wars. Military exercises since 2009 display an ambition and capabilities increasingly pertaining to regional wars. Russian strategic-level military exercises, comprehensive surprise combat-readiness inspections (SCRI) at military district or service level, as well as annual strategic-level exercises (STRATEX) 2009–2017, reflect a determined and persistent political and military effort to improve the fighting power of Russia's Armed Forces. An analysis of such exercises, based on the ability to carry out assigned missions, command and control complexity, the quantities of soldiers and equipment involved, as well as combat readiness, shows that the fighting power of Russia's Armed Forces clearly increased during this period. Russia's war against Ukraine and its involvement in Syria demonstrate an increasing willingness to use military power. Russia's political leadership in 2018 has a more credible and able military tool to influence other countries, either indirectly, by threatening or compelling them, or directly, by attacking them, than it did a decade earlier.

Keywords: Russia, military, exercise, strategic, operational, tactical, mission, command and control, quantity, combat readiness, fighting power, military power, operation, military doctrine, military conflict, armed conflict, local war regional war, large-scale war, global war, world war, military organisation.

Sammanfattning

Före 2009 hanterade Ryssland flera väpnade konflikter och lokala krig. Ryska militära övningar sedan 2009 visar på både en ambition och en förmåga som alltmer har bäring på regionala krig. Ryska militära övningar på strategisk nivå, dvs kontroller av stridsberedskap avseende hela militärdistrikt eller hela försvarsgrenar (*comprehensive SCRI - surprise combat readines inspections*) samt årliga strategiska övningar (*STRATEXes - strategic exercises*) under åren 2009-2017 speglar en målmedveten politisk och militär ansats att öka handlingsfriheten med Rysslands väpnade styrkor. En analys av övningar i termer av fyra faktorer (förbands och formationers förmåga att lösa ställda uppgifter, ledningskomplexitet, mängden soldater och materiel samt stridsberedskap) visar att den militära handlingsfriheten ökade avsevärt under denna period. Rysslands krig mot Ukraina och militära insats i Syrien speglar en ökande vilja att använda militära medel för att nå politiska mål. Jämfört med 10 år tidigare hade Rysslands politiska ledarskap 2018 ett mer trovärdigt och användbart militärt verktyg för att påverka andra länder, antingen indirekt, genom att hota eller tvinga dem, eller direkt, genom att anfalla dem.

Nyckelord: Ryssland, militär, övning, strategisk, operativ, taktisk, uppgift, ledning, kvantitet, stridsberedskap, militär handlingsfrihet, militär makt, militär styrka, militär förmåga, operation, militärdoktrin, militär konflikt, väpnad konflikt, lokalt krig, regionalt krig, storskaligt krig, globalt krig, världskrig, militär organisation.

Preface

The Russia and Eurasia Studies Programme (Russian Foreign, Defence and Security Policy, www.foi.se/russia) at the Swedish Defence Research Agency (FOI) has since 1999 published extensively about issues pertaining to Russia's military power including military capability as well as developments in politics, economy and society.

Russia has since 2008 repeatedly used its military power abroad. What could use of Russian military power look like in the future? Describing and analysing Russia's strategic-level military exercises can serve to illustrate the fighting power of Russia's Armed Forces and their ability to launch and wage war-fighting operations across a war theatre.

The size, scope and content of military exercises indicate what a force is expected to be able to do and also how it may actually perform on operations. This report by Johan Norberg shows that exercises hardly enable predictions about where, when and against whom Russia may use armed force, but certainly illustrate how and with what forces.

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Stockholm, October 2018

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List of abbreviations

A-c	Aircraft
AIFV	Armoured Infantry Fighting Vehicle (includes armoured personnel carriers)
Arty	Artillery
BY	Belarus
C	Central
C2	Command and Control
CA	Combined Arms
Casp.	Caspian [Sea or Flotilla]
CAA	Combined Arms army
CGS	Chief of the (Russian) General Staff
CIMIC	Civil-Military Cooperation
Compreh.	Comprehensive
Equipm.	Equipment
EX	Exercise
Flt	Fleet
Helo	Helicopter
HQ	Headquarters
IS	Inter-service (usually the ground forces and one more service)
JISCO	Joint Inter-service Combat Operation
MBT	Main Battle Tank
MD	Military District
Mobn	Mobilisation
Moby	Mobility
MoD	[Russia's] Ministry of Defence
N	Navy
N/A	Not applicable/not available

Op	Operational [level] / operation
PACFLEET	The Russian Navy's Pacific Fleet
Pcs	Pieces of primarily ground forces equipment such as arty pcs, AIFV and APC
Pers	Personnel
RU	Russian
SCRI	Surprise Combat Readiness Inspection
Spt	Support
Strat	strategic
STRATEX	[Annual] Strategic Exercise
Sub	Submarine
Srvc	Service
Trg	Training
VD	Vienna Document (OSCE Confidence and Security Building Measures Document)
VDV	[Russia's] Airborne Forces

1 Introduction

Russia has only two allies: its army and its navy.
Alexander III (1845–1894)

The Russian notion of a state's military power holds that the fighting power of its armed forces is a key component. Many accounts of military power include what the state actually *has* in terms of numbers of aircraft, ships, tanks and soldiers, as well as to what extent its demography, science, economy, and industry can be turned into military forces in the future. Such quantitative accounts often say little about what these forces can actually *do*.

Russia's Armed Forces nominally have up to one million servicemen in sizeable conventional and nuclear forces. They are dispersed across the Eurasian landmass. Its potential adversaries include alliances such as NATO or great powers such as China, ultimately to be fought in regional or even world wars.[1] If such wars were to materialise, Russia would probably fight them in terms of strategic operations of its armed forces. Therefore, this report focuses on the strategic level.

This study considers how Russia develops its armed forces' fighting power through its conduct of two types of military exercises – annual strategic exercises[2] (STRATEX) and comprehensive surprise combat readiness inspections (SCRI) – and what this may say about how Russia prepares to fight. The aim is to analyse the evolving fighting power of Russia's Armed Forces against the background of Russian strategic-level military exercises. The research question is how conducting those two types of exercises during 2009–2017 contributed to the fighting power of Russia's Armed Forces. This in turn leads to three subsidiary questions. First, what are the Russian conceptual frameworks for military power and fighting power? Second, how do military exercises fit into those frameworks? Third, what do Russian official statements and media reporting during 2009–2017 reveal about exercises in terms of the participating services, arms and formations, and command and control, as well as their stated size, in terms of quantities of participants and equipment?

The fighting power of Russia's Armed Forces is based on their human and material resources and their organisation into services, arms, formations and units (Norberg and Westerlund 2016:23-59). Accounting for human and materiel resources and organisation, however, only partly explains what the political leadership of a state

[1] The notion of world war here corresponds to the more abstract Russian term large-scale war. A war between Russia and NATO is regional in this context, but would clearly be large-scale for those involved states that, unlike Russia and the United States, are not military great powers.
[2] This includes both operational-strategic and strategic-level exercises.

wants to be able to do with its armed forces or what those forces can actually do in terms of fighting. The assumption here is that exercises illustrate two things. First, in peacetime, military exercises reflect a force´s potential fighting power in war. Forces that only conduct tactical unit-level exercises without higher levels of command and control can have problems carrying out strategic-level operations. Second, exercises are an indication of the ambition a state has for its armed forces. If a state organises strategic-level exercises, it probably wants to be able to carry out strategic-level operations. This study does not deal with the Russian Armed Forces' holdings or organisation, that is, what they *have*, but more with what they can *do* with what they have.

One reason to study exercises is that they are central in creating deployable military forces. The tactical performance of Russia's Armed Forces in the 2008 war against Georgia was by most accounts lacklustre (Vendil Pallin and Westerlund 2010). In 2014, observers were surprised by the audacity and speed of the Russian operation in Crimea, although it had unique features that favoured Russia (Norberg, Westerlund and Franke 2014). Russia has also used its armed forces to wage war against Ukraine in Donbas and to intervene in Syria in 2015. The performance leap reflects a determined decade-long effort by Russia's political and military leadership to improve the fighting power of the Russian Armed Forces.

In 2009, the Russian Ministry of Defence (MoD)[3] launched a major reorganisation of the Armed Forces to replace a mobilisation-based force with more combat-ready units available for deployment without mobilisation. Defence spending roughly doubled between 2005 and 2015 (Oxenstierna 2016:133). Reorganisation and more spending are key structural preconditions, but alone can hardly explain improved performance. Between 2011–2014, the Russian military[4] regularly carried out exercises pertaining to large war-fighting operations (Norberg, 2015), i.e. strategic-level exercises that pertain to strategic-level operations, i.e. reaching across most of a continent.

Strategic-level exercises demand a lot from participating forces, both in terms of command and control and at unit and formation level. One result has arguably been an increase in available combat-ready units such as those employed in Crimea, Donbas and Syria. This report extends the period of analysis to cover the nine years from 2009 up to and including 2017. Accounting for five more years enables a further discussion about long-term trends in military exercises and the development of the fighting power of Russia's Armed Forces. Few other studies, if any, cover Russian military exercises for the 2009–2017 period, especially with

[3] In this report, MoD denotes Russia's Ministry of Defence, if not otherwise stated.

[4] The term "military" here only denotes forces under the Russian MoD. Forces belonging to other Russian ministries and agencies are not included unless explicitly stated so.

a Russian perspective and in a Russian conceptual framework. This report aims to address that void.[5]

The topic of Russian strategic military exercises merits studying for three reasons. First, Russia's 2014 Military Doctrine notes their importance. Para 14g (14г, in Russian) lists foreign powers' "show of military force when carrying out exercises on territories of states neighbouring Russia or its allies" as a military threat. Second, on a political level, exercises may reassure allies and deter potential adversaries (Heuser, Heier and Lasconjarias 2018:9-25). Here, this entails what exercises mean for a credible ability to launch and carry out warfighting operations. Political aspects of exercises are not in focus here but only indirectly touched upon. Third, below the political level, armed forces structures depend on processes such as equipment procurement and recruitment of personnel and their training. Exercises bring these pieces together to create forces that can carry out missions assigned by the state's political leadership. This may require complex tactics that demand high levels of training and skill (ibid. and Biddle 2014:49), which are tested in exercises. What a force trains for on exercises in peacetime reflects its potential capabilities and behaviour in warfighting operations.

1.1 Capability intent – exercises for which type of war

State-level military power (*voennaia moshch*) is, in a sense, about which type of war Russia wants to be able to fight. The ensuing fighting power (*boevaia moshch*) of Russia's Armed Forces reflects an ability to carry out operations of adequate size and scope at the appropriate level. Using military exercises to decipher geopolitical or other political intent about where and when Russia may use military force easily becomes speculative. This study therefore focuses on capability intent, i.e. what the Russian Armed Forces should be capable of and, if Russia's political leadership decides to use military force, in roughly which way. What size and scope of operations are the Armed Forces supposed to be able to carry out in the wars Russia envisages?

Russia's 2014 Military Doctrine (Russia's Security Council, 2014) stipulates four types of military conflict (*voenny konflikt*), where states use military force to solve disagreements between them or in domestic conflicts:

[5] An earlier version of Chapter 4, which did not cover 2017, was the author's contribution to Heuser, Beatrice, Heier, Tormod and Lasconjarias, Guillaume (eds) "Military Exercises: Political Messaging and Strategic Impact," NATO Defence College, Rome, 2018. That book and Martin van Creveld's "Wargames: from Gladiators to Gigabytes," Cambridge University Press, 2013, are key attempts at understanding the role and nature of military exercises.

- armed conflict (*vooruzhenny konflikt*); takes place between or within states on a limited scale;
- local war (*lokalnaia voina*) with limited political aims; takes place in border areas between states, about issues concerning only the states involved;
- regional war (*regionalnaia voina*); involves several states fighting in one region of the world with national or coalition forces about important military-political aims;
- large-scale war (*krupnomashtabnaia voina*); between either coalitions of states or the greatest states in the international community; involves radical military-political aims. It can result from the escalation of the other types of military conflict and involve many states from different regions of the world and require the mobilisation of all available material and moral resources of the participating states.

The doctrine notes that large-scale war, i.e. world war, involving Russia is becoming less probable (para. 11), although there are two indications in the doctrine that at least regional wars are on the minds of Russian planners. The first is the mention of the danger of further NATO enlargement (para. 12a), which pertains to the above-mentioned definition of regional wars. The second is that a sharp aggravation of the world's military-political situation, or of interstate relations, can create conditions for the use of military force (para. 14a; ibid.). Arguably, the conduct of large-scale war, against potential great power adversaries, both to the west and the east, and with nuclear weapons if needed, is what the scale and scope of the Russian Armed Forces indicate they are ultimately intended for.

Different types of operations and forces are needed to handle the doctrine's envisaged categories of military conflict. Table 1 presents an overview of possible operations, missions and forces required for the various conflicts. It also serves as a rough guide to the terminology in this report regarding levels of operations and exercises as well as designations of military forces, all reflecting Russian terminology and hierarchies of operations, formations and units.

Table 1 Overview of military conflicts, mission levels and corresponding formations and units

<table>
<tr><th rowspan="2">Military conflict [a]</th><th rowspan="2">Level of operations [b]</th><th rowspan="2">Mission</th><th colspan="2">Force/Formation/Unit</th><th rowspan="2">Organisation</th></tr>
<tr><th>Designation</th><th>Example</th></tr>
<tr><td>World War [c]</td><td>Strategic (2+ operations)</td><td rowspan="4">Operation</td><td rowspan="3">Large Formation (obiedinenie)</td><td rowspan="2">- All forces in a war theatre</td><td rowspan="3">According to mission</td></tr>
<tr><td rowspan="2">Regional War</td><td>Strategic</td></tr>
<tr><td>Operational/ strategic</td><td>- Several CAAs
- Several Air Armies
- Navy fleets</td></tr>
<tr><td rowspan="2">Local War</td><td>Operational</td><td>- One CAA
- One army corps
- Navy flotilla</td></tr>
<tr><td>Operational/ tactical</td><td>Within operation:
- Combat
- Support</td><td>Formation (soedinenie)</td><td>- Division or brigade
- Navy vessels</td><td rowspan="2">Usually fixed, with service arms & support subunits</td></tr>
<tr><td rowspan="2">Armed Conflict</td><td>Tactical</td><td rowspan="2">Combat or Support</td><td>Unit (chast)</td><td>- Regiment
- Larger Navy vessel</td></tr>
<tr><td>Lower tactical</td><td>Sub-unit (podraz-delenie)</td><td>- Battalion and below
- Smaller Navy vessel</td><td>Fixed for mission essential tasks</td></tr>
</table>

Table 1 Comments: a) according to Russia 2014 Military Doctrine; b) the stated level of an exercise is assumed to pertain to an operation at the corresponding level; c) Corresponds to the Doctrine's term large-scale war.
Table 1 Abbreviations: CAA – Combined Arms Army; N - Navy

1.2 Assumptions and delimitations

The overall assumption here is that patterns in strategic-level military exercises reveal something about the fighting power of the forces involved. Systematically describing exercises would thus make it possible to make observations and draw conclusions about fighting power and to discuss military power. Another assumption concerns how successful exercises are. The sources used here do not allow for a deeper analysis of that theme. Exercises are nevertheless good opportunities to train and learn more about the *actual* state of a force, both the strengths to be maintained and the weaknesses to be rectified. The assumption is that the exercises are successful enough to keep developing Russia's Armed Forces and that the Russian military makes good use of these events. When the actual success of exercises is hard to gauge, the second-best option is to reflect on what retention and improvement of skills they enabled the participants to train for.

A third assumption is that the military training organisation works well enough from the tactical level upwards to allow for strategic-level exercises. The exercises dealt with here pertain to the whole of Russia's Armed Forces. The aim is to gauge the usefulness of a force at the national level. At the top of the military pyramid, command and control ensures that the sum of the capabilities of individual formations and units merge. Separate, independently moving pieces become one coherently functioning machinery. This means that Russia's Armed Forces need to be studied at the national or Military District (MD)[6] level, with their formations, such as combined-arms armies, fleets, flotillas, air and air-defence armies (Map 1 outlines Russia's MDs, as of 2018, and its railway network). The levels below those, from unit level, such as division or brigade, are primarily building blocks for the whole. Consequently, lower-level exercises – down to the level of individual soldiers – are not studied in this report. Additional assumptions appear throughout this report.

[6] A Military District is a part of Russia's Armed Forces in peacetime that is mainly aimed at organizing and training units, i.e. creating fighting power. A war theatre is a region of the world that exists in war, in which military operations are about using fighting power, see Westerlund and Norberg (2016:67-73).

Map 1 Overview of Russian Military Districts (MD)

There are six delimitations. First, the terms *capability* and *operation* pertain to high-intensity fighting at least at the level of regional wars, since a state's armed forces are ultimately for ensuring national survival in war. The focus is on Russia's conventional armed forces under the Ministry of Defence, the Ground Forces, the Navy, the Aerospace Forces and the Airborne Forces.[7] Nuclear forces and forces from other ministries and agencies in Russia's wider military organisation are mentioned briefly in relation to exercises, but are not subject to detailed analysis. Second, the report deals primarily with Russia's war-fighting capabilities within or near its borders. Train transports are essential for the strategic mobility of Russian forces. The reach of the Russia-gauge railway network thus reflects a zone where it is easier for Russia to use its armed forces to influence other states. Operations for the purpose of peacekeeping, counter-insurgency, or counter-terrorism, or that are far away, such as Russia's operation in Syria since 2015, are beyond the scope of this study.

Third, this report notes the time and location of exercises. The presence of peacetime restrictions on exercises – e.g. confining live firing to designated areas – calls for caution regarding conclusions about force dispersions in wartime

[7] See Persson (2016:23-65) for a description of Russia's Armed Forces as of mid-2016. Their organisation remains roughly the same in 2018.

operations. The same goes for time. Ideally, exercises reveal the timeframes of concrete measures, such as putting participating forces on higher readiness, transporting them to exercise areas, assembling force groupings under assigned commands, or preparing forces for and launching an operation. The annual strategic exercises (STRATEX, plural STRATEXes) studied here are planned long in advance, which facilitates a smooth execution. The meaning of the time and space dimensions of military exercises, including their possible escalation, must be subjects of further study.

The fourth delimitation is that the real war-fighting capability of a military force can only be described with some precision for a specific operation i.e. against a specific adversary at a specific time and place. Exploring that further in peacetime requires the war-gaming of forces against each other, which is not part of this report. This report deals with Russia's Armed Forces and their capabilities in isolation, and thus reflects a potential, which the author hopes may be useful for those designing and carrying out war games. Fifth, there is no analysis of scenarios in the exercises studied. What the the Russian MoD releases about actors in scenarios is often vague and probably adapted to avoid political concerns in other countries. It thus says little about Russian actual threat perceptions and intentions. An interesting aspect is, however, that STRATEXes invariably have two phases: one defensive where Russian forces absorb an enemy attack followed by a swith to the offensive to defeat the enemy forces.

Finally, the report covers the period 2009 – 2017. 2009 was the year when the Russian military started to implement the lessons learned from the 2008 war with Georgia, a local war. It was also the first year of a wide-reaching reorganisation of the Armed Forces. In 2017, the pattern of strategic exercises which started in 2010 had completed two cycles of exercises across Russia's MDs with each having seen two strategic-level exercises in that period.[8] Additional delimitations appear throughout the report.

The term *strategic* has many meanings and definitions. Here, it is used in two ways. First, politically, it means Russian actions that affect other states. Strategic then simply denotes interstate. Second, militarily, the Russian notion of strategic operations means military operations on a war-theatre-level, i.e. covering most of a continent. Strategic then indicates the ambition that Russia has about the wars it wants to be able to fight, even if the stated size of the exercise is not commensurate with that level.

[8] At the time of writing, Russia has completed the 2018 annual strategic exercise, *Vostok*-2018, which largely confirmed the trends identified here. See Norberg (2018) for the author's initial reflections about that exercise.

1.3 Sources

To assess a force's fighting power, it is best to get as close as possible, preferably to be a part of it. In Russia, such documentation as full post-exercise evaluation reports, and regarding progress over time and suggested measures to rectify identified problems, are not published. For officials from foreign countries, physical access to exercises often occurs within the framework of agreements about arms control and confidence-building measures, such as the Organization for Security and Co-operation in Europe's (OSCE) Vienna Document. In practice, such visits often take place in the form of carefully controlled visits to an exercise's tactical-level live-fire phases, which probably say little about the exercise as a whole.

For outside observers, such as this author, gaining information about the Russian Armed Forces exercise activities depends on what the Russian MoD chooses to release. Research, which needs to verify the claims it studies, relies on publically available sources. Internet and social media provide plenty of information, but it is often unclear who is providing the information or when it was published.

For this report, the empirical sources for the period 2009–2014 are two previous reports from the Swedish Defence Research Agency. The first report (Ekström 2010) covers Russian operational-strategic[9] exercises in 2009–2010. The second (Norberg 2015) covers the same types of exercises in 2011–2014 as well as SCRI in 2013–2014.

For the period 2015–2017, official information, which includes press statements from the Russian MoD website, is the primary source for this study since it is clear that the Russian government is behind the information. The MoD website, however, is also a strategic communication tool and can be biased. The Russian version of the website is probably aimed at domestic audiences, since it includes features such as dictionaries to help employees and for use in military training at all levels. It cannot deviate too much from reality without losing credibility with these audiences. At the same time, it is obviously careful not to reveal too much detail that potential adversaries may exploit. The data that the reports uses therefore only allows for overall observations about fighting power, such as identifying general directions over time rather than describing exact capabilities at any given moment. A final aspect of the MoD website is that it is possible to alter

[9] The word "operational" is here used to refer to the level of military operations, in terms of mission and participating forces. It does not pertain to an operation as such, nor does it mean *to function,* nor *to work.*

content, which may be used to make verification of previously published information difficult.[10]

A secondary source has been the Russian military press, newspapers such as the MoD's daily *Krasnaia Zvezda* and the weekly *Nezavisimoe Voennoe Obozrenie,* which are probably close to and receive much input from the MoD. It provides useful additional detail and context. It is likely to be so close to the MoD and the Russian official narratives that it is hardly independent. In short, there are no independent sources that can confirm or reject what the Russian MoD states about exercises.

The period 2008–2012 saw debates about the Armed Forces' strengths and weaknesses. This began to change in 2013. The MoD and the military press today focus more on strengths and successes in exercises than on problems and limitations. Some of the numbers that the MoD publishes may well be exaggerated, so as to inflate the image of Russia's military power in accordance with the current political climate in Russia, while deflating others to avoid appearing to be overly threatening, when that is politically expedient. Caution is warranted, primarily regarding the accuracy of the numbers that are stated. The MoD, a part of the government structure, is a participant in Russia's political messaging to other countries regarding military security. It is likely that the MoD chooses carefully what, and what not, to publish. The military press often echoes the MoD. It is therefore hard to verify or refute the MoD's information independently. The MoD's statements and stated figures are used with these reservations in mind. Information about the Russian Armed Forces' organisation and capabilities is based on an assessment of Russia's military capability performed by the Swedish Defence Research Agency in 2016 (Persson, 2016).

1.4 Overview of the report

Chapter 2 provides a framework for analysing Russian military exercises. Against that background, Russian MoD definitions of a state's military power and the fighting power of armed forces are used to identify four factors in the study of exercises: mission, command and control complexity, quantity of soldiers and equipment, and combat readiness. Chapter 3 then explores Russian definitions, in

[10] The author has by chance come across two cases where information may have been withdrawn or altered. The first was when it was observed that the key MoD press release that had announced the comprehensive surprise combat readiness inspection, just prior to the Crimea operation in 2014, had been updated on 31 March 2017, more than three years later. The second was an article from the *Krasnaia zvezda,* about the possible participation of Central MD units in the annual strategic exercise Zapad-2017, which was found on webarchive.com, but not in the web archive of *Krasnaia zvezda* itself. Internet information is not necessarily permanently available from its original sources.

order to justify the study's focus on annual STRATEXes and comprehensive SCRIs. Chapter 4 discusses the main developments for annual STRATEXes in terms of mission, command and control complexity, and quantities of soldiers and equipment in the exercise. The fourth factor, combat readiness, and the Russian Armed Forces' efforts to improve it, are the topic of Chapter 5. The sixth and final chapter summarises observations regarding comprehensive SCRIs and STRATEXes and provides some conclusions about what that may mean for the fighting power of the Armed Forces and Russia's evolving military power. Readers who are more focused on exercise trends can read the end of Chapter 2, where there is a brief summary of the factors to be studied, and then proceed to Chapter 4 (on strategic exercises), or Chapter 5 (on comprehensive SCRI). Readers interested in exercise details will find descriptions of annual STRATEXes 2009–2012 in Appendix 3; of annual STRATEXes 2013–2017 in Appendix 4; and of comprehensive SCRIs 2013–2017, in Appendix 5. Other appendices provide some additional background information on selected topics.

2 A framework for analysing military exercises

Actually, when we talk about exercises, the quantity of forces, some 13 thousand or 100 thousand, the quantity of armour, combat aircraft is not that important. The important thing is the staff work, what goals are set.

Retired Russian General Leonid Ivashov[11]

This chapter provides a framework for analysing Russian military exercises by using Russian definitions for military power and fighting power to identify four factors in the study of military exercises: mission, command and control complexity, quantities of soldiers and equipment, and combat readiness. That framework is then used to analyse annual STRATEXes (Chapter 4) and comprehensive SCRIs (Chapter 5).

States use military power at a strategic level to influence other states. The relevant level of exercise to study is therefore one that is clearly strategic. Three factors are available to identify a Russian strategic exercise: the label the MoD assigns, participating forces and stated numbers. First, the label indicates ambition, i.e. "strategic" or "operational-strategic". Second, if participating forces include formations from the ground forces and at least one other service, this indicates that the complementary capabilities needed for strategic operations are being exercised, at least in terms of command and control. Finally, if the deployed numbers of soldiers and equipment correspond to such ambitions, it indicates that the exercise pertains to such capabilities, not just to ambitions.

A focus on strategic-level exercises is useful for three reasons. First, the organisation of Russia's Armed Forces to include both conventional and nuclear forces clearly indicates that they are about handling more than the armed conflicts and local wars Russia has seen since 1991. Second, it is impossible, here, to cover the full width and depth of the exercises conducted by the Russian military, nominally an organisation with around a million servicemen, tens of thousands of pieces of equipment distributed across the vastness of Russia, from the level of the individual soldier to the national, in a meaningful way. Third, as Russia's 2014 Military Doctrine notes, wars against other countries may escalate to involve more countries, thus expanding the scope and size of the war to the strategic level. Looking only at capabilities for smaller armed conflicts or local wars would not adequately reflect Russia's ambitions nor its capabilities.

[11] Quoted in Kovalenko, Baltacheva and Korostichenko, 2017.

The Russian emphasis on strategic-level command and control[12] is important for two reasons. First, at the top of the military chain of command, the military meets the political leadership that has assigned the mission to the military. At the political-military level, which is regularly exercised in Russia, policy choices about using military force are turned into missions and orders for the armed forces, i.e. where political strategy can become military action.

Second, command and control is what enables the leading and coordinating of several tactical activities into an operational-level operation and of several operational-level operations into a strategic operation. To illustrate, a battalion on a tactical-level exercise, after transport to an exercise area near its peacetime base, independently practices ground combat operations in an area of up to, say, 15 times 15 km. On a strategic exercise, the battalion, as one of perhaps several dozen, is a small part of a large military machinery operating in an area that is perhaps 300 times 300 km. The battalion is part of a regiment in a division or a brigade. They in turn are parts of combined-arms armies (CAA) taking part in a joint inter-service combat operation with formations from other services.[13] Command and control from the General Staff on down ensures inter-service coordination. Individual units thus act, not as independently moving pieces, but in a coherent effort, or "according to one thought," as the Russian definition of an operation stipulates.

2.1 Military Power, in Russian

In contrast to some Western perspectives of military power that focus on the force level,[14] the Russian notion, *voennaia moshch*, or military power, pertains to the state level. It is described as:

> … [the] strength of a state (or coalitions of states) and its ability to influence other actors or the entire system of international relations indirectly (through demonstrating the ability to use weapons) or directly through using means for military aggression and successfully waging armed combat. The quantity and quality of military power depend on a country's geopolitical situation, the size of its territory and population, its existing natural, material and human resources, the level of political, socio-economical, scientific-technical and spiritual

[12] This study approaches command and control mainly in its coordinating and executing dimensions, i.e. a narrower sense than the Western concept C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance). Russian exercises considered here include all parts of C4ISR.

[13] See Appendix 2 for an outline of the services and arms in Russia's Armed Forces and their capabilities. Persson (2016:67-73) has more details. The term inter-service here means units from at least two services, usually the ground forces and another service. This interpretation focuses on implications for command and control. One fighter-bomber aircraft supporting a motor rifle battalion for an exercise is enough to count as inter-service in that it requires coordination between two services, which is probably planned and rehearsed in advance.

[14] See for example Biddle, Stephen (2004) "Military Power – Explaining victory and Defeat in Modern Battle", Princeton University Press.

> development of its society as well as the character and content of policies for mobilising all this for military needs. The concentrated and realised embodiment of a state's military power is its military organization and the fighting power of its armed forces. (MoD Encyclopaedia 2017:1).[15]

Military power thus materialises in two ways: through the state's military organisation (*voennaia organizatsia gosudarstva*) and through the fighting power (*boevaia moshch*) of its armed forces. The first, the state's military organisation, includes all actors in national defence, such as ministries, government agencies, certain companies and regional administrations. This notion indicates a society-wide war effort pertaining to war between great powers or coalitions of states, i.e. world war, in the wording of Russia's 2014 military doctrine.[16] Strategic exercises are not only about Russia's increasing the fighting power of its armed forces, but about a process of building non-military support for the Armed Forces. Although that wider process is not dealt with here, but must be part of a separate study, information about Russia's military organisation in annual STRATEXes is nonetheless noted, even if it is not analysed. The second notion, fighting power, is about Russia's Armed Forces, as discussed in the next section.

2.2 Fighting Power, in Russian

Fighting power,[17] according to the Russian definition, is:

> …[the] most important component of a state's military power, the totality of material and moral factors that determine the condition of the Armed Forces and their operational *ability to carry out their assigned missions*. Fighting power is defined by the quantitative and qualitative configuration of the Armed Forces: *how well staffed, equipped and trained they are, the quality and quantity of armaments, equipment and material resources*, the forces' *combat readiness* and capability, *the quality of commanders, the effectiveness of command and control systems,* the development of military art and other factors. (MoD Encyclopaedia 2017:1 and 2017:8)

Four factors in this definition, noted in italics above by the author, are selected here for studying military exercises: i) the ability to carry out their assigned missions; ii) how well staffed, equipped and trained the forces are; the quality and quantity of armaments, equipment and material resources; iii) the quality of commanders; the effectiveness of command and control systems; and iv) combat readiness and capability. How are these factors relevant for analysing military exercises? What data in the sources pertain to each factor?

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[15] The Russian definitions in this report are the author's unofficial translations and interpretations.

[16] See Andrew Monaghan (2016) and Julian Cooper (2016) for more about Russian efforts to mobilise society for war.

[17] Fighting power is here based on the Russian definition, which contrasts to Martin van Creveld's definition of fighting power as "[…] the sum total of mental qualities that make armies fight" (1982:6).

Mission

The forces' "ability to carry out assigned missions" here connects the political and military levels. The quote from General Ivashov at the beginning of this chapter noted the importance of assigned goals in military exercises. Can the General Staff and Armed Forces do what the political leadership demands in a certain war theatre? Below that, can each MD do what the General Staff wants it to do? Can each formation do what the MD wants? The term "mission" is a label the Russian MoD attaches to an exercise or operation, and signals political and military ambition, with implications both for political control of the military and for military command and control of operations. Here, it means noting the labels the MoD assigns to strategic-level exercises, i.e. strategic or operational-strategic.

Command and control complexity

The Russian Armed Forces attach great importance to command and control. Official reports documenting military exercises often stress command and control. For example: "[…] *the quality of commanders, the effectiveness of command and control systems,*" clearly pertains to command and control. The Russian definition of command of forces (*uprvalenie voiskami (silami)*) is:

> …the expedient activity of commands (commanders, commanding officers, chiefs) and staffs and other military command organs to support combat readiness and mobilisation readiness of forces, to prepare them for combat actions and to lead them when they carry out assigned missions… (MoD Encyclopaedia 2018:5a and 5b)

The definition also stipulates the activities of command and control. Commands and staffs have to continuously assess the situation, take decisions and disperse tasks to subordinate levels. Commands are also tasked to plan combat actions, and to organise and execute the coordination of combat-support activities. They must also organise control over and support to subordinate command organs and directly lead forces that are carrying out their combat missions (ibid.). This has two key implications. First, command and control at all levels has a clear link to the execution of the assigned missions, which ultimately ensures that the armed forces carry out the missions given from the political leadership. Second, commands both prepare forces and lead them in combat operations, which illustrates the role of exercises as preparation for operations.

The higher the command level and the higher the ambition of an operation or exercise, the higher the complexity in terms of three factors: i) the management of assigned missions; ii) the variety of participating forces, i.e. the inter-service or combined-arms forces; and iii) war theatre geography. As for the first, assigned missions, a tactical-level mission can probably rely more on standardised approaches than those at the strategic level can, where complexity is higher. Russian military staffs at tactical levels are small and geared towards the execution

of assigned missions. From operational level and above, staffs are larger, to be able to handle the complexity in planning, coordinating and commanding operations. Second, the higher the number of participating forces, i.e. formations and units from different services and arms, both real and simulated, the more the complexity is increased for commanders and their supporting staffs, in terms of the number and nature of moving parts to coordinate.

Third, Russia's geography affects military operations. High mountain ranges, endless steppes and forests, deserts, arctic tundra, and major seasonal weather changes: all affect military operations. Each of Russia's potential war theatres thus has unique and varying geographic, seasonal and infrastructure features. Above all, there is a tyranny of distance, across eleven time zones.

Personnel and equipment

The wording, "how well staffed, equipped and trained they are, the quality and quantity of armaments, equipment and material resources," pertains to the quantity and quality of personnel and equipment. Complexity, both in the work of staffs and in the field, increases with the number of participating soldiers and equipment, especially in logistics. Even if General Ivashov's remarks above note the primacy of staff work in exercises, in real operations quantity will also matter. Therefore, when it comes to personnel and equipment in exercises, the focus here is on the quantitative aspects, since those are often (but not always) stated in the reporting by the Russian MoD. This allows for rough estimates of size and some comparisons over time. That the MoD states both numbers and categories in terms that appear deliberately vague is a challenge. Does "up to 2,000 soldiers" mean 100, or 1,999? What exactly is included in "pieces of equipment"? As indications of quantity, they are assumed to be the same over time and are taken at face value.

Since Russian MoD reports on exercises rarely cover quality aspects in a meaningful way, this study makes three assumptions. First, the quality of equipment and personnel of each participating unit is good enough to carry out its mission-essential task.[18] Second, complexity matters. The more complex the exercise is in terms of participating services, formations and units, and whether it is real or simulated in the exercise scenarios, the better the commanders and their staffs become in handling the complexity of a strategic-level war-fighting operation. Third, the more a force exercises the better it gets. Exercises have a cumulative effect over time, especially for commanders, who tend to stay in uniform longer than soldiers, many of whom, in Russia, are still conscripts.

[18] The Russian term is *zadacha po prednaznacheniu* i.e. what a unit is designed to be able to carry out.

Combat Readiness

The third factor is "combat readiness and capability." As for combat *capability*, the Russian MoD stipulates that a unit is combat-capable if 75 per cent of its organisation is intact (MoD Encyclopaedia 2017:6), probably in terms of soldiers and equipment. As of 2016, all of Russia's Armed Forces probably reached this level (Persson 2016:70-73) and therefore combat capability is not dealt with further here.

The Russian notion of readiness has a hierarchy similar to that of the notion of power, which in this context makes the forces-level fighting power a key part of the state-level military power. Similarly, a state's military readiness is the shape that the state's military organisation is in, in its ability to carry out functional tasks, and consists of the combat-readiness of the armed forces and the forces of other ministries and agencies (MoD Encyclopaedia 2018:3). It thus pertains to the state's readiness to act with its entire machinery – that is, the military organisation – to execute influence on other states by military means. On the force level, this comprises the ability to deploy quickly on combat operations when its government orders it to do so. The quicker a state's force can deploy, the greater a threat it is to other states. From 1991–2008, most observers assessed the readiness of most of Russia's Armed Forces to be months, if not years. They were thus not much of a threat. Since 2013, Russia's Armed Forces have addressed combat readiness through a systematic use of SCRIs, here noted simply as "combat readiness." This explains why this report covers SCRIs (in Chapter 5).

In sum, to assess how military exercises affect the evolving fighting power of Russia's Armed Forces, the following four factors from the Russian definition of fighting power have been selected for use in the analysis of military exercises and what they may reveal about operations:

i) mission;
ii) command and control complexity;
iii) personnel and equipment;
iv) combat readiness.

The first three pertain to what the armed forces' organisation may enable Russia to do in terms of war-fighting strategic-level operations, or, put simply, in waging war. The fourth is about going to war. Russia's Armed Forces carry out many thousands of exercises each year, at different levels. Which types of exercises, then, are relevant in a study of fighting power and how do they relate to the potential to launch and carry out operations?

3 Strategic-level exercises and operations

> *Soviet awareness of … [the potentially slow NATO decision-making based on shared political authority at army group-level and above] … is reflected in the response to Air-Land Battle with the concept of the theatre strategic operation, which dramatically accelerated the pace of the offensive in an effort to overwhelm the NATO operational-level decision-making cycle.* (Odom 1998:391).

The strategic level is where a state decides on the use of armed force against others, so as to influence their behaviour and thereby achieve a strategic effect. For the forces involved, and the more so the lower down the chain of command one gets, the actual activities carried out within this strategic framework remain tactical or operational. This section briefly examines the Russian concept of an operation and what the different levels of operations imply. Today's developments are not a coincidence, but clearly have roots in Soviet military thinking.[19]

Section 3.1 reflects on what an operation is and what that means for which types of exercises are relevant for fighting power. Subsequently, Section 3.2 outlines and justifies the selection of two types of exercises: the annual STRATEX and the comprehensive SCRI; these are to be examined to assess the potential of Russia's Armed Forces to launch and carry out operations in terms of mission, command and control complexity, personnel and equipment, and combat readiness.

3.1 What is an operation?

This study focuses on the notion of *operation* for two reasons. First, the training of military force, from individual soldiers up to the level of armed forces, is a huge sum of interconnected activities over time, impossible to cover in detail here. Second, the study of Russian military power and fighting power implies a concern with Russia's use of military force against other countries. The use of military forces in wars materialises as operations.

An *operatsia* is the totality of an interconnected chain of battles, "according to one thought" (*po edinomu zamislu*). As outlined in Table 1 above, there are four levels of operations – strategic, operational-strategic, operational and tactical – pertaining to different aims, sizes of territories covered and forces involved. Strategic-level operations involve all types of a nation's forces in a war theatre,

[19] See Ruiz Palmer (2018) which succinctly outlines the Soviet roots of key developments in today's Russian Armed Forces, such as exercises, war theatre-level operations and high commands.

i.e. most of a continent.[20] Operational-strategic-level operations include several large formations (fronts,[21] with several CAA, navy fleets, and air armies). Operational-level operations involve formations such as one CAA, an army corps, or a navy flotilla. Operational-tactical-level operations involve formations such as an army corps (MoD Encyclopaedia 2017:4a and 4b).

3.2 Which exercises to study?

Assessing the fighting power of Russia's Armed Forces means assessing the potential for launching and carrying out operations pertaining to at least regional wars. Here, an assumption is that the stated level of an exercise corresponds to an operation on the same level: a tactical-level exercise corresponds to tactical-level operations, operational-level exercises to operational-level operations, and so on. Addressing the potential for operations in such wars means studying the exercises that have the highest ambition, i.e. those at the strategic or operational-strategic level.

A strategic operation pertains to a war theatre (TVD), i.e. extensive territories of a continent (MoD Encyclopaedia 2017:5 and 2018:11). Strategic exercises thus implicitly refer to a continent, in terms of scenario and command and control, if not always in terms of the numbers stated by the MoD. An indication of this is that annual STRATEXes rotate between Russia's various MDs, each clearly comprising a unique potential war theatre (Persson 2016:67–68). The ability to launch and carry out strategic and operational-strategic-level operations also means looking at exercises involving formations from at least two of the three main services (the Ground Forces, Navy and Aerospace Forces).

Which of all the exercises in the annual training cycle of the Russian Armed Forces are most relevant for understanding their fighting power, in terms of launching and carrying out strategic-level operations? Two categories of Russian exercises are relevant. The first category includes the annual operational-strategic, or strategic, exercise of the Russian Armed Forces (STRATEX), the capstone of the Russian Armed Forces annual training cycle (MoD, 2016fk; Tikhonov, 2016). The active phase of the annual STRATEX, i.e. where forces are active in field manoeuvres, usually lasts around 7–9 days, and is divided into two parts. The first part is for

[20] In short, the Russian notion of a war theatre (*teatr voennykh deistvii*) refers to all, or large parts, of a continent, including the surrounding seas and the air space and outer space above these areas (MoD Encyclopaedia (2017:5).

[21] A front is an operational-strategic formation created in war-time on the basis of forces in a peacetime MD (MoD Encyclopaedia (2018:10). Fronts do not seem to exist in today's Russian Armed Forces. The Joint Strategic Commands in each MD, which are designed to command operations, may be what best corresponds to a front today. The difference is that it exists already in peacetime alongside the MD.

bringing forward forces to halt an advancing enemy force. The second is to organise counterstrike forces and go on the offensive to evict enemy forces.

The second category of relevant Russian exercise comprises those that the Russian Armed Forces conducts to improve and evaluate combat readiness, *vnezapnye proverki boevoi gotovnosti*, literally surprise combat readiness inspections (SCRI), in English often called snap inspections or snap exercises. In 2013, after not using them for two decades, the Russian MoD reintroduced these Soviet-era methods to check and improve combat readiness. If the annual STRATEXes are about forces waging war, comprehensive SCRIs are about going to war (Norberg, 2015:23–24).

The Russian *MoD Encyclopaedia* does not offer a definition of combat-readiness inspections for all of the armed forces. The available definition, "inspection (control) of the state of the forces," is from the Strategic Missile Forces, and is here assumed to cover other forces also. It stipulates that such inspections determine the actual combat readiness and mobilisation readiness of a unit or force. Furthermore, the elements that constitute a readiness check include the state of operational planning, combat and mobilisation readiness, duty-officer functions at all levels, training-levels, equipment and armaments, logistics and supplies, general order and military discipline and security measures, both for handling classified materials and for the personnel in service (MoD Encyclopaedia 2017:7), all in all an elaborate and comprehensive approach to determining combat readiness. This study omits the mobilisation aspect, since readily available forces are probably more important for Russia's potential to initiate the use of armed force against other states. Since 2013, SCRIs at all levels have been a feature of daily life in the Russian Armed Forces. The commanding officer of the Eastern MD, Colonel-General Sergei Surovikin, noted in May 2016 that the previous six-month winter training period had seen 470 such inspections (MoD, 2016bl), i.e. two or three per day. The vast majority were probably conducted on unit level.

In terms of scale and scope, SCRIs can be divided into those that are comprehensive *(kompleksnye;* also called *mashtabnye),* or partial (*otdelnye*).[22] The emphasis here is on scale and scope as they relate to starting wars, that is, to launching strategic-level operations, or in other words comprehensive SCRIs, which often cover either several force formations, most forces in an MD, or an entire service all across Russia. Partial SCRIs occur all across the Russian Armed Forces, often when commanders check the readiness of subordinate units and sub-units. The chief of the Russian General Staff (CGS), Army General Valeri Gerasimov, has noted that each SCRI is a *de facto* operational-tactical-level

[22] These two categories of SCRIs are general in nature. In the MoD articles, it can be hard to distinguish a comprehensive SCRI from a partial SCRI that has at least two participating services. One indication of a comprehensive SCRI is the additional attention the Russian MoD gives it in terms of the number of articles published duly noting each participating arm and service.

exercise (MoD, 2017qq), a statement that probably referred to partial SCRIs seen from a command and control perspective. Appendix 1 accounts for partial SCRIs reported by the MoD. Since there are many more exercises that take place in the Armed Forces that are reported only in general terms, the available material mainly allows for observations of a general nature, for example that the MoD and General Staff have since 2013 continuously implemented SCRIs throughout the Armed Forces, which has probably improved overall combat readiness.

The timing of comprehensive SCRIs and the annual STRATEX seems to depend on the annual training cycle of the Armed Forces. In 2006–2016, Russia's nominally one-million-strong Armed Forces called up some 250,000–300,000 one-year conscripts annually (Norberg and Westerlund, 2016:50). Thus, up to a third of Armed Forces personnel is always in the first year of training. The training cycle starts on December 1st and has two six-month training periods, winter and summer. Comprehensive SCRIs check the forces' readiness in February–March, towards the end of the winter training period. August – September sees comprehensive SCRI for the summer training period, often constituting the prelude to the annual STRATEX. There are notably few SCRIs in the autumn, after the annual STRATEX, which is probably a period for finalizing training, taking stock and preparing for the next year of training.

This chapter identified that annual STRATEXes and comprehensive SCRIs are the two types of exercises that are relevant to study. Chapter Four uses the first three factors to analyse annual STRATEXes. The fourth factor, combat readiness, is the key reason for accounting for and analysing Russian comprehensive SCRIs in Chapter 5.

4 Annual strategic exercises 2009–2017

Повторение – мать учения.
(Russian version of the Latin, *Repititia mater studiorum est* – Repetition is the mother of learning)

Since 2009, the Russian Armed Forces have carried out annual exercises on the operational-strategic or strategic levels; here, these are called *annual strategic exercises (STRATEXes).* As the key events in an annual cycle of training, preparing, testing and evaluating the capabilities and command and control of Russia's Armed Forces, from the top military-political level down to the individual soldier or sailor, they are a regular *de facto* manifestation of a potential for carrying out strategic-level operations. Here, the STRATEXes are analysed in terms of mission, command and control complexity, and quantities of personnel and equipment.

The analysis of Russian STRATEXes 2009–2017 is divided into two periods: 2009–2012 and 2013–2017. The reason is that in 2013 the annual strategic exercises took on two new features: a dramatic increase in the reported size of exercises (participants and equipment) and increasing complexity in terms of the participation of increasing numbers of forces from other ministries and agencies, in addition to the usual participants, such as the Armed Forces, the FSB and the MVD. Readers interested in the trends that have affected more recent years can go directly to Section 4.2. Each annual STRATEX is outlined in Appendix 3 (for 2009–2012) and Appendix 4 (for 2013–2017). STRATEXes 2011–2014 are detailed in Norberg (2015:27–56).

Table 2 Russia's annual strategic military exercises 2009–2017 (conventional forces)

MISSION	COMMAND & CONTROL COMPLEXITY		PERSONNEL AND EQUIPMENT			
STRATEX [a] *Parallel EX*	**STRATEX Location** *Parallel EX location*	**Arms/ Service**	**Service-men**[b]	**Ground**[c]	**Air**[d]	**Sea**[e]
Osen 2009[f]	**Western Russia**	IS	8,500	700	30	N/A
Kavkaz[g]	- North Caucasus MD	IS	6,000	932	103	N/A
Zapad[g,h]	- BY, Baltic / Barents Seas	IS	14,500 (= 29,000)	1,400	22	23
Ladoga[g]	- Baltic / Barents Seas; Kola					
Vostok 2010[g]	**Eastern MD**	IS	20,000	5,000	75	40
Tsentr 2011[h]	**Central MD/C. Asia/Casp.**	IS IS	12,000 7,000	"1,000s" 200	50 50	10 N/A
Shchit Soiuza[g,h]	*Western MD & BY*					
Kavkaz 2012	**South. MD/Casp/Black Sea**	IS IS	8,000 7,000	320 150	30 30	10 20
Unnamed	*Kola/Barents Sea*					
Zapad 2013[h]	**Western MD**	IS	90,000[i]	180	40	10
Unnamed	*Kola/Barents Sea*	CA (N)	2,500	50	20	30
Vostok 2014	**Eastern MD**	IS	155,000	8,000	632	84
Unnamed	*Kola/Barents Sea*	CA (N)	N/A	N/A	15	N/A
Tsentr 2015[h]	**Central MD/C. Asia/Casp**	IS IS	95,000 8,800	7,000 370	170 80	20 N/A
Shchit Soiuza[g,h]	*Western MD & BY*	IS	N/A	N/A	10	50
Unnamed	*Kola/Barents Sea*					
Kavkaz 2016	**Southern MD**	IS	120,000	400	60	15
Unnamed	*Barents / Laptev seas*	CA (N)	N/A	11	15	35
Zapad 2017[h]	**Western Russia/Belarus**	IS IS	7,200 5,000	880 N/A	70 30	10 50
Unnamed 1	*- Northern Fleet*	IS	2,000	500	N/A	N/A
Unnamed 2	*- South MD*	IS	4,000	500	N/A	N/A
Unnamed 3	*- Central MD*					

Table 2 Comments: a) denotes either operational-strategic or strategic-level exercises, including staff exercises; b) denotes Russian participants; c) includes all types of ground forces equipment, e.g. tanks, artillery pieces, or armoured vehicles; lumping them together, as Russian sources often do, facilitates comparisons of size over time; d) denotes aircraft and helicopters, both from the Aerospace Forces and Naval Aviation; e) figures include diesel and nuclear submarines and surface ships (combat or support); f) *Osen*-2009 was a strategic-level exercise consisting of three consecutive exercises at the operational-strategic level; g) operational-strategic level); h) with allies; i) Russia stated that 9,400 Russian soldiers participated, which is likely to be extremely low; this figure comes from a Finnish source (Norberg 2015:34).
Table 2 Abbreviations: BY – Belarus; CA – Combined Arms; C. – Central; Casp – Caspian Sea; EX – exercise; IS – inter-service; MD – [Russian] Military District; N – Navy.
Table 2 Sources: Ekström (2010) and Norberg (2015), for 2009-2014; Russian MoD and *Krasnaia Zvezda,* for 2015-2017.

4.1 Annual strategic exercises 2009–2012

Russian annual STRATEXes 2009–2012 featured early indications illustrating the trend of increasing fighting power. One such indication was that the stated mission level was raised from operational-strategic, 2009–2010, to strategic, 2011–2012, a sign of increasing ambition regarding the ability to handle assigned missions. Also affecting command and control complexity is the variety of participating forces, which in exercises 2009–2012 came with the participation of at least two services, with all that that means for coordination. All exercises enabled the Ground Forces to train combined arms operations, but at times the Navy also exercised combined arms. As for command and control complexity in terms of the ability to handle Russia's varying geography, the 2009–2012 STRATEX cycle covered all potential war theatres: Europe, the Far East, Central Asia and the Caucasus, with the Arctic as a possible exception. As for personnel and equipment, the stated size of the STRATEX exercises remained between 10,000 and 20,000. In Western Russia, this may have been because of political sensitivities and arms-control agreements, but this was hardly the case in Central Asia and the Far East. A more probable explanation is that during those years, there only needed to be sufficient participating forces to reflect the command and control complexity of the exercise. That the stated numbers in 2009–2012 did not match mission ambitions dented the credibility of the exercises as a manifestation of fighting power. That was about to change.

4.2 Annual strategic exercises 2013–2017

As seen in Table 2 regarding the ability to carry out assigned missions, the Russian General Staff continued to arrange annual STRATEXes in the period 2013–2017,

with between one and three parallel exercises each year. The trend from 2009–2012, for command and control complexity, also continued, with each STRATEX pertaining to an inter-service operation with parallel exercise, as epitomised in 2017, when three parallel exercises took place alongside the STRATEX *Zapad*-2017. From a national-level command and control perspective, the four exercises within a month, west of the Ural Mountains, enabled the general staff to exercise the management of several inter-service operations at the same time. *Vostok*-2014 stands out as the single biggest STRATEX, with some 150,000 participants and approximately 8,000 vehicles. Also, it was held at a time when Russia also conducted combat operations in eastern Ukraine and consolidated its forces in Crimea. If nothing else, this meant extra work for the national-level command and control. As noted briefly in Appendix 4 the 2013–2016 STRATEXes saw the regular participation of not only the Armed Forces, but of other elements of Russia's military organisation; for example, this included not only other ministries and agencies with forces, such as the FSB or MVD, but also various civilian agencies that play a role in Russia's defence planning. Also, concerning command and control complexity, in 2013–2017, just as in the preceding four years, STRATEX enabled the Russian Armed Forces to train strategic-level operations across four vastly different potential war theatres, each with unique infrastructure and geographical features that affect the planning, launch and conduct of operations.

Table 2 also shows a key change from 2013, namely in the reported size and scope of exercises, which increased from some 20,000 in 2009–2012, to between 90,000 and 150,000 from 2013 to 2017. Mission ambition, command and control complexity, and stated numbers started to advance more hand in hand, with the exception of one potential war theatre. For both *Zapad*-2013 and -2017, the stated numbers of participants were strikingly low compared to other years in the period. Figures below 13,000 were probably more in line with the Vienna Document than with reality, especially given the stated strategic level of ambition and parallel exercise activities.

After nine consecutive years of annual STRATEXes, accompanied by up to three inter-service parallel exercises, it seems safe to conclude that Russia's Armed Forces have consolidated an ability to carry out strategic-level operations. This applies in particular to the command and control system, vertically from the national level through Joint Strategic Commands in the MDs, down to formation and unit level. After two full cycles of STRATEX, across four potential war theatres, with all forces in each theatre plus reinforcements from other parts of Russia, it also seems safe to conclude that the ability to handle command and control complexity has improved, and that there has been plenty of opportunity to identify actual strengths and weaknesses and to start rectifying them. Finally, the quantities of personnel and equipment did not really match the strategic-level ambitions in 2009–2012, but certainly did so from 2013–2017. Annual

STRATEXs 2009–2017 helped to improve the fighting power of Russia's Armed Forces in terms of ability to carry out assigned missions, command and control complexity, and the quantities of personnel and equipment. A political ambition gradually became a more credible military capability.

The Northern Fleet seems to have a special role in the STRATEXes. With the exception of 2010, this naval formation has carried out sizeable all-arms naval exercises in relation to the annual STRATEXes. One aspect of a possible confrontation in Europe that affects the Northern Fleet would be the imperative to strike at reinforcement convoys from the United States and across the Atlantic to Europe. Exercise episodes for surface ship strike groups and nuclear-powered attack submarines may well allude to that.

The Northern Fleet also hosts most of Russia's strategic nuclear missile submarines, a key part of the nuclear second-strike capability. Protecting this capability is probably a key mission for all Northern Fleet forces. Northern Fleet exercises following a STRATEX may be an indication of training to manage escalation to nuclear weapons following on from a conventional war. In 2014–2017 Russia's Strategic Missile Forces, with both silo-based and mobile land-based intercontinental ballistic nuclear missiles, organised sizeable staff exercises, with up to 4,000 servicemen and a few hundred vehicles, just after each STRATEX.[23] The timing may have been due to September being a key exercise period in the Armed Forces' summer training period. A staff exercise focuses on command and control, which in the case of Russia's nuclear forces, probably means exercising the link to the supreme commander-in-chief, the president, who ultimately controls the launch of nuclear weapons.

This chapter addressed how annual STRATEXes helped improve fighting power in terms of mission, command and control complexity, and quantities of personnel and equipment in the exercises. The fourth factor, combat readiness, is the topic of the next chapter.

[23] This is based on a search on 10 August 2018 on the Russian MoD website.

5 Comprehensive Surprise Combat Readiness Inspections 2013–2017

Солдатские тревоги покой Родины берегут.[24]
("Soldiers on alert protects the peace of the Motherland." Russian adage)

The ability to go to war matters for Russia. Defence Minister Sergei Shoigu noted in May 2016 that modern military conflicts have a short duration and that decisions to create and deploy force groups are taken in very little time (MoD, 2016bj). Russian officials mention that readiness inspections pertain to the transition from peace to war (Norberg, 2015:27, 61).

In 2013, Russia relaunched Soviet-era surprise combat readiness inspections (SCRI). Surprise inspections now take place throughout the Russian Armed Forces. Commanders subject subordinate units to SCRIs. The MoD does not report all partial SCRIs, but usually notes at the end of each training year that the practice of surprise readiness inspections will continue in the coming year (MoD, 2016gn, go). Comprehensive SCRIs refer to the ability to launch up to strategic-level operations and are the focus here.

The notion of *comprehensive* is in this context a matter of interpretation. Here, it pertains to exercises that enable the training of Russia's capabilities to launch operations with an entire MD or an entire service. Criteria for denoting them as comprehensive include either: i) the simultaneous involvement of at least three services or independent arms; ii) MD-level command and control; iii) that the MoD has labelled them inter-service (*mezhvidovoi*) or large-scale (*masshatbny*); or iv) that Russia's supreme commander-in-chief the president, has ordered the SCRI to be carried out. The latter indicates that all political and military levels of command and control, from Moscow down to unit-level, are involved. Sections 5.1–5.2 only briefly account for the readiness inspections 2013–2014, since they have already been accounted for elsewhere (see Norberg 2015:39–42, 49–57).

To be certain that the combat readiness reported from subordinate levels reflects reality, the General Staff makes subordinate formations subject to an external examination. MoD articles frequently mention that various inspection teams follow the SCRIs throughout the Armed Forces. The reports that include actual detailed results from SCRIs are probably confidential and made public only selectively. Those outside the Russian Armed Forces have to rely on what is published by the MoD website and the Russian military press.

[24] See http://sbornik-mudrosti.ru/poslovicy-i-pogovorki-pro-trevogu/

Table 3 Comprehensive surprise combat readiness inspections in the Russian Armed Forces 2013–2017

	Location (month)	Personnel [a]	Equipment	Comment
2013	Eastern MD (July)*	160,000	5,000 pcs; 130 a-c/helo; 70 ships	Also with Central MD forces
2014	Western MD (March)*	150,000	1,200 pcs	Also diversion for Crimea op
	Central MD (July)*	65,000	5,500 pcs	
	Eastern MD (September)*	160 000	N/A	Before *Vostok*-14
2015	North. Fleet/West. MD (Mar)*	80,000	3,360 pcs, 41 ships, 15 sub, 110 a-c/helo	With strategic nuclear forces
	Centr. MD/Centr. Asia (Sept)*	95,000	7,000 pcs, 170 a-c	Before *Tsentr*-15
2016	Southern/Central MD (Feb)*	8,500	900 pcs, 50 ships, 200 a-c/helo	MoD: "within VD-2011"
	Across Russia (March)*	30,000	3,800 pcs, 100 a-c/helo	All MD C2; VDV, Strat. Moby
	Across Russia (June)*	N/A	N/A	C2 spt; Mobn sustainability
	Eastern MD (August)	10,000	2,000 pcs	C2 spt; 2xCAA; PACFLEET
	Southern MD (August)*	N/A	N/A	CIMIC/Mobn; Bef. *Kavkaz*-16
2017	Eastern MD (Jan/February)	20,000	N/A	
	Aerospace Forces (February)*	46,000	1,800 pcs and a-c/helo	
	Western MD (February)	N/A	N/A	
	Eastern MD (July/August)	8,000	3,000 pcs; 50 a-c/helo	

Table 3 Comments: (a) the number of participants sometimes varies in press statements, often increasing over time. Here the highest numbers have been selected.
Table 3 Abbreviations: a-c – aircraft; AIFV – Armoured Infantry Fighting Vehicle (includes armoured personnel carriers); Arty – Artillery; Bef. – before; BY – Belarus/Belorusian; CA – Central Asia; centr. – central; CIMIC – Civil-Military Cooperation (for ministries and agencies included in Russia's National Defence Plan); Compreh. – comprehensive; equipm. – equipment; EX – exercise; fcs – forces; flt – fleet; helo – helicopter; JISCO – Joint Inter-service Combat Operation; MBT – Main Battle Tank; Mobn – mobilization; Moby – Mobility; MD – [Russian] Military District; N/A – not applicable/not available (stated number not found); pcs – pieces of primarily ground forces equipment such as arty pcs, AIFV and APC; Op. – operational/operation; pers. – personnel; PACFLEET – the Russian Navy's Pacific Fleet; RU – Russia/Russian, strat. – strategic; sub – submarine; VD2011 – Vienna Document 2011 (an OSCE Confidence and Security-Building Measures Document); VDV – [Russia's] Airborne Forces.
* – Ordered by Russia's president/supreme commander-in-chief.
Table 3 Sources: Norberg (2015) for 2009–2014; the Russian MoD and *Krasnaia Zvezda,* for the period 2015–2017 (see reference list).

Table 3 reveals four key trends in comprehensive SCRIs 2013–2017. The first is that the number of comprehensive SCRIs per year increased from one, in 2013, to around five, during 2016–2017. In 2013, both partial and comprehensive SCRIs were novelties. Now they are a part of daily life in the Russian Armed Forces. Second, comprehensive SCRIs have been conducted at least twice in each MD and touched all arms and services in the Russian Armed Forces. Thus, the organisation probably has higher overall combat readiness compared to, say, before 2008, when such readiness was usually ascribed to certain key components such as the Airborne Troops. More, if not most, of Russia's military muscle is thus available, not just isolated parts. A focus on command and control has ensured that the parts are probably better synchronised.

The third trend is that since 2014 a comprehensive SCRI has preceded the annual STRATEX. That means practising and improving how to launch and wage strategic combat operations. This probably aims to make processes of going to war and waging war more seamless. An anomaly was the *Zapad*-2017, which reportedly was held without any SCRIs preceding the STRATEX. This was probably due to political concerns about reactions in Europe. The activities carried out, such as raising readiness, transporting forces to the exercise areas, were much the same as in preceding years, but without the term SCRI being assigned to them. Furthermore, Russia's threat perceptions and the mission and organisation of its Armed Forces were the same in 2017 as in 2014–2016. The ensuing training needs of the Armed Forces were also likely to be the same, both in terms of the size and scope needed for a strategic-level operation, i.e. across a continent.

The account of comprehensive SCRIs in Appendix 5 illustrates the fourth trend, namely that a comprehensive SCRI can seemingly last up to ten days. This may

indicate how long it takes to get an entire MD or an entire service into full combat readiness, or at least to measure it. Overly detailed conclusions about the time the Russian Armed Forces need for launching strategic operations may be misleading if they are based on Russian MoD articles about comprehensive SCRIs. In a real situation, factors such as terrain, time of year and, crucially, the actions of the adversary, will affect the time it takes to launch an operation. The key point is that when a force has systematically trained for years to increase its readiness, it becomes less dependent on whether or not such conditions as terrain and season are favourable.

The CGS noted, in November 2017, that the Armed Forces had carried out 24 comprehensive SCRIs since 2013, i.e. some five per year, in addition to the approximately 15– 25 partial SCRIs at unit or arms-level (see Appendix 1). He also stated that each of these, *de facto* constitutes an operational-tactical-level exercise (MoD, 2017qq), at least for command and control. As seen in Table 3, the method used here identified only 15 comprehensive SCRI since 2013, four of which took place in 2017. If one adds the seven partial SCRIs that are labelled in Appendix 1 as inter-service, the total becomes 22, roughly the same as what the CGS stated.

In September 2018, the CGS said that these early SCRIs revealed serious shortcomings in the forces' training (MoD, 2018b). The author's assessment is that in 2013 one MD-level comprehensive SCRI was what the Russian Armed Forces could handle. That they later managed around five per year signals an increase in the capability to launch operations with assets in an entire MD. For military power, this means that in 2018 Russia can probably launch wars against adversaries more quickly than five year earlier. Some five comprehensive and numerous partial SCRIs per year for five years is a determined effort to address combat readiness that is likely to be paying off.

6 Conclusions

Тяжело в учении, легко в бою.
("Train hard, fight easy." Gen A.V. Suvorov, 1730–1800.)

General Suvorov's dictum above clearly shows the link between training and combat – in the present context the one between exercises and operations – and that training and exercises have long been on Russian military minds. As for Russia's military power and the fighting power of its Armed Forces, the dictum points to the nexus where assets in terms of people and equipment become a fighting force.

This report's overall research question is how strategic-level military exercises in 2009–2017 contributed to the fighting power of the Armed Forces. The way this question is addressed can in turn inform a discussion about Russia's evolving military power as defined in a Russian framework. To repeat briefly, the Russian notion of military power includes the sum of a state's assets, both material and human, as well as the will to wield military power. A key part of this notion is the fighting power of the state's Armed Forces. The present analysis of what military exercises reveal about the fighting power of Russia's Armed Forces is based on four factors derived from the Russian definition of fighting power: mission, command and control complexity, quantities of personnel and equipment, and combat readiness. This chapter has two sections. The first covers implications on force level, i.e. for fighting power. The second discusses what this means for the evolving military power of Russia as a state and its possibilities to influence other states through the use of military force.

6.1 The fighting power of Russia's Armed Forces

The fighting power of Russia's Armed Forces clearly increased between 2009 and 2017. The success of Russia's Armed Forces in actual war-fighting operations will only partly depend on what they do in exercises. Success in an operation would also depend on the fighting power of the adversary, the time of year and the geography of the war theatre. Exercises, however, are a form of preparation where the Russian military itself controls the process.

Three of the four factors of fighting power studied here – the ability to carry out assigned missions, command and control complexity, and quantity – pertain to waging war. The fourth, combat readiness, is about going to war. All four point to increases in fighting power. Regarding the ability to carry out assigned missions, the Russian Armed Forces, by arranging strategic- or operational-strategic-level

exercises every year 2009–2017, have clearly indicated an ambition about which level of operations they want to be able to execute if ordered to. Also, nine years of such exercises have probably had a cumulative effect, which has consolidated the ability to carry out operations at the corresponding level. Training for this has to a large extent been about developing command and control.

Command and control complexity is about the ability to handle forces from all services and arms of the Russian Armed Forces, i.e. about optimising the joint effect from a wide variety of participating forces and services. Four observations point to a high level of ambition and, arguably, an increasing ability in command and control. First, Russian strategic exercises have included all types of conventional forces. Each annual STRATEX since 2009 has included all three main services: the Ground Forces, Navy and Aerospace Forces. Often, each service has had the opportunity to train its own combined-arms operations within the joint inter-service framework of a STRATEX.

A second command and control-related observation is that since 2010 there has been an exercise, usually at operational level, held in parallel to each annual STRATEX. This has enabled national level command, the general staff and, since 2014, the National Defence Management Centre and Russia's political leadership, to train in how to handle two separate operations or two operational directions simultaneously within a single strategic operation. The Northern Fleet, a key formation in Russia's nuclear triad, appears mostly in the parallel exercises, which may indicate that an annual STRATEX with conventional forces has a scenario that contains an implicit escalation to using nuclear weapons.

The third observation about command and control is that in 2010–2017 the Russian Armed Forces carried out STRATEXes in each MD twice with four years between each. This enabled participating forces and command and control to handle different terrain and the unique features of each potential war theatre, for example the many possibilities for railway transports in western Russian, the dearth of them in the east.

Fourth, it is this author's impression, after reading hundreds of MoD press reports about both STRATEX and SCRI, that command and control is the most-mentioned function pertaining to launching and conducting operations. Command and control that works well is clearly on the minds of the Russian military.

As for the quantities of personnel and equipment that the MoD has stated have participated in the exercises, the overall trend 2009–2017 was one of significant increases. Regarding the quantities of soldiers that took part in annual STRATEXes, it was up from some 20,000 in 2009–2012 to around 100,000–150,000 in 2013–2017, a five- to seven-fold increase. The equivalent figures for ground forces equipment were in the hundreds in 2009–2012 to the thousands after 2013, a seemingly ten-fold increase. Aerospace Forces went from a few dozen

aircraft and helicopters in 2009–2012 to the somewhat incredible number of 632 in *Vostok*-2014. For the Navy, the stated number of ships and submarines has consistently been between around 10 to around 40 throughout the period, with the exception of 84, in *Vostok*-2014. The main thing is that if the stated figures reflect reality, *Vostok*-2014 shows that Russia can carry out exercises, and thus operations, of that size anywhere along its borders except perhaps in the Arctic. This capability is not limited to Russia's Far East just because the exercise that showed it took place there.

The key point about combat readiness involves Russia's persistent efforts to improve it since 2013. After five years, surprise combat readiness inspections (SCRI), both partial at unit level and comprehensive at MD or service level, have become part of daily life in the Russian Armed Forces. Commanders probably know that on top of planned inspection and control measures, an SCRI can happen. They therefore probably pay more attention to combat-readiness-enhancing measures. The result is improved combat readiness throughout the Armed Forces, although it is hard to quantify.

Three more observations about SCRIs need to be mentioned. First, the number of comprehensive SCRIs increased from one in 2013 to five in 2016, indicating both increasing ambition and capability. In 2016, complexity increased further in that one SCRI also included the mobilising of reservists. Second, since 2014, comprehensive SCRIs have preceded the annual STRATEX, thus implying that not only waging war but also how to get the force to the fight have been practiced. The exception was the period prior to the *Zapad-2017* STRATEX, in western Russia. The absence in MoD articles of reports about the conduct of a comprehensive SCRI probably has more to do with political concerns than with the training needs and activities of the forces.

Third, interestingly, there is a decreasing trend in the stated number of servicemen in the comprehensive SCRIs. In 2013–2014, some had around 150,000, whereas in 2015 they had around 80,000–90,000. For 2016–2017, the numbers are much lower: 46,000 and below. Budget restraints are possible reasons, but it could also be that the MoD chose to state lower numbers, or simply to not state any at all. Just as with STRATEX, repeats of the highest numbers for SCRIs, around 150,000, have been seen three times, and show the forces that the Russian Armed Forces are able to launch into war. Still, that capability has probably not decreased in the way the numbers might suggest. SCRIs and scheduled inspections continue at all levels. In recent years, the number of comprehensive SCRIs per year has remained steady, around five. For command and control, especially, this is probably enough to retain readiness. Lower levels probably handle their own SCRIs. A motor rifle company does not need a comprehensive SCRI to check its combat readiness.

Activities that pertain to waging war evolved increasingly in concert in 2009–2017. If a military force is a body, command and control is its brain and nervous system, while participating formations and units are the muscles. The strategic- and operational-strategic-levels of ambition for STRATEXes were already seen in 2009. Command and control complexity increasingly matched this in terms of the variety of the participating forces. From 2013, there were significant increases in the stated numbers of personnel and equipment in STRATEXes. This added force "muscle" to the evolving command and control "brain and nervous system" of the military "body", gradually making it a more credible manifestation of fighting power.

The ability to go to war has also clearly improved since 2013. The size of the biggest SCRIs matches the size of the biggest STRATEX. Both going to war and waging it are abilities that are increasingly matched in size and frequently coordinated in time, into one process. The fighting power of the armed forces has thus now become more available when Russia's political leaders want to wield military power. Russia's participation in wars in Ukraine and Syria shows that they want to do so.

6.2 Implications for Russia's military power

With the Armed Forces organised into sizeable conventional forces and a nuclear triad, Russia clearly aims to handle the entire military conflict spectrum envisaged in the 2014 Military Doctrine: armed conflicts, local wars, regional wars and world wars. Three factors in annual STRATEXes point to an ability to conduct at least one regional war. First, as noted in Chapters 4 and 5, annual STRATEXes since 2009 and comprehensive SCRIs since 2013 have together consolidated the ability to launch and carry out a strategic-level operation, i.e. an operation pertaining to up to most of a continent with the surrounding seas, which is hardly local in any context. Second, a size and scope that includes up to some 150,000 servicemen from all services and arms, from several MDs, pertains to more than an armed conflict or local war, which one single MD can probably handle, at least initially. Third, STRATEXes involved stand-off assets such as nuclear-powered attack submarines or long-range bombers that can operate far from Russia, in itself an ambition that is probably above that of armed conflict or local war, but relevant for handling a regional war, for example with NATO.

The annual STRATEXes indicate that Russia's political ambition is to prepare the conventional forces for swift high-intensity regional wars with other states or coalitions of states, possibly with escalation to nuclear war. Comprehensive SCRIs involving one MD are carried out in between 4–10 days. That indicates that the ideal time frame for launching operations is probably some 1–2 weeks if it involves mainly one MD. The time frame for launching a regional war involving several

MDs is probably longer, say 2–4 weeks, depending on for example transport of reinforcements. Russia chooses when these time frames begin, but it is unlikely to announce them, in order to gain the initiative in the war. Other countries will not see that preparations for launching a war are proceeding, since comprehensive SCRIs have become commonplace throughout the year. SCRIs and STRATEXes in 2009–2017 show an ambition to launch strategic-level combat operations of some 150,000 servicemen from all services and arms. This may enable Russia to use military force so swiftly and decisively that an adversary cannot organise meaningful resistance. A quick successful operation would then enable Russia to call for negotiations and a political solution to the conflict at hand. Given Russia's size and threat perception, with potential military threats and dangers in all directions, horizontal escalation involving additional adversaries or across more than one war theatre are hardly in Russia's interest.

Russia's 2014 Military Doctrine notes that the risk of world war is decreasing, but says little about the risk of regional or local wars. Annual STRATEXes illustrate how Russia may use military means in regional wars to increase influence in a multi-polar world. A great power needs to appear credibly able and willing to use armed force, or risk being ignored. In the 1990s, Russian objections did not stop NATO airstrikes against former Yugoslavia. In recent years, Russia's military interventions in Crimea, Donbas and Syria have at least for now increased Russian political influence abroad, and been popular at home, at least initially.

Russian military exercises in 2009–2017 reflected Russia's military power ambitions in terms of being able to handle wars with peer powers in four potential war theatres. In this period, Russia carried out two annual STRATEXes and at least two comprehensive SCRIs in each Military District (five comprehensive SCRIs in the Eastern MD). The exception was the Northern Fleet as an MD. Russian military operations in the Arctic focus on strategic missile and air defence as part of a wider confrontation in another war theatre. Keeping the guard up in all directions requires dispersion of forces. Winning a war at one end of Russia's enormous territory requires concentrating forces in time and space. Both comprehensive SCRI and STRATEX include reinforcements between MDs as well as long-haul transport of forces, primarily by rail, but also by airlift. The whole of Russia's Armed Forces, not only selected forces or regions, are subject to this ambition. The implication is that the political leadership wants to be able to show credibly that it can use the Armed Forces for strategic level combat operations in all directions. Neighbours, take note.

SCRIs pertain to the quick transition from peace to war. The case of Russia shows that military power that takes ten days to set in motion takes some ten years to build. In an era of high and increasing political tension between Russia and the West, it is worth remembering that the Russian military development outlined here

is hardly a recent coincidence. Russia's military power results from a decade-long and very determined political and military effort.

For Russia's political leadership, increasing the fighting power of the Armed Forces has increased the credibility of Russia's military power. The sight of Russian political leaders visiting annual STRATEXes has an obvious optical effect. It shows concern for both the creation and, implicitly, the use of military power. There is also a more practical political dimension, however. Russia's president orders comprehensive SCRIs not only often, but before annual STRATEXes. This means that the entire chain of command, emanating downwards from Russia's supreme commander-in-chief, the president, is trained to transform a political will to use military means to influence other countries into an order to the armed forces to launch and carry out a strategic-level war-fighting operation. In short, if there is a political will, there should be a military way.

The Ground Forces, the biggest service in the Russian Armed Forces, have a key role in annual STRATEXes. They depend heavily on railway transport for strategic mobility on any significant scale. The type of Russian strategic operation displayed most often in annual strategic exercises – a ground-forces-centric strategic-level combat operation, with naval and air support – therefore depends on Russian-gauge railways for its reach. That means that beyond the former Soviet Union and Finland, such an operation becomes more difficult in terms of mobility and sustainability. A war-theatre-level operation, however, does not have to entail the occupation of huge territories. Russia builds the ability to take a key terrain and to deploy other means, such as stand-off capabilities and strategic bombers, to be able to affect territories and actors well beyond the territories actually taken.

Russia claims that all STRATEXes are defensive in nature. Whether a STRATEX is offensive or defensive is ultimately in the eyes of the beholder. The point here is what a STRATEX says about the ability to bring, organise and lead forces across Russia and to switch from defence to offence. In a real operation, where the adversary shoots back, these phases may be longer than the three–four days outlined in STRATEXes and even enduring. If a war is not over quickly, then Russia prepares for a war effort that involves much of society, not just the Armed Forces.

Since at least 2013, ministries and agencies, defence industry companies and civilian actors in Russia's Military Organisation have been and are involved in efforts to support the Armed Forces in war. Many agencies and ministries, along with their regional offices, participate in comprehensive SCRIs and annual STRATEXes. Ministries and agencies with armed units can support an operation with forces or units for guarding, or territorial defence, so that the Armed Forces can focus on warfighting, while others support the Armed Forces' mobility and sustainability. A national-level Defence Management Centre, a forum for inter-agency coordination, was created in Moscow in 2014. The conduct of *Kavkaz-*

2016 saw a regional equivalent to coordinate the civilian and the military in wartime. These Regional Defence Staffs were to be under the Military Districts in wartime (Ramm, 2016). The military organisation should work not only in Moscow, but during war in Russia's regions.

Several issues merely touched upon here require further research. What is the role of nuclear forces in relation to annual STRATEXes and are there patterns that indicate preparations for escalation? What is the nature and content of Russia's strategic messaging around annual STRATEXes? What is the role of Russia's military organisation and what is its contribution to the operational endurance and mobility of the Armed Forces? To what extent can Russia act faster and on a larger scale with military means than most of its neighbours? For strategic-level exercises, Russia today has a 10-year record of annual STRATEXes. What is the situation in European countries and their allies? Similarly, what is the importance for other countries of that the Russian Armed Forces has had five years of SCRIs? Addressing these issues, however, requires further analysis and even wargaming to enable further conclusions.

Russia's 2009–2017 strategic-level military exercises have three implications for policymakers. First, the conduct of a comprehensive SCRI prior to a STRATEX is the new normal. This may be hard to distinguish from the launch of real operations. Russia used an SCRI to divert attention from its initial deployment of combat forces in Crimea in 2014. Second, the systematic use of comprehensive SCRIs by the Russian Armed Forces reveals an ambition to be able to act quickly and decisively to gain the initiative in a war.

Third, the current trend appears set to continue. As of 2018, Russia's Armed Forces enjoy the cumulative effect of a determined decade-long effort to conduct strategic exercises. This is arguably an asymmetric advantage compared to many, especially European, countries, in terms of launching and carrying out strategic-level operations.

Some observers speculate about what each exercise may say about when, where and against whom Russia will wield military power. This study has shown that Russia prepares to launch strategic-level war-fighting operations at any time of its own choosing, in any war theatre adjacent to Russia and against peer adversaries, in other words, both to go to war and wage it on a large scale.

Appendix 1 Partial Surprise Combat Readiness Inspections (SCRI) 2013–2017

Table 4 Partial SCRI in the Russian Armed Forces 2013 – 2017 reported by Russian MoD

Year	**2013**	**2014**	**2015**	**2016**	**2017**
Partial	11	15	26	21	21
Nuclear	2	2	5	2	1
Inter-service	2		2	1	2
Single-Service	7	13	19	18	19

Table 4 illustrates two trends. First, SCRIs are now a part of daily life in the Russian Armed Forces. In addition to those noted here, many SCRIs are not reported by the MoD. In 2016, for example, the MoD reported that the Eastern MD had carried out 100 SCRI ordered by senior commanders, 150 organised by commanding officers of all-arms formations and more than 900 at the unit level (MoD, 2016gn). In 2016, the commanding officer of the Western MD had ordered 170 surprise readiness inspections in his forces (MoD, 2016go). The MoD does not account for the scale or scope of these SCRIs, but merely notes their existence.

The second trend is that there is an increase in the reported number of partial readiness inspections between 2013–2014 and 2015–2017. If this reporting reflects reality across the Armed Forces, this shows an increasing ambition to use the readiness inspection tool to improve their combat readiness. The practice of readiness inspections has most probably increased combat readiness in Russia's Armed Forces since 2013.

Appendix 2 Overview of the Russian Armed Forces services, arms, operations functions and overall capabilities

The Russian Armed Forces have three services: the Ground Forces, the Aerospace Forces, the Navy and two independent service arms: the Strategic Rocket Forces and the Airborne Forces. All Russian Military Districts have Joint Strategic Commands that can command forces from all services and independent arms of service as well as ground force formations and supporting units for each of five functions needed for theatre-level JISCO. There are of course additional units for other functions such as intelligence, CIMIC and cyber and electronic warfare, but they are not part of this analysis.

The first function is command and control (C2), within which C2 support brigades support commanders and their staffs. Second, units for the manoeuvre function include tank and motor rifle divisions and brigades. Third, the fire support function includes artillery, surface-to-surface rocket, anti-tank and air defence brigades. Fourth, units for the mobility function are primarily railway troop and engineer brigades. Finally, logistics brigades are the key field units for the sustainability function. Also, the Russian Armed Forces had some 250 cruise missiles with conventional warheads and some 120 cruise missiles available for launches at the outset of an operation in addition to its sizeable nuclear arsenal of some 1 800 warheads on some 500 launchers (Norberg and Westerlund 2016:27-46).

A study by researchers at the Swedish Defence Research Agency (FOI) assessed in 2016 that the Russian Armed Forces organisation enabled the launch of up to two simultaneous JISCOs centred around a ground force of some three–four CAA with some 150 000 servicemen in each operation. An indication of this was that the annual strategic exercise was often accompanied by a smaller operational-level exercise, as in 2011, 2012 and 2015, or an operational-strategic exercise, in 2009. (Westerlund and Norberg 2016:92-94)

Appendix 3 Description of annual strategic exercises 2009–2012

According to Ekström (2010), Russia conducted three operational-strategic exercises in 2009: *Kavkaz* (Caucasus), *Zapad* (West) and *Ladoga,* in western and southwestern Russia. *Zapad* and *Ladoga* took place in parallel, under a single operational thought and plan. They included both air, sea and ground forces (Ekström 2010:4 and Danko, 2009a). These three exercises together constituted the strategic exercise series *Osen* (trans. autumn). In 2010, Russia carried out one operational-strategic exercise, *Vostok*-2010, in its Far East.

Ekström observes that the Armed Forces mainly exercised the tactical capabilities they were designed for in this period. The reasons for that may have included the need to improve any type of military capability after the 2008 Georgia war, or that the still mainly Soviet-era equipment put limitations on possible operational novelties. The Air Force lacked the ability to conduct stand-off strikes and had to fly close to supported ground force units, thus increasing their exposure to enemy air defences (Ekström 2010:9). A key aim was to test and evaluate new command and control structures and new brigade formations that were being introduced at that time (ibid., 2010:4).

Kavkaz-2009

The operational-strategic exercise *Kavkaz*-2009 (Caucasus-2009) took place 29 June–6 July 2009 in the then North Caucasus MD (now Southern MD) and on the Black and Caspian Seas.[25] It was the first exercise in the STRATEX series Osen 2009 (Ekström 2010:49; Khairemdinov, 2009) and involved some 8,500 servicemen, 200 tanks, 450 armoured vehicles and 250 artillery pieces, as well as forces from the Interior Troops, the FSB and the MChS (Ekström 2010:49–50). The stated aim was to train counter-terror operations and evaluate the new brigade-based structure as well as command and communication systems (ibid., 53). Apparently, *Kavkaz*-2009 was similar in scope and size to a *Kavkaz* exercise in 2008, which many observers saw as a dress rehearsal for the war against Georgia 2008 (ibid., 11). The stated size of *Kavkaz*-2008 was 8,000 servicemen and some

[25] In 2010, Russia's military districts were reduced from six to four as part of the reforms launched in 2008. The four new districts were the Eastern, Central, Southern and Western. In December 2014, the Western MD was divided into two new entities named the Western MD and the Northern Fleet. The latter essentially took over the Kola Peninsula and surrounding territories from the former Western MD, and the responsibility for most of Russia's military activities in the Arctic from the Central and Eastern MDs.

700 tanks, APC/AIFVs and artillery pieces. It involved units from the Ground Forces, Navy, Army Aviation and Air Force in tactical exercises, two regimental-level, and some twenty on battalion and company level. The exercise also involved units from the FSB, MVD and MChS (Khrolenko and Bondarenko, 2008; Rossiiskoe Voennoe Obozrenie, 2008). In all, *Kavkaz*-2009 enabled the Russian Armed Forces to exercise a JISCO with elements of combined-arms battles in the ground forces as well as inter-agency operations.

Zapad-2009

The exercise *Zapad*-2009 took place 18–29 September 2009 in Russian and Belarusian exercise areas in western Russia and Belarus, i.e. in the direction of a war theatre, where Russia expects to face a technologically advanced adversary, NATO. Electronic warfare, air defence, as well as the general mobility of units were therefore key elements of *Zapad*-2009 (Ekström 2010:24–25). The stated aim of the 12,500 servicemen-strong exercise was to train and evaluate command and control and the ability of Russian forces to defend Belarus (ibid., 27). The exercise had two phases: first, three days of planning, staff work and transporting forces to the exercise areas in the region and, second, six days of tactical exercises for air defence and ground forces brigades in defensive combat and evaluating command and control (ibid., 28-29). Air force units carried out both ground attack and air defence missions. The latter was important, not least for the Airborne forces that carried out an airborne landing with some 700 soldiers and nine armoured vehicles (ibid., 30), i.e. troops for a reinforced battalion and airborne armoured infantry fighting vehicles for a company.

The Russian exercises displayed little ability in standoff warfare, but indicated that the Russian Armed Forces at least wanted to be able to resist such capabilities from an adversary (ibid., 34). Another challenge was train transports, a key means of operational-strategic mobility for primarily the ground forces. A challenge was the lack of relevant skills in ground forces units (ibid., 35). The then chief of the General Staff, General Nikolai Makarov, noted two more challenges: outdated equipment and a rigid approach to operations among officers. The latter may explain Russia's active approach to exercises in the ensuing years.

Ladoga-2009

At the same time as *Zapad*-2009 was taking place, primarily in Belarus, the operational-strategic exercise *Ladoga*-2009 took place, with 7,400 servicemen in nine exercise areas in northwestern Russia, from St Petersburg to the Kola Peninsula, including naval exercise areas in Kaliningrad and off the Kola Peninsula. Just as in *Zapad*-2009, there were two main phases: first, planning, staff

work and amassing forces, 18–24 September, including transport of a battalion from the 28th Motor Rifle Brigade from Yekaterinburg, some 2,000 kilometres away. Then ensued five days of tactical-level exercises (ibid., 41–43). Episodes included live-fire exercises, airborne landings of some 1,000 soldiers and 20 vehicles by parachute, also at night, ground forces counter-attacks supported by attack helicopters, air defence, including with fighter aircraft, and landing of naval infantry from hovercraft, on the Kola peninsula, supported by Su-24 fighter-bombers. In addition, units from the Interior Troops, the FSB and MChS participated in the tactical phase (ibid., 44-46). The two exercises, *Zapad* and *Ladoga,* were carried out in a common framework (ibid., 42) and enabled commanders, their staffs and support units to train and thus improve the planning and commanding of core elements of a JISCO, such as inter-service coordination and combined-arms tactics in a theatre-level operation. The two exercises should also have enabled the General Staff to train in the management of two simultaneous operations.

The exercise area for *Ladoga* was 1,500 km wide and 300 km deep (ibid., 42). Much of *Zapad* took place in Belarus. Together, these are enormous territories. The total stated number of servicemen for the two exercises, some 20,000, thus seems very little. One reason could be the limitation on the size of exercise that can take place without an obligation to invite foreign observers, which in both the OSCE Vienna Documents of 1999 and 2011 was 13,000 servicemen (OSCE 1999 and 2011). Another reason could have been that the Russian Armed Forces re-organized its structure in 2009–2010. It would then make sense to use exercises to test new structures, equipment and methods. It may be costly to bring a new large force structure into an exercise if it is unclear whether it has the basic capabilities needed, especially command and control.

Vostok-2010

The operational-strategic exercise *Vostok*-2010 took place in Russia's Far East between 29 June and 8 July 2010. Russia's perceived adversary in a war in that region was probably a major power such as China. Compared to the exercises in 2009, the reported amount of equipment was considerably larger, 5,000 armoured vehicles and 40 ships. Ekström assesses the number of participants as being some 20,000 (ibid., 55), but that would mean, on average, only about four people per armoured vehicle and ship. If the figure concerning vehicles is true, the real number of participants was probably higher, or the units very hollow.

Ground forces trained both offensive and defensive combined-arms combat, with support from engineers for crossing rivers and from fighter-bombers that struck enemy positions. The Air Force and air defence units also jointly trained air defence, including with A-50 and An-12 airborne radars and theatre air defence

missiles S-300 (SA-20 Gargoyle) and S-400 (SA-21 Growler), (ibid., 57–59), the latter making its debut in such exercises. The Navy relocated its heavy nuclear-propelled missile cruiser *Petr Veliki,* from the Northern Fleet, and the heavy missile cruiser *Moskva,* from the Black Sea Fleet, to the Far East for the exercise. Anti-submarine warfare was also a part of the Navy's part in *Vostok*-2010 (ibid., 57-58). A notable episode in the exercise scenario was that advancing enemy formations caused a mine with a nuclear charge to detonate (ibid., 63; Khramchikhin, 2010).

Any Russian strategic operation in its Far East war theatre requires reinforcements from other parts of Russia. In *Vostok*-2010 such transports were small compared to possible operational needs and thus probably of an experimental character. Five Su-34 and nineteen Su-24 flew across Russia with mid-air re-fuelling two-three times along the way. A battalion tactical group was redeployed by air from Yekaterinburg, in the Urals, without heavy equipment, which was provided from one of the Far Eastern MD brigade equipment stores (Ekström 2010:57, 62; Khramchikhin 2010). East of the Urals, Russia's east-west railway lines are long and vulnerable. They are essential for large-scale operations in the Far East. The Railway troops that repair destroyed railways, including bridges, exercised repairing railways protected by air defence units (Ekström 2010:59). In sum, *Vostok*-2010 was a display of the Russian Armed Forces training a theatre-level JISCO against sizeable enemy forces, with the inclusion of nuclear weapons in the operation.

Ekström reaches several conclusions about what Russia's operational-strategic exercises in 2009-2010 mean for capability development. First, Russian commanders seemed to accept a tactical posture that indicates a high acceptance for one's own losses. Second, another risk for sustaining high losses was that many air force units lacked the capability to strike enemy positions from beyond the range of enemy air defences. Third, armour-heavy ground combat in close contact with the enemy was central in all exercises. This possibly illustrated that the still largely Soviet-style Ground Forces did what they were designed and trained to do. It made sense to train and retain old capabilities whilst testing and evaluating new ones. Fourth, Russian military exercises were growing in size and scope in 2009–2010 (ibid., 64–66). That trend was set to continue.

Tsentr-2011 and *Shchit Soiuza*

The strategic exercise *Tsentr*-2011 took place during nine days in September, 2011, in exercise areas in Russia's Central MD and in Kazakhstan, Tajikistan, and Kyrgyzstan, Russia's allies in the CSTO. The stated aim was to train to deploy CSTO groups, to plan and command a joint inter-service operation during the transition from peace to war (Norberg 2015:27). The exercise had some 12,000

participants, "thousands" of pieces of equipment and some 50 aircraft. *Tsentr*-2011 enabled participants to train combined-arms operations within the Ground Forces and inter-service operations between the Ground Forces and the Air Force as well as inter-agency operations with for example the FSB, MVD, the Emergencies Ministry (MChS) and the Federal Drug Control Service (FKSN). Also, the above-mentioned CSTO allies participated with forces, and Ukraine and Belarus contributed staff officers (ibid., 27–29). Non-Russian forces, however, probably only contributed marginally to the fighting power that Russia wanted to train to deploy to Central Asia.

The combined Russian-Belarusian operational exercise *Shchit Soiuza*-2011 (Union Shield-2011) in Russia's Western MD partly overlapped in time with *Tsentr*-2011. The exercise included 7,000 Russian servicemen and 5,000 from Belarus, 100 tanks and 100 armoured infantry fighting vehicles and artillery pieces, as well as 50 aircraft and helicopters. The exercise's label, "operational", indicates an ambition to exercise more than one service. The presence of participating forces enabled the training of a joint inter-service operation in parallel to *Tsentr*-2011. Thus, in 2011, Russia carried out two parallel exercises with joint inter-service operations. In addition to training effects in the forces, this also enabled the General Staff and the MoD to practice the command of two simultaneous ground-forces-centric operations in two distinctly separate directions (ibid., 29–30).

Kavkaz-2012 and unnamed Northern Fleet exercise

Kavkaz-2012 was a strategic-staff exercise and took place during six days in September, in Russia's Southern MD. The MoD noted the exercise's training dimension by emphasising that it was the "fundamental and concluding phase" in the command and control training cycle. The exercise included 8,000 participants, 200 armoured vehicles, 20 tanks, 100 artillery pieces, 30 aircraft and helicopters and 10 ships (Norberg 2015:30-34). The Ground Forces took centre stage, with modest participation of the Navy and the Air Force. Compared to the years before and after, it was a rather small exercise. Regarding command and control complexity, it was nevertheless a joint inter-service exercise on the strategic level.

Just after *Kavkaz*-2012 ended, a joint inter-service staff exercise started in the Kola Peninsula region. It included the Northern Fleet, which led the exercise, the 1st Air Force and Air Defence Command of the Western MD, a motor rifle brigade. It had 7,000 participants, 20 ships and submarines, 30 aircraft and 150 pieces of ground forces equipment. The naval component included nuclear and diesel submarines, cruisers, anti-submarine ships, minesweepers, small missile ships and landing ships. This enabled the navy and the ground forces to train in the command of

combined arms operations as well as the command of joint inter-service operations, for higher echelons of command. The Northern Fleet holds a significant part of Russia's nuclear missile submarines, a key component in Russia's second-strike capability. Since this exercise took place right after *Kavkaz*-2012, it is possible that an overall scenario could have been a conflict in Russia's south that escalates to nuclear confrontation (ibid.).

The exercises in 2009–2012 were smaller in size compared to the ensuing years, but had much of the complexity for command and control in terms of participating services and arms. This enabled participants to train for combined-arms operations, primarily in the ground forces, in a framework of joint inter-service operations. In both 2009, 2010 and 2011 two operational-level exercises took place simultaneously, enabling the General Staff to practice the command of two operations at the same time, in one region, in 2009, and in separate regions, in 2010 and 2011.

Appendix 4 Descriptions of annual strategic exercises 2013–2017

Zapad-2013 and unnamed navy combined arms exercise in the Northern Fleet

The week-long Russian-Belarusian combined strategic exercise *Zapad*-2013 took place in Russia's potential western war theatre and started on 20 September, after a six-month-long training cycle of some 150 subsidiary exercises in units, formations and command structures, including ten prior Russian-Belarusian staff training measures. President Putin, Russia's supreme commander-in-chief, noted that the exercise had covered the transition from peace to war. Its aims were to: improve the interoperability of staffs; test advanced command and control systems; test new service regulations; and train staffs in planning and in the support of operations command processes (Norberg, 2015:34-37).

The exercise included 9,400 Russian soldiers on Russian territory and 2,520 in Belarus, as well as 180 pieces of combat equipment, including 10 MBTs, 40 aircraft and 10 ships. Some observers claimed that the actual numbers of participants were between 70,000–90,000. The low official number was probably more due to limitations stipulated by the OSCE Vienna Document and, possibly, political sensitivities *vis-à-vis* Russia's European neighbours. The higher numbers better reflect a strategic-level exercise, especially if participants from other ministries are included, such as the 20,000 participants from Russia's Interior Troops, whose primary task was probably territorial defence (ibid.)

There was also a large element of civil-military cooperation, which included the Ministry of Transport; the Federal Air Transport Agency, *Rosaviatsia*; and the Federal Sea and River Transport Authority. Other participants were state companies, such as Russian Railways, and two regional governments: Smolensk, located south-west of Moscow, and Nizhegorod (which adopted wartime routines), located east of Moscow. One of the aims was to identify problems with and improve current regulations. Civil-military cooperation in *Zapad*-2013 evolved around strategic mobility in terms of transportation assets, routes and mobilisation, both of personnel and of societal resources, generally. Units were deployed from central Russia westwards, using railway, river and road transport as well as civil aviation. Lessons learned indicated that existing plans needed revision (ibid.).

In parallel with *Zapad*-2013, the Northern Fleet's naval and coastal defence formations started an exercise on 21 September. It comprised 2,500 servicemen, some 30 ships, 50 pieces of equipment, and around 20 aircraft and helicopters, as

well as Russia's only aircraft carrier, *Admiral Kuznetsov.* The exercise included air defence with naval aviation and missile units, coastal defence and anti-submarine ships, and minesweepers and missile ships, which taken together provided participating staffs and commanders with opportunities to train command and control in an all-arms coastal defence and naval operation. This nominally separate exercise was probably an integral part of *Zapad*-2013; in any case, it at least enabled the General Staff and Russia's political-military leadership to conduct an exercise on the management of parallel operations. Here, it is counted as a parallel exercise, since it was reported as separate from the main exercise. It is worth noting that the key imperative for the Northern Fleet is to uphold Russia's nuclear second-strike capability through its nuclear missile submarines. The actual scope of *Zapad*-2013 was to train for a major war in Russia's west. Simultaneously activating the Northern Fleet probably reflected a scenario in which Russia prepared for an escalation from conventional to nuclear confrontation (Norberg, 2015:37-38).

Vostok-2014 and an unnamed navy combined-arms exercise in the Northern Fleet

The strategic staff exercise (*strategicheskoe komandno-shtabnoe uchenie*) *Vostok*-2014 took place on 19–25 September in 20 exercise areas on land and at sea in Russia's Eastern MD and along its Pacific rim. The preceding annual cycle of staff training and combat-readiness inspection exercises for all levels in the command structures concerned had a wider scope than in previous years, since it covered both regular exercises and surprise inspections. The Russian MoD had three aims: to check the de facto combat readiness of first-tier forces,[26] to check the infrastructure for deploying forces to distant regions and, finally, to check the effectiveness of command and control systems for joint groups of forces, especially the naval component (Norberg, 2015:44-48).

At the end of the exercise, the stated size of *Vostok*-2014 was 155,000 servicemen, 8,000 pieces of equipment, 4,000 armoured vehicles, 632 aircraft and 84 ships. The number of reservists in *Vostok*-2014 was the largest of the exercises studied here. Some 5,000–6,000 reservists were called up for *Vostok*-2014, to signal, artillery, naval infantry and rocket units, or as specialists in motor rifle,

[26] The Russian term is "*sily pervoocherednogo primeneniia*", roughly meaning "first-use forces". This probably pertains to forces with high readiness in terms of manning, equipment, training levels and unit cohesion. This can obviously not include be all forces in the Eastern MD, but may simply refer to the first echelon in operational plans, possibly such as a brigade's core battalion, manned with contract soldiers.

engineering, rear services and bridge-pontoon units. For *Vostok*-2010, 300 reservists were called up (Norberg, 2015:44-48).

The vastness of the Eastern MD made transport a key exercise component. *Vostok*-2014 included strategic transport by air from western Russia over distances between 5,000 and 6,000 kilometres. In the Eastern MD, transport also took place by rail, road, river and sea. The Eastern MD's Railway Troops Brigade supported mobility by building a 500-metre river bridge that could support both tracked and wheeled vehicles. As with *Zapad*-2013, there were elements of civil-military coordination in the exercise (Norberg, 2015:44-48).

Vostok-2014 enabled each branch in the Ground Forces to train all-arms operations involving motor rifle, tank, artillery and air defence units. Units from all four MDs participated, together with all four of the Eastern MD's combined-arms armies (the 5th, 29th, 35th, and 36th). Military Transport Aviation airlifted around 3,000 servicemen, probably from the Airborne Forces, and 60 pieces of equipment into the exercise, as well as an unknown number of servicemen from Western MD tank and motor rifle units, without their vehicles and equipment. The latter probably used pre-stored equipment in one of eight brigade equipment stores in the Eastern MD (Norberg, 2015:44-48).

The Air Force participated in the exercise with several types of military aircraft: Su-24 fighter-bombers, Su-25 ground attack aircraft, MiG-31 heavy fighters, Su-27 fighters and Su-30, Su-34 and Su-35S multi-role aircraft. Long Range Aviation Tu-95MS and Tu-22M3 aircraft carried out standoff attacks with cruise missiles. Airborne surveillance and command and control aircraft (A-50s) supported heavy MiG-31 fighters covering naval units at sea. Il-78 aircraft performed mid-air refuelling. Attack helicopters and ground attack aircraft and bombers under cover from fighter aircraft supported ground forces. Ground attack aircraft practiced landing, servicing and taking-off on highways. As for strategic mobility, the Air Force moved some 30 aircraft and helicopters over distances varying from 900 to 7,000 km, for aircraft, and 500 km for helicopters. Coastal defence forces S-300 surface-to-air missiles units also participated in the exercise, presumably in coordination with the Air Force's air defence efforts (Norberg, 2015:44-48).

Several of the Russian Pacific Fleet's arms, including surface, underwater, air defence, coastal defence, naval infantry and support units could participate in the exercise. The 3,000-servicemen-strong exercise for the coastal defence troops included 30 ships and 50 pieces of equipment, and 20 aircraft and helicopters involved in landing forces in unprepared areas and in reconnaissance and engineering work as well as in defending coastal areas against enemy landing operations. Around 30 anti-submarine ships and minesweepers cooperated with antisubmarine aircraft and helicopters in training to find and destroy enemy submarines, including the use of live fire with anti-submarine, anti-ship and cruise missiles. Four nuclear submarines participated in the exercise by training

supporting forces on land and at sea in operations to defend coastal zones in four different regions along Russia's Pacific coast (Norberg, 2015:44-48).

The MoD noted that *Vostok*-2014 had uncovered problems. There was a need to store more equipment and supplies in the region, to develop infrastructure and strengthen air defences as well as the training system for called-up reservists. The exercise nevertheless enabled planners to test the stated aim of conducting trials of command and control systems for joint groups of forces. Ground, air and naval forces were deployed simultaneously and in concert, with the vast Eastern MD adding the complexity of needing to manage several operational directions within one war theatre (Norberg, 2015:44-48).

There was no parallel inter-service exercise in 2014, as in preceding years, although Russia's Armed Forces were simultaneously fighting in eastern Ukraine. The only significant parallel activity was a Strategic Missile Forces exercise in September, in the Altai region, involving 4,000 servicemen, 400 pieces of equipment, as well as units from the Air Force and the Central MD. It was conducted during the same month as *Vostok*-2014 and thus enabled command and control structures from the political level down to factor in and conduct an exercise on escalation from conventional to nuclear war (Norberg, 2015:44-48).

In relation to *Vostok*-2014, the Northern Fleet's naval and coastal defence formations carried out two exercises. The first was a two-sided tactical exercise that took place in the Barents Sea, 9–20 September. It included 15 surface-combat ships and both diesel and nuclear submarines as well as naval aviation and coastal defence forces. A key episode was when two Oscar-II-class nuclear submarines fired anti-ship cruise missiles (MoD 2014b and c). The second exercise was a smaller venture that appeared to be about a Russian Arctic base in the New Siberian Islands archipelago (MoD 2014d) and of less interest here. Here, the first of these two exercises is counted as a parallel exercise, as it was not reported to be a part of *Vostok*-2014. It did, however, enable Russia's General Staff and military-political leadership to hold an exercise in relation to *Vostok*-2014 and that dealt with an operation involving the key formation for Russia's nuclear second-strike capability, the Northern Fleet.

Tsentr-2015, *Shchit Soiuza*-2015 and a naval combined arms exercise in the Northern Fleet

The strategic staff exercise *Tsentr*-2015 took place 14–20 September 2015, in exercise areas in Russia's Central MD and on territories of Russia's Central Asian CSTO allies. It included some 95,000 servicemen, 7,000 "pieces of equipment," 170 aircraft and 20 ships. The aim was to test CSTO command and control of operations with coalition forces (MoD, 2015de). The actual exercise, from 14–20

September, was subsequent to a month of preparations, with a crescendo of various surprise readiness inspections that brought forces into theatre from September 7th (MoD, 2015df). Long Range Aviation strategic bombers launched cruise missiles at targets on a firing range in northwest Russia's Komi region (MoD 2015dhi), demonstrating that all episodes in an exercise do not have to be within the nominal area of the exercise, in this case the Central MD and Central Asia. The size, scope and timeframe clearly illustrated an ambition to launch a JISCO abroad by bringing forces from several Military Districts to higher readiness, redeployed from their peacetime bases, subordinated to the operational command, in theatre, within a month. Not bad.

In addition to developing the fighting power of Russia's Armed Forces, for example by having evaluated the Central MD's new command and control organization (MoD, 2015df), *Tsentr*-2015 had two distinctive features not related to fighting power. The first pertained to the Russian state's military organization (*voennaia organizatsia*). As usual, ministries and agencies with armed forces that directly can support the armed forces in a military operation, such as the MVD, FSB and MChS participated, illustrating Russia's holistic approach to warfighting operations.

The second feature, as with *Tsentr*-2011, was that the CSTO was a key element of an annual Russian national STRATEX (MoD, 2015df). Linking the CSTO's military command and control to a national exercise indicates Russia's ambition to involve its Central Asian allies in possible military interventions in the region. Russia's allies probably make only marginal contributions to the fighting power of Russia's Armed Forces, especially when it comes to handling the complexity of a JISCO. CSTO military exercises in Central Asia, however, give Russian forces a chance to rehearse JISCO, including logistics and other preparations, in a possible war theatre abroad, while gaining a veneer of multilateral legitimacy.

In mid-May 2015, an increase in ambition compared to 2011 was noted: the Russian units earmarked for the CSTO Collective Operational Reaction Forces (*Kollektivnye Sily Operativnogo Reagirovania, KSOR*) underwent a separate surprise readiness inspection during the training year preceding *Tsentr*-2015. This inspection included air transport of 500 servicemen and some 60 vehicles, from the 98th Airborne Division and the 31st Air Assault Brigade, to Tajikistan (MoD, 2015 ab-ah). The exercise also included some 2,000 servicemen from other CSTO countries (MoD, 2015af), although it was unclear to what extent they were subjected to Russian-style surprise readiness checks, which would have required multinational preparation and coordination. The exercise clearly illustrated one of Russia's ambitions for military operations in Central Asia – the ability to get forces there quickly.

Just as in 2011, Russia and Belarus conducted the *Shchit Soiuza* (Union Shield)[27] operational-level exercise in parallel with Russia's annual strategic *Tsentr* in Central Asia. In 2015, this 9,000-servicemen-strong (7,500 from Russia) exercise took place 10-16 September in exercise areas in Russia's Western MD (Tikhonov, 2015 and Gorupai, 2015). Since 2009, the Russian and Belarusian armed forces have conducted operational-level exercises together every two years, alternating between holding them as the operational-level *Shchit Soiuza,* but in a smaller format (2011, 2015), or as part of Russia's annual STRATEX *Zapad*-2013 (and in 2017). In parallel with *Tsentr* and *Shchit Soiuza,* the Northern Fleet started a "large-scale CPX," with surface ships, nuclear-powered and diesel submarines, and coastal defence sub-units, as well as naval aviation aircraft and combat support services (MoD, 2015dda). It seemed to include primarily naval forces, enabling them to train for naval combined arms operations.

Shchit Soiuza probably made a small contribution to the Russian Armed Forces' fighting power. Its key significance is its stated operational-level ambition and timing, coming at the same time as *Tsentr*-2015 (as in 2011) and exercises in the Northern Fleet. Together, the three exercises provided the Russian General Staff with an opportunity to train in the planning and execution of two operations in two distinctly different potential war theatres, Europe and Central Asia. At the same time, it trained working with forces from Russia's ally Belarus and ran a naval combined-arms operation, off the Kola Peninsula, with the Northern Fleet, a key formation in Russia's nuclear triad. That was not bad for a month's work by the General Staff.

Just as in 2014, the Northern Fleet's naval and coastal defence forces carried out an exercise in relation to the annual STRATEX. The exercise started in the Barents and Laptev Seas on 15 September, just as *Tsentr*-2015 did. It was more ambitious than in 2014. It was explicitly an exercise of the Joint Strategic Command of the Northern Fleet, which was set up in late 2014. The exercise included 50 surface ships and both diesel and nuclear submarines as well as naval aviation and coastal defence forces and the motor rifle brigade of the Northern Fleet, probably the 200th MRB. Key episodes included air defence against massive enemy air strikes, repelling enemy landing forces and the firing of anti-ship cruise missiles from ships and from shore as well as from two Oscar-II class nuclear submarines (MoD 2015dda, dfa, dia). This exercise counts as a parallel exercise, since it was not reported be a part of *Tsentr*-2015. It enabled Russia's General Staff and military-political leadership to conduct an exercise dealing with an operation involving the

[27] Russia and Belarus thus stage at least one joint operational-level exercise every two years. In 2011 and 2015, it was Union Shield; in 2009, 2013 and 2017, it was *Zapad*. This regularity probably reflects the importance Moscow attaches to Belarus in Russia's potential Western war theatre.

key formation for Russia's nuclear second-strike capability, the Northern Fleet, in relation to the annual STRATEX.

Kavkaz-2016 and an unnamed Arctic exercise with the Northern and Pacific Fleets

The strategic staff exercise *Kavkaz*-2016 was held 5–10 September 2016, in Russia's Southern MD and on the adjacent Black and Caspian Seas. Support from forces from the Central and Western MDs was moved to 14 exercise areas by air, road, river and, most importantly, rail transport. (MoD 2016fk, fx, ga). Defence minister Shoigu explicitly linked the preceding comprehensive readiness inspection and other activities in the Southern MD since early August to *Kavkaz*-2016, noting that they took place under the dictum, "according to one [operational] thought" (MoD, 2016gf).[28] Thus, the deployment of forces in the comprehensive surprise readiness inspection and in *Kavkaz*-2016 probably illustrate well how the Russian Armed Forces would launch and conduct a war-theatre-level operation.

Kavkaz-2016 appeared to have the following overall outline. There were probably two inter-service force groups in a war-theatre-level operation with ground forces in two-sided brigade-level tactical exercises, supported by operational-tactical air force units, theatre air-defence units, artillery and rocket forces, as well as the Navy (MoD, 2016fu, fx). Exercise areas, one in Crimea and one in Rostov Oblast, saw the biggest field manoeuvres (MoD, 2016fx).

The MoD initially claimed that the exercise included 12,500 servicemen (MoD, 2016fk), much less than in the previous three years' annual strategic exercises, and seemingly quite small given the strategic-level ambition of *Kavkaz*-2016. The MoD later said that more than 120,000 had been involved at various stages all across Russia (MoD, 2016gb), including personnel from other ministries and agencies, but this is more in line with the stated strategic-level ambition. This shows that a strategic-level exercise clearly is about more than the MD where it nominally takes place, i.e. that it is about a national effort. Three combined-arms armies from other MD transported units to the Southern MD, sometimes across distances of up to 2,000 kilometres (MoD, 2016fu). The MoD stated that the quantities of equipment involved were 60 airplanes and helicopters (including ground strikes from the Long Range aviation platforms), some 400 pieces of ground forces equipment, including 90 tanks and 15 ships, which was noted by the Chief of the General Staff as not being in violation of the Vienna Document (MoD,

[28] The Russian expression used by the Defence minister, "*po edinomu zamyslu*," corresponds exactly to the wording in the definition of an operation found on the Russian MoD's website (MoD Encyclopaedia, 2017:4): see Section 3.1.

2016 ga,fu). Russian military officials often refer to the Vienna Document when speaking about annual strategic exercises in the Southern and Western MDs. Russian concerns about the optics, at least, of the Vienna Document may explain why the figures stated are lower for annual strategic exercises in these regions.

Three features stand out: command and control complexity, mobilisation of reserves and civil-military cooperation. As for command and control, the MoD wanted to test the ability of commanders and staffs to plan, prepare and execute strategic-level war-fighting operations. The exercise enabled practice of the command and control function and of practical measures pertaining to mobilization readiness and territorial defence, and an extensive use of Aerospace and Navy Forces, as well as carrying out tactical-level war games with a "practical designation of the nominal adversary's actions" (MoD, 2016fk). This may mean that the exercise was dynamic, a higher ambition, especially for command and control, than scripted exercises. The former was perhaps a euphemism for dynamic two-sided force-to-force tactical episodes, in contrast to tightly pre-planned and scripted manoeuvres.

Second, the MoD called up 6,000 contracted reservists (MoD, 2016ga). Some of the reservists probably augmented existing units and some formed four territorial defence units manned only with reservists: one motor rifle battalion, two motor rifle companies and one reconnaissance platoon, based on standing units in the Southern and Central MDs and the Northern Fleet (MoD 2016fl). Whole sub-units manned only with reservists was a novelty and an indication that Russia's evolving mobilisation system had developed from merely filling up vacancies in standing units. The total number of reservists called up was roughly the same as in previous years. Another novelty was the amount of detail: the MoD provided more detail about testing a contract-based system based on standing units. One implication is that these nominal territorial defence units could also augment standing units, once the contract-based mobilisation system is fully implemented. Some reservists were called up for a month during the comprehensive surprise readiness inspection, before *Kavkaz*-2016, for refresher training (MoD, 2016du). Reservists from Murmansk and Novosibirsk were also sent to Southern MD (MoD, 2016ga), indicating that they are not necessarily tied to tasks in the areas of their home units.

Thirdly, *Kavkaz*-2016 continued the trend from the previous years of extensive civil-military cooperation, now with explicit reference to Russia's [National] Defence Plan (MoD, 2016fz).[29] It primarily involved actors that can help to move and sustain forces. In addition, the Armed Forces Combat Support Service participated, after preparations involving twelve separate exercises of the

[29] The *plan oaborony*, the [national] defence plan, is a classified document with guidance for defence-related measures, during peace and war, for some 40-50 ministries and agencies, in addition to the Armed Forces under the MoD (Cooper, 2016:20).

provision of comprehensive supplies for forces (MoD, 2016fx), and having already started, three weeks ahead of *Kavkaz*-2016. As usual, units from MVD, FSB and MChS also took part (MoD, 2016ga), illustrating that other forces also contribute to operations of the Russian Armed Forces.

Ten days after *Kavkaz*-2016 ended, a naval all-arms exercise began in the Northern Fleet. It involved units from the Navy's coastal defence forces and Naval Aviation as well as 12 surface ships and submarines and 10 supply ships. Some 15 aircraft (including helicopters) from the Aerospace Forces also took part (MoD, 2016gd). The exercise included reinforcements from Russia's Pacific Fleet, which practiced moving with icebreaker support to the exercise region, around New Siberian Island, a location closer to Bering Strait than to Murmansk (MoD, 2016ge). Seven launches of sea-based cruise missiles took place in the Laptev Sea (MoD, 2016gg). A company-size unit, some 100 servicemen, from the Northern Fleet's Naval Infantry Brigade landed on the island of Alexandra's Land, in the Franz Josef Land Archipelago (MoD, 2016gh). The island is the site of Russia's northernmost airbase and a border guard detachment (Kulikov, 2014).

Zapad-2017 and unnamed exercises in the Northern Fleet, Central and Southern MDs

Russia and Belarus together carried out the annual strategic exercise *Zapad*-2017.[30] It took place 14–20 September, in exercise areas in western Russia, Belarus, the Baltic Sea and around Moscow. The Russian MoD stated that the total size was some 12,700 servicemen, 7,200 from Russia, of whom 3,000 deployed to Belarus alongside 5,500 Belarusian soldiers, with 680 pieces of ground forces equipment, including 250 tanks, 200 artillery pieces, 10 ships and 70 aircraft, including helicopters (MoD 2017db). The aircraft also included Tu-22 bombers that carried out bombing of the simulated adversary's command posts (MoD 2017fn). The Western press noted that Tu-95 bombers flew sorties over the North Sea (Kofman, 2017).

[30] This report only briefly accounts for *Zapad*-2017, since much has already been written. Some suggestions for further reading follow. Michael Kofman (2017), at the Center For Naval Analyses, published a helpful account of the various stages and participating forces in *Zapad*-2017 (Kofman, 2017). RUSI's Igor Sutyagin (2017) includes a comprehensive list of the Russian and Belarusian units identified in the exercise. Keir Giles (2018) observes the centrality of Belarus for Russia's potential European war theatre. IISS (2018) notes *inter alia* the buzz and spin about the size of *Zapad*-2017 and underlines that NATO should temper its alarmism. Mikhail Barabanov (2017), in *Moscow Defence Brief*, underlines certain military aspects, such as the importance of command and control, but also reflects Russian propaganda about Western "hysterical" reactions to *Zapad*.

The exercise had two phases. The first phase involved organising forces and command and control structures for a regional force grouping (*gruppirovka voisk*). The word "regional" in Russian military terminology implies inter-state wars and military activities up to continental level (MoD Encyclopaedia, 2018:6, 7 and 9). This phase also included stopping enemy attacks and planning for a strategic operation in the area of responsibility. The second phase involved organising ground forces in exercise areas in Belarus, western Russia and in the Baltic Sea area into tactical-level episodes for waging manoeuvre defence and the transition to an offensive operation to rout the enemy (MoD 2017ei).

The exercise was stated as being at the strategic level. The planning during the exercise probably pertained to a strategic operation. The number of forces stated was more adequate for an operational-level force, at most. One explanation may be that, as General Ivashov noted (Chapter 2), numbers matter less than the stated mission and command and control. The numbers stated were probably the minimum force needed in exercise areas to credibly support what was probably the key exercise element: command and control for a strategic-level operation. Another explanation is that *Zapad*-2017 was not the whole story about sizeable military exercises in western Russia in September 2017. There were three other exercises by significant Russian conventional forces west of the Urals and alongside *Zapad*. During one month, these exercises enabled Russia's Armed Forces to train at least command and control for a strategic-level confrontation reaching north-south from the Barents to the Black Seas.

First, regarding the Northern Fleet: its flagship, the missile cruiser *Petr Velikii*, the destroyer *Admiral Ushakov* and several smaller surface ships left port on September 4th, as part of a readiness inspection, and formed a surface-ship strike group under the command of the Joint Strategic Command (JSC) of the Northern Fleet (MoD 2017ck). Days later, a large landing-ship landed half a battalion of naval infantry on Novaia Zemlia (MoD 2017cp), some 700 kilometres northeast of Murmansk. As *Zapad*-2017 started, the surface-ship strike-group mentioned above started the active phase of its exercise, now accompanied by two nuclear-powered submarines. The exercise also included land-based anti-ship missile units, more than 20 surface ships, 10 submarines, 20 support ships and 30 aircraft. More than 5,000 servicemen participated (MoD 2017dk). This definitively allowed for training naval combined arms and, since the JSC was involved and the exercise occurred at the same time as *Zapad*-2017, it was possibly also a joint-inter service exercise and part of wider exercise activities in western Russia at that time.

The second parallel exercise was in the south. The week before *Zapad*-2017, command post exercises started in the Southern MD, with some 2,000 servicemen and 500 pieces of equipment. The outline indicated at least operational-tactical-

level ambition and included units from at least two CAA[31] (MoD 2017cv, cy). The exercise also included the command and control functions from units and subunits in the 49th CAA, while commanders and their staffs trained in the organisation and coordination of inter-service combat (MoD 2017cy).

A third parallel exercise took place in the Central MD. Sub-units of the 2nd CAA (2 CAA), in Samara, some 2,000 soldiers with 500 pieces of equipment from motor rifle, tank, artillery and surface-to-air missile units, began an exercise on September 12th, just two days before *Zapad*-2017 started. They were supported by both attack helicopters from Army Aviation and Su-24 fighter-bombers (MoD 2017da), which required inter-service coordination between the Ground Forces and Aerospace Forces. Interestingly, command and control elements and probably a motor rifle battalion from the 15th MRB of the 2 CAA deployed to a Northern Fleet ground-forces exercise area near Pechenga, on the Kola peninsula. According to the article now removed from the *Krasnaia Zvezda* website (Bondarenko, 2017), the 15th MRB personnel were about to participate in *Zapad*-2017. In addition, 2,000 servicemen and 500 pieces of equipment from the 41st CAA in Novosibirsk carried out a tactical-level exercise 5–8 September (MoD 2017cm), but that is not counted here.

To conclude, as seen in Table 2, September 2017 saw four parallel exercises with inter-service coordination. Only *Zapad*-2017 was labelled "strategic," indicating a mission ambition. The other three had no explicit level assigned to them, but the assessment here is that they were operational-tactical-level exercises with inter-service co-ordination, in terms of command and control, but primarily tactical regarding forces in the field. The Russian MoD published close to 100 articles about *Zapad*-2017 (MoD 2017db-gy), a clear indication of what they wanted attention to be focused on. The other exercises were mentioned in just a few articles.

Just as in 2009 and 2013, the annual strategic exercise *Zapad*-2017 created concern outside Russia. The size and scope of *Zapad*-2017 and possible implications of Russian intentions about using armed force in Europe became the subject of debate and at times speculation about the real size of the exercise. Russian officials could easily brush aside all concerns, often with sneers about Western hysteria and Russophobia. *Zapad*-2017 was also a worry for other neighbours of Russia. For example, a day before the start of the exercise, Kazakhstan raised the combat readiness of its own forces and launched an operational-strategic exercise, *Karatau*-2017, with some 10,000 servicemen, 1,500 pieces of equipment and 40

[31] The assumption here is that when battalions from a regiment or brigade in a combined arms army participate in an exercise, the command levels above are also involved from a command and control perspective. It is probably even truer in this case, since this was explicitly a command post exercise.

aircraft and helicopters. Russian commentators noted the timing and wondered which potential adversaries Kazakhstan, surrounded by friendly countries, had in mind. They also noted that Astana had not succumbed to the same "hysteria" about *Zapad*-2017 as had the West (Mukhin, 2017).

So: How many soldiers participated in *Zapad*? Why is that so important? Only the Russian Armed Forces know the exact figure. Others can only speculate. The figures range from the Russian MoD's 12,700 Russian and Belarusian soldiers to the 100,000 noted by many NATO countries. The number debate is unhelpful for two reasons. First, for understanding fighting power, looking only at the size of *Zapad* is pointless. The full picture of parallel exercises is the important thing. 12,700 may have been enough for Zapad, but far too little for the rest of the exercises. Second, considering the trend 2014-2016 (Table 2), of up to some 150,000 participants in each STRATEX, it would be odd if the size of the 2017 STRATEX had suddenly shrunk by 90 per cent, given that the missions and organization of the Russian Armed Forces remain the same in 2017 as in preceding years. The training needs to maintain capabilities that were the same in 2017 as in 2014–2016. *Zapad*-2017 and parallel exercises involved formations and units from the Western, Southern, and Central MDs as well as the Northern Fleet, plus forces under central control, all enabling the Russian Armed Forces to conduct a strategic-level exercise, i.e. pertaining to operations over a continent. Settling on a figure of some 100,000 participants is thus a reasonable estimate.

Appendix 5 Descriptions of Comprehensive Surprise Combat Readiness Inspections 2013–2017

Comprehensive SCRI in 2013

As seen in Table 3, Russia carried out one comprehensive SCRI in 2013. This was clearly the most ambitious effort, occurring just a few months after the MoD had reinstated the practice of surprise readiness inspections. It took place in the Eastern MD and included some of the forces from the Central MD. At the end of the exercise week, reportedly 160,000 servicemen, including 1,000 reservists, 5,000 tanks/armoured vehicles, 130 aircraft (including helicopters), as well as some 70 ships were involved. The involvement of forces from the Central MD illustrates its role as Russia's central bastion, which can support operations in other strategic directions.

Units from all services and arms, except the Strategic Missile Forces, participated in this comprehensive SCRI, which allowed participants to train to launch a joint inter-service combat operation with combined-arms operations within each of the services. Transporting forces into theatre was a key element, which illustrates the importance the Russian Armed Forces attaches to mobility for carrying out operations across Russia's vast territories. There was no clear nuclear forces component in this exercise, although a surprise inspection took place in the Strategic Missile Forces' unit in Orenburg just days later (Norberg 2015:39, 40-42).

Comprehensive SCRI in 2014

Table 3 shows that there were three comprehensive SCRIs in 2014. The first took place in late February and early March. It was ordered by the president and involved 150,000 servicemen, 880 tanks, 210 aircraft (including 120 helicopters), 80 ships and 1,200 pieces of ground forces equipment from the Western MD as well as from units in the Central MD. Later, the inspection also involved units from Russia's Baltic and Northern Fleets. Overall, this clearly enabled participating forces to train to launch a joint inter-service operation. Russia's president also ordered the second comprehensive surprise readiness inspection in 2014.

The second comprehensive SCRI took place in July, in the Central MD, and aimed to test the ability to launch an operation in Central Asia. The inspection involved 65,000 servicemen and some 5,500 pieces of equipment, involving 240 aircraft

(including 60 helicopters), 720 tanks, 950 armoured vehicles and 600 artillery pieces. Command, control and communications as well as mobility of forces were key issues of the inspection. The third comprehensive SCRI took place in Russia's Far East in mid-September. It involved up to 160,000 servicemen from the Ground Forces, Navy and Air Force and included the Eastern MD's five ground forces combined-arms armies (CAA) as well as air force units from the Eastern and Central MDs. This comprehensive surprise readiness inspection enabled participating forces to train to launch a joint inter-service operation (Norberg 2015:49-57).

The two SCRIs in 2014 were novelties with regard to the role they played. One was a diversion in a real operation and the other made a comprehensive SCRI into a preparation phase for the annual STRATEX. The comprehensive SCRI in February, in Russia's Western MD, took place as Russian troops were seizing Crimea and was thus a part of operations when Russia launched into war against Ukraine (Norberg 2015:50). Russia's force build-up along its border to Ukraine became a diversion that prevented the new government in Kyiv from focusing attention and effort on Crimea. The comprehensive SCRI ordered by the president in September, in the Eastern MD, was the final phase in a series of surprise readiness inspections in the Eastern MD that amassed forces for the annual STRATEX, *Vostok*-2014, which was to be held immediately after in Russia's Far East. Using an SCRI to prepare forces for the annual strategic exercise, move them into exercise areas, sometimes over very long distances, and enable them to make final exercise preparations was to be a pattern repeated in 2015 and 2016.

Comprehensive SCRI in 2015

As seen in Table 3, the Russian Armed Forces carried out two comprehensive SCRs in 2015. The first took place 16–21 March and focused on Russia's Arctic; it included the Northern Fleet, selected units in the Western MD and the Airborne Forces. The plan called for: the forces involved to deploy reinforcements to *Novaia Zemlia* and Frans Josef's Land; long-distance re-deployment of Special Forces; defending Russia's air and sea territory in Arctic climate conditions and deployment of a comprehensive system to sustain an inter-service force group (MoD, 2015e). Strategic nuclear missile submarines were also subject to a readiness inspection at this time (MoD, 2015n). The wider context – several services and arms in a readiness inspection – illustrates the role of Russia's forces in the Kola-Barents region in protecting and maintaining the Northern Fleet, a key Russian asset for second strikes with nuclear weapons.

As for command and control, it is worth noting that Russia's president ordered this SCRI (MoD, 2015e). It thus included the chain of command leading from the supreme commander-in-chief and down, probably via the National Defence

Management Centre in Moscow (MoD, 2015f). Defence minister Sergei Shoigu noted that the inspection also allowed the Northern Fleet's newly formed Northern Joint Strategic Command (JSC)[32] the practical experience of commanding forces (MoD, 2015i). The 80,000 servicemen-strong SCRI included units from the Northern Fleet's Naval Infantry Brigade and two motor rifle brigades (MoD, 2015g, h, j). In addition to the focus on the Northern Fleet, this inspection also came to involve information exchanges between the "MD regional command centres", presumably the JSCs and Air Armies[33] in the Western and Southern MDs, and the commands for the Baltic and Black Sea Fleets, as well as several unnamed federal agencies (MoD, 2015k). In short, this SCRI tested command and control for assembling and commanding forces for a large-scale military operation in Russia's western war theatre, including forces for a nuclear second strike.

The second comprehensive SCRI took place 7–12 September 2015, primarily in Russia's Central MD and included the Airborne Forces and the Military Transport Aviation, as well as Air Force and Air Defence units from other MDs. As was the case with *Vostok*-2014, the SCRI was the prelude to the annual STRATEX, as noted by the Chief of the General Staff's department of operations (MoD, 2015bj). It brought participating forces from daily peacetime activities to a state of higher readiness and deployed them to designated exercise areas by air, rail and road transport before the actual exercise. It concentrated forces to exercise areas in Orenburg oblast, Cheliabinsk oblasts, Astrakhan oblast and Altai Krai, and included some 95,000 soldiers, 7,000 pieces of equipment and some 170 aircraft (MoD, 2015bj), not surprisingly the same number as was later stated for the ensuing annual strategic exercise *Tsentr*-2015. Just as with the spring comprehensive SCRI, the president ordered this one (MoD, 2015be, bf). Readiness checks of the ability to operate in wartime conditions also took place in civilian agencies: the Ministries of Health, Agriculture, Industry and Commerce and the Federal agencies for Medical-Biological issues, Fisheries, the State Reserves, as well as the regional administrations in Bashkortostan, Novosibirsk, Samara and Cheliabinsk (MoD, 2015df). The author is not aware of any other readiness checks in the civilian parts of Russia's military organisation.

An example of the comprehensive SCRI's command and control complexity is the MoD list of reported events and participants: sub-units from the Central MD 2nd CAA and the 98th Airborne Division increased readiness (MoD, 2015bg,bh). There was a transfer of authority of Western MD air force units to the Central MD's 14th

[32] Russia's Northern Joint Strategic Command was formed on December 1st, 2014 (Persson 2016:26).

[33] *Vozdushnaia Armia*, formerly called Air Force and Air Defence Commands (*Komandovanie Voenno-Vozdushnykh Sil i Protivovozdushnoi oborony*). Russian sources contain both terms, which are synonymous and denote the command responsible for the Aerospace Forces (Air Force, Theatre Air Defence Forces and Space Forces) under a regional Joint Strategic Command.

Air Force and Air Defence Army (MoD, 2015bi). In at least one case, the exercise assembled units that enabled combined-arms training for the Ground Forces (MoD, 2015bo). Ships and Naval Infantry from the Russian Navy's Caspian Flotilla, usually subordinated to the neighbouring Southern MD, were part of the SCRI (MoD, 2015bp). Southern MD Army Aviation sub-units deployed as a part of the readiness inspection (MoD, 2015bt). The 2nd CAA's 15th motor rifle brigade was part of the inspection (MoD, 2015bu). Eastern MD air force units were also re-deployed to the Central MD as part of the readiness inspection (MoD, 2015bv). The Airborne Forces 31st airborne brigade was included in the inspection (MoD, 2015cc). The inspection included fielding mobile field HQ for larger formations, most probably CAAs, but possibly even Joint Strategic Commands (MoD, 2015cd). Operational-tactical Iskander-M surface-to-surface missiles were included (MoD, 2015ce). The Central MD mobilised 600 reservists and checked the readiness of regional branches of federal agencies in Bashkortostan, Novosibirsk, Samara and Cheliabinsk (MoD, 2015cy). CBRN sub-units were part of the readiness inspection (MoD, 2016cz), the only trace pertaining, even if only indirectly, to weapons of mass destruction found in relation to the *Tsentr*-2015 joint exercise and readiness inspection cycle. Defence minister Shoigu stressed the importance for command structures of using the exercise to manage comprehensive support structures for operations and cooperation with other federal agencies for mobilization and territorial defence efforts (MoD, 2015be).

These reports together indicate that Russian command structures prepared to launch joint inter-service combat operations and combined-arms operations within the ground forces, as well as coordination with other federal agencies and regional administrations in the Central MD. The scene was set for the annual strategic exercise, *Tsentr*-2015.

Comprehensive SCRI in 2016

Table 3 shows that the Russian Armed Forces carried out five comprehensive SCRI in 2016, a significant increase compared to previous years covered in this study. The president ordered all except the fourth. The first took place during a week in February in the Southern and Central MDs. The focus was on getting command and control structures ready to set up and command a force grouping in the Southern MD, including getting field HQs for various command levels into the field (MoD2016h). The MoD reported 68 field command and control support posts deployed in the Southern MD, including for the Southern Joint Strategic Command, two CAAs and 15 others on the brigade and division level. In the Central MD, 63 such field command and control support posts deployed (MoD, 2016u). The MoD reported a ground forces component with 8,500 participants and 900 pieces of equipment in the Southern MD. Components from the Navy, 50 ships

from both the Black Sea Fleet and the Caspian Flotilla, and the Aerospace Forces, with 200 aircraft, were comparatively large (MoD, 2016j). One reason could be Russian concerns that it should not be possible to portray the exercise as being in breach of arms control agreements. The MoD claimed that the VD2011 was not violated (MoD, 2016l). In addition to command and control, mobility played a key role, especially of forces designed to open a new direction in an operation, such as the airborne forces and the naval infantry (MoD, 2016h and q). The minister of defence saw this exercise in the Southern and Western MDs as a preparation for the annual STRATEX, *Kavkaz*-2016 that was to take place in the Southern MD, in September (MoD 2016bd).

The second comprehensive SCRI took place during four days in March, within the framework of what the MoD labelled a "strategic staff training for commanding the Armed Forces of the Russian Federation," a clear sign of a comprehensive context. The MoD reported that some 30,000 participants, 3,800 pieces of equipment and 100 aircraft/helicopters were involved in the exercise. A stated aim was to evaluate the ability of the command of the Airborne Forces to command an inter-service force grouping (MoD, 2016ag). Units from the 98th and 106th Airborne divisions and the 31st Air Assault Brigade were included, supported by both the Military Transport Aviation and the VOSO (*voennye soobshchenia*) Military Transportation Support Service (MoD 2016 ah-ak;az). The SCRI included an airborne landing of a battalion-size force of some 400 servicemen and ten armoured vehicles airlifted by 20 Il-76 transport aircraft (MoD 2016:bc) and a company-sized landing by helicopter (MoD, 2016ba). The airborne forces included fire support, such as intrinsic artillery and air defence, as well as electronic warfare assets (MoD, 2016 at; av; ay). The Aerospace Forces provided fighter protection for the transport aircraft (MoD 2016aq), as well as Su-24 fighter-bomber and Su-25 ground-attack aircraft support to forces on the ground (MoD, 2016ar; au).

The third comprehensive SCRI also covered all of Russia, but focused on a specific function in a way not previously done in SCRIs, namely the Armed Forces' ability to mobilise additional forces from the reserves. The weeklong inspection started in mid-June and was to cover units connected to equipment stores as well as command and control structures and their cooperation with the ministries and agencies that check the Armed Forces' ability to mobilise additional forces from reserves (MoD, 2016bn), such as the Military Commissariats (*voenkomaty*), which manage Russia's personnel reserves and conscripts (MoD, 2016br). The SCRI saw the deployment of an unspecified number of field command and control posts (MoD, 2016bq). An example of a specific challenge for command and control was that inspecting general staff officers ordered an Eastern MD command post to move 300 kilometres, while maintaining full communications (MoD 2016bv), usually a fair challenge for command and control support units. An unspecified number of reservists were called up as a part of evaluating mobilisation readiness

and the ability to strengthen territorial defence (MoD, 2016bo; bp). Reservists underwent additional training and unit cohesion training, mainly up to company level, it seemed (MoD2016bz; cb). They tested whether stored equipment actually worked, for example by driving vehicles a distance of some 300 kilometres (MoD 2016by). "Deconservation," i.e. the question of whether stored equipment would work after a long time in storage, seemed to be an MoD concern (MoD, 2016bx).

This exercise was about amassing additional resources for the Russian Armed Forces, hardly a concern unless they were preparing for a major, possibly drawn-out, inter-state war. The emphasis on reserves and territorial defence indicates preparations for bigger and longer military operations than needed to handle for example terrorism or ethnic conflict in the former Soviet Union. This was about preparing additional resources for a long-lasting theatre-level war-fighting operation, i.e. a major inter-state military confrontation.

The fourth comprehensive SCRI took place in the Eastern MD, in August, at the order of the MD commanding officer (MOD 2016cj and cs). It was centred around the Eastern MD's 29th and 35th CAAs (MoD, 2016cp) in a two-sided tactical exercise (ibid.). It also included other ground forces, such as a surface-to-surface missile (SSM) unit, probably the 107th Rocket Brigade, and an artillery unit, probably the 165th Artillery Brigade. The former carried out a live-fire shot with an *Iskander* SSM, an SS-26 Stone in NATO-parlance (MoD, 2016cq). For the latter, the MoD emphasised that in 2015 it had received a modernised version of 2S7 long-range artillery pieces (MoD, 2016cm) that can fire nuclear grenades. The exercise also involved command and control support units deploying field command posts and tests of automated command and control systems (MoD 2016cn). The Aerospace Forces' participation was limited to an undisclosed number of Ka-53 attack-helicopters (MoD, 2016cs) and Su-24 fighter-bombers in the final live-fire phases of the exercise (MoD, 2016ct). The MoD reported that a battalion-sized coastal defence unit, probably from the 520th Coastal Defence Missile Brigade in Kamchatka, carried out an anti-sabotage exercise at the beginning of the inspection (MoD, 2016cl), ordered by the commanding officer of Russia's Pacific Fleet. It is unclear whether the framework was the same as for the Ground and Aerospace Forces' inspections, but, altogether, the overall context, timing and location in Russia's Far East make them qualify as a comprehensive SCRI.

The fifth comprehensive SCRI followed the pattern used since 2014, in that it was the de-facto process of bringing forces into the annual strategic exercise (MoD, 2016cv). The MoD did not state the number of participants for the whole inspection, but only for selected parts and phases, which may indicate concerns about not appearing to be violating the VD2011. The weeklong exercises started in late August and involved forces from all services and branches, except for the strategic missile forces, from the Southern, Central and Western MDs as well as

from the Northern Fleet. One of the key stated aims was to evaluate the ability of the Southern MD to deploy two self-sustaining force groupings quickly, and of the Central and Western MDs to provide reinforcements (MoD, 2016cu; ea), including the transfer between MDs of authority over units (MoD, 2016ep).

Key features of this SCRI included the creation of an unspecified number of inter-service force groupings in different operational directions (MoD, 2016ea). Field HQs of the Southern MD's two CAAs, the 49th and 58th, deployed to exercise areas in the Stavropol and Krasnodar regions (MoD, 2016dy). Ground forces units deployed for tactical exercises in 14 exercise areas in the Southern MD (MoD, 2016ev). Aerospace Forces units, both fighter aircraft and theatre air-defence units, formed an integrated air defence group (MoD, 2016ec). The Black Sea Fleet launched some 15 ships to form a strike group (MoD, 2016dd and eh). The Caspian Flotilla sent 10 surface ships to sea (MoD, 2016dd), also forming a strike group (MoD, 2016er). Both naval formations trained in air defence, anti-submarine and anti-diversionary measures (MoD, 2016dt). Coastal defence forces included Naval Infantry in both the Black and Caspian Seas (MoD, 2016df and dr). Naval Infantry exercised landing and live firing in both the Black and Caspian Seas, (MoD, 2016dr and dx), probably in battalion-size units.

In addition to the participating forces and the usual focus on command and control, two features stand out. First, just as in the third inspection (above), there was a mobilisation of reservists to form territorial defence units, up to battalion size, in the Southern and Central MDs and in the Northern Fleet, with the aim of participating in *Kavkaz*-2016. The MoD tested the new mobilisation system, based on reservists contracted in accordance with presidential decree 370, 17th July 2015, about the creation of a personnel mobilisation reserve for the Armed Forces. The new system aimed to ensure adequate and timely provision of reserves for the Armed Forces to handle crises (MoD 2016du; eb). A second key feature was civil-military cooperation, which this time expanded to include the Bank of Russia and payments to soldiers in the field (MoD, 2016dn; fj), as well as selected defence industry companies that were to be tested to work in wartime conditions (MoD, 2016cu).

The first three comprehensive SCRIs included the usual process of getting some forces from ordinary daily work into live-fire exercises in exercise areas, sometimes far from bases. The main efforts of these three inspections, however, were on command and control, which featured pervasively in the reporting about all three, and mobilisation as a key theme for the third. With four comprehensive SCRIs preceding the fifth, which staged *Kavkaz*-2016, the annual operational-strategic exercise was well prepared indeed.

As in 2014 and 2015, in 2016 the process of comprehensive SCRI preceding the annual strategic exercise took approximately one week. The Russian Armed Forces have thus done these three years in a row, which probably indicates how

much time they may need to assemble up to two joint inter-service force groupings for war-theatre-level operations. Of course, these exercise measures are well-planned in advance, but so, probably, are the operational plans of the Russian General Staff as well. Table 2 clearly illustrates that the level of ambition increased significantly in 2016.

Comprehensive SCRI in 2017

The MoD noted in early 2018 that in 2017 six comprehensive SCRIs took place to improve the Armed Forces' ability to fulfil mission-essential tasks. All MDs, forces and troops took part, as well as federal and regional organs of power (MoD2018a). Table 3 shows that four of these are identified here.

The first comprehensive SCRI started on January 26th, and concerned Eastern MD motor rifle formations in Khabarovsk, Zabaikal, Buriatia, Amur oblast and on Sakhalin, as well as an Eastern MD Command and Control (C2) Support Brigade. Altogether, it appeared that some 20,000 servicemen were deployed in units up to battalion-size and primarily practiced basic sub-unit-level skills (MoD2017b, c and d). Even though reporting concerned primarily ground forces, i.e. a single-service exercise, there are three reasons why this SCRI was comprehensive. First, the units mentioned as having participated in the exercises were from bases located at great distances from each other. Units from each of the four CAAs of the vast Eastern MD, reaching from the Lake Baikal region to the area around Vladivostok, as well as from Sakhalin (the 68th Army Corps), participated. This likely meant that all these formations were at least involved for command and control. Second, the C2-support brigade that participated was an asset at MD level, and was not a unit from one of the participating formations, probably a sign that the entire MD was involved for command and control. Finally, but admittedly a bit speculatively, the Russian Pacific Fleet, which is subordinated to the Eastern MD, carried out an SCRI a few days later (MoD, 2017e). This indicated that more than one service's combat readiness was tested around that time. Another test of the combat readiness of air units was about to come very soon thereafter.

On February 7th, just days after the first SCRI in the Eastern MD ended, Russia's supreme commander-in-chief ordered a three-day long comprehensive SCRI for the Aerospace Forces (VKS).[34] The focus was on the VKS command and control system, which deployed the country's air defence system on a war footing, and on the readiness of air formations and units to repel aggression. Units subject to control were to carry out tactical exercises (MoD, 2017f). This comprehensive SICR eventually included some 46,000 servicemen and 1,700 pieces of equipment, of which 159 were aircraft and 200 were air defence missile launchers (MoD,

[34] *Vozdushno-Kosmichekie Sily*

2017i). Reports contained mentions of most of the service arms in the VKS. Long Range Aviation bombers deployed to wartime airfields and trained in mission-essential tasks, such as striking targets and mid-air refuelling (MoD, 2017g). Radar and Surface-to-Air Missile (SAM) units, with both S-300 and S-400 SAMs, deployed to assigned regions and went on combat duty (MoD, 2017h), with some deploying to the Ashaluk firing range for live-fire exercises (MoD, 2017i).

The 1st Air Defence and Missile Defence Army and the 15th VKS Special Purpose Army, both based around Moscow and tasked with monitoring outer space, were ordered to go to highest combat readiness (MoD, 2017i, q). Military Transport Aviation transported personnel and equipment to enable wartime airfields to receive and service combat aircraft (MoD, 2017j). More than 20 Tu-22, Tu-160 and Tu-95 bombers from Long Range Aviation, as well as Il-78 tankers for mid-air refuelling, deployed to wartime airfields (MoD 2017m). The exercise simulated a force repelling massive air strikes against Russia (MoD, 2017o). The adversary was clearly a state or coalition of states with significant standoff warfare and air assets, indicating a possible key concern of military planners.

The third SCRI assessed here as being comprehensive took place in the Western MD, during three days in mid-February, under orders from the acting MD commander. It included motor rifle, artillery, air defence and army aviation brigades, as well as support units from the Ground Forces and the Leningrad Naval Bases and military commissariats, which deal *inter-alia* with mobilisation issues. Mobile command posts and communication units deployed to the field to support force coordination by the Regional Defence Management Centre in the Western MD, a regional equivalent of the National Defence Management Centre, in Moscow (MoD, 2017t). The actual size was unclear. MoD articles did not reveal any figures. Despite this, three aspects make this a comprehensive SCRI. First, two services were involved. Second, the order came from the MD commander, who commands forces from all services. Third, MoD stressed command and control and noted that large formations were involved (MoD, 2017u).

The MoD stated that the fourth comprehensive SCRI took place in the Eastern MD. It was the biggest in 2017, with 8,000 servicemen, 50 aircraft/helicopters and 3,000 pieces of equipment. It started on July 24th and lasted for some ten days (MoD 2017ce). The stated aim was to check command and control and the units' ability to carry out mission-essential tasks (MoD 2017cb). Some motor rifle units were transported some 1,000 kilometres by train (MoD, 2017cc). Units from two CAA, probably the 36th and 29th CAA, carried out 150-km-marches, including river crossings in the Tsugol exercise area (MoD, 2017cd). The grand finale was a live-fire exercise in which Aerospace Forces Su-30, Su-24, and Su-25 aircraft (including attack helicopters) supported ground forces attacks (MoD, 2017ce). This was clearly a comprehensive SCRI. The MoD also said so. It involved two services and a heavy element of command and control.

2017 was different from the three preceding years. Prior to the annual STRATEX *Zapad*-2017, there were no MoD reports about a comprehensive SCRI. Given the background of a sense of alarm in NATO-countries about the intentions with Zapad-2017, an explanation might be that the MoD merely chose not to publish such reports or just used other words. The MoD website did not use the term, *vnezapnaia proverka boevoi gotovnosti*, SCRI, otherwise so frequent and usual in September, normally the month when the Russian Armed Forces holds its annual STRATEX. In 2014-2016, comprehensive SCRIs preceded the STRATEX, with lively MoD reports that units were being alerted and amassed for the exercise (see Sections 5.2–5.4). In 2017, the term was almost absent. The number of hits during a search for SCRI on the MoD website during the month of September were: in 2014 (23), in 2015 (90), in 2016 (32) and in 2017 (4). Was there an SCRI to alert units and bring them into *Zapad*-2017? Probably. A similar search for "raised on alarm" (*podniat po trevoge*), a term that also reflects that a unit has been alerted and amassed for an exercise, produced 57 hits for September 2017. The MoD raised combat readiness, but used another label than SICR, which in preceding years had been the label of preference.[35]

It is of course possible that different staff writers and editors in the MoD web department simply use different terms. In the context of September 2017, however, a more likely reason is that Russia probably chose to tone down the apparent threat inherent in an annual strategic exercise. Throughout 2017, *Zapad*-2017 had generated a vivid debate in neighbouring Europe about a Russian threat. The choice of words used to denote SCRI may thus reflect choices in political messaging.

[35] See appendix 3 for more about various terms pertaining to combat readiness.

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The chronologically referenced Russian MoD articles and definitions below are a selection from the author’s database, as they are used for direct quotes in this report, both in the main text and in the appendices, in relation to annual STRATEXes and comprehensive SCRIs. Articles referring to partial SCRIs have

been omitted to save space. Therefore, the reference list may seem incomplete. The author noted that the Russian MoD search engine was down for about a week in late April–early May 2018.

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Russia has since 1991 handled several armed conflicts and local wars such as against Georgia in 2008 and against Ukraine since 2014. Russia's strategic-level military exercises since 2009 reveal a higher ambition: to be able to fight regional wars, that is wars that may involve potential adversaries such as NATO or China.

Since 2009 such exercises has consolidated the Russian Armed Forces' capability to plan and command war-fighting operations that can reach across much of a continent. Five years of efforts to improve combat readiness, snap exercises, has similarly improved the capability to launch operations. A determined effort to improve the fighting power of Russia's Armed Forces is paying off.

Russia's war against Ukraine and its Syria operation show an increasing willingness to use military power. Russia's political leadership in 2018 has a more credible and able military tool to influence other countries, either indirectly, by threatening or compelling them, or directly, by attacking them, than ten years earlier.

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